Certificate of Test

May 2007

E-TOP Network Technology Inc.

Product Type	: Broadband Router
Model Number	: BR130g
Test Report Number	: 0703103 Rev. 1
Date of Test	: March 26, 2007- April 26, 2007

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: 2003

http : //www.gestek.com.tw

Sharon Chang, President

Date: May 07, 2007

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NEMKO

200085-0

Test Report
Application for
Certification
On Behalf Of

E-TOP Network Technology Inc.

EUT:

Broadband Router

Model Number:

BR130g

FCC ID:
U6ABR130g

Prepared for:

E-TOP Network Technology Inc.
No. 82, Gongye 2nd Rd., Tainan City 70955, Taiwan, R.O.C.

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3.The report must not be used by the client to claim product certification, approval, or endorsement by any agency of the federal government.
4.All data in this report are traceable to national standard or international standard.

TABLE OF CONTENTS

1. CERTIFICATION

Applicant : E-TOP Network Technology Inc.

EUT Description	: Broadband Router
Model Number	: BR130g
Serial Number	: N/A
Brand Name	: E-TOP
FCC ID	: U6ABR130g
Tested Power Supply	: 120V/60Hz
Manufacturer	: E-TOP Network Technology Inc.

MEASUREMENT PROCEDURES USED:

☑ **CFR 47, Part 15**	Radio Frequency Device Subpart C Intentional Radiators :2005
☑ **ANSI C63.4**	Methods of Measurements of Radio-Noise Emissions from Low- Voltage Electrical and Electronic Equipment in the range of 9kHz To 40GHz. 2003

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.

NVLAP®
200085-0

Date of Test : **March 26, 2007 – April 26, 2007**

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.

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Tonny Lin / General Manager

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 : Broadband Router
Model Number : BR130g
Serial Number : N/A
Brand Name : E-TOP
FCC ID : U6ABR130g
Modulation Type : DSSS, DBPSK, DQPSK, OFDM, CCK
Antenna Gain : 0dBi
Antenna Type : Printed on PCB
Type of Antenna joint : MMCX
Frequencg Range : 2.412GHz to 2.462GHz
Channel Number : 11 Channel
Data Rate : 1, 2, 5.5, 11, 6, 9, 12, 18, 24, 36, 48, 54Mbps
Working Voltage : AC 100-240V

Frequency of Each Channel:

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 Broadband Router 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. The antenna of EUT is Printed on PCB with MMCX antenna joint and conform to FCC 15.203
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 a transceiver equipement to 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 0703103 FCC DOC.

2.2 OPERATIONAL DESCRIPTION

The Transmitter of EUT is a Broadband Router. This device have one antenna.
The other instruction, please look at user manual.
This is Digital transmission System(DTS) and have four type of modulation DSSS, 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

EUT: Broadband Router, M/N: BR130g The EUT tested with Notebook PC.		
Test Mode	**Mode 1**	**Mode 2**
	802.11b	802.11g

2.4 SUMMARY OF TEST PROCEDURE AND TEST RESULTS

Test Item	Applied Standard Section	Test Resut
Conduction Emission	15.207, ANSI C63.4 Section 7	Pass (refer to section 3.7)
Radistion Emission	15.209, ANSI C63.4 Section 8	Pass (refer to section 4.7)
Peak Power Output	15.247(b), ANSI C63.4 Section 13 & Annex I	Pass (refer to section 5.4)
Band Edge	15.247(c) , ANSI C63.4 Section 13 & Annex I	Pass (refer to section 6.6)
Occupied Bandwidth	15.247(a) , ANSI C63.4 Section 13 & Annex I	Pass (refer to section 7.4)
Power Density	15.247(d) , ANSI C63.4 Section 13 & Annex I	Pass (refer to section 8.4)

2.5 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
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 MODULE : Manufacturer :DELL Li-ion 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
NOTEBOOK	**DELL NB 1**	Model Number : Latitude D600 PPO5L BSMI ID : R33002 FCC ID E2K24CLNS Serial Number : 10826163280 C.P.U : Intel Pentium M 1.4G HZ DDR : PC2100 256MB WIRELESS LAN CARD Manufacturer :INTEL M/N:WM3A2100 FCC ID: E2K24CLNS F.D.D : N/A H.D.D. : Manufacturer : FUJITSU 30G M/N: MHT2030AT S/N:NN15T421E09C BSMI ID:D33073 DVD-ROM : Manufacturer :DELL M/N:5W299-A01 BATTERY MODULE : Manufacturer :DELL Li-ion M/N:6Y270 RATING:14.8V 220mAh AC ADAPTOR : Manufacturer :DELL M/N: PA-1650-05D S/N:CN-05U092-48010-39N-227C INPUT:AC 100-240 V~1.5A 50-60HZ Shielded, Undetachable, 2.5m

Device	No.	Configuration
PC System	**DELL PC 4**	Model Number : Dimension 4600 BSMI ID : R33002 Serial Number : 35ZL91S C.P.U : Intel Pentium 4, 2.8GHz/533MHz DDR : PC2700 128M VGA : Manufacturer :DELL M/N:CN-0G001-44571-3CU-012N BSMI ID:D33088 F.D.D : TEAC M/N:FD-235HG BSMI ID:D43012 MODEM : DELL M/N:RD01-D270 H.D.D. : Manufacturer : WD 40G M/N:WD40UBB-75FRA0 BSMI ID:D33015 CD-RW/DVD-ROM : Manufacturer :H-L M/N:GCC-4480B BSMI ID:D33017 Mother Board : DELL M/N:E210882 S.P.S : DELL M/N:HP-P2507FW 100-127V 6A , 200-240V 3A BSMI ID:D33002

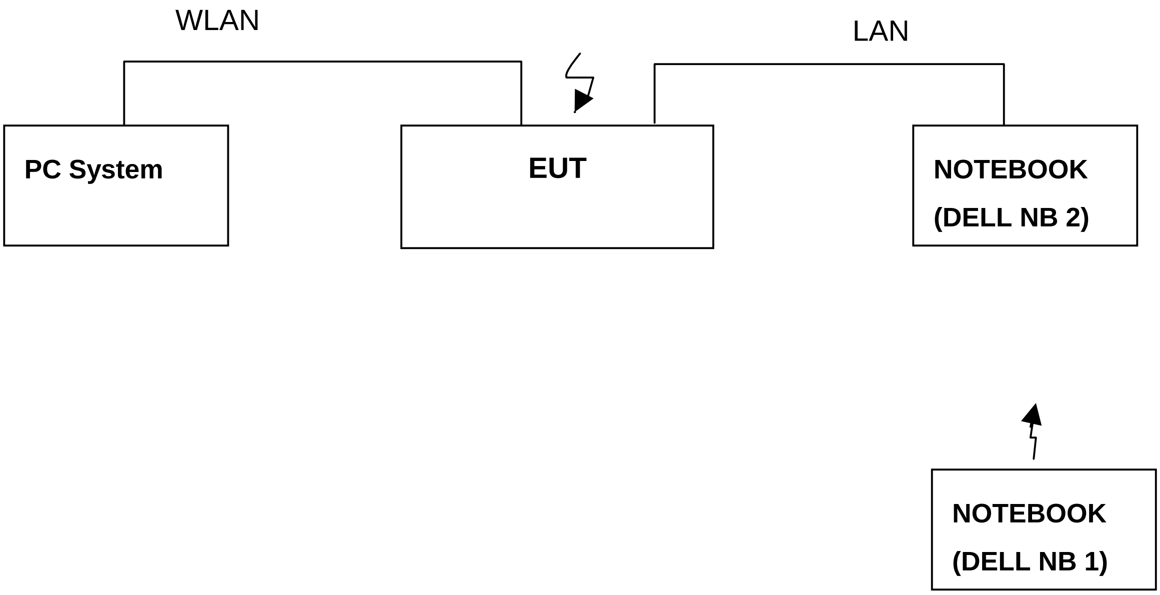
2.6 TEST FACILITY

Ambient conditions in the laboratory:

ITEMS	Requirement
TEMPERATURE (°C)	15-35
HUMIDITY (%RH)	30-60
BAROMETRIC PRESSURE (mbar)	860-1060
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 Stated Department of commerce National Institute of Standards and Technology National Voluntary Laboratory Accreditation Program Accreditation on NVLAP effective through Sep. 30,2007 For CISPR 22, FCC Method and AS/NZS CISPR 22 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 Sep. 19, 2009.

2.7 TEST SETUP

BLOCK DIAGRAM OF CONNECTIONS BETWEEN EUT AND SIMULATORS



2.8 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

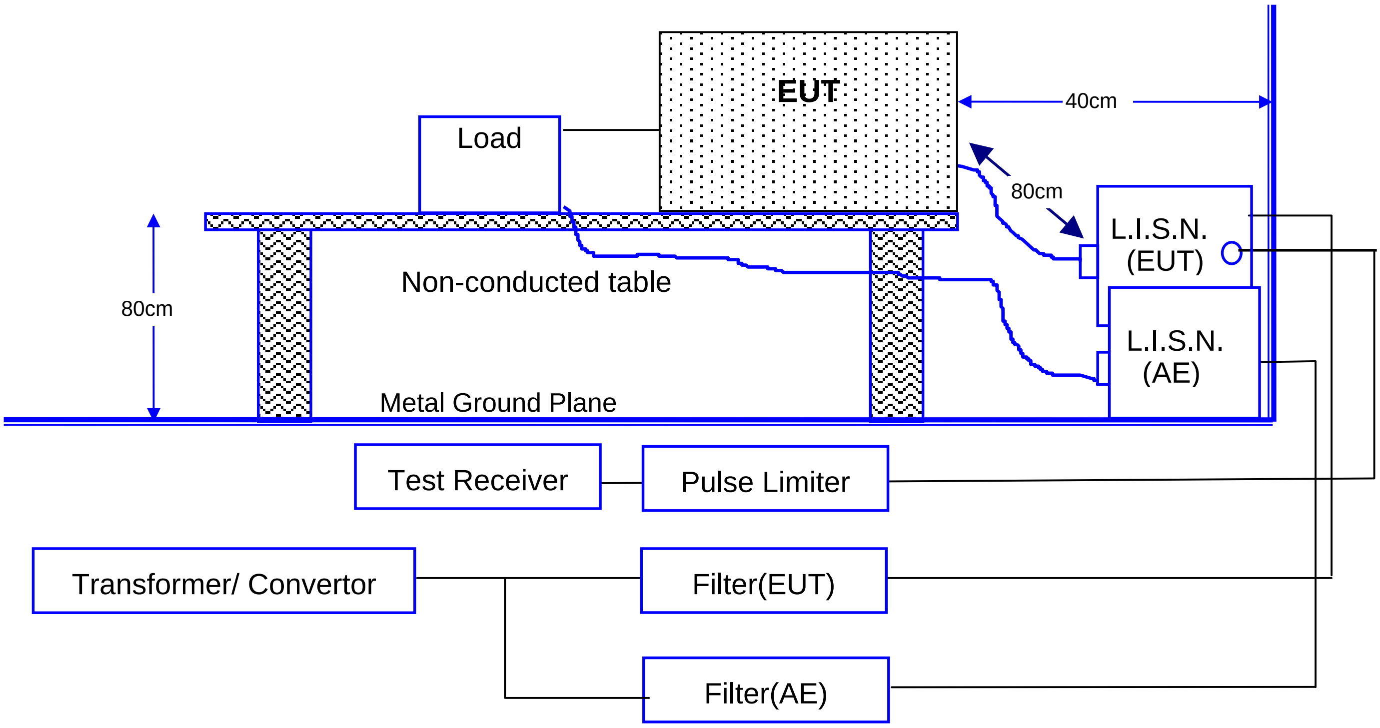
3.1 TEST EQUIPMENTS

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	06/08/06
2	L.I.S.N.	R & S	ESH3-Z5	840567/002	11/08/06
3	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	357.8810.52	08/03/06
4	RF CABLE	GesTek	N/A	GTK-E-A154-01	11/28/06
5	50 Ohm Terminator	GesTek	N/A	GTK-E-A130-01	N/A
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 reprehensive setup diagram for Table-top EUT.
For Floor-standing EUT, the table will be removed with all others setup condition remain the same.

3.3 CONDUCTED EMISSION LIMIT

☒FCC Limit (15.207)

Frequency	Conducted Limits dB(μV)	
MHz	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 50Ω.

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	April 14, 2007	**Temperature**	24.5 ℃
EUT	Broadband Router	**Humidity**	51 %
Test Mode	Normal Link		

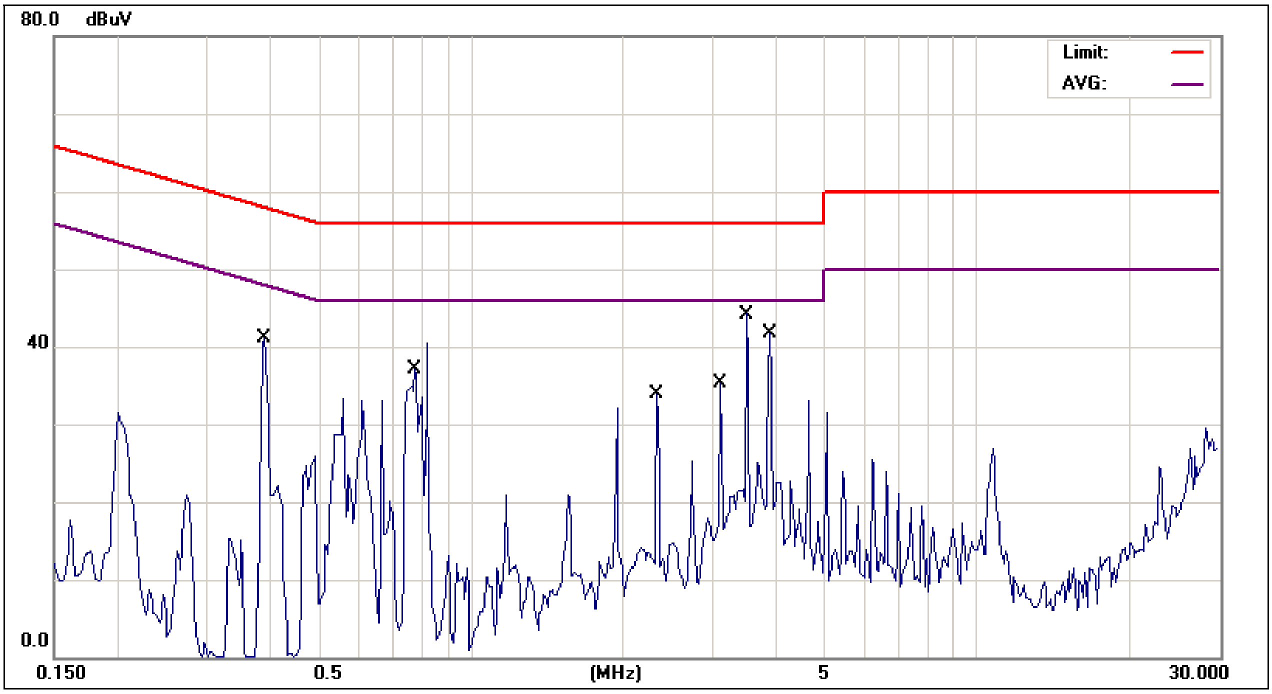
Line

No.	Frequency MHz	Reading Level dBμV	Factor dB	Measurement dBμV	Limit dBμV	Over Limit dB	Detector
1	0.3904	43.23	0.11	43.34	58.06	-14.72	QP
2	0.3904	41.66	0.11	41.77	48.06	-6.29	AVG
3	0.7806	50.19	0.12	50.31	56.00	-5.69	QP
4	0.7806	38.34	0.12	38.46	46.00	-7.54	AVG
5	2.3418	33.96	0.14	34.10	56.00	-21.90	QP
6	2.3418	33.79	0.14	33.93	46.00	-12.07	AVG
7	3.1231	34.64	0.18	34.82	56.00	-21.18	QP
8	3.1231	34.47	0.18	34.65	46.00	-11.35	AVG
9	3.5127	43.71	0.20	43.91	56.00	-12.09	QP
10	★3.5127	43.37	0.20	43.57	46.00	-2.43	AVG
11	3.9029	41.82	0.22	42.04	56.00	-13.96	QP
12	3.9029	41.66	0.22	41.88	46.00	-4.12	AVG

Remarks :

1. All readings are Quasi-peak and Average values.
2. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. Factor = L.I.S.N. insertion loss + cable loss
5. " ★ " means that this data is the worse case measurement level.

Line



Remark: 1. The "Limit" in right-up corner in above diagram refers to Quasi-peak ; "AVG" refers to the limit of Average.

Date of Test	April 14, 2007	**Temperature**	24.5 ℃
EUT	Broadband Router	**Humidity**	51 %
Test Mode	Normal Link		

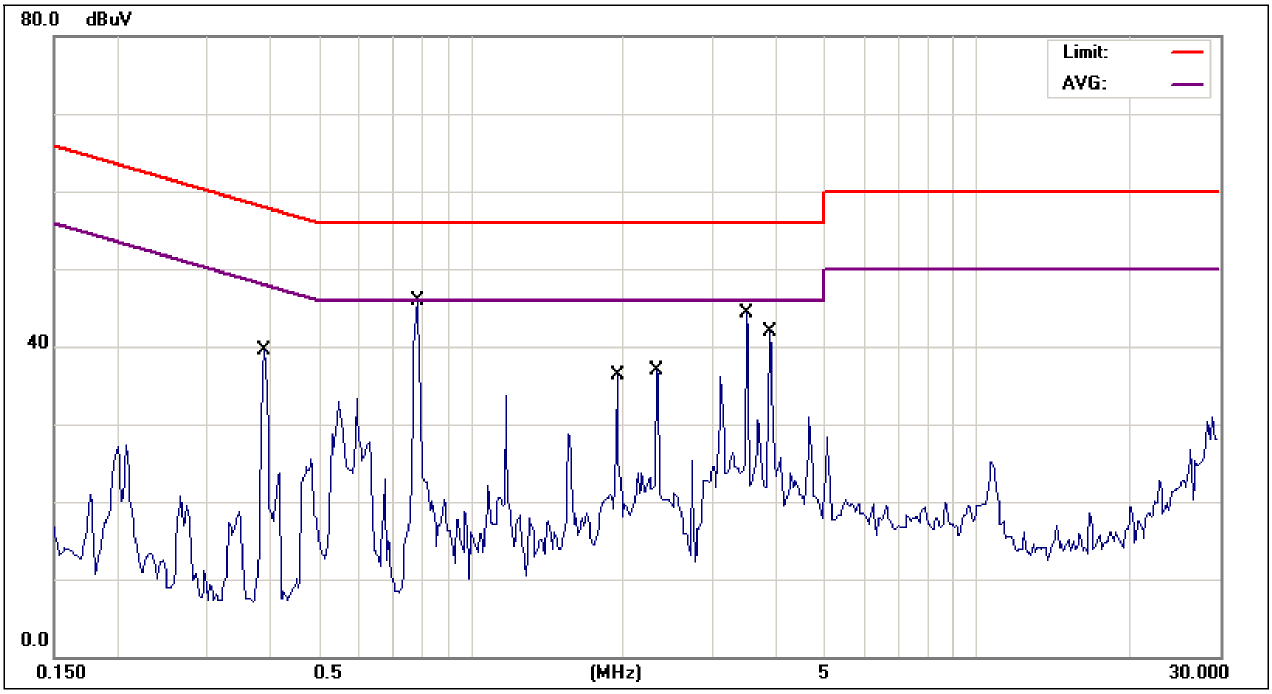
Neutral

No.	Frequency MHz	Reading Level dBμV	Factor dB	Measurement dBμV	Limit dBμV	Over Limit dB	Detector
1	0.3923	38.23	0.11	38.34	58.01	-19.67	QP
2	0.3923	37.70	0.11	37.81	48.01	-10.20	AVG
3	0.7807	52.02	0.12	52.14	56.00	-3.86	QP
4	★0.7807	44.75	0.12	44.87	46.00	-1.13	AVG
5	1.9559	35.29	0.12	35.41	56.00	-20.59	QP
6	1.9559	35.03	0.12	35.15	46.00	-10.85	AVG
7	2.3462	35.31	0.14	35.45	56.00	-20.55	QP
8	2.3462	35.08	0.14	35.22	46.00	-10.78	AVG
9	3.5174	43.34	0.20	43.54	56.00	-12.46	QP
10	3.5174	43.06	0.20	43.26	46.00	-2.74	AVG
11	3.9073	40.85	0.22	41.07	56.00	-14.93	QP
12	3.9073	39.14	0.22	39.36	46.00	-6.64	AVG

Remarks :

1. All readings are Quasi-peak and Average values.
2. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. Factor = L.I.S.N. insertion loss + cable loss
5. " ★ " means that this data is the worse case measurement level.

Neutral



Remark: 1. The "Limit" in right-up corner in above diagram refers to Quasi-peak ; "AVG" refers to the limit of Average.

4. RADIATION EMISSION DATA

4.1 TEST EQUIPMENT

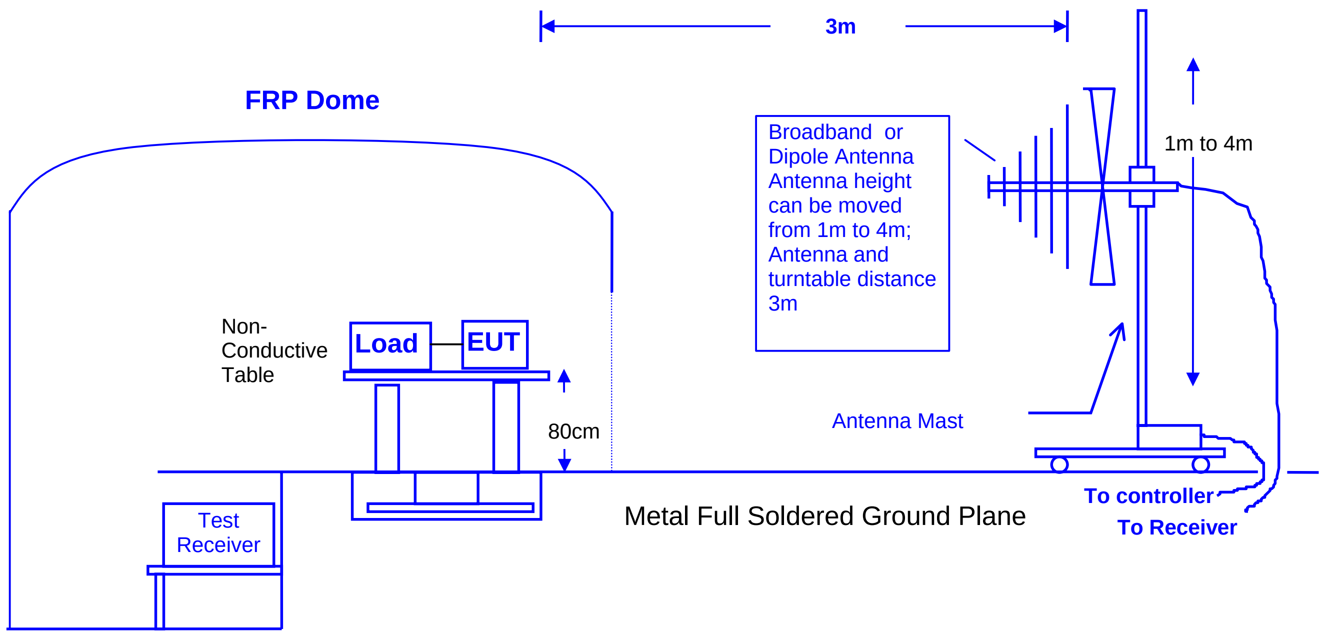
The following test equipments are used during the radiated emission tests:

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	06/08/06
2	Spectrum Analyzer	HP	8568B	N/A	01/24/07
3	Spectrum Analyzer	HP	E4407B	39240339	07/26/06
4	Pre-Amplifier	HP	8449B	3008A01263	03/22/07
5	BILOG ANTENNA	SCHAFFNER	CBL6112B	2620	11/24/06
6	Horn Antenna	Electro-Metrics	EM-6961	103318	01/25/07
7	Horn Antenna	Schwarzbeck	BBHA 9120	D243	12/25/06
8	RF Cable	GesTek	N/A	GTK-E-A151-01	12/15/06
9	Open Site	GesTek	N/A	A2	11/22/06
10	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



4.3 RADIATED EMISSION LIMIT

☒**FCC Class C Limit at 3m**

Frequency	Distance	Field Strength	
MHz	Meter	μV/M	dBμV/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 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..

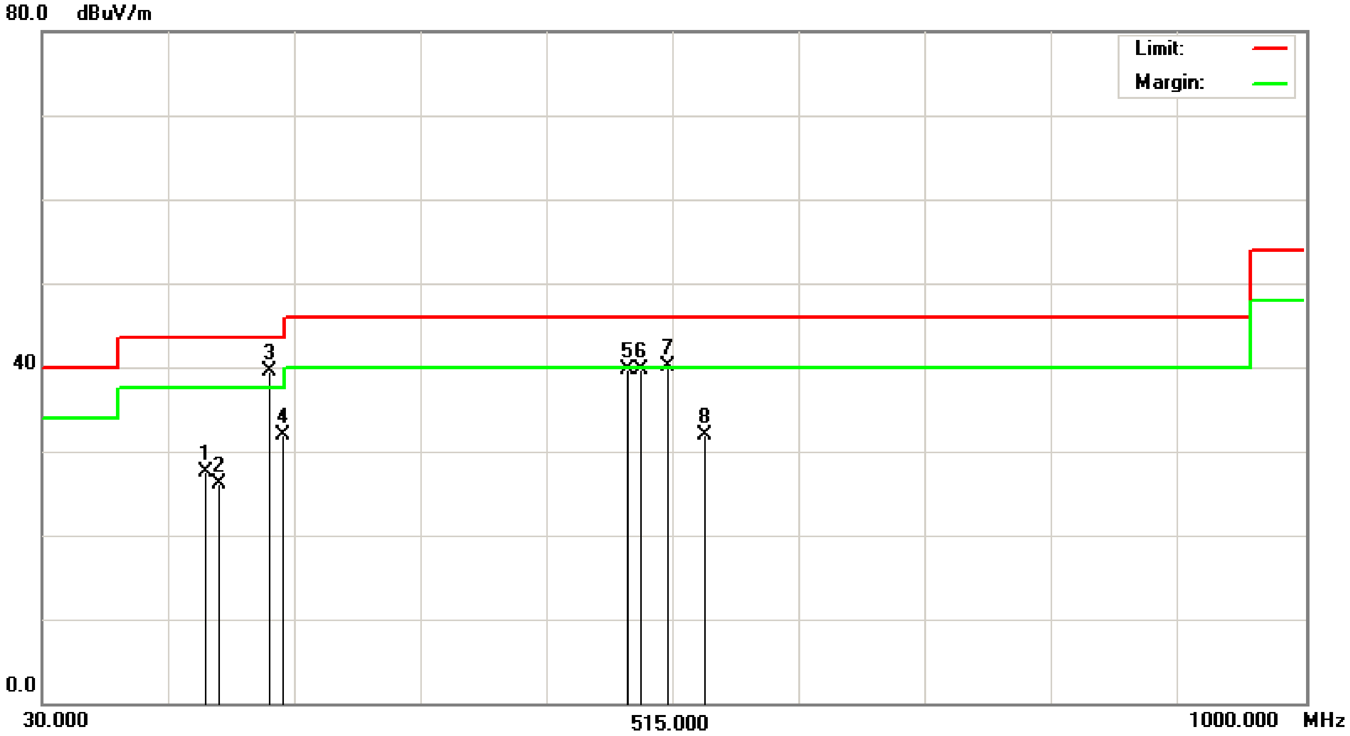
4.7 RADIATED EMISSIONS MEASUREMENT RESULTS

Date of Test	April 26, 2007	**Temperature**	24.3 deg/C
EUT	Broadband Router	**Humidity**	73 %RH
Working Cond.	Mode 1-Channel 1 (2402MHz)	**Display Pattern**	H Pattern
Antenna distance	3m at **Horizontal**	**Frequency Range**	30-1000MHz

No.	Frequency MHz	Reading Level dBuV	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	156.1000	42.90	-15.31	27.59	43.50	-15.91	QP
2	165.8000	41.70	-15.55	26.15	43.50	-17.35	QP
3	★205.5700	56.80	-17.23	39.57	43.50	-3.93	QP
4	215.2700	48.80	-16.96	31.84	43.50	-11.66	QP
5	481.0500	48.80	-9.12	39.68	46.00	-6.32	QP
6	490.7500	48.50	-8.89	39.61	46.00	-6.39	QP
7	511.1200	48.50	-8.41	40.09	46.00	-5.91	QP
8	540.2200	39.60	-7.72	31.88	46.00	-14.12	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. Factor = antenna factor + cable loss – amplifier gain.
5. " ★ " means that this data is the worse case measurement level.



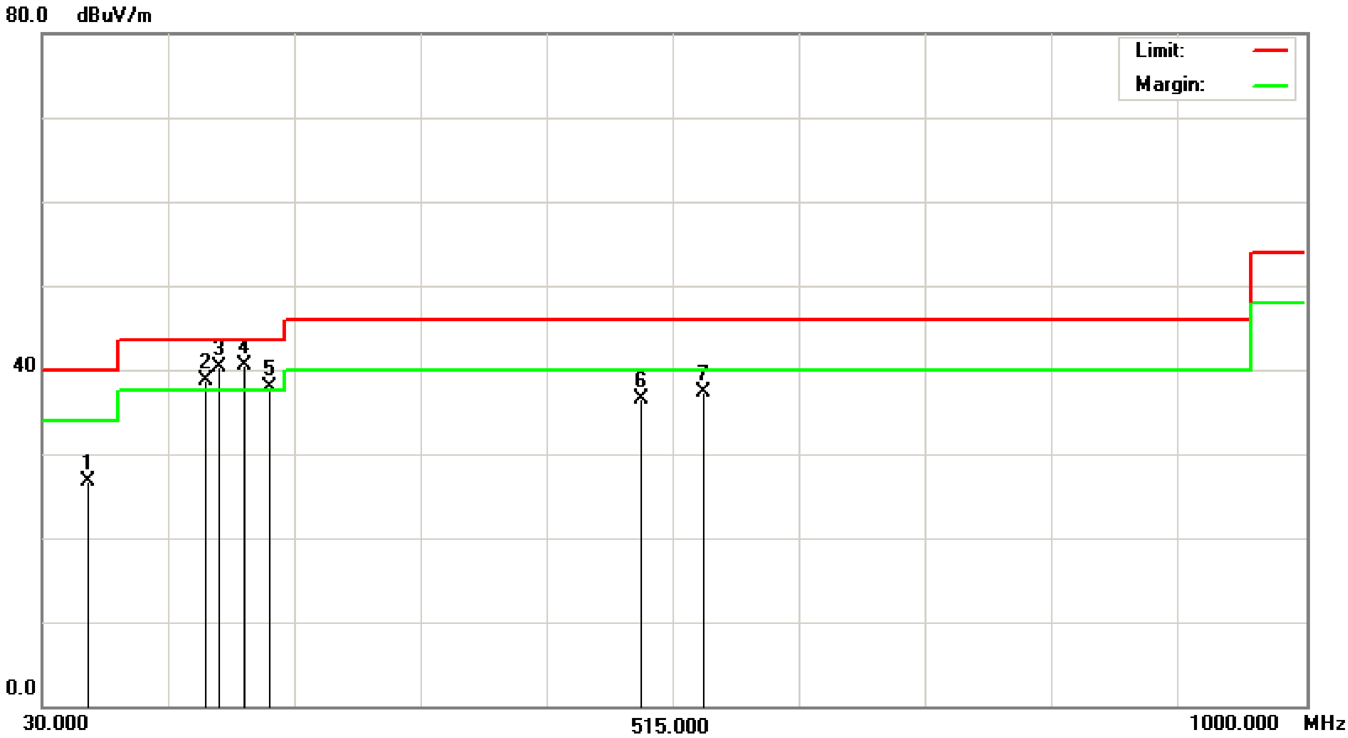
Remark: 1. The "Limit" in right-up corner in above diagram refers to Quasi-peak ; "Margin" refers to the data under 6dB.

Date of Test	April 26, 2007	**Temperature**	24.3 deg/C
EUT	Broadband Router	**Humidity**	73 %RH
Working Cond.	Mode 1-Channel 1 (2402MHz)	**Display Pattern**	H Pattern
Antenna distance	3m at **Vertical**	**Frequency Range**	30-1000MHz

No.	Frequency MHz	Reading Level dBuV	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	64.9200	43.90	-17.18	26.72	40.00	-13.28	QP
2	156.1000	54.10	-15.31	38.79	43.50	-4.71	QP
3	165.8000	55.90	-15.55	40.35	43.50	-3.15	QP
4	★186.1700	57.30	-16.76	40.54	43.50	-2.96	QP
5	205.5700	55.10	-17.23	37.87	43.50	-5.63	QP
6	490.7500	45.40	-8.89	36.51	46.00	-9.49	QP
7	539.2500	45.10	-7.75	37.35	46.00	-8.65	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. Factor = antenna factor + cable loss – amplifier gain.
5. " ★ " means that this data is the worse case measurement level.



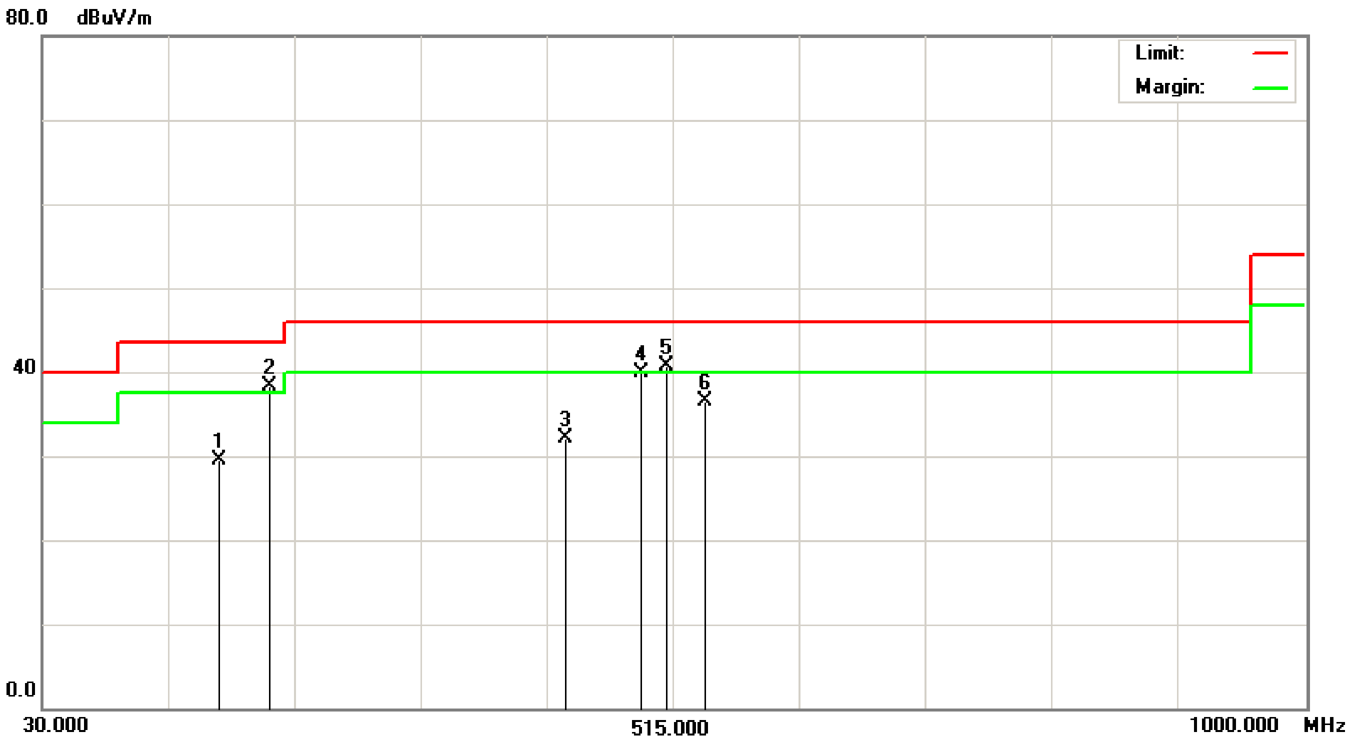
Remark: 1. The "Limit" in right-up corner in above diagram refers to Quasi-peak ; "Margin" refers to the data under 6dB.

Date of Test	April 26, 2007	**Temperature**	24.3 deg/C
EUT	Broadband Router	**Humidity**	73 %RH
Working Cond.	Mode 1-Channel 6 (2412MHz)	**Display Pattern**	H Pattern
Antenna distance	3m at **Horizontal**	**Frequency Range**	30-1000MHz

No.	Frequency MHz	Reading Level dBuV	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	165.8000	45.10	-15.55	29.55	43.50	-13.95	QP
2	★205.5700	55.50	-17.23	38.27	43.50	-5.23	QP
3	432.5500	42.40	-10.29	32.11	46.00	-13.89	QP
4	490.7500	48.80	-8.89	39.91	46.00	-6.09	QP
5	510.1500	49.20	-8.43	40.77	46.00	-5.23	QP
6	540.2200	44.30	-7.72	36.58	46.00	-9.42	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. Factor = antenna factor + cable loss – amplifier gain.
5. “ ★ ” means that this data is the worse case measurement level.



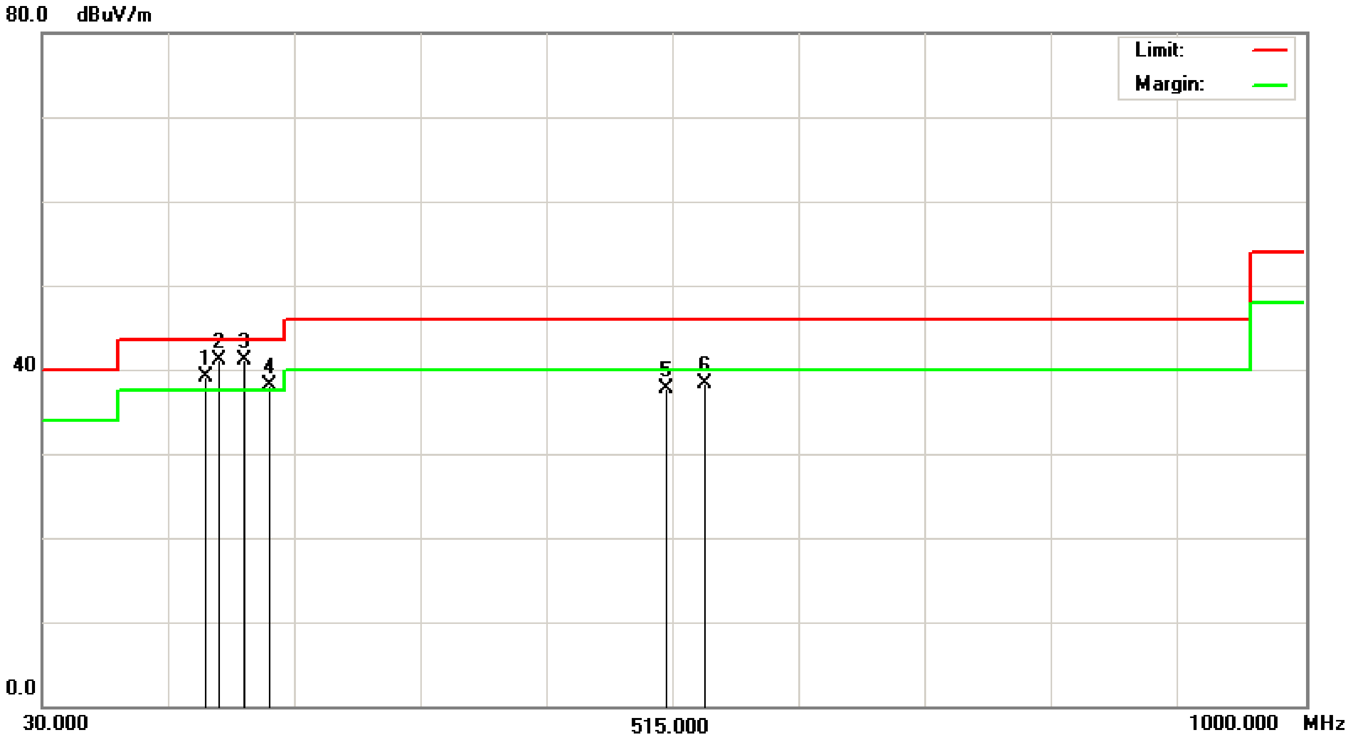
Remark: 1. The “Limit” in right-up corner in above diagram refers to Quasi-peak ; “Margin” refers to the data under 6dB.

Date of Test	April 26, 2007	**Temperature**	24.3 deg/C
EUT	Broadband Router	**Humidity**	73 %RH
Working Cond.	Mode 1-Channel 6 (2412MHz)	**Display Pattern**	H Pattern
Antenna distance	3m at **Vertical**	**Frequency Range**	30-1000MHz

No.	Frequency MHz	Reading Level dBuV	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	156.1000	54.50	-15.31	39.19	43.50	-4.31	QP
2	165.8000	56.70	-15.55	41.15	43.50	-2.35	QP
3	★185.2000	57.90	-16.72	41.18	43.50	-2.32	QP
4	205.5700	55.40	-17.23	38.17	43.50	-5.33	QP
5	510.1500	46.20	-8.43	37.77	46.00	-8.23	QP
6	540.2200	46.10	-7.72	38.38	46.00	-7.62	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. Factor = antenna factor + cable loss – amplifier gain.
5. " ★ " means that this data is the worse case measurement level.



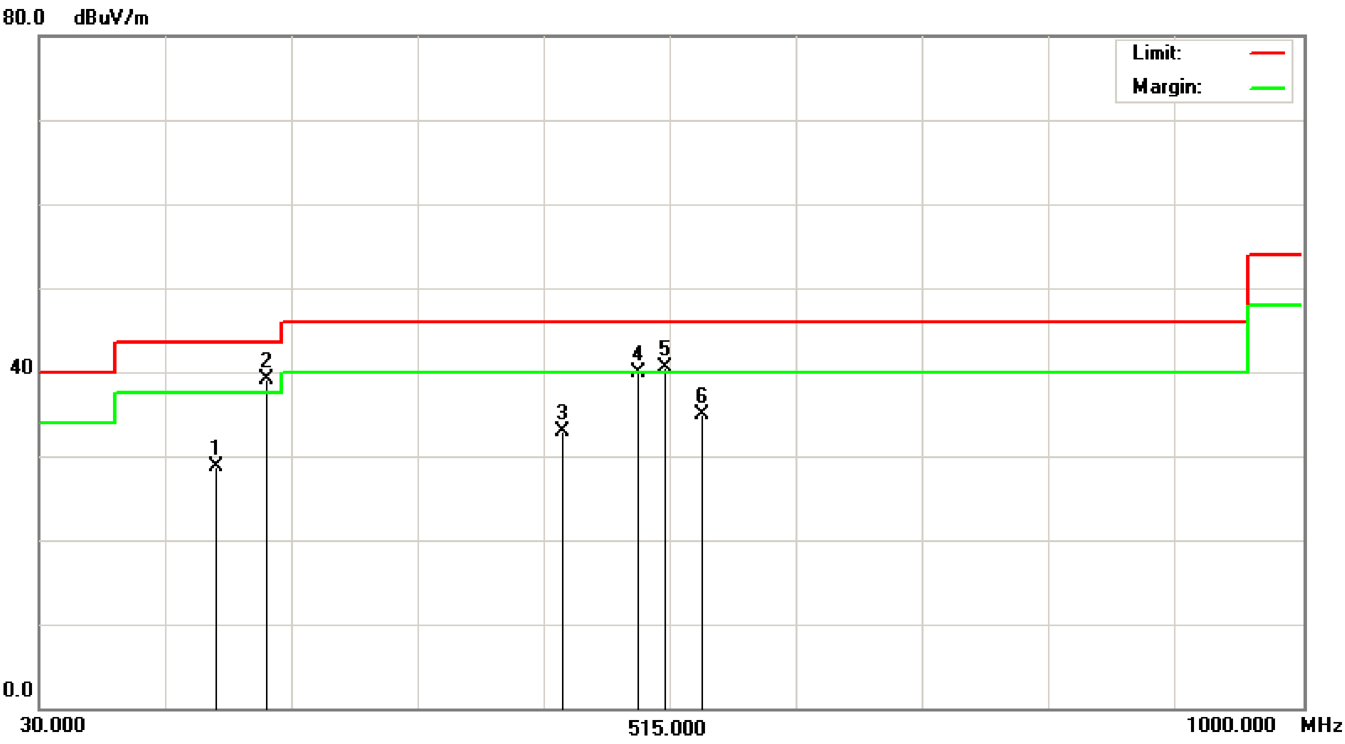
Remark: 1. The "Limit" in right-up corner in above diagram refers to Quasi-peak ; "Margin" refers to the data under 6dB.

Date of Test	April 26, 2007	**Temperature**	24.3 deg/C
EUT	Broadband Router	**Humidity**	73 %RH
Working Cond.	Mode 1-Channel 11 (2462MHz)	**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	165.8000	44.30	-15.55	28.75	43.50	-14.75	QP
2	★205.5700	56.30	-17.23	39.07	43.50	-4.43	QP
3	432.5400	43.15	-10.29	32.86	46.00	-13.14	QP
4	490.7500	48.70	-8.89	39.81	46.00	-6.19	QP
5	510.8600	48.90	-8.42	40.48	46.00	-5.52	QP
6	540.2200	42.60	-7.72	34.88	46.00	-11.12	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. Factor = antenna factor + cable loss – amplifier gain.
5. “ ★ ” means that this data is the worse case measurement level.



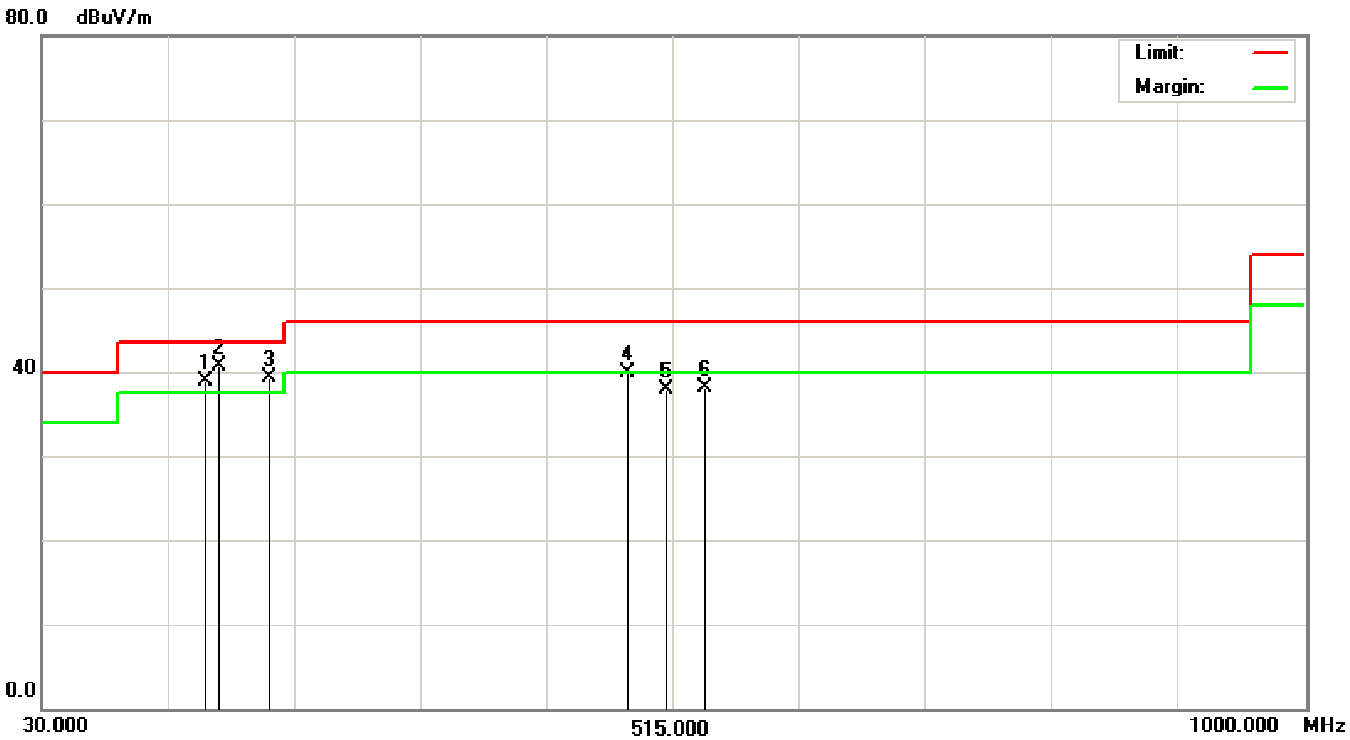
Remark: 1. The “Limit” in right-up corner in above diagram refers to Quasi-peak ; “Margin” refers to the data under 6dB.

Date of Test	April 26, 2007	**Temperature**	24.3 deg/C
EUT	Broadband Router	**Humidity**	73 %RH
Working Cond.	Mode 1-Channel 11 (2462MHz)	**Display Pattern**	H Pattern
Antenna distance	3m at **Vertical**	**Frequency Range**	30-1000MHz

No.	Frequency MHz	Reading Level dBuV	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	156.1000	54.30	-15.31	38.99	43.50	-4.51	QP
2	★165.8000	56.20	-15.55	40.65	43.50	-2.85	QP
3	205.5700	56.60	-17.23	39.37	43.50	-4.13	QP
4	481.0500	49.03	-9.12	39.91	46.00	-6.09	QP
5	510.1500	46.36	-8.43	37.93	46.00	-8.07	QP
6	540.2200	45.89	-7.72	38.17	46.00	-7.83	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. Factor = antenna factor + cable loss – amplifier gain.
5. “ ★ ” means that this data is the worse case measurement level.



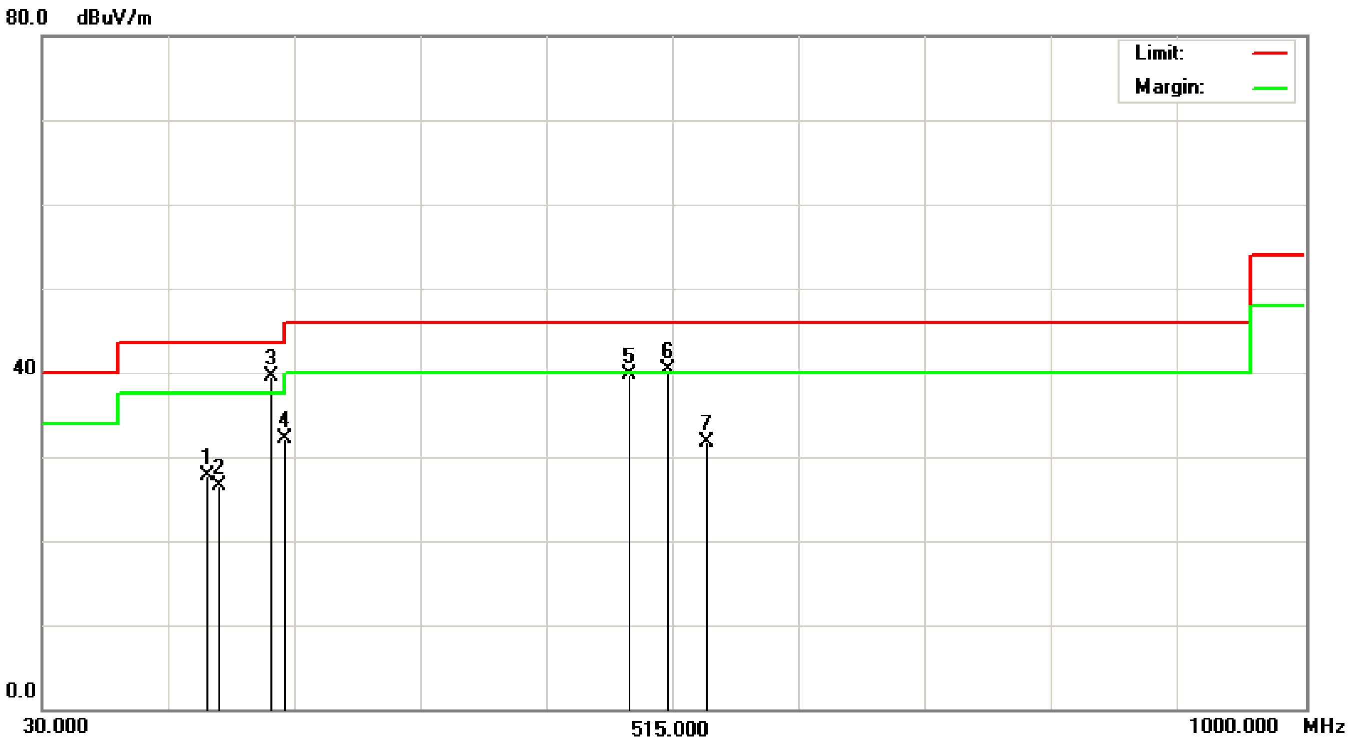
Remark: 1. The “Limit” in right-up corner in above diagram refers to Quasi-peak ; “Margin” refers to the data under 6dB.

Date of Test	April 26, 2007	**Temperature**	24.3 deg/C
EUT	Broadband Router	**Humidity**	73 %RH
Working Cond.	Mode 2-Channel 1 (2412MHz)	**Display Pattern**	H Pattern
Antenna distance	3m at **Horizontal**	**Frequency Range**	30-1000MHz

No.	Frequency MHz	Reading Level dBuV	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	156.1300	43.02	-15.31	27.71	43.50	-15.79	QP
2	165.7950	42.10	-15.55	26.55	43.50	-16.95	QP
3	★205.5760	56.69	-17.23	39.46	43.50	-4.04	QP
4	215.2730	49.00	-16.96	32.04	43.50	-11.46	QP
5	481.0530	48.77	-9.12	39.65	46.00	-6.35	QP
6	511.1260	48.67	-8.41	40.26	46.00	-5.74	QP
7	540.2210	39.44	-7.72	31.72	46.00	-14.28	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. Factor = antenna factor + cable loss – amplifier gain.
5. " ★ " means that this data is the worse case measurement level.



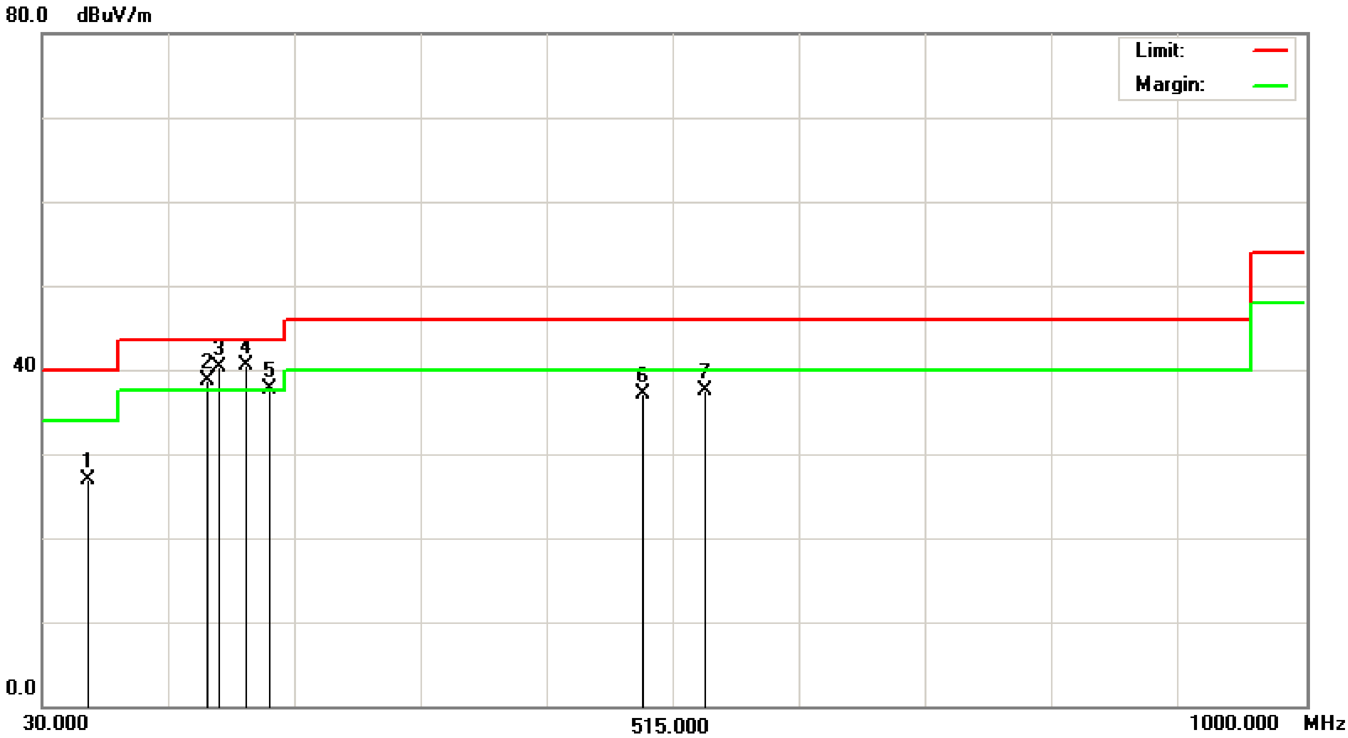
Remark: 1. The "Limit" in right-up corner in above diagram refers to Quasi-peak ; "Margin" refers to the data under 6dB.

Date of Test	April 26, 2007	**Temperature**	24.3 deg/C
EUT	Broadband Router	**Humidity**	73 %RH
Working Cond.	Mode 2-Channel 1 (2412MHz)	**Display Pattern**	H Pattern
Antenna distance	3m at **Vertical**	**Frequency Range**	30-1000MHz

No.	Frequency MHz	Reading Level dBuV	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	64.9180	44.13	-17.18	26.95	40.00	-13.05	QP
2	156.1320	53.98	-15.31	38.67	43.50	-4.83	QP
3	165.8220	55.93	-15.55	40.38	43.50	-3.12	QP
4	★186.1730	57.36	-16.76	40.60	43.50	-2.90	QP
5	205.5670	54.95	-17.23	37.72	43.50	-5.78	QP
6	490.7560	45.90	-8.89	37.01	46.00	-8.99	QP
7	539.2530	45.30	-7.75	37.55	46.00	-8.45	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. Factor = antenna factor + cable loss – amplifier gain.
5. “ ★ ” means that this data is the worse case measurement level.



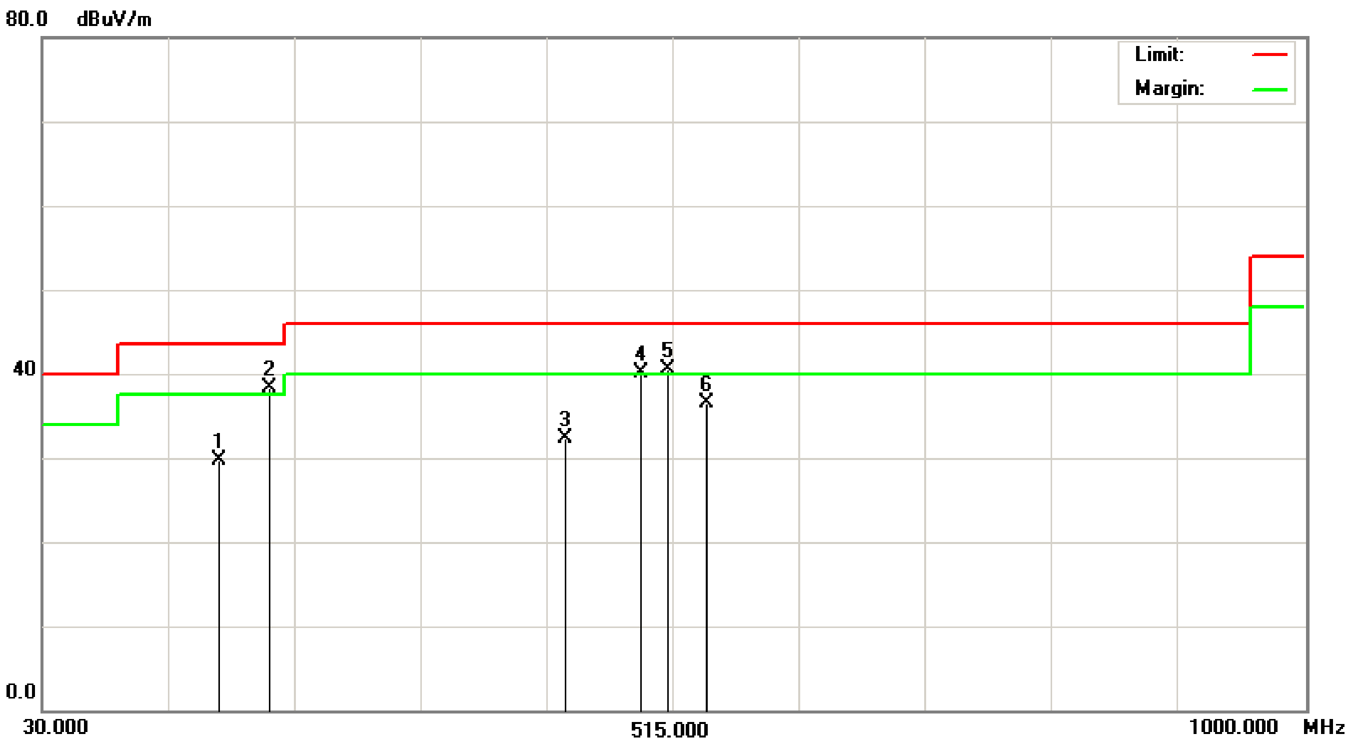
Remark: 1. The “Limit” in right-up corner in above diagram refers to Quasi-peak ; “Margin” refers to the data under 6dB.

Date of Test	April 26, 2007	**Temperature**	24.3 deg/C
EUT	Broadband Router	**Humidity**	73 %RH
Working Cond.	Mode 2-Channel 6 (2437MHz)	**Display Pattern**	H Pattern
Antenna distance	3m at **Horizontal**	**Frequency Range**	30-1000MHz

No.	Frequency MHz	Reading Level dBuV	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	165.8200	45.32	-15.55	29.77	43.50	-13.73	QP
2	★205.5690	55.59	-17.23	38.36	43.50	-5.14	QP
3	432.5470	42.61	-10.29	32.32	46.00	-13.68	QP
4	490.7480	48.91	-8.89	40.02	46.00	-5.98	QP
5	510.1550	49.00	-8.43	40.57	46.00	-5.43	QP
6	540.2210	44.29	-7.72	36.57	46.00	-9.43	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. Factor = antenna factor + cable loss – amplifier gain.
5. “ ★ ” means that this data is the worse case measurement level.



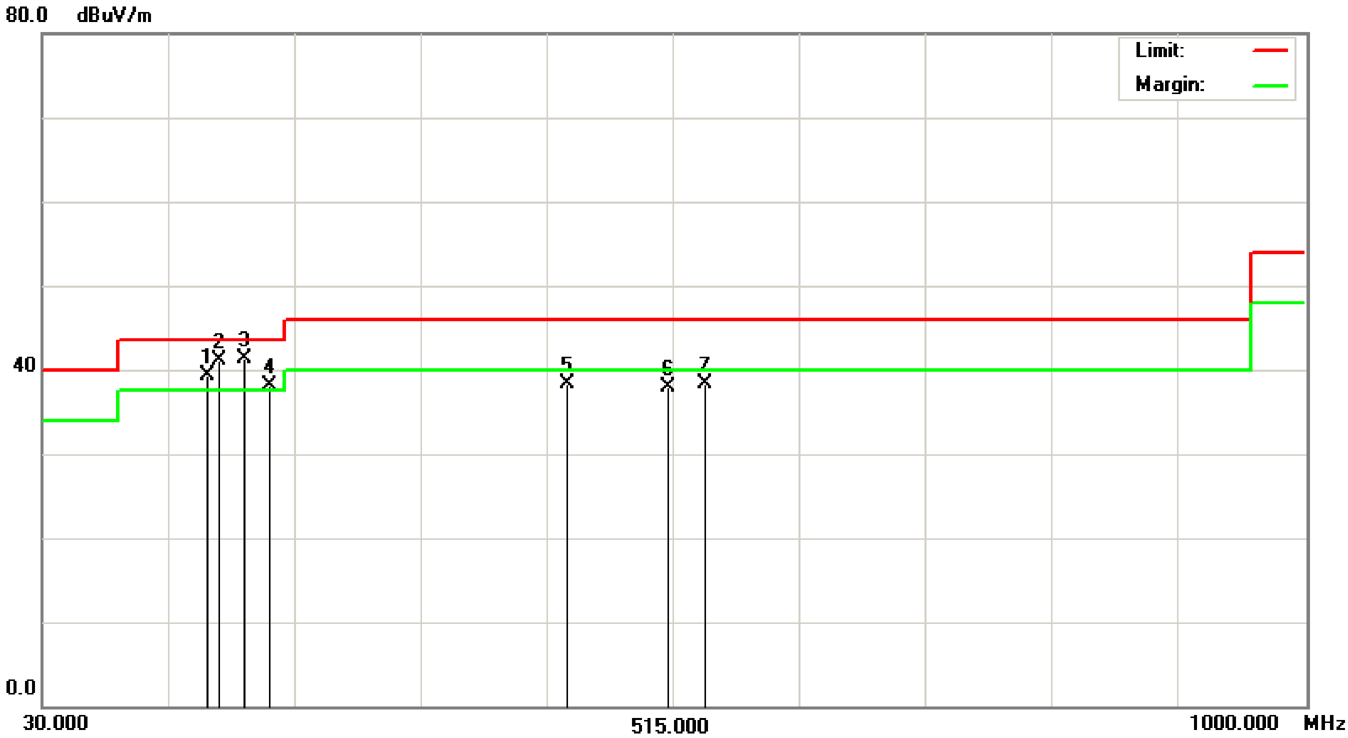
Remark: 1. The “Limit” in right-up corner in above diagram refers to Quasi-peak ; “Margin” refers to the data under 6dB.

Date of Test	April 26, 2007	**Temperature**	24.3 deg/C
EUT	Broadband Router	**Humidity**	73 %RH
Working Cond.	Mode 2-Channel 6 (2437MHz)	**Display Pattern**	H Pattern
Antenna distance	3m at **Vertical**	**Frequency Range**	30-1000MHz

No.	Frequency MHz	Reading Level dBuV	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	156.1130	54.59	-15.31	39.28	43.50	-4.22	QP
2	165.8130	56.67	-15.55	41.12	43.50	-2.38	QP
3	★185.2230	57.93	-16.72	41.21	43.50	-2.29	QP
4	205.5670	55.31	-17.23	38.08	43.50	-5.42	QP
5	432.6640	48.64	-10.29	38.35	46.00	-7.65	QP
6	510.1520	46.26	-8.43	37.83	46.00	-8.17	QP
7	540.2180	45.98	-7.72	38.26	46.00	-7.74	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. Factor = antenna factor + cable loss – amplifier gain.
5. " ★ " means that this data is the worse case measurement level.



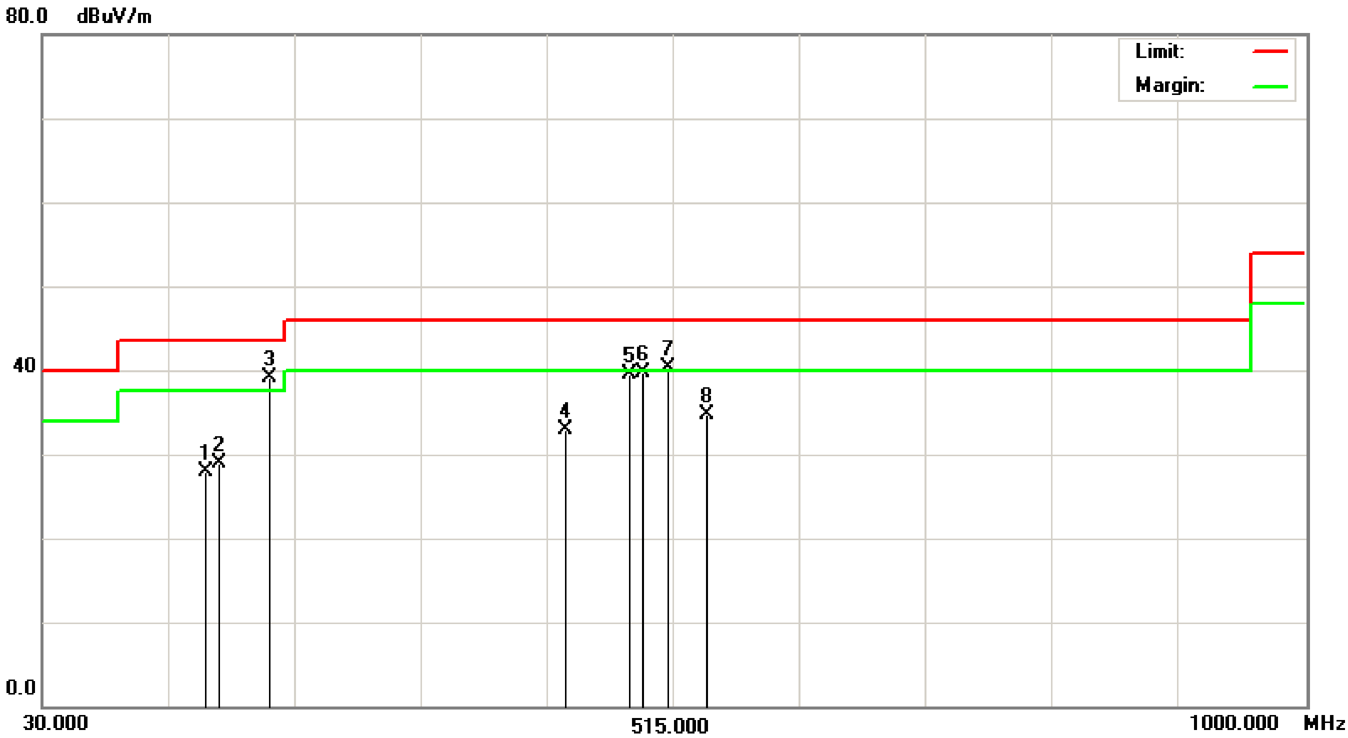
Remark: 1. The "Limit" in right-up corner in above diagram refers to Quasi-peak ; "Margin" refers to the data under 6dB.

Date of Test	April 26, 2007	**Temperature**	24.3 deg/C
EUT	Broadband Router	**Humidity**	73 %RH
Working Cond.	Mode 2-Channel 11 (2462MHz)	**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	156.0890	43.20	-15.31	27.89	43.50	-15.61	QP
2	165.7990	44.36	-15.55	28.81	43.50	-14.69	QP
3	★205.5680	56.40	-17.23	39.17	43.50	-4.33	QP
4	432.5390	43.20	-10.29	32.91	46.00	-13.09	QP
5	481.0560	48.69	-9.12	39.57	46.00	-6.43	QP
6	490.7520	48.67	-8.89	39.78	46.00	-6.22	QP
7	510.8630	48.80	-8.42	40.38	46.00	-5.62	QP
8	540.2210	42.50	-7.72	34.78	46.00	-11.22	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. Factor = antenna factor + cable loss – amplifier gain.
5. " ★ " means that this data is the worse case measurement level.



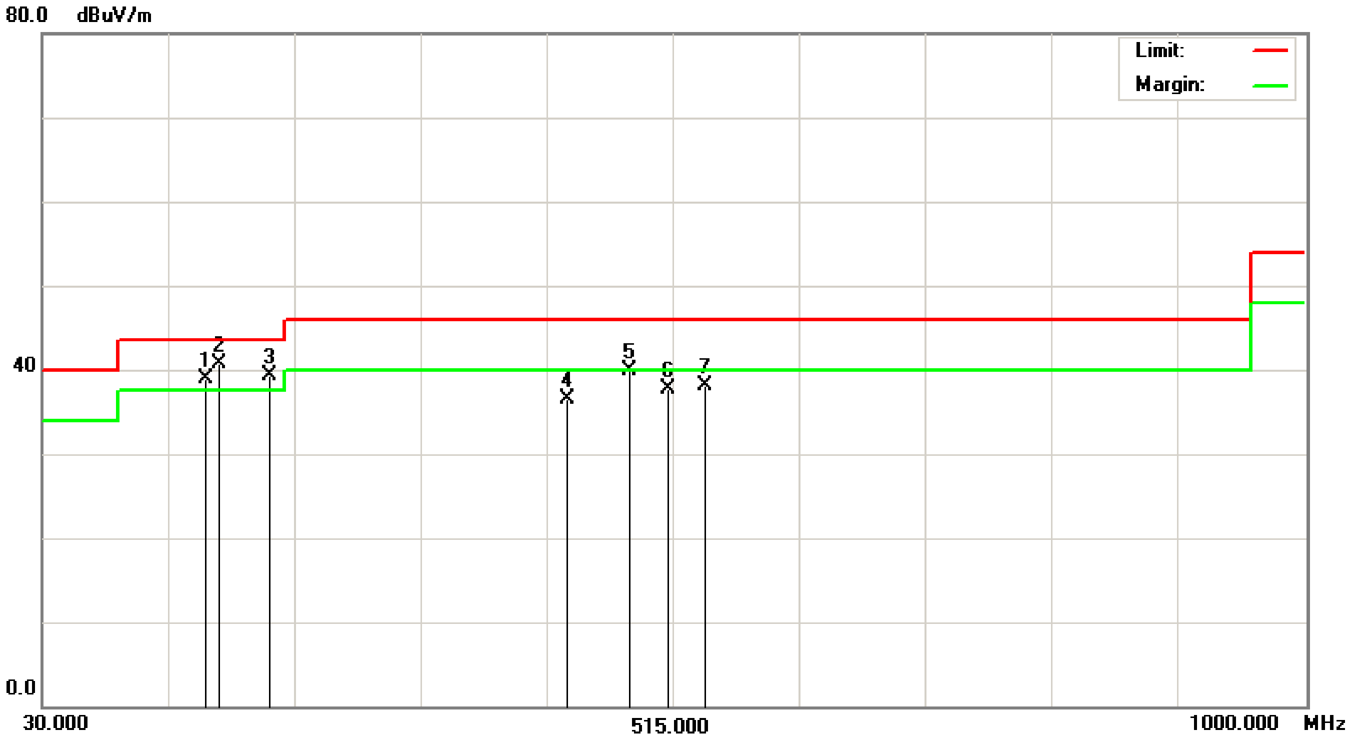
Remark: 1. The "Limit" in right-up corner in above diagram refers to Quasi-peak ; "Margin" refers to the data under 6dB.

Date of Test	April 26, 2007	**Temperature**	24.3 deg/C
EUT	Broadband Router	**Humidity**	73 %RH
Working Cond.	Mode 2-Channel 11 (2462MHz)	**Display Pattern**	H Pattern
Antenna distance	3m at **Vertical**	**Frequency Range**	30-1000MHz

No.	Frequency MHz	Reading Level dBuV	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	156.0880	54.20	-15.31	38.89	43.50	-4.61	QP
2	★165.8060	56.30	-15.55	40.75	43.50	-2.75	QP
3	205.5660	56.62	-17.23	39.39	43.50	-4.11	QP
4	432.6500	46.80	-10.29	36.51	46.00	-9.49	QP
5	481.0520	49.00	-9.12	39.88	46.00	-6.12	QP
6	510.1550	46.20	-8.43	37.77	46.00	-8.23	QP
7	540.2180	45.80	-7.72	38.08	46.00	-7.92	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. Factor = antenna factor + cable loss – amplifier gain.
5. “ ★ ” means that this data is the worse case measurement level.



Remark: 1. The “Limit” in right-up corner in above diagram refers to Quasi-peak ; “Margin” refers to the data under 6dB.

Date of Test	March 26, 2007	**Temperature**	23.8 deg/C
EUT	Broadband Router	**Humidity**	64 %RH
Working Cond.	Mode 1-Channel 1 (2412MHz)	**Data Rate**	11Mbps
Antenna distance	3m at **Horizontal**	**Frequency Range**	Above 1GHz

No.	Frequency MHz	Reading Level dBuV	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	4824.0000	54.85	-1.34	53.51	74.00	-20.49	peak
2	7232.8000	47.16	6.81	< 53.97	74.00	-20.03	peak
3	9648.2000	46.43	4.35	< 50.78	74.00	-23.22	peak
4	12059.2000	47.21	11.82	59.03	74.00	-14.97	peak
5	★12059.2000	34.82	11.82	< 46.64	54.00	-7.36	AVG
6	14509.8000	46.52	7.21	< 53.73	74.00	-20.27	peak

Remark

1. All Readings above 1GHz are peak or average detector.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
3. Spectrum Analizyer Setting(AVG Detector): RBW=1MHz, VBW=10HZ, Span=20MHz.
4. Emission Level= Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Over Limit (Margin Value)=Measurement level-Limit value.
7. The "★" means this data is worst-case Measurement level.
8. 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	March 26, 2007	**Temperature**	23.8 deg/C
EUT	Broadband Router	**Humidity**	64 %RH
Working Cond.	Mode 1-Channel 1 (2412MHz)	**Data Rate**	11Mbps
Antenna distance	3m at **Vertical**	**Frequency Range**	Above 1GHz

No.	Frequency MHz	Reading Level dBuV	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	4823.8000	51.90	-1.18	50.72	74.00	-23.28	peak
2	7239.2000	47.40	6.17	< 53.57	74.00	-20.43	peak
3	9647.8000	47.49	7.71	55.20	74.00	-18.80	peak
4	9647.8400	35.57	7.71	43.28	54.00	-10.72	AVG
5	12059.0000	49.23	14.28	63.51	74.00	-10.49	peak
6	★12060.6500	36.31	14.25	< 50.56	54.00	-3.44	AVG
7	14472.2000	46.16	5.76	< 51.92	74.00	-22.08	peak

Remark

1. All Readings above 1GHz are peak or average detector.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
3. Spectrum Analizyer Setting(AVG Detector): RBW=1MHz, VBW=10HZ, Span=20MHz.
4. Emission Level= Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Over Limit (Margin Value)=Measurement level-Limit value.
7. The "★" means this data is worst-case Measurement level.
8. 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	March 26, 2007	**Temperature**	23.8 deg/C
EUT	Broadband Router	**Humidity**	64 %RH
Working Cond.	Mode 1-Channel 6 (2437MHz)	**Data Rate**	11Mbps
Antenna distance	3m at **Horizontal**	**Frequency Range**	Above 1GHz

No.	Frequency MHz	Reading Level dBuV	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	4873.8000	53.51	-1.38	52.13	74.00	-21.87	peak
2	7311.2000	44.42	6.75	< 51.17	74.00	-22.83	peak
3	9747.6000	47.08	4.71	< 51.79	74.00	-22.21	peak
4	12185.0000	46.23	9.42	55.65	74.00	-18.35	peak
5	★12185.8800	33.71	9.40	< 43.11	54.00	-10.89	AVG
6	14622.0000	45.93	7.56	< 53.49	74.00	-20.51	peak

Remark

1. All Readings above 1GHz are peak or average detector.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
3. Spectrum Analizyer Setting(AVG Detector): RBW=1MHz, VBW=10HZ, Span=20MHz.
4. Emission Level= Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Over Limit (Margin Value)=Measurement level-Limit value.
7. The "★" means this data is worst-case Measurement level.
8. 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	March 26, 2007	**Temperature**	23.8 deg/C
EUT	Broadband Router	**Humidity**	64 %RH
Working Cond.	Mode 1-Channel 6 (2437MHz)	**Data Rate**	11Mbps
Antenna distance	3m at **Vertical**	**Frequency Range**	Above 1GHz

No.	Frequency MHz	Reading Level dBuV	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	4873.8000	52.87	-0.81	52.06	74.00	-21.94	peak
2	7311.6000	45.44	6.04	< 51.48	74.00	-22.52	peak
3	9747.8000	47.92	7.45	55.37	74.00	-18.63	peak
4	9747.8400	36.65	7.45	44.10	54.00	-9.90	AVG
5	12185.2000	47.90	11.86	59.76	74.00	-14.24	peak
6	★12185.6000	35.41	11.85	< 47.26	54.00	-6.74	AVG
7	14622.2000	45.77	5.82	< 51.59	74.00	-22.41	peak

Remark

1. All Readings above 1GHz are peak or average detector.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
3. Spectrum Analizyer Setting(AVG Detector): RBW=1MHz, VBW=10HZ, Span=20MHz.
4. Emission Level= Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Over Limit (Margin Value)=Measurement level-Limit value.
7. The "★" means this data is worst-case Measurement level.
8. 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	March 26, 2007	**Temperature**	23.8 deg/C
EUT	Broadband Router	**Humidity**	64 %RH
Working Cond.	Mode 1-Channel 11 (2462MHz)	**Data Rate**	11Mbps
Antenna distance	3m at **Horizontal**	**Frequency Range**	Above 1GHz

No.	Frequency MHz	Reading Level dBuV	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	4923.8000	53.85	-1.43	52.42	74.00	-21.58	peak
2	7388.0000	46.07	6.46	< 52.53	74.00	-21.47	peak
3	9848.2000	45.73	3.29	< 49.02	74.00	-24.98	peak
4	12310.2000	44.16	6.76	< 50.92	74.00	-23.08	peak
5	★14772.2000	45.21	7.75	< 52.96	74.00	-21.04	peak

Remark

1. All Readings above 1GHz are peak or average detector.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
3. Spectrum Analizyer Setting(AVG Detector): RBW=1MHz, VBW=10HZ, Span=20MHz.
4. Emission Level= Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Over Limit (Margin Value)=Measurement level-Limit value.
7. The "★" means this data is worst-case Measurement level.
8. 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	March 26, 2007	**Temperature**	23.8 deg/C
EUT	Broadband Router	**Humidity**	64 %RH
Working Cond.	Mode 1-Channel 11 (2462MHz)	**Data Rate**	11Mbps
Antenna distance	3m at **Vertical**	**Frequency Range**	Above 1GHz

No.	Frequency MHz	Reading Level dBuV	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	★4923.8000	54.11	-0.44	53.67	74.00	-20.33	peak
2	7385.4000	47.42	5.93	< 53.35	74.00	-20.65	peak
3	9847.6000	46.12	7.40	< 53.52	74.00	-20.48	peak
4	12310.2000	44.21	9.31	< 53.52	74.00	-20.48	peak
5	14772.2000	46.25	6.01	< 52.26	74.00	-21.74	peak

Remark

1. All Readings above 1GHz are peak or average detector.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
3. Spectrum Analizyer Setting(AVG Detector): RBW=1MHz, VBW=10HZ, Span=20MHz.
4. Emission Level= Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Over Limit (Margin Value)=Measurement level-Limit value.
7. The “★” means this data is worst-case Measurement level.
8. 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	March 26, 2007	**Temperature**	23.8 deg/C
EUT	Broadband Router	**Humidity**	64 %RH
Working Cond.	Mode 2-Channel 1 (2412MHz)	**Data Rate**	54Mbps
Antenna distance	3m at **Horizontal**	**Frequency Range**	Above 1GHz

No.	Frequency MHz	Reading Level dBuV	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	4823.8000	51.25	-1.34	49.91	74.00	-24.09	peak
2	7236.4000	47.34	6.85	54.19	74.00	-19.81	peak
3	7238.3200	32.68	6.87	39.55	54.00	-14.45	AVG
4	9648.2000	45.60	4.35	< 49.95	74.00	-24.05	peak
5	★12059.2000	33.88	11.82	45.70	54.00	-8.30	AVG
6	12060.4000	48.38	11.80	< 60.18	74.00	-13.82	peak
7	14472.0000	46.28	7.35	< 53.63	74.00	-20.37	peak

Remark

1. All Readings above 1GHz are peak or average detector.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
3. Spectrum Analizyer Setting(AVG Detector): RBW=1MHz, VBW=10HZ, Span=20MHz.
4. Emission Level= Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Over Limit (Margin Value)=Measurement level-Limit value.
7. The "★" means this data is worst-case Measurement level.
8. 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	March 26, 2007	**Temperature**	23.8 deg/C
EUT	Broadband Router	**Humidity**	64 %RH
Working Cond.	Mode 2-Channel 1 (2412MHz)	**Data Rate**	54Mbps
Antenna distance	3m at **Vertical**	**Frequency Range**	Above 1GHz

No.	Frequency MHz	Reading Level dBuV	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	4830.6000	51.27	-1.13	50.14	74.00	-23.86	peak
2	[illegible]	48.74	6.17	54.91	74.00	-19.09	peak
3	7238.4000	34.04	6.17	40.21	54.00	-13.79	AVG
4	9648.2000	45.51	7.71	< 53.22	74.00	-20.78	peak
5	12055.2000	50.26	14.35	64.61	74.00	-9.39	peak
6	★12061.3000	34.66	14.24	< 48.90	54.00	-5.10	AVG
7	14472.2000	45.79	5.76	< 51.55	74.00	-22.45	peak

Remark

1. All Readings above 1GHz are peak or average detector.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
3. Spectrum Analizyer Setting(AVG Detector): RBW=1MHz, VBW=10HZ, Span=20MHz.
4. Emission Level= Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Over Limit (Margin Value)=Measurement level-Limit value.
7. The "★" means this data is worst-case Measurement level.
8. 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	March 27, 2007	**Temperature**	23.8 deg/C
EUT	Broadband Router	**Humidity**	64 %RH
Working Cond.	Mode 2-Channel 6 (2437MHz)	**Data Rate**	54Mbps
Antenna distance	3m at **Horizontal**	**Frequency Range**	Above 1GHz

No.	Frequency MHz	Reading Level dBuV	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	4874.2000	52.67	-1.38	51.29	74.00	-22.71	peak
2	7311.0000	47.05	6.75	53.80	74.00	-20.20	peak
3	9752.4000	46.16	4.65	< 50.81	74.00	-23.19	peak
4	★12184.8400	34.25	9.42	43.67	54.00	-10.33	AVG
5	12190.2000	49.83	9.31	< 59.14	74.00	-14.86	peak
6	14627.4000	45.80	7.58	< 53.38	74.00	-20.62	peak

Remark

1. All Readings above 1GHz are peak or average detector.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
3. Spectrum Analizyer Setting(AVG Detector): RBW=1MHz, VBW=10HZ, Span=20MHz.
4. Emission Level= Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Over Limit (Margin Value)=Measurement level-Limit value.
7. The "★" means this data is worst-case Measurement level.
8. 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	March 27, 2007	**Temperature**	23.8 deg/C
EUT	Broadband Router	**Humidity**	64 %RH
Working Cond.	Mode 2-Channel 6 (2437MHz)	**Data Rate**	54Mbps
Antenna distance	3m at **Vertical**	**Frequency Range**	Above 1GHz

No.	Frequency MHz	Reading Level dBuV	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	4874.0000	54.59	-0.81	53.78	74.00	-20.22	peak
2	7313.2400	33.81	6.04	39.85	54.00	-14.15	AVG
3	7320.8000	48.96	6.03	54.99	74.00	-19.01	peak
4	9748.0000	45.28	7.45	< 52.73	74.00	-21.27	peak
5	★12182.1200	35.34	11.92	47.26	54.00	-6.74	AVG
6	12189.2000	50.66	11.78	< 62.44	74.00	-11.56	peak
7	14626.6000	46.35	5.83	< 52.18	74.00	-21.82	peak

Remark

1. All Readings above 1GHz are peak or average detector.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
3. Spectrum Analizyer Setting(AVG Detector): RBW=1MHz, VBW=10HZ, Span=20MHz.
4. Emission Level= Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Over Limit (Margin Value)=Measurement level-Limit value.
7. The "★" means this data is worst-case Measurement level.
8. 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	March 27, 2007	**Temperature**	23.8 deg/C
EUT	Broadband Router	**Humidity**	64 %RH
Working Cond.	Mode 2-Channel 11 (2462MHz)	**Data Rate**	54Mbps
Antenna distance	3m at **Horizontal**	**Frequency Range**	Above 1GHz

No.	Frequency MHz	Reading Level dBuV	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	4924.0000	53.59	-1.44	52.15	74.00	-21.85	peak
2	7379.0000	47.65	6.49	54.14	74.00	-19.86	peak
3	★ 7387.9600	33.04	6.46	39.50	54.00	-14.50	AVG
4	9841.2000	45.17	3.39	< 48.56	74.00	-25.44	peak
5	12303.2000	44.77	6.92	< 51.69	74.00	-22.31	peak
6	14765.0000	46.05	7.80	< 53.85	74.00	-20.15	peak

Remark

1. All Readings above 1GHz are peak or average detector.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
3. Spectrum Analizyer Setting(AVG Detector): RBW=1MHz, VBW=10HZ, Span=20MHz.
4. Emission Level= Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Over Limit (Margin Value)=Measurement level-Limit value.
7. The "★" means this data is worst-case Measurement level.
8. 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	March 27, 2007	**Temperature**	23.8 deg/C
EUT	Broadband Router	**Humidity**	64 %RH
Working Cond.	Mode 2-Channel 11 (2462MHz)	**Data Rate**	54Mbps
Antenna distance	3m at **Vertical**	**Frequency Range**	Above 1GHz

No.	Frequency MHz	Reading Level dBuV	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	★4923.0400	40.38	-0.44	39.94	54.00	-14.06	AVG
2	4924.0000	54.55	-0.43	54.12	74.00	-19.88	peak
3	7380.0000	47.60	5.93	53.53	74.00	-20.47	peak
4	9848.2000	45.38	7.39	< 52.77	74.00	-21.23	peak
5	12310.0000	43.25	9.31	< 52.56	74.00	-21.44	peak
6	14772.2000	46.95	6.01	< 52.96	74.00	-21.04	peak

Remark

1. All Readings above 1GHz are peak or average detector.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ, Span=100MHz.
3. Spectrum Analizyer Setting(AVG Detector): RBW=1MHz, VBW=10HZ, Span=20MHz.
4. Emission Level= Reading + Factor (Could have ±0.01 tolerance due to computer automatically round off calculation).
5. Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Over Limit (Margin Value)=Measurement level-Limit value.
7. The "★" means this data is worst-case Measurement level.
8. 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

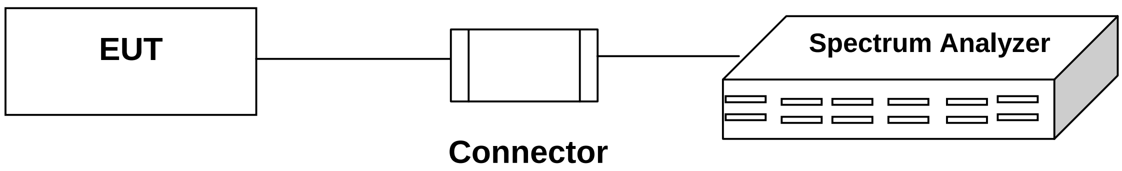
5.1 TEST EQUIPMENT

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	04/03/06
2	Spectrum Analyzer	HP	E4407B	39240339	07/26/06
3	Power Meter	Rohde & Schwarz	NRVS	100666	04/04/07
4	Peak Power Sensor	Rohde & Schwarz	NRV-Z32	8360191058	04/04/07

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	March 29, 2007	**Temperature**	23.7 deg/C
EUT	Broadband Router	**Humidity**	60 %RH
Test Mode	802.11b	**Data Rate**	11Mbps

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit	Result
1	2412	17.52	1W(30dBm)	Pass
6	2437	17.56	1W(30dBm)	Pass
11	2462	17.35	1W(30dBm)	Pass

Date of Test	March 29, 2007	**Temperature**	23.7 deg/C
EUT	Broadband Router	**Humidity**	60 %RH
Test Mode	802.11g	**Data Rate**	54Mbps

Channel No.	Frequency (MHz)	Measurement (dBm)	Required Limit	Result
1	2412	16.76	1W(30dBm)	Pass
6	2437	16.79	1W(30dBm)	Pass
11	2462	16.56	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	01/19/07
2	Spectrum Analyzer	Rohde & Schwarz	FSP40	100061	04/09/07
3	Spectrum Analyzer	HP	E4407B	39240339	07/26/06
4	Power Meter	Rohde & Schwarz	NRVS	100666	04/04/07
5	Peak Power Sensor	Rohde & Schwarz	NRV-Z32	8360191058	04/04/07
6	Pre-Amplifier	HP	8449B	3008A01263	03/22/07
7	BILOG ANTENNA	SCHAFFNER	CBL6112B	2620	11/24/06
8	Horn Antenna	Electro-Metrics	EM-6961	103318	01/25/07
9	Horn Antenna	Schwarzbeck	BBHA 9120	D243	12/25/06
10	RF Cable	GesTek	N/A	GTK-E-A151-01	12/15/06
11	Open Site	GesTek	N/A	B1	11/20/06
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:

Refer to Section 4.2

RF Couductive Measurement:

Refer to Section 5.2

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 RELULT

Date of Test	March 29, 2007	**Temperature**	21.6 deg/C
EUT	Broadband Router	**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)]
2412.98	77.20	31.47	108.67

Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2411.58	67.94	31.47	99.41

Remark:

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ.
3. Spectrum Analizyer 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 polt for peak is appear (50.94)dB delta between carry power and maximum emission in restrict band 2390 MHz. The plot for average is appear (58.08)dB delta between carry power and maximum emission in restrict band (2319.8)MHz.
The above tables are list of fundamental emission test result.
Therefore, peak field strength of 2390 MHz is 108.67 dBuV/m – 50.94 dB = 57.73 dBuV/m which is under 74dBuV/m.
Average field strength of 2319.8 MHz is 99.41 dBuV/m – 58.08 dB = 41.33 dBuV/m which is under 54dBuV/m

Date of Test	March 29, 2007	**Temperature**	21.6 deg/C
EUT	Broadband Router	**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)]
2412.98	76.27	24.42	100.69

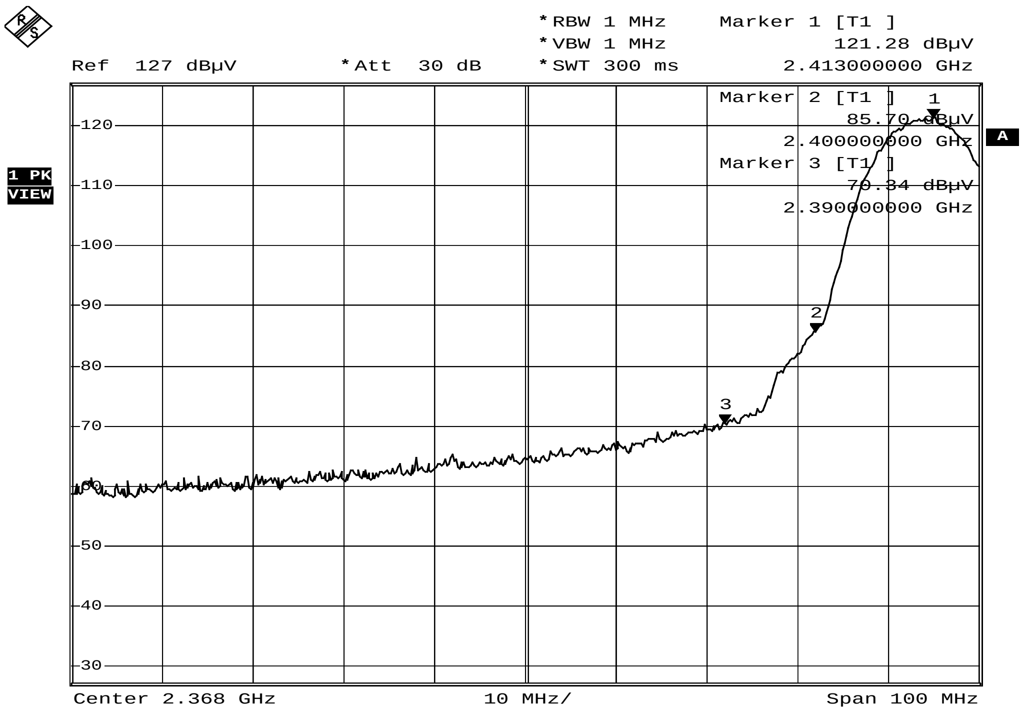
Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2412.98	66.41	24.42	90.83

Remark:
1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ.
3. Spectrum Analizyer 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 polt for peak is appear (50.94)dB delta between carry power and maximum emission in restrict band 2390 MHz. The plot for average is appear (58.08)dB delta between carry power and maximum emission in restrict band (2319.8)MHz.
The above tables are list of fundamental emission test result.
Therefore, peak field strength of 2390 MHz is 100.69 dBuV/m – 50.94 dB = 49.75 dBuV/m which is under 74dBuV/m.
Average field strength of 2319.8 MHz is 90.83 dBuV/m – 58.08 dB = 32.75 dBuV/m which is under 54dBuV/m



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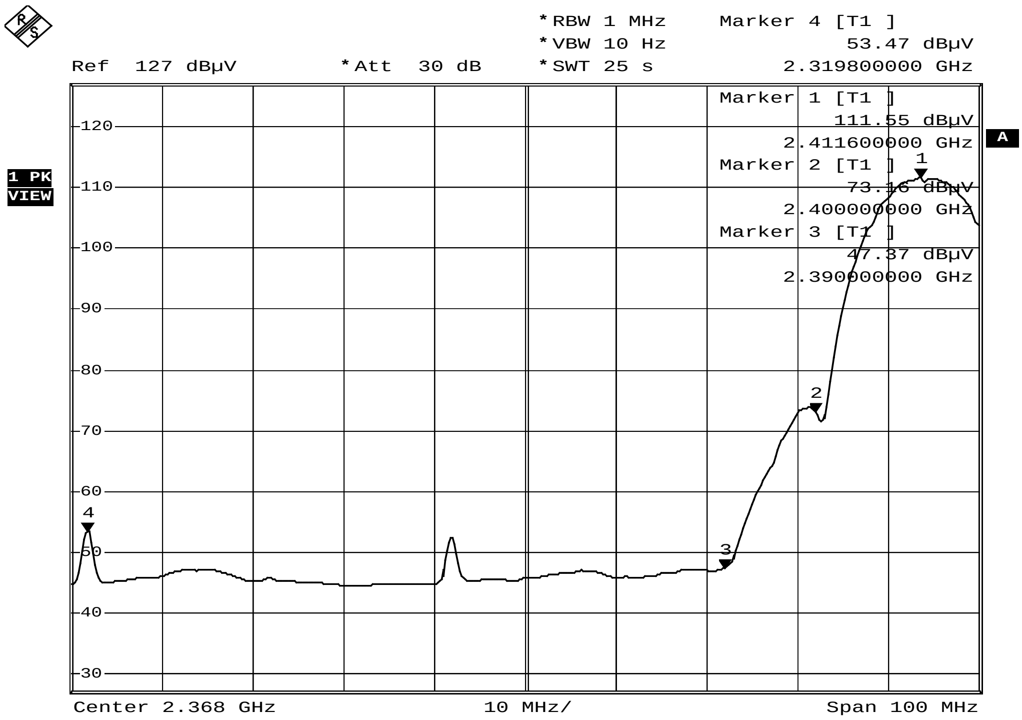

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Date of Test	March 29, 2007	**Temperature**	21.6 deg/C
EUT	Broadband Router	**Humidity**	63 %RH
Working Cond.	Mode 1 (802.11b)	**Data Rate**	11Mbps
Antenna distance	3m at **Horizontal**	**Test Band**	Higher

Radiation Emission of Fundamental

Peak

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2462.98	76.49	31.35	107.84

Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2463.12	65.85	31.35	97.20

Remark:

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ.
3. Spectrum Analizyer 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 polt for peak is appear (50.67)dB delta between carry power and maximum emission in restrict band 2483.8 MHz. The plot for average is appear (64.48)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 107.84 dBuV/m – 50.67 dB = 57.17 dBuV/m which is under 74dBuV/m.
Average field strength of 2483.5 MHz is 97.20 dBuV/m – 64.48 dB = 32.72 dBuV/m which is under 54dBuV/m

Date of Test	March 29, 2007	**Temperature**	21.6 deg/C
EUT	Broadband Router	**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)]
2462.84	76.44	23.61	100.05

Average

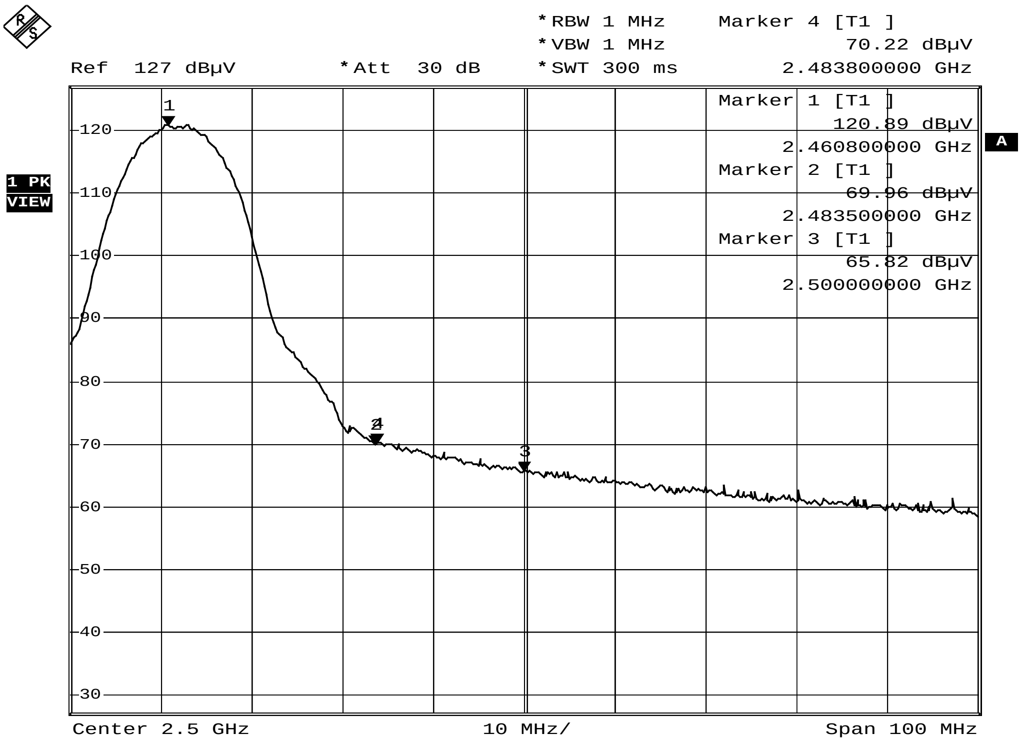
Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2461.30	66.99	23.64	90.63

Remark:

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ.
3. Spectrum Analizyer 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 polt for peak is appear (50.67)dB delta between carry power and maximum emission in restrict band 2483.8 MHz. The plot for average is appear (64.48)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 100.05 dBuV/m – 50.67 dB = 49.38 dBuV/m which is under 74dBuV/m.
Average field strength of 2483.5 MHz is 90.63 dBuV/m – 64.48 dB = 26.15 dBuV/m which is under 54dBuV/m



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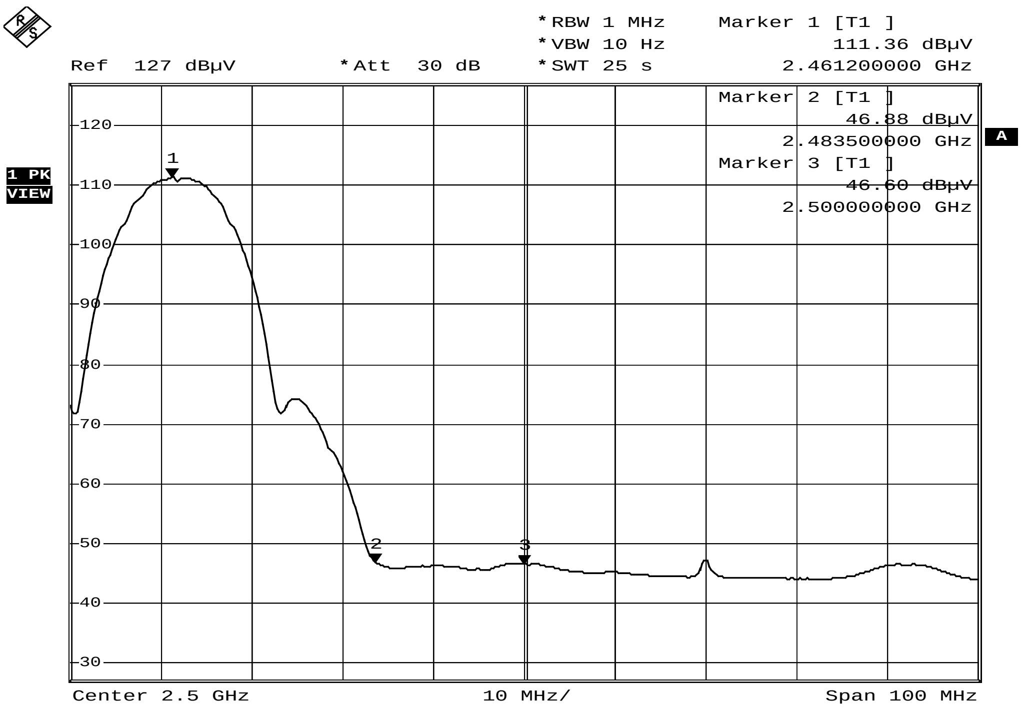


Date: 29.MAR.2007 18:32:25

Date of Test	March 29, 2007	**Temperature**	21.6 deg/C
EUT	Broadband Router	**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)]
2417.32	72.75	31.46	104.21

Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2406.68	54.91	31.48	86.39

Remark:

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ.
3. Spectrum Analizyer 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 polt for peak is appear (47.81)dB delta between carry power and maximum emission in restrict band 2387.6 MHz. The plot for average is appear (42.7)dB delta between carry power and maximum emission in restrict band (2360)MHz.
The above tables are list of fundamental emission test result.
Therefore, peak field strength of 2387.6 MHz is 104.21 dBuV/m – 47.81 dB = 56.4 dBuV/m which is under 74dBuV/m.
Average field strength of 2360 MHz is 86.39 dBuV/m – 42.7 dB = 43.69 dBuV/m which is under 54dBuV/m

Date of Test	March 29, 2007	**Temperature**	21.6 deg/C
EUT	Broadband Router	**Humidity**	63 %RH
Working Cond.	Mode 2 (802.11g)	**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)]
2417.08	73.41	24.35	97.76

Average

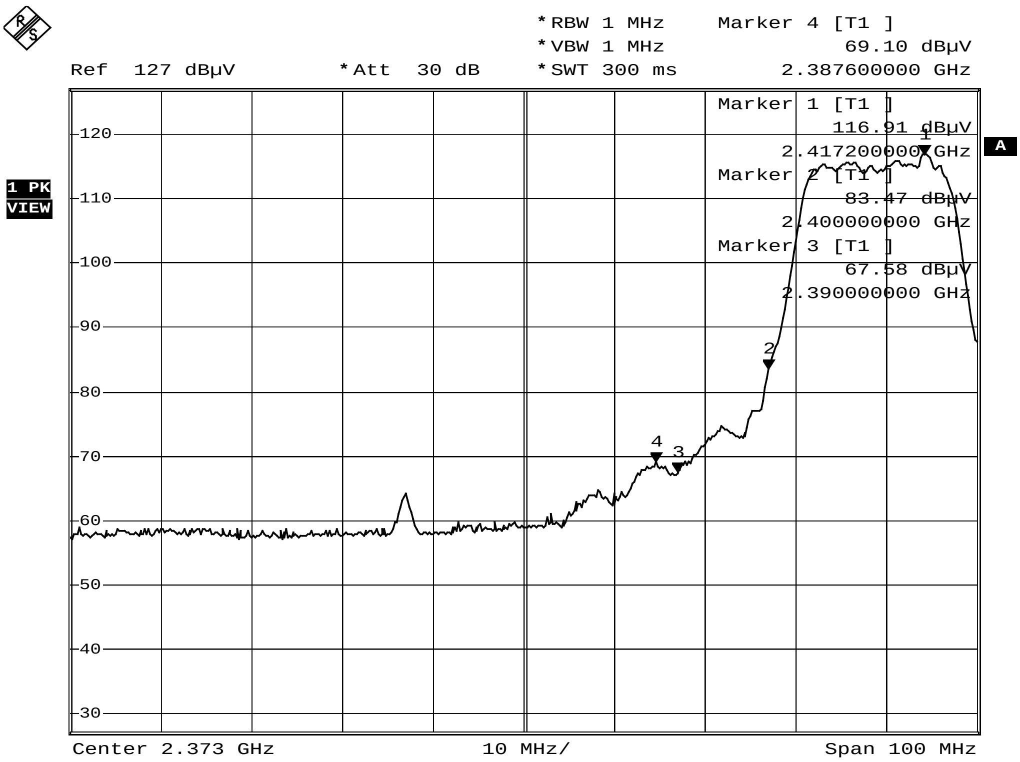
Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2406.82	54.59	24.52	79.11

Remark:

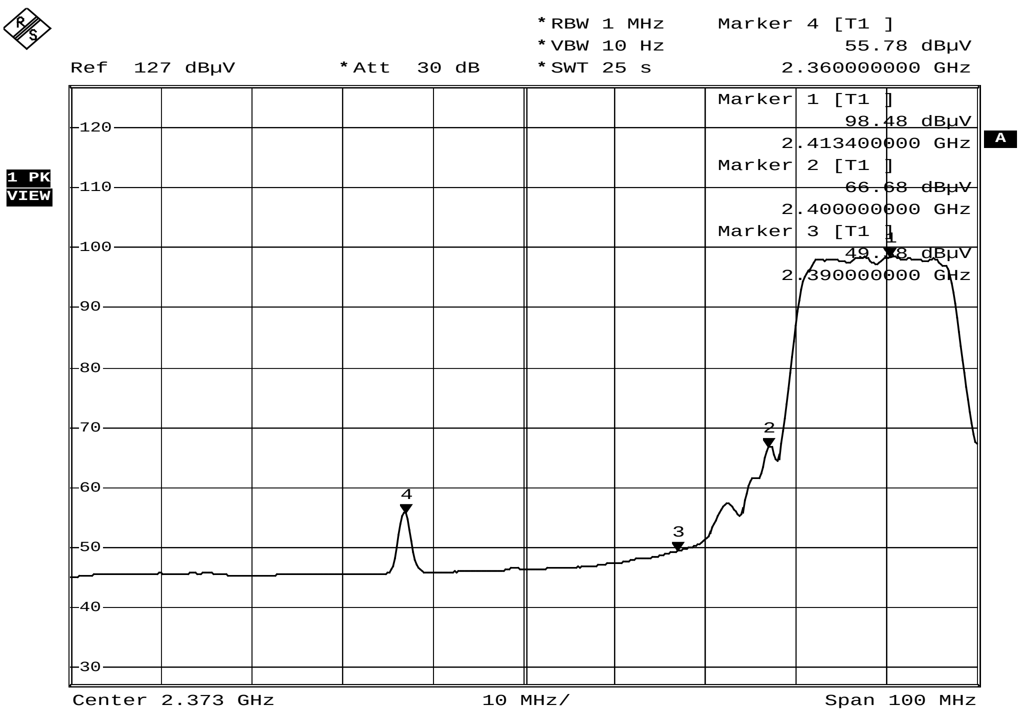
1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ.
3. Spectrum Analizyer Setting(AVG Detector): RBW=1MHz, VBW=10HZ
4. Emission Level= Reading + Correction Factor (Could have ±0.01 tolerance due to computer automatically 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 polt for peak is appear (47.81)dB delta between carry power and maximum emission in restrict band 2387.6 MHz. The plot for average is appear (42.7)dB delta between carry power and maximum emission in restrict band (2360)MHz.
The above tables are list of fundamental emission test result.
Therefore, peak field strength of 2387.6 MHz is 97.76 dBuV/m – 47.81 dB = 49.95 dBuV/m which is under 74dBuV/m.
Average field strength of 2360 MHz is 79.11 dBuV/m – 42.7 dB = 36.41 dBuV/m which is under 54dBuV/m



Date: 29.MAR.2007 17:55:20



Date: 29.MAR.2007 18:00:28

Date of Test	March 29, 2007	**Temperature**	21.6 deg/C
EUT	Broadband Router	**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)]
2467.18	71.96	31.35	103.31

Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2457.24	54.65	31.37	86.02

Remark:

1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ.
3. Spectrum Analizyer 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 polt for peak is appear (46.91)dB delta between carry power and maximum emission in restrict band 2483.5 MHz. The plot for average is appear (48.8)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 103.31 dBuV/m – 46.99 dB = 56.4 dBuV/m which is under 74dBuV/m.
Average field strength of 2483.5 MHz is 86.02 dBuV/m – 48.8 dB = 37.22 dBuV/m which is under 54dBuV/m

Date of Test	March 29, 2007	**Temperature**	21.6 deg/C
EUT	Broadband Router	**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)]
2467.18	72.70	23.54	96.24

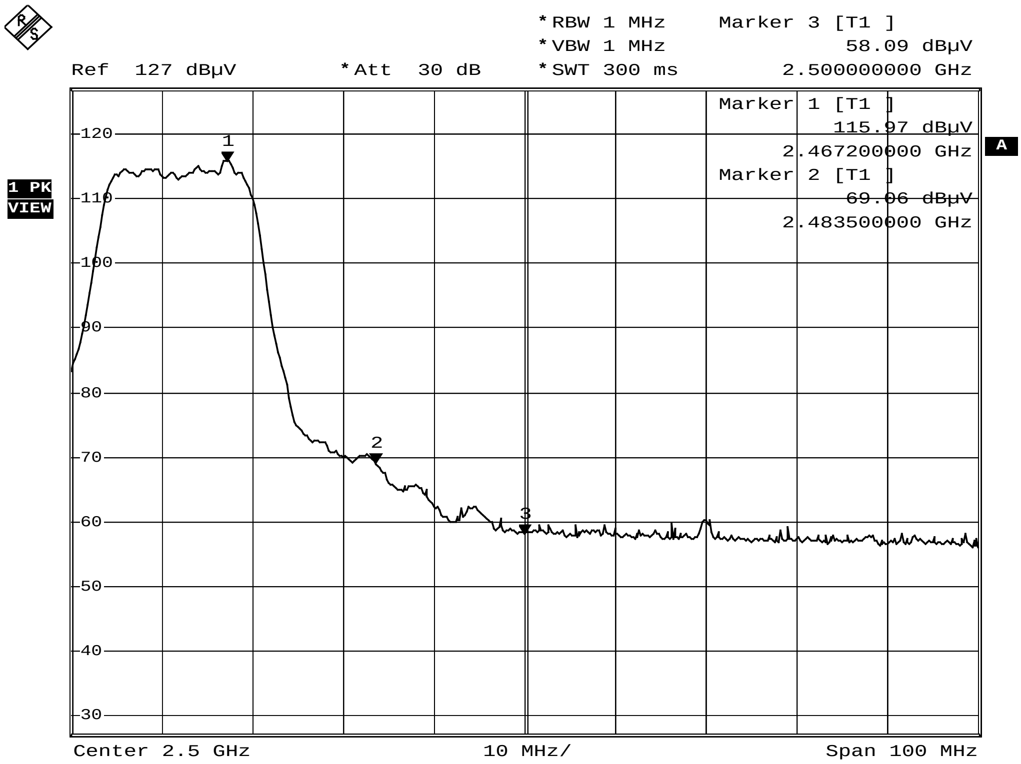
Average

Frequency [MHz]	Reading Level [dB(uV)]	Correction Factor [dB/m]	Emission Level [dB(uV/m)]
2460.32	55.66	23.65	79.31

Remark:
1. All Readings below 1GHz are Quasi-Peak and above 1GHz are peak or average.
2. Spectrum Analizyer Setting(Peak Detector): RBW=1MHz, VBW=1MHZ.
3. Spectrum Analizyer 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 polt for peak is appear (46.91)dB delta between carry power and maximum emission in restrict band 2483.5 MHz. The plot for average is appear (48.8)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 96.24 dBuV/m – 46.91 dB = 49.33 dBuV/m which is under 74dBuV/m.
Average field strength of 2483.5 MHz is 79.31 dBuV/m – 48.8 dB = 30.51 dBuV/m which is under 54dBuV/m



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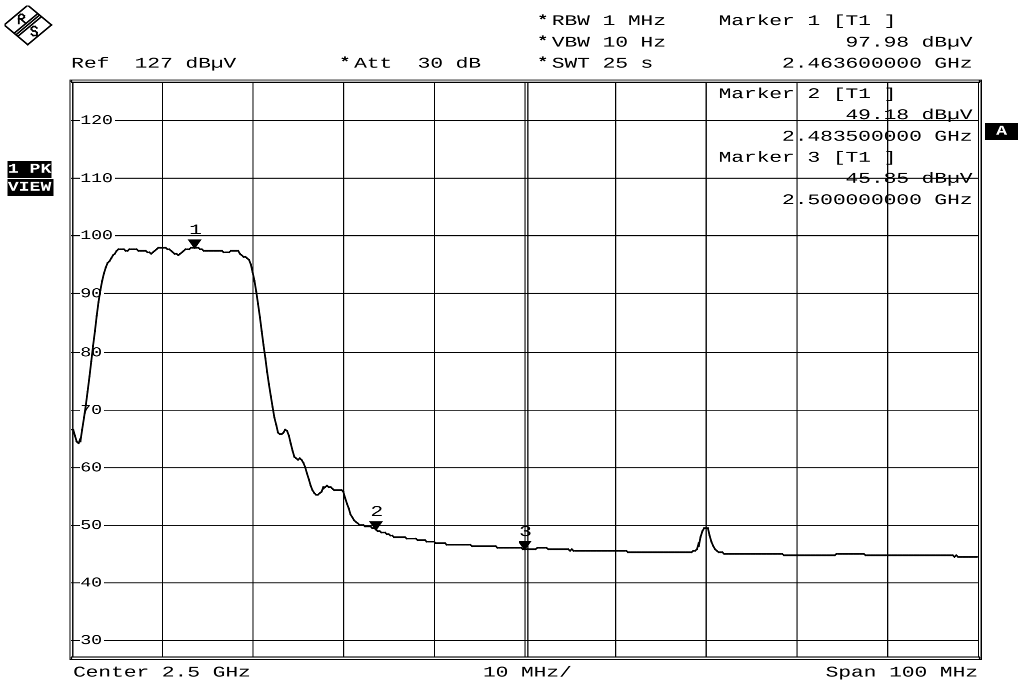


Date: 29.MAR.2007 18:13:04

7. OCCUPIED BANDWIDTH

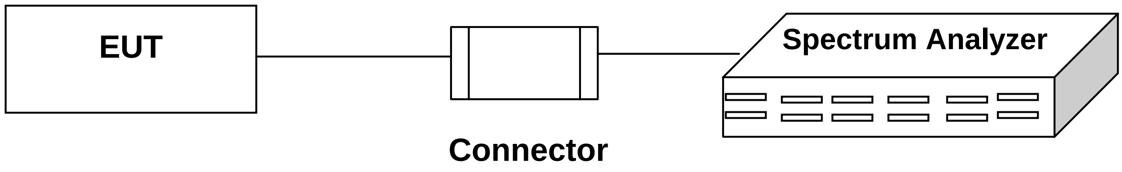
7.1 TEST EQUIPMENT

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	04/03/06
2	Spectrum Analyzer	HP	E4407B	39240339	07/26/06

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	March 28, 2007	**Temperature**	23.9 deg/C
EUT	Broadband Router	**Humidity**	61 %RH
Working Cond.	Mode 1 (802.11b)	**Data Rate**	11Mbps

Channel No.	Frequency (MHz)	Bandwidth (MHz)	Required limit (KHz)	Result
1	2412	8.9	>500	Pass
6	2437	5.8	>500	Pass
11	2462	8.7	>500	Pass

Figure Channel 1:

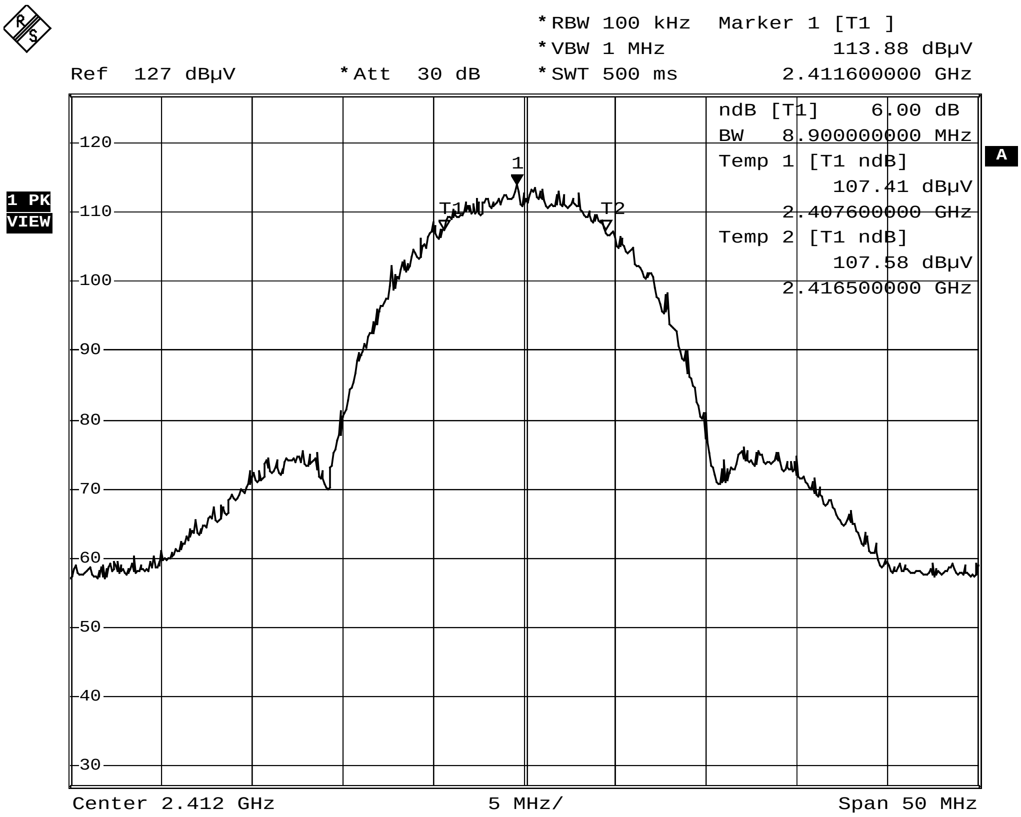


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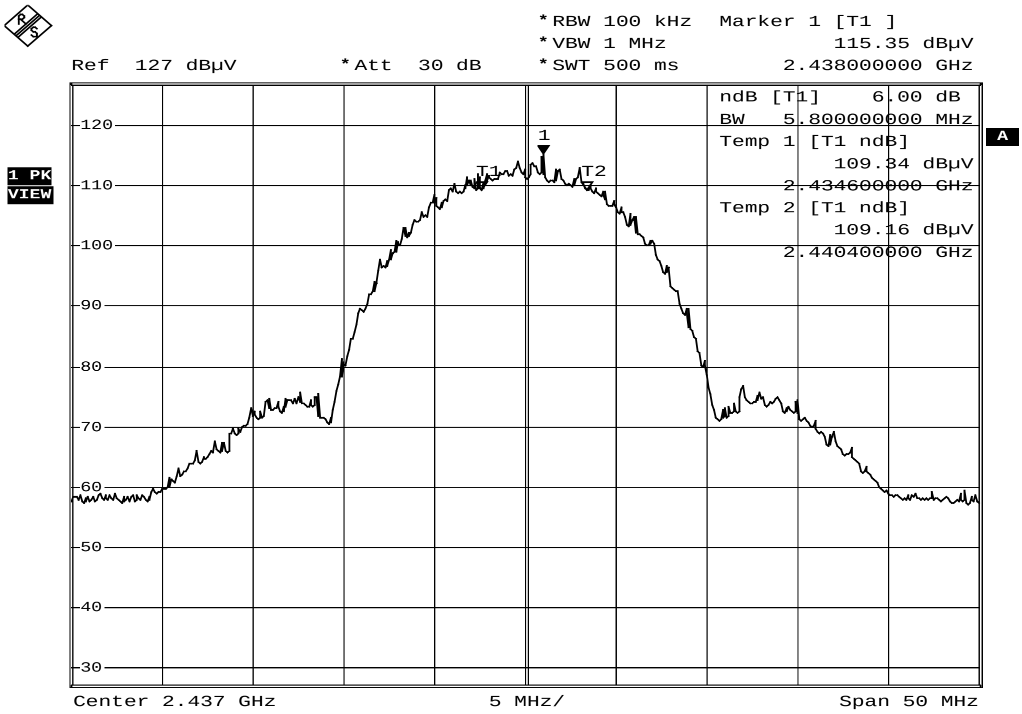
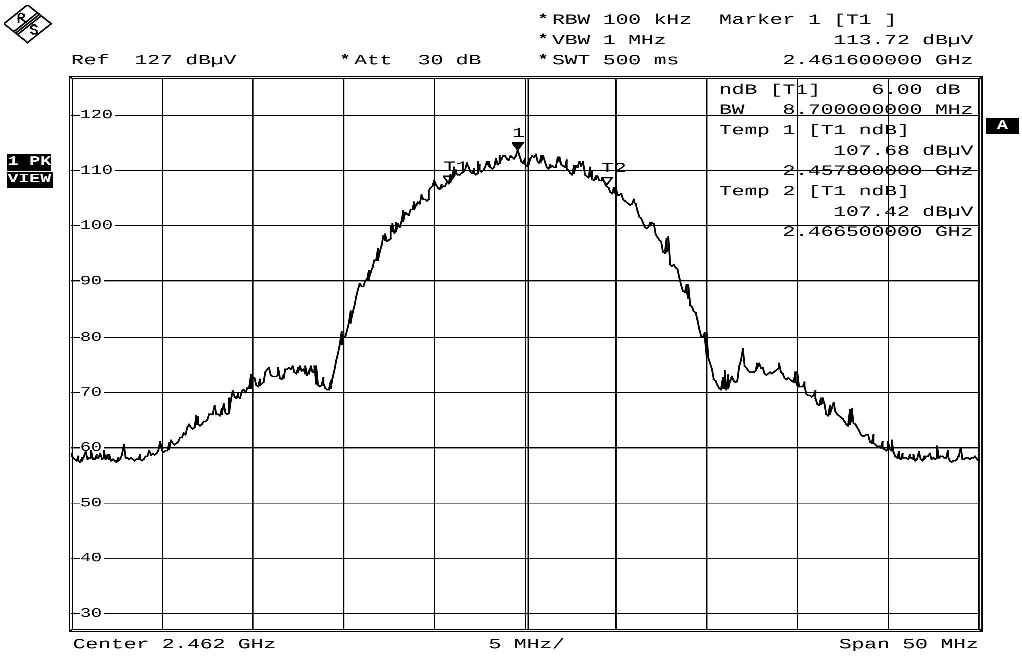
Figure Channel 6:



Date: 28.MAR.2007 12:15:09

Figure Channel 11:



Date: 28.MAR.2007 12:17:22

Date of Test	March 28, 2007	**Temperature**	23.9 deg/C
EUT	Broadband Router	**Humidity**	61 %RH
Working Cond.	Mode 2 (802.11g)	**Data Rate**	54Mbps

Channel No.	Frequency (MHz)	Bandwidth (MHz)	Required limit (KHz)	Result
1	2412	15.9	>500	Pass
6	2437	15.9	>500	Pass
11	2462	16	>500	Pass

Figure Channel 1:

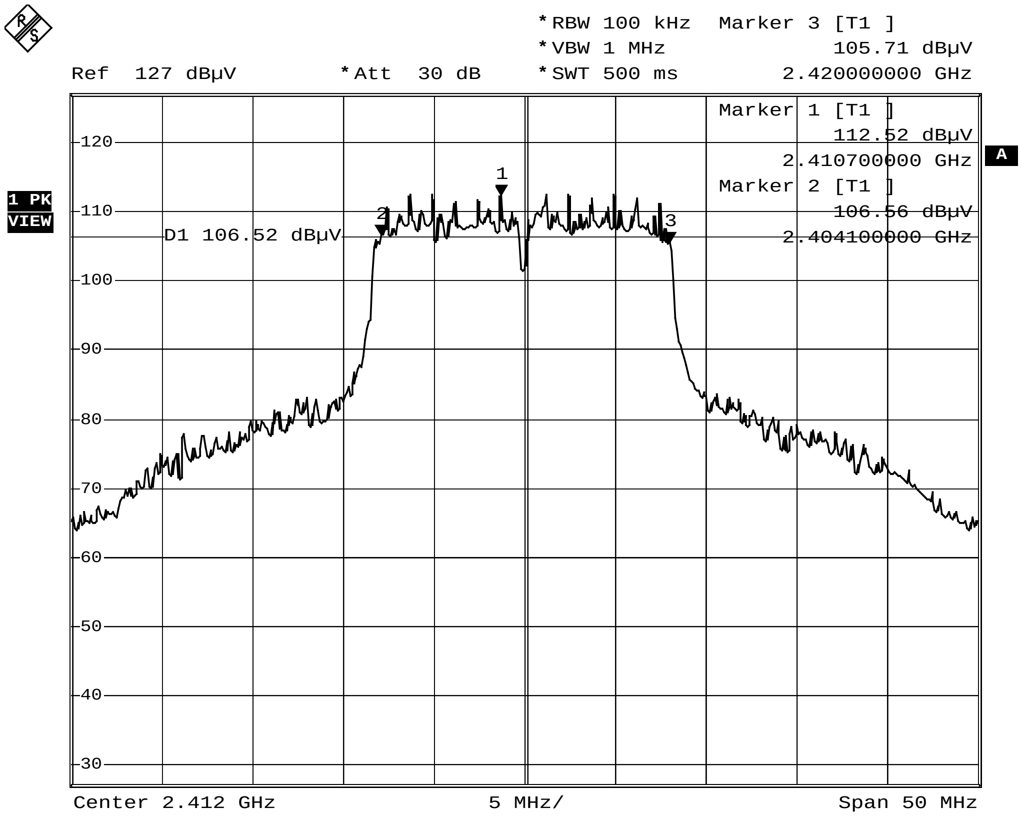


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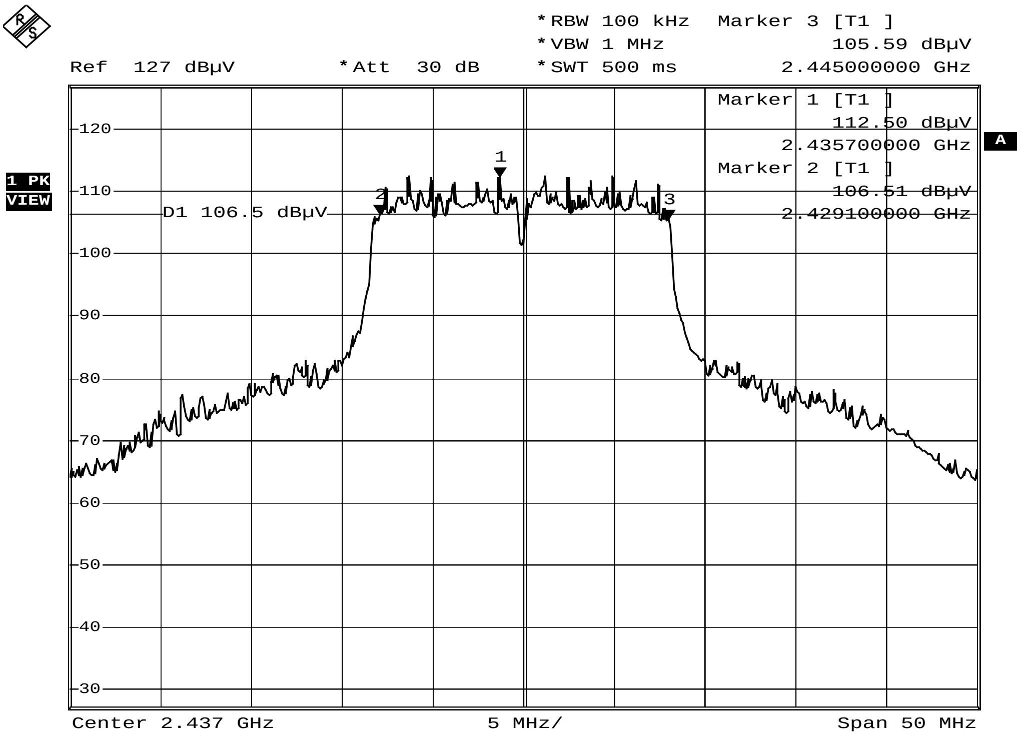
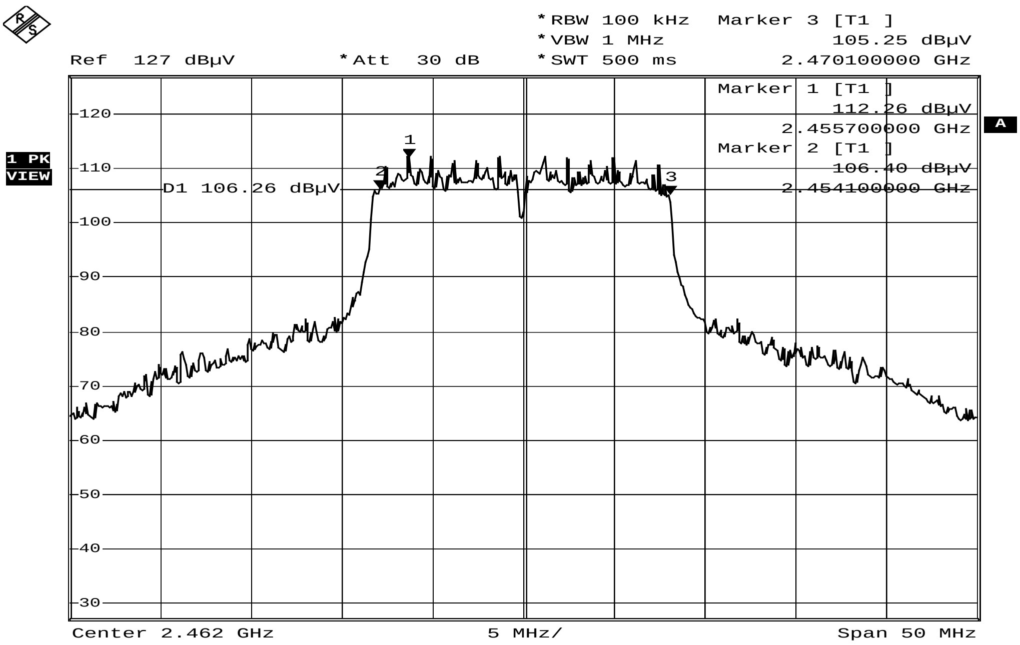
Figure Channel 6:



Date: 28.MAR.2007 12:24:54

Figure Channel 11:



Date: 28.MAR.2007 12:31:00

8. POWER DENSITY

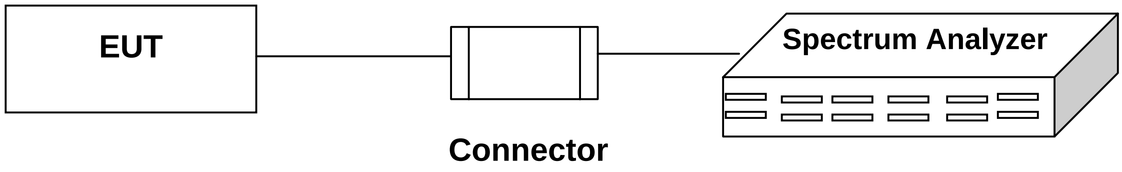
8.1 TEST EQUIPMENT

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	04/09/07
2	Spectrum Analyzer	HP	E4407B	39240339	07/26/06

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	March 29, 2007	**Temperature**	23.5 deg/C
EUT	Broadband Router	**Humidity**	62 %RH
Working Cond.	Mode 1 (802.11b)	**Data Rate**	11Mbps

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required limit (dBm)	Result
1	2412	-9.36	<8dBm	Pass
6	2437	-9.78	<8dBm	Pass
11	2462	-10.02	<8dBm	Pass

Figure Channel 1:

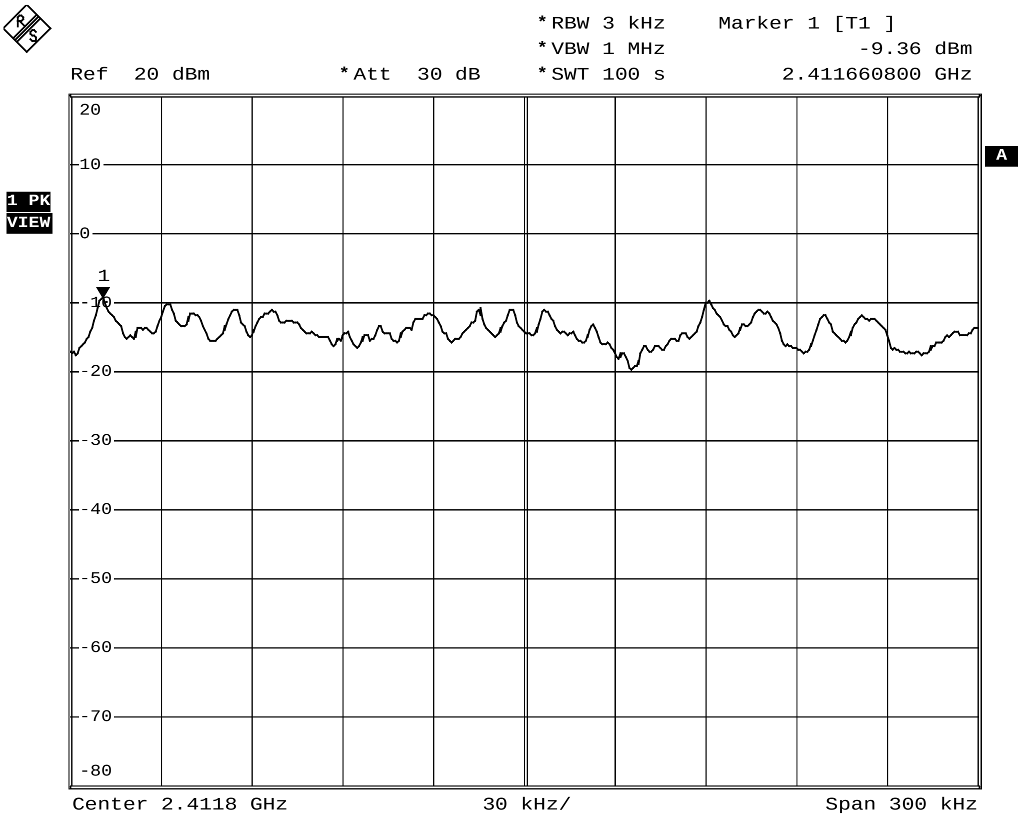


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Figure Channel 6:

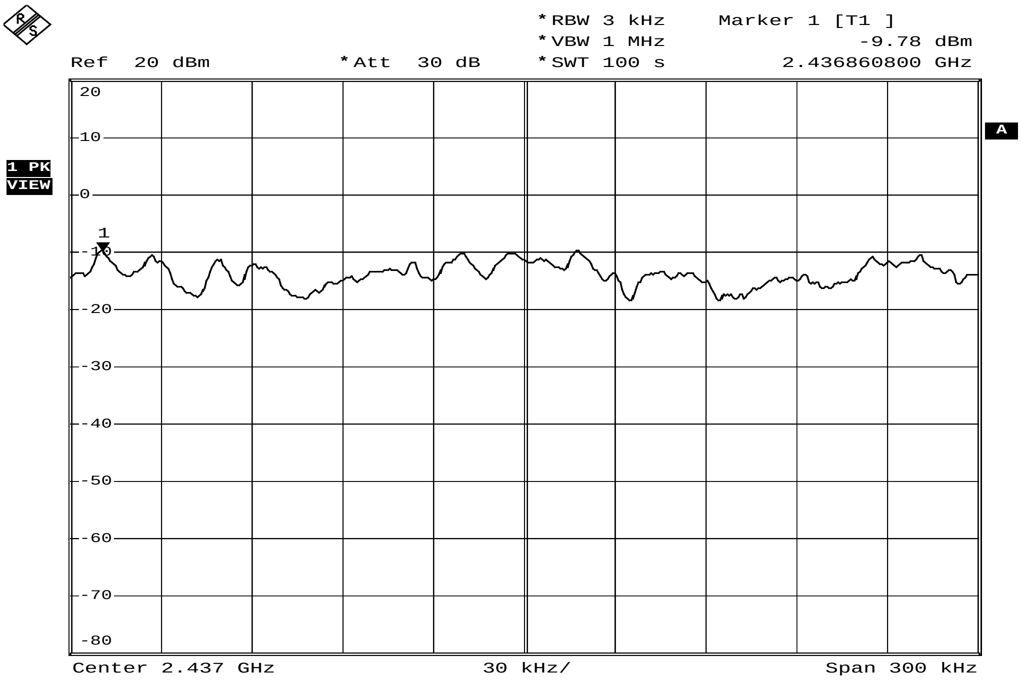

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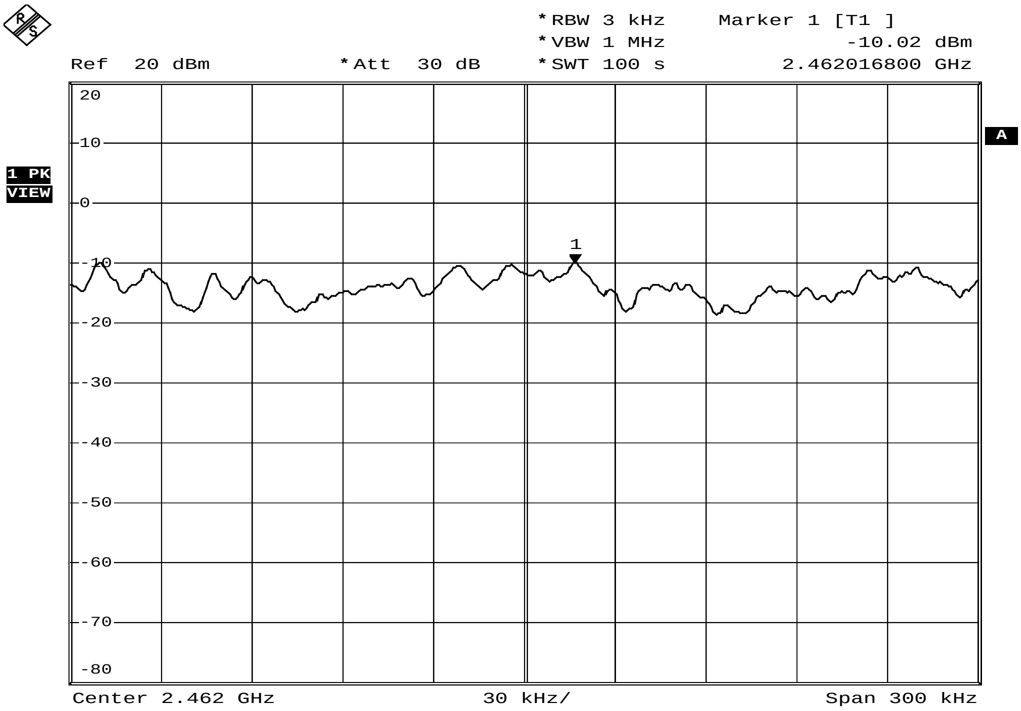
Figure Channel 11:



Date: 28.MAR.2007 21:48:44

Date of Test	March 29, 2007	**Temperature**	23.5 deg/C
EUT	Broadband Router	**Humidity**	62 %RH
Working Cond.	Mode 2 (802.11g)	**Data Rate**	54Mbps

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required limit (dBm)	Result
1	2412	-15.46	<8dBm	Pass
6	2437	-15.48	<8dBm	Pass
11	2462	-15.84	<8dBm	Pass

Figure Channel 1:

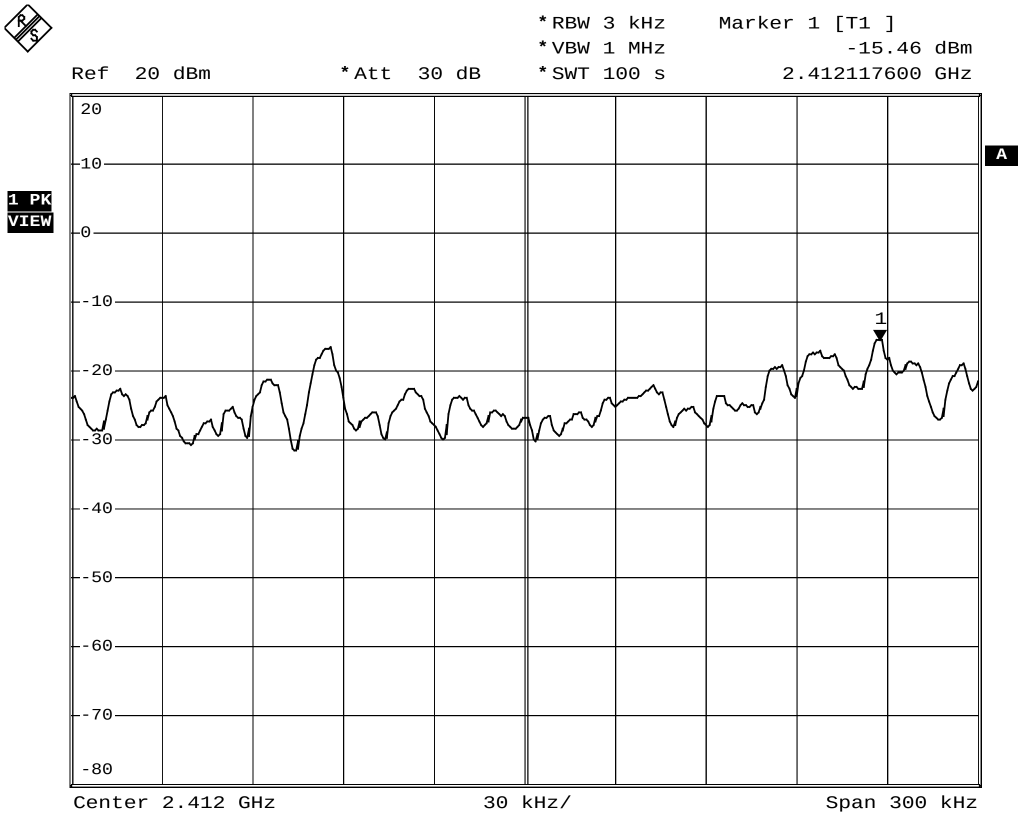


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Figure Channel 6:

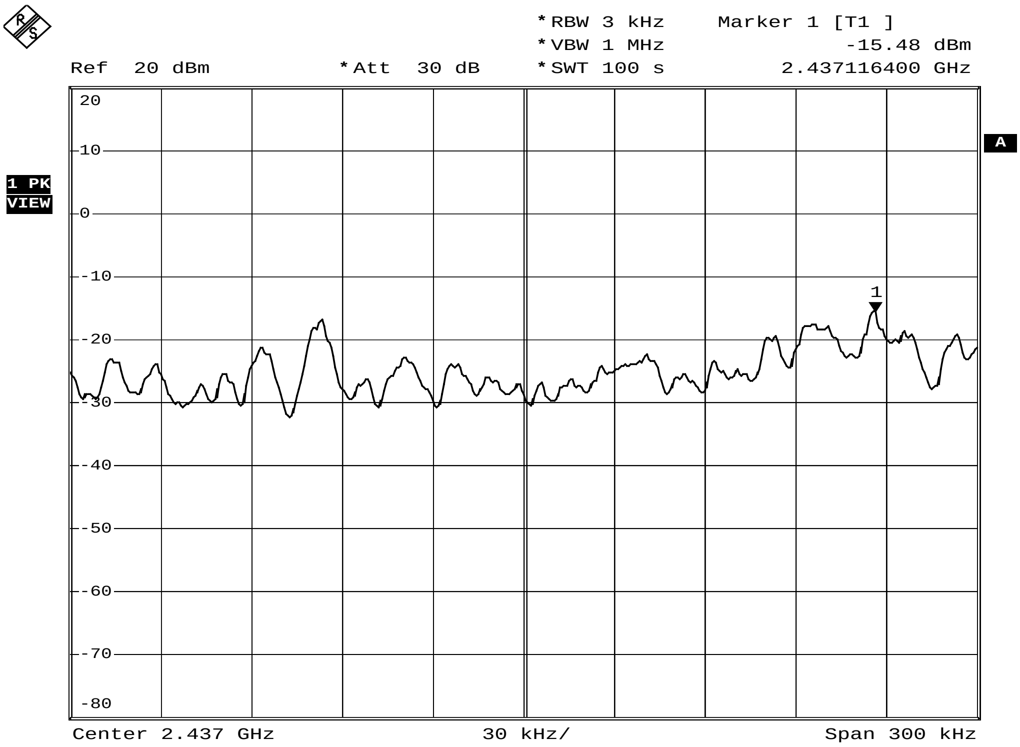

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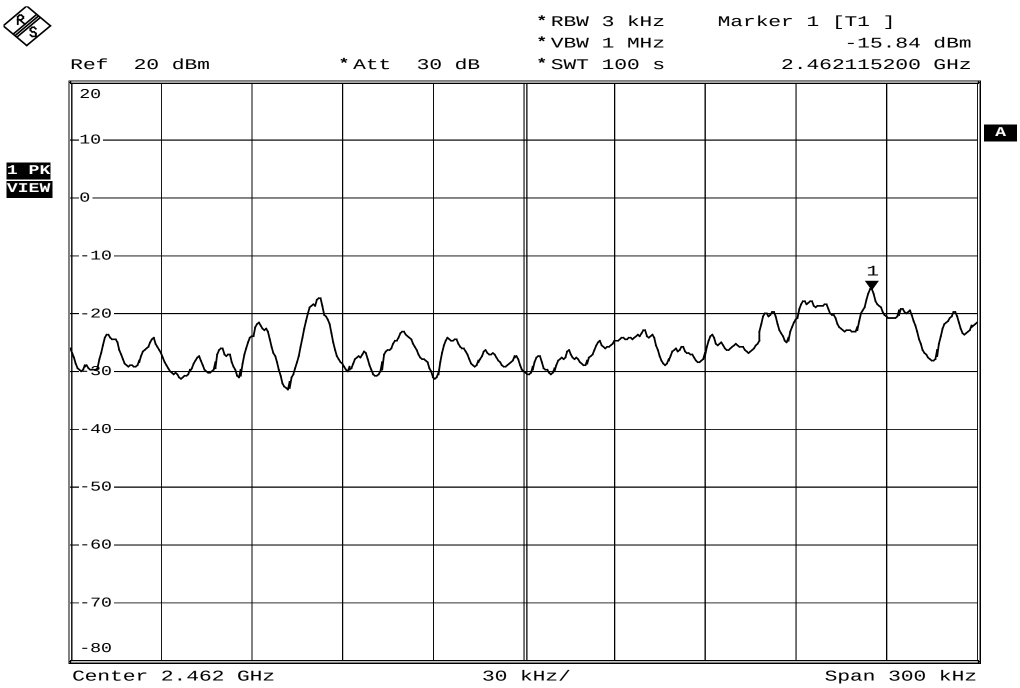
Figure Channel 11:



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