



## Test Report

Product Name	Ultra Mobile PC (UMPC)
Model No.	R2E
FCC ID	MSQR2E

Applicant	ASUSTeK COMPUTER INC.
Address	4FL., No. 150, Li-Te Rd., Peitou, Taipei, Taiwan, R.O.C.

Date of Receipt	July. 18, 2007
Issued Date	Oct. 12, 2007
Report No.	077261R-RFUSP05V01-A

The test results relate only to the samples tested.  
The test report shall not be reproduced except in full without the written approval of Quietek Corporation.  
This report must not be used to claim product endorsement by NVLAP any agency of the U.S. Government

# Test Report Certification

Issued Date: Oct. 12, 2007

Report No.: 077261R-RFUSP05V01-A



Accredited by NIST (NVLAP)  
NVLAP Lab Code: 200533-0

Product Name	Ultra Mobile PC (UMPC)
Applicant	ASUSTeK COMPUTER INC.
Address	4FL., No. 150, Li-Te Rd., Peitou, Taipei, Taiwan, R.O.C.
Manufacturer	ASUSTeK COMPUTER INC.
Model No.	R2E
Rated Voltage	AC 120V/60Hz
Working Voltage	DC 5V
Trade Name	ASUS
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2006 ANSI C63.4: 2003
Test Result	Complied



Test results relate only to the samples tested.

The test report shall not be reproduced except in full without the written approval of Quietek Corporation.

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

Documented By : Leven Huang  
( Engineering Adm. Assistant /  
Leven Huang )



Tested By : Dino Chen  
( Assistant Engineer / Dino Chen )



Approved By : Vincent Lin  
( Deputy Manager / Vincent Lin )

0914

## TABLE OF CONTENTS

Description	Page
<b>1. GENERAL INFORMATION</b>	<b>5</b>
1.1. EUT Description	5
1.2. Operational Description	6
1.3. Tested System Details	7
1.4. Configuration of Test System	7
1.5. EUT Exercise Software	7
1.6. Test Facility	8
<b>2. Conducted Emission</b>	<b>9</b>
2.1. Test Equipment	9
2.2. Test Setup	9
2.3. Limits	9
2.4. Test Procedure	10
2.5. Uncertainty	10
2.6. Test Result of Conducted Emission	11
<b>3. Peak Power Output</b>	<b>15</b>
3.1. Test Equipment	15
3.2. Test Setup	15
3.3. Limits	15
3.4. Test Procedure	15
3.5. Uncertainty	15
3.6. Test Result of Peak Power Output	16
<b>4. Radiated Emission</b>	<b>18</b>
4.1. Test Equipment	18
4.2. Test Setup	19
4.3. Limits	20
4.4. Test Procedure	21
4.5. Uncertainty	21
4.6. Test Result of Radiated Emission	22
<b>5. Band Edge</b>	<b>30</b>
5.1. Test Equipment	30
5.2. Test Setup	30
5.3. Limits	30
5.4. Test Procedure	31
5.5. Uncertainty	31
5.6. Test Result of Band Edge	32
<b>6. Occupied Bandwidth</b>	<b>44</b>
6.1. Test Equipment	44
6.2. Test Setup	44
6.3. Limits	44
6.4. Uncertainty	44
6.5. Test Result of Occupied Bandwidth	45
<b>7. Power Density</b>	<b>51</b>

---

7.1.	Test Equipment.....	51
7.2.	Test Setup .....	51
7.3.	Limits .....	51
7.4.	Uncertainty .....	51
7.5.	Test Result of Power Density .....	52
<b>8.</b>	<b>EMI Reduction Method During Compliance Testing .....</b>	<b>58</b>

Attachment 1: EUT Test Photographs

Attachment 2: EUT Detailed Photographs

## 1. GENERAL INFORMATION

### 1.1. EUT Description

Product Name	Ultra Mobile PC (UMPC)
Trade Name	ASUS
Model No.	R2E
FCC ID.	MSQR2E
Frequency Range	802.11b/g: 2412-2462MHz
Number of Channels	802.11b/g: 11
Data Speed	IEEE 802.11b – 1, 2, 5.5, 11Mbps IEEE 802.11g – 6, 9, 12, 18, 24, 36 48, 54Mbps
Type of Modulation	DSSS/ OFDM
Antenna Type	Chip Antenna
Antenna Connector Type	Solder On PCB
Antenna Gain	Refer to the table “Antenna List”
Channel Control	Auto
Power Adapter	MFR: LI SHIN,M/N:0225A1236 Input: AC 100-240V, 50-60Hz,1.5A Output: DC 12V,3.0A Cable Out: Non-Shielded,1.75m,with one ferrite core bonded. Power Cord: Non-Shielded,1.8m

#### Antenna List

No.	Manufacturer	Part No.	Peak Gain
1	MAG LAYERS/ SMD Antenna	LTA-5824-2G4H2-A1	2.0 dBi for 2.4 GHz

Frequency of Each Channel (802.11b/g):

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

Note:

1. The EUT is Ultra Mobile PC (UMPC) with a built-in 2.4GHz WLAN and Bluetooth transceiver.
2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
3. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report. (802.11b is 1Mbps and 802.11g is 6Mbps)
4. These tests are conducted on a sample for the purpose of demonstrating compliance of 802.11b/g transmitter with Part 15 Subpart C Paragraph 15.247 of spread spectrum devices
5. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.

## 1.2. Operational Description

The EUT is Ultra Mobile PC (UMPC) with a built-in 2.4GHz WLAN and Bluetooth transceiver. There are 11 channels in 2412 – 2462MHz. The channels are separated by 5MHz. This device supports the data rates of 1, 2, 5.5, 11Mbps in 802.11b mode and 6, 9, 12, 18, 24, 36, 48, 54Mbps in 802.11g mode. The signals are modulated by DSSS in 802.11b mode and OFDM in 802.11g mode. The antenna type is Chip.

Test Mode	Mode 1: Transmitter 802.11b
	Mode 2: Transmitter 802.11g

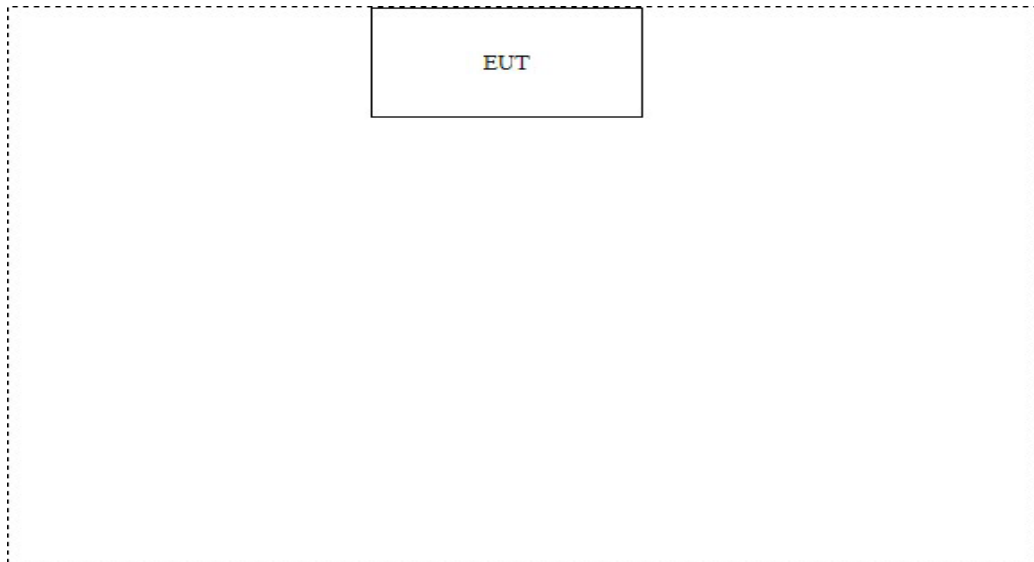
### 1.3. Tested System Details

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

Product	Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
N/A					

Signal Cable Type	Signal cable Description
N/A	

### 1.4. Configuration of Test System



### 1.5. EUT Exercise Software

- 1 Setup the EUT as shown in section 1.4
- 2 Execute the ZD121X Evaluation Tool program (the continuous transmission program) on the EUT.
- 3 Setup the test mode, the test channel, and the data rate.
- 4 Press OK to start the transmission.
- 5 Verify that the EUT works correctly.

**1.6. Test Facility**

Ambient conditions in the laboratory:

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

Site Description: File on  
 Federal Communications Commission  
 FCC Engineering Laboratory  
 7435 Oakland Mills Road  
 Columbia, MD 21046  
 Reference 31040/SIT1300F2



Accreditation on NVLAP  
 NVLAP Lab Code: 200533-0



Site Name: Quietek Corporation  
 Site Address: No. 5-22, Ruei-Shu Valley, Ruei-Ping Tsuen,  
 Lin-Kou Shiang, Taipei,  
 Taiwan, R.O.C.  
 TEL: 886-2-8601-3788 / FAX : 886-2-8601-3789  
 E-Mail : [service@quietek.com](mailto:service@quietek.com)



FCC Accreditation Number: TW1014



## 2. Conducted Emission

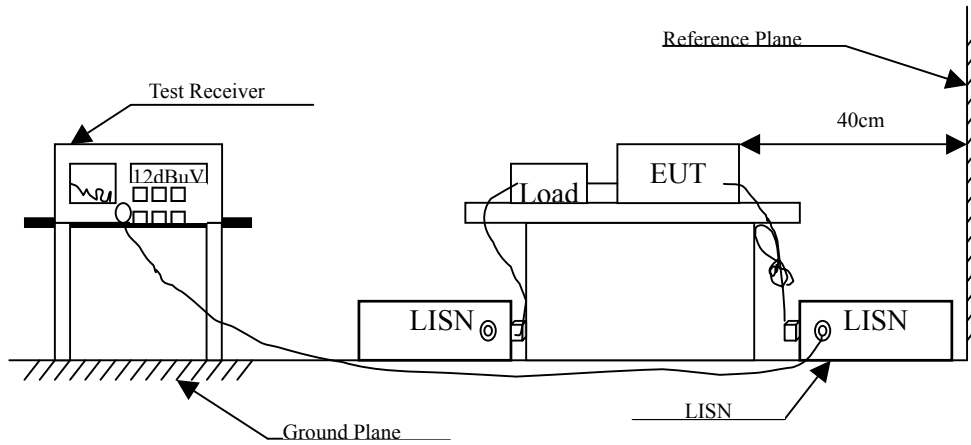
### 2.1. Test Equipment

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

Item	Instrument	Manufacturer	Type No./Serial No	Last Cal.	Remark
1	Test Receiver	R & S	ESCS 30/825442/17	May, 2007	
2	L.I.S.N.	R & S	ESH3-Z5/825016/6	May, 2007	EUT
3	L.I.S.N.	Kyoritsu	KNW-407/8-1420-3	May, 2007	Peripherals
4	Pulse Limiter	R & S	ESH3-Z2	May, 2007	
5	No.1 Shielded Room			N/A	

Note: All instruments are calibrated every one year.

### 2.2. Test Setup



### 2.3. Limits

FCC Part 15 Subpart C Paragraph 15.207 (dBuV) Limit		
Frequency MHz	Limits	
	QP	AVG
0.15 - 0.50	66-56 <sup>(註)</sup>	56-46 <sup>(註)</sup>
0.50-5.0	56	46
5.0 - 30	60	50

## 2.4. Test Procedure

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

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all the interface cables must be changed according the EUT was setup to ANSI C63.4, 2003; tested to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

## 2.5. Uncertainty

± 2.26 dB

## 2.6. Test Result of Conducted Emission

Product : Ultra Mobile PC (UMPC)  
 Test Item : Conducted Emission Test  
 Power Line : Line 1  
 Test Mode : Mode 1: Transmitter 802.11b (2437MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
<b>LINE 1</b>					
<b>Quasi-Peak</b>					
0.220	0.505	45.340	45.845	-18.155	64.000
0.521	0.300	41.630	41.930	-14.070	56.000
0.732	0.310	49.990	50.300	-5.700	56.000
1.563	0.330	29.580	29.910	-26.090	56.000
5.345	0.440	28.660	29.100	-30.900	60.000
18.060	1.060	41.240	42.300	-17.700	60.000
<b>Average</b>					
0.220	0.505	24.950	25.455	-28.545	54.000
0.521	0.300	27.480	27.780	-18.220	46.000
0.732	0.310	41.610	41.920	-4.080	46.000
1.563	0.330	23.450	23.780	-22.220	46.000
5.345	0.440	26.210	26.650	-23.350	50.000
18.060	1.060	41.230	42.290	-7.710	50.000

Note:

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

Product : Ultra Mobile PC (UMPC)  
 Test Item : Conducted Emission Test  
 Power Line : Line 2  
 Test Mode : Mode 1: Transmitter 802.11b (2437MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
<b>LINE 2</b>					
<b>Quasi-Peak</b>					
0.193	0.300	42.560	42.860	-21.911	64.771
0.330	0.300	32.180	32.480	-28.377	60.857
0.522	0.310	29.950	30.260	-25.740	56.000
0.783	0.320	32.090	32.410	-23.590	56.000
2.087	0.350	34.300	34.650	-21.350	56.000
18.064	0.900	41.100	42.000	-18.000	60.000
<b>Average</b>					
0.193	0.300	35.060	35.360	-19.411	54.771
0.330	0.300	26.000	26.300	-24.557	50.857
0.522	0.310	28.370	28.680	-17.320	46.000
0.783	0.320	29.980	30.300	-15.700	46.000
2.087	0.350	32.060	32.410	-13.590	46.000
18.064	0.900	41.090	41.990	-8.010	50.000

Note:

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

Product : Ultra Mobile PC (UMPC)  
 Test Item : Conducted Emission Test  
 Power Line : Line 1  
 Test Mode : Mode 2: Transmitter 802.11g (2437MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
<b>LINE 1</b>					
<b>Quasi-Peak</b>					
0.193	0.698	42.760	43.458	-21.313	64.771
0.326	0.300	33.980	34.280	-26.691	60.971
0.720	0.310	25.740	26.050	-29.950	56.000
5.287	0.440	28.950	29.390	-30.610	60.000
13.255	0.921	29.430	30.351	-29.649	60.000
18.060	1.060	41.050	42.110	-17.890	60.000
<b>Average</b>					
0.193	0.698	33.740	34.438	-20.333	54.771
0.326	0.300	27.720	28.020	-22.951	50.971
0.720	0.310	21.610	21.920	-24.080	46.000
5.287	0.440	26.570	27.010	-22.990	50.000
13.255	0.921	24.620	25.541	-24.459	50.000
18.060	1.060	41.040	42.100	-7.900	50.000

Note:

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

Product : Ultra Mobile PC (UMPC)  
 Test Item : Conducted Emission Test  
 Power Line : Line 2  
 Test Mode : Mode 2: Transmitter 802.11g (2437MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
<b>LINE 2</b>					
<b>Quasi-Peak</b>					
0.197	0.300	43.870	44.170	-20.487	64.657
0.588	0.310	31.870	32.180	-23.820	56.000
1.373	0.330	30.650	30.980	-25.020	56.000
3.002	0.370	35.290	35.660	-20.340	56.000
5.353	0.420	31.840	32.260	-27.740	60.000
18.064	0.900	41.200	42.100	-17.900	60.000
<b>Average</b>					
0.197	0.300	36.470	36.770	-17.887	54.657
0.588	0.310	28.530	28.840	-17.160	46.000
1.373	0.330	29.160	29.490	-16.510	46.000
3.002	0.370	30.990	31.360	-14.640	46.000
5.353	0.420	28.750	29.170	-20.830	50.000
18.064	0.900	41.190	42.090	-7.910	50.000

Note:

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

### 3. Peak Power Output

#### 3.1. Test Equipment

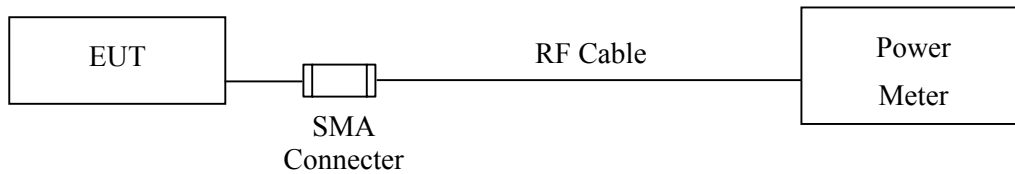
The following test equipments are used during the radiated emission tests:

Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X Power Meter	Anritsu	ML2495A/6K00003357	May, 2007
X Power Sensor	Anritsu	MA2491A/034457	May, 2007

- Note:
1. All instruments are calibrated every one year.
  2. The test instruments marked by “X” are used to measure the final test results.

#### 3.2. Test Setup

##### Conduction Power Measurement



#### 3.3. Limits

The maximum peak power shall be less 1 Watt.

#### 3.4. Test Procedure

- (1) The transmitter output was connected the Power Meter.
- (2) Select the middle channel of the operation band, and measure the peak output power value of each data rate.
- (3) Find out the worst-case data rate of previous procedure, and dependence on which data rate to measure the high and the low channel.

#### 3.5. Uncertainty

± 1.27 dB

### 3.6. Test Result of Peak Power Output

Product : Ultra Mobile PC (UMPC)  
 Test Item : Peak Power Output Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter 802.11b

Peak Power Output						
Channel No.	Frequency (MHz)	Data Rate				Required Limit
		1	2	5.5	11	
1	2412.00	--	--	--	19.88	1Watt= 30 dBm
6	2437.00	19.23	19.32	19.56	19.78	1Watt= 30 dBm
11	2462.00	--	--	--	19.71	1Watt= 30 dBm



Product : Ultra Mobile PC (UMPC)  
 Test Item : Peak Power Output Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmitter 802.11g

Peak Power Output											
Channel No.	Frequency (MHz)	Data Rate								Required Limit	
		6	9	12	18	24	36	48	54		
1	2412.00	--	--	--	--	--	--	--	--	15.01	1Watt= 30 dBm
6	2437.00	14.53	14.58	14.71	14.68	14.75	14.78	14.81	15.03		1Watt= 30 dBm
11	2462.00	--	--	--	--	--	--	--	--	15.02	1Watt= 30 dBm

## 4. Radiated Emission

### 4.1. Test Equipment

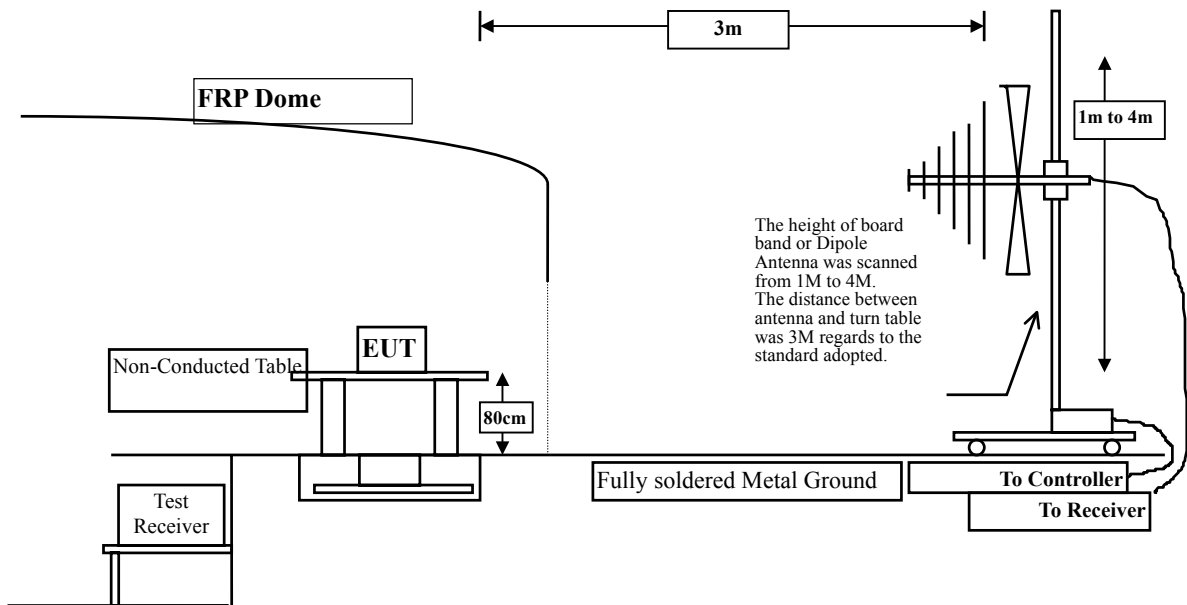
The following test equipment are used during the radiated emission test:

Test Site	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Site # 1	Test Receiver	R & S	ESCS 30 / 825442/14	May, 2007
	Spectrum Analyzer	Advantest	R3261C / 71720140	May, 2007
	Pre-Amplifier	HP	8447D/3307A01812	May, 2007
	Bilog Antenna	Chase	CBL6112B / 12452	Sep., 2007
	Horn Antenna	EM	EM6917 / 103325	May, 2007
Site # 2	Test Receiver	R & S	ESCS 30 / 825442/17	May, 2007
	Spectrum Analyzer	Advantest	R3261C / 71720609	May, 2007
	Pre-Amplifier	HP	8447D/3307A01814	May, 2007
	Bilog Antenna	Chase	CBL6112B / 2455	Sep., 2007
	Horn Antenna	EM	EM6917 / 103325	May, 2007
Site # 3	X Test Receiver	R & S	ESI 26 / 838786 / 004	May, 2007
	X Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2007
	X Bilog Antenna	SCHAFFNER	CBL6112B / 2697	May, 2007
	X Horn Antenna	Schwarzbeck	BBHA9120D / 305, 306	July, 2007
	X Horn Antenna	Schwarzbeck	BBHA9170 / 208, 209	July, 2007
	X Pre-Amplifier	QTK	QTK-AMP-01 / 0001	July, 2007
	X Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2007
	X Pre-Amplifier	HP	8449B / 3008A01123	July, 2007

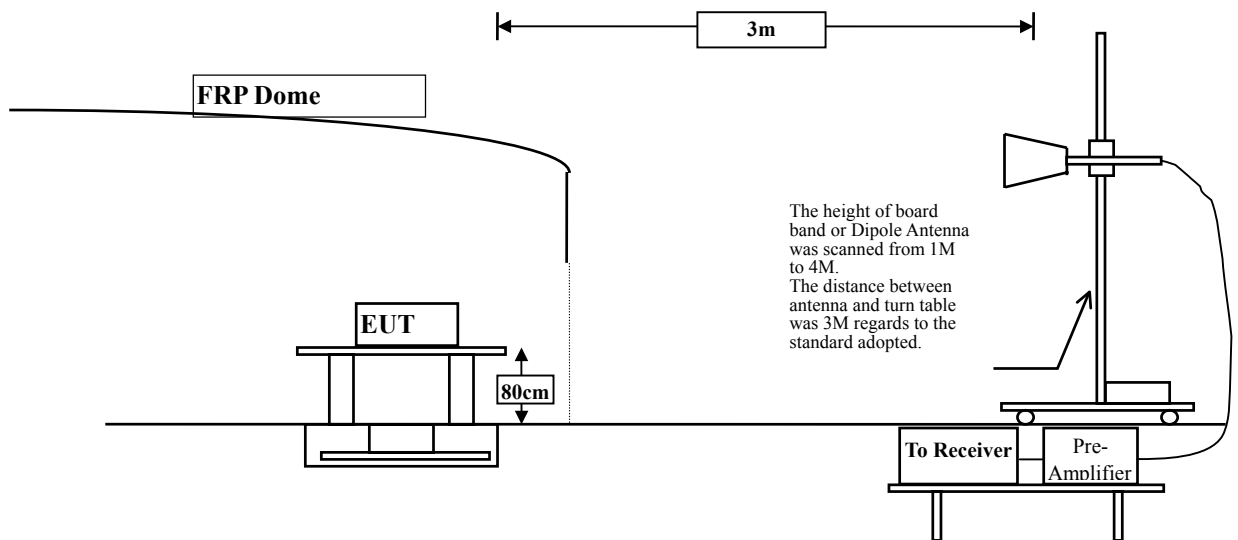
- Note:
1. All instruments are calibrated every one year.
  2. The test instruments marked by "X" are used to measure the final test results.

### 4.2. Test Setup

Below 1GHz



Above 1GHz



### 4.3. Limits

#### ➤ General Radiated Emission Limits

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

<b>FCC Part 15 Subpart C Paragraph 15.209(a) Limits</b>		
Frequency MHz	uV/m @3m	dBuV/m@3m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

- Remarks :
1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
  2. In the Above Table, the tighter limit applies at the band edges.
  3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

#### 4.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4, 2003; tested to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements. The additional latch filter below 1GHz was used to measure the level of harmonics radiated emission during field strength of harmonics measurement.

The bandwidth below 1GHz setting on the field strength meter is 120 kHz, above 1GHz are 1 MHz. The frequency range from 30MHz to 10th harmonics is checked.

#### 4.5. Uncertainty

± 3.9 dB above 1GHz

± 3.8 dB below 1GHz

#### 4.6. Test Result of Radiated Emission

Product : Ultra Mobile PC (UMPC)  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter 802.11b (2412MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
4824.000	5.362	49.670	55.031	-18.969	74.000
7236.000	11.867	40.230	52.097	-21.903	74.000
9648.000	15.856	36.843	52.699	-21.301	74.000
<b>Average Detector:</b>					
4824.000	5.362	36.970	42.331	-11.669	54.000
<b>Vertical</b>					
<b>Peak Detector:</b>					
4824.000	5.362	49.730	55.091	-18.909	74.000
7236.000	11.867	40.980	52.847	-21.153	74.000
9648.000	15.856	37.168	53.024	-20.976	74.000
<b>Average Detector:</b>					
4824.000	5.362	37.480	42.841	-11.159	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz °
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz °
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : Ultra Mobile PC (UMPC)  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter 802.11b (2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
4874.000	5.465	50.060	55.526	-18.474	74.000
7311.000	12.030	40.090	52.120	-21.880	74.000
9748.000	16.070	35.997	52.067	-21.933	74.000
<b>Average Detector:</b>					
4874.000	5.465	36.330	41.796	-12.204	54.000
<b>Vertical</b>					
<b>Peak Detector:</b>					
4874.000	5.465	50.200	55.666	-18.334	74.000
7311.000	12.030	40.450	52.480	-21.520	74.000
9748.000	16.070	36.278	52.348	-21.652	74.000
<b>Average Detector:</b>					
4874.000	5.465	37.790	43.256	-10.744	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz ◦
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz ◦
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : Ultra Mobile PC (UMPC)  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter 802.11b (2462 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBUV	Measurement Level dBUV/m	Margin dB	Limit dBUV/m
<b>Horizontal</b>					
<b>Peak Detector:</b>					
4924.000	5.578	49.440	55.017	-18.983	74.000
7386.000	12.211	39.960	52.172	-21.828	74.000
9848.000	16.292	36.402	52.694	-21.306	74.000
<b>Average Detector:</b>					
4924.000	5.578	36.430	42.007	-11.993	54.000
<b>Vertical</b>					
<b>Peak Detector:</b>					
4924.000	5.578	50.250	55.827	-18.173	74.000
7386.000	12.211	39.620	51.832	-22.168	74.000
9848.000	16.292	36.916	53.208	-20.792	74.000
<b>Average Detector:</b>					
4924.000	5.578	38.020	43.597	-10.403	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz °
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz °
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.



Product : Ultra Mobile PC (UMPC)  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmitter 802.11g (2412MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level	dB	dBuV/m
	dB	dBuV	dBuV/m		

**Horizontal**
**Peak Detector:**

4824.000	5.362	46.010	51.371	-22.629	74.000
7236.000	11.867	39.890	51.757	-22.243	74.000
9648.000	15.856	36.146	52.002	-21.998	74.000

**Average Detector:**

--

**Vertical**
**Peak Detector:**

4824.000	5.362	47.090	52.451	-21.549	74.000
7236.000	11.867	39.310	51.177	-22.823	74.000
9648.000	15.856	37.456	53.312	-20.688	74.000

**Average Detector:**

--

**Note:**

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz °
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz °
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : Ultra Mobile PC (UMPC)  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmitter 802.11g (2437 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level	dB	dBuV/m
	dB	dBuV	dBuV/m		

**Horizontal**
**Peak Detector:**

4874.000	5.465	46.360	51.826	-22.174	74.000
7311.000	12.030	39.740	51.770	-22.230	74.000
9748.000	16.070	36.573	52.643	-21.357	74.000

**Average Detector:**

--

**Vertical**
**Peak Detector:**

4874.000	5.465	47.230	52.696	-21.304	74.000
7311.000	12.030	40.010	52.040	-21.960	74.000
9748.000	16.070	37.137	53.207	-20.793	74.000

**Average Detector:**

--

**Note:**

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz °
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz °
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : Ultra Mobile PC (UMPC)  
 Test Item : Harmonic Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmitter 802.11g (2462 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level	dB	dBuV/m
	dB	dBuV	dBuV/m		
<b>Horizontal</b>					
<b>Peak Detector:</b>					
4924.000	5.578	46.210	51.787	-22.213	74.000
7326.000	12.071	39.570	51.641	-22.359	74.000
9848.000	16.292	36.330	52.622	-21.378	74.000
<b>Average Detector:</b>					
--					
<b>Vertical</b>					
<b>Peak Detector:</b>					
4924.000	5.578	46.590	52.167	-21.833	74.000
7386.000	12.211	39.680	51.892	-22.108	74.000
9848.000	16.292	36.922	53.214	-20.786	74.000
<b>Average Detector:</b>					
--					

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. Receiver setting (Peak Detector) : RBW:1MHz; VBW:1MHz; Span:100MHz °
3. Receiver setting (AVG Detector) : RBW:1MHz; VBW:30Hz; Span:20MHz °
4. Emission Level = Reading Level + Correct Factor.
5. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Product : Ultra Mobile PC (UMPC)  
 Test Item : General Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter 802.11b (2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
239.940	-8.943	42.050	33.107	-12.893	46.000
360.461	-3.956	35.670	31.714	-14.286	46.000
566.513	2.630	27.293	29.924	-16.076	46.000
599.559	4.191	27.192	31.383	-14.617	46.000
817.275	4.780	24.871	29.651	-16.349	46.000
976.673	5.380	23.492	28.872	-25.128	54.000
<b>Vertical</b>					
239.940	-3.062	37.043	33.981	-12.019	46.000
358.517	-5.063	31.129	26.066	-19.934	46.000
566.513	-0.031	27.696	27.666	-18.334	46.000
630.661	1.254	25.453	26.708	-19.292	46.000
805.611	3.158	24.430	27.588	-18.412	46.000
935.852	5.709	23.657	29.366	-16.634	46.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The radiated emissions below 1GHz of the lowest, middle, highest frequency are pretested. Only the worst case is shown on the report.

Product : Ultra Mobile PC (UMPC)  
 Test Item : General Radiated Emission Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmitter 802.11g (2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
<b>Horizontal</b>					
241.884	-8.796	37.820	29.023	-16.977	46.000
300.200	-7.788	34.523	26.735	-19.265	46.000
430.441	-1.102	24.636	23.534	-22.466	46.000
564.569	2.534	26.285	28.819	-17.181	46.000
755.070	3.866	23.920	27.786	-18.214	46.000
961.122	5.214	24.093	29.307	-24.693	54.000
<b>Vertical</b>					
428.497	-2.030	28.286	26.256	-19.744	46.000
566.513	-0.031	29.050	29.020	-16.980	46.000
617.054	1.079	25.345	26.424	-19.576	46.000
797.836	2.967	23.547	26.514	-19.486	46.000
931.964	5.666	23.728	29.394	-16.606	46.000
992.224	6.090	23.789	29.879	-24.121	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. “█” means the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The radiated emissions below 1GHz of the lowest, middle, highest frequency are pretested. Only the worst case is shown on the report.

## 5. Band Edge

### 5.1. Test Equipment

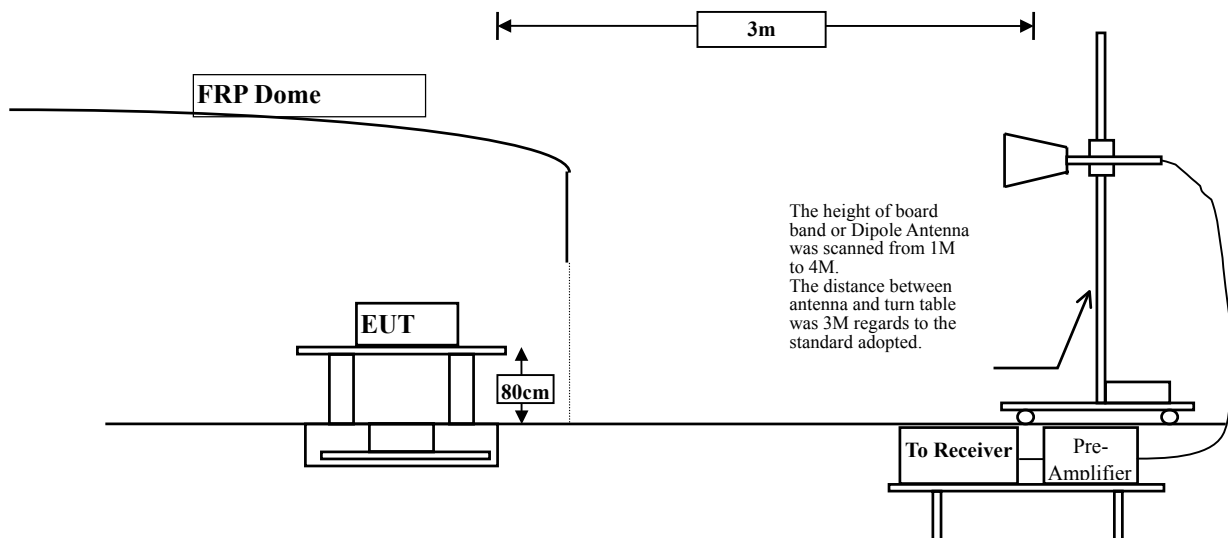
The following test equipments are used during the band edge tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Test Receiver	R & S	ESI 26 / 838786 / 004	May, 2007
X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2007
X	Bilog Antenna	SCHAFFNER	CBL6112B / 2697	May, 2007
X	Horn Antenna	Schwarzbeck	BBHA9120D / 305, 306	July, 2007
X	Horn Antenna	Schwarzbeck	BBHA9170 / 208, 209	July, 2007
X	Pre-Amplifier	QTK	QTK-AMP-01 / 0001	July, 2007
X	Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2007
X	Pre-Amplifier	HP	8449B / 3008A01123	July, 2007

- Note:
1. All instruments are calibrated every one year.
  2. The test instruments marked by "X" are used to measure the final test results.

### 5.2. Test Setup

#### RF Radiated Measurement:



### 5.3. Limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at

least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on 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)).

#### **5.4. Test Procedure**

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4, 2003; tested to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements. The bandwidth below 1GHz setting on the field strength meter is 120 kHz, above 1GHz are 1 MHz.

#### **5.5. Uncertainty**

± 3.9 dB above 1GHz

± 3.8 dB below 1GHz

### 5.6. Test Result of Band Edge

Product : Ultra Mobile PC (UMPC)  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter 802.11b (2412MHz)

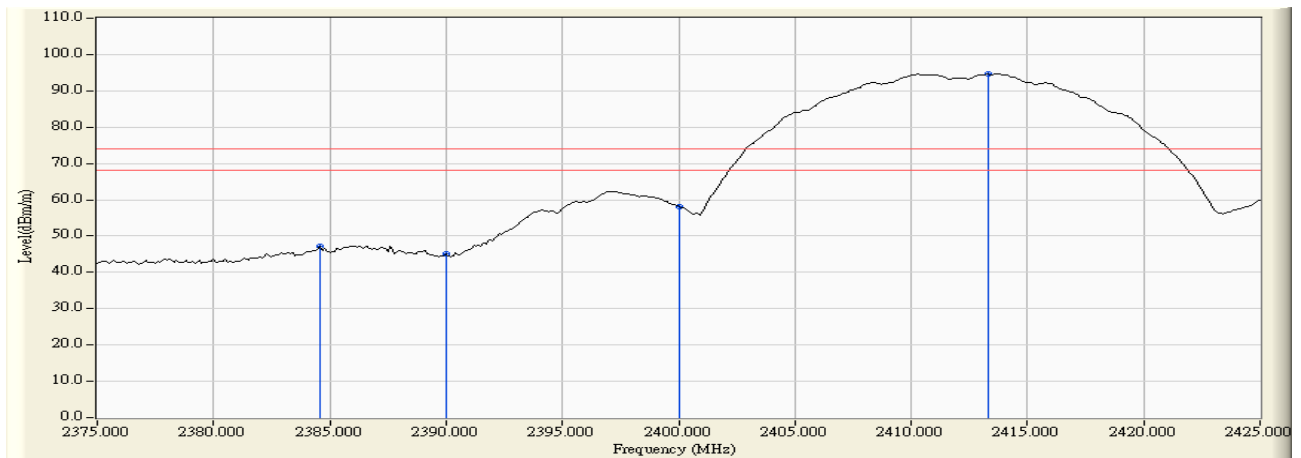
**RF Radiated Measurement:**

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

**RF Radiated Measurement (Horizontal):**

Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
1 (Peak)	2384.600	-2.404	49.729	47.325	74.00	54.00	Pass
1 (Peak)	2390.000	-2.378	47.471	45.094	74.00	54.00	Pass
1 (Peak)	2400.000	-2.328	60.497	58.169	74.00	54.00	Pass
1 (Peak)	2413.300	-2.262	96.819	94.557	74.00	54.00	Pass

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



Note: RBW=1MHz, VBW=1MHz, Sweep Time=500ms.



Product : Ultra Mobile PC (UMPC)  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter 802.11b (2412MHz)

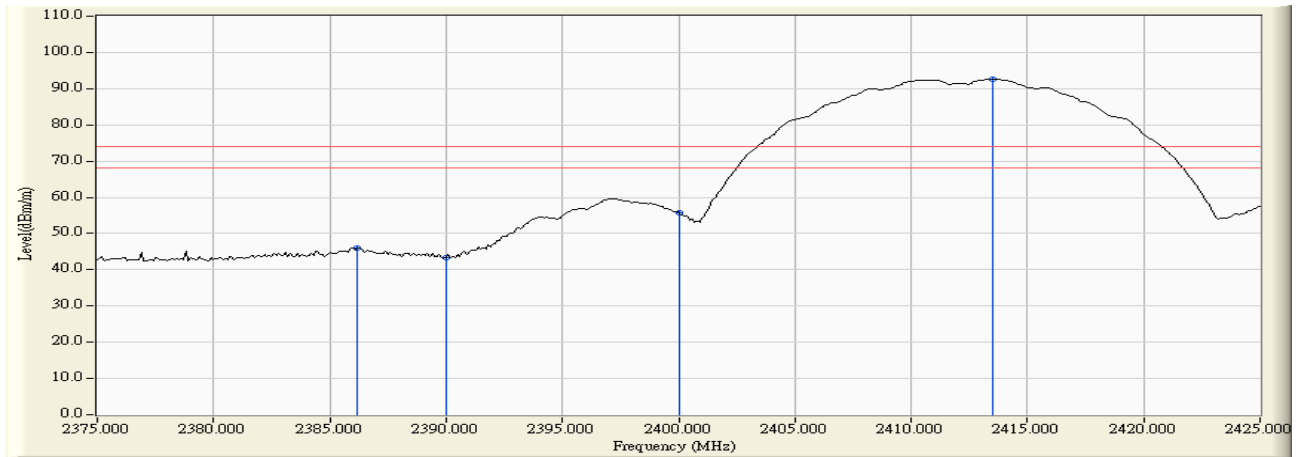
**RF Radiated Measurement:**

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

**RF Radiated Measurement (Vertical):**

Channel	Frequency (MHz)	Correct Fcator (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
1 (Peak)	2386.200	-2.395	48.468	46.072	74.00	54.00	Pass
1 (Peak)	2390.000	-2.378	45.639	43.262	74.00	54.00	Pass
1 (Peak)	2400.000	-2.328	57.981	55.653	74.00	54.00	Pass
1 (Peak)	2413.500	-2.260	94.772	92.511	74.00	54.00	Pass

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



Note: RBW=1MHz, VBW=1MHz, Sweep Time=500ms.

Product : Ultra Mobile PC (UMPC)  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter 802.11b (2462MHz)

**RF Radiated Measurement:**

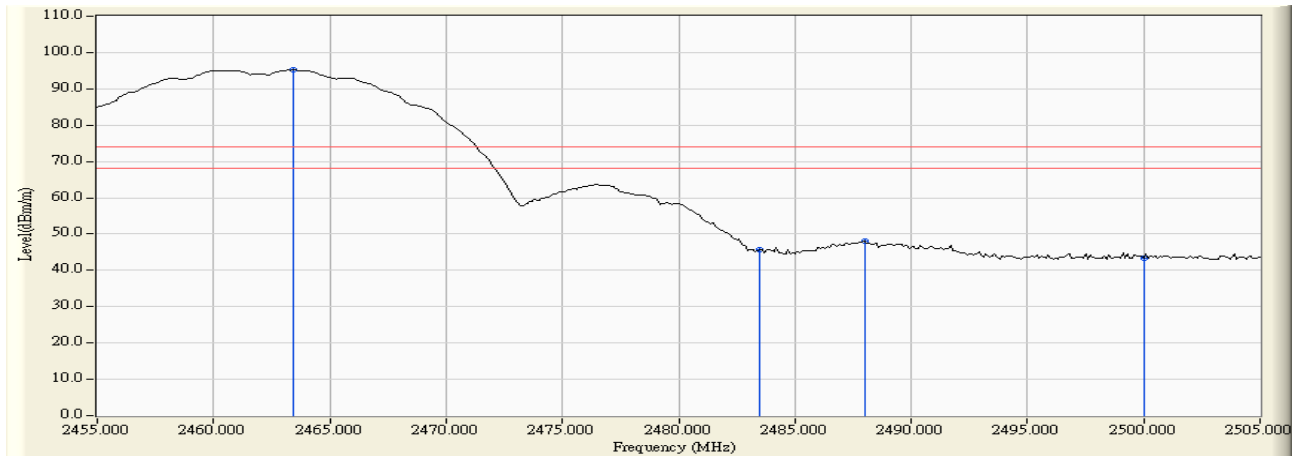
Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
11 (Horizontal)	>2483.5	>20	Pass

**RF Radiated Measurement (Horizontal):**

Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11(Peak)	2463.400	-2.026	97.189	95.162	74.00	54.00	Pass
11(Peak)	2483.500	-1.937	47.631	45.694	74.00	54.00	Pass
11(Peak)	2488.000	-1.922	49.854	47.931	74.00	54.00	Pass
11(Peak)	2500.000	-1.886	45.178	43.292	74.00	54.00	Pass

**Figure Channel 11:**

**Horizontal (Peak)**



Note: RBW=1MHz, VBW=1MHz, Sweep Time=500ms

Product : Ultra Mobile PC (UMPC)  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter 802.11b (2462MHz)

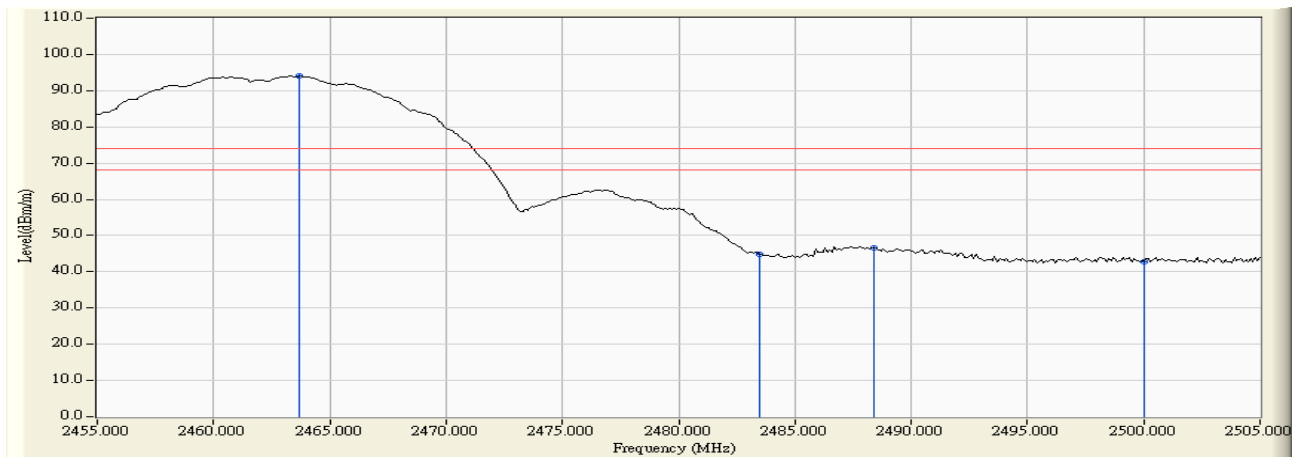
**RF Radiated Measurement:**

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
11 (Vertical)	>2483.5	>20	Pass

**RF Radiated Measurement (Vertical):**

Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11(Peak)	2463.700	-2.025	96.001	93.976	74.00	54.00	Pass
11(Peak)	2483.500	-1.937	46.794	44.857	74.00	54.00	Pass
11(Peak)	2488.400	-1.921	48.646	46.724	74.00	54.00	Pass
11(Peak)	2500.000	-1.886	44.728	42.842	74.00	54.00	Pass

**Figure Channel 11: Vertical (Peak)**



Note: RBW=1MHz, VBW=1MHz, Sweep Time=500ms.

Product : Ultra Mobile PC (UMPC)  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmitter 802.11g (2412MHz)

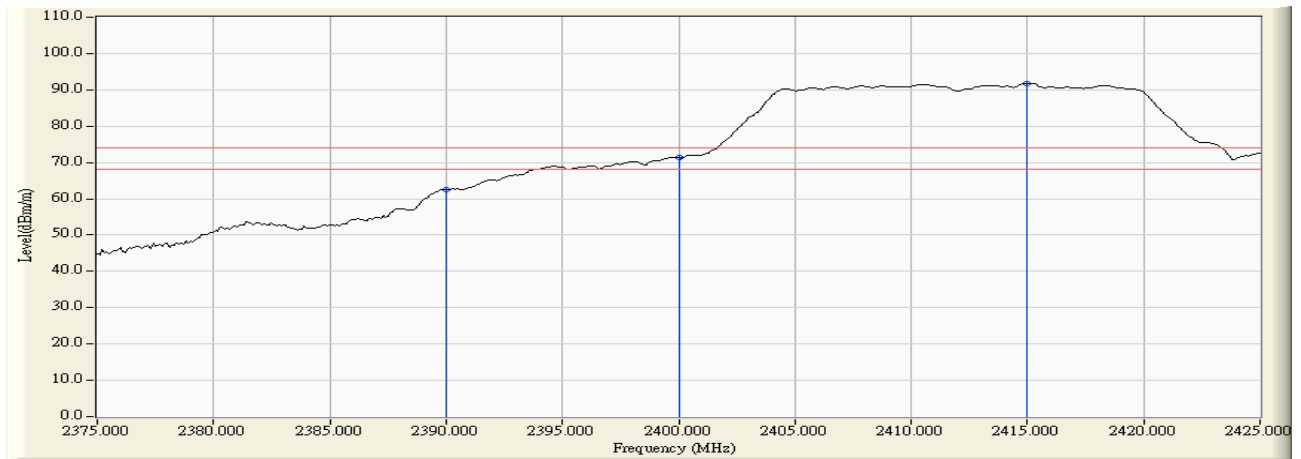
**RF Radiated Measurement:**

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

**RF Radiated Measurement (Horizontal):**

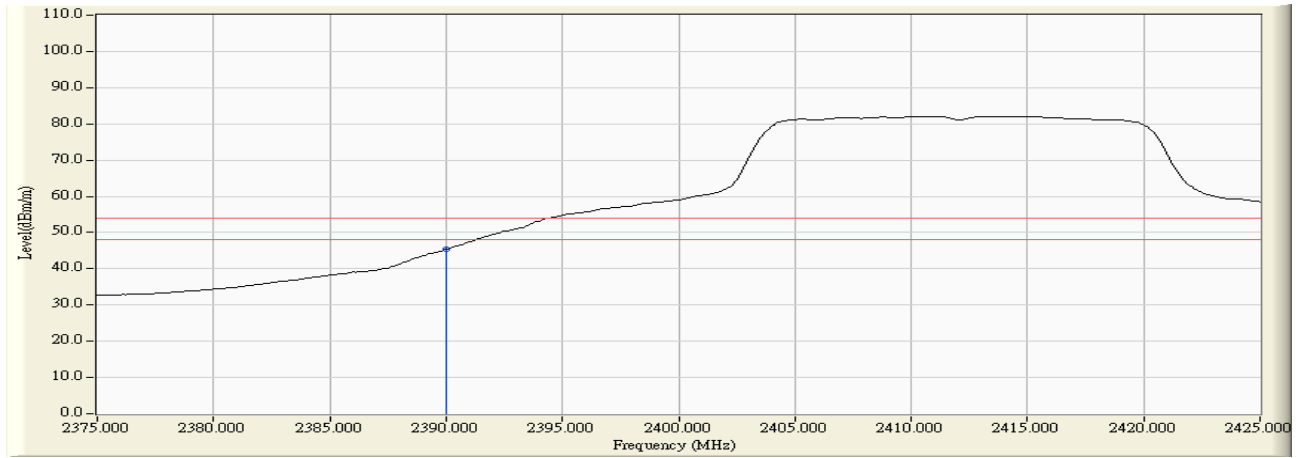
Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
1 (Peak)	2390.000	29.620	64.938	62.561	74.00	54.00	Pass
1 (Peak)	2400.000	29.666	73.658	71.330	74.00	54.00	Pass
1 (Peak)	2415.000	29.734	94.034	91.781	74.00	54.00	Pass
1 (Average)	2390.000	-2.378	47.672	45.295	74.00	54.00	Pass

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



Note: RBW=1MHz, VBW=1MHz, Sweep Time=500ms.

Figure Channel 1: Horizontal (Average)



Note: RBW=1MHz, VBW=30Hz, Sweep Time=500ms.

Product : Ultra Mobile PC (UMPC)  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmitter 802.11g (2412MHz)

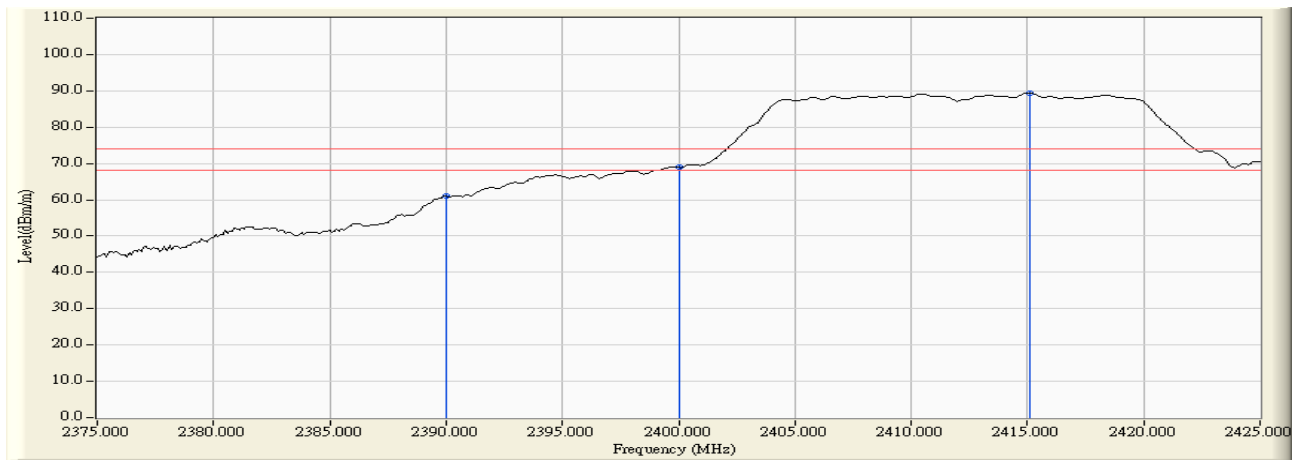
**RF Radiated Measurement:**

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

**RF Radiated Measurement (Vertical):**

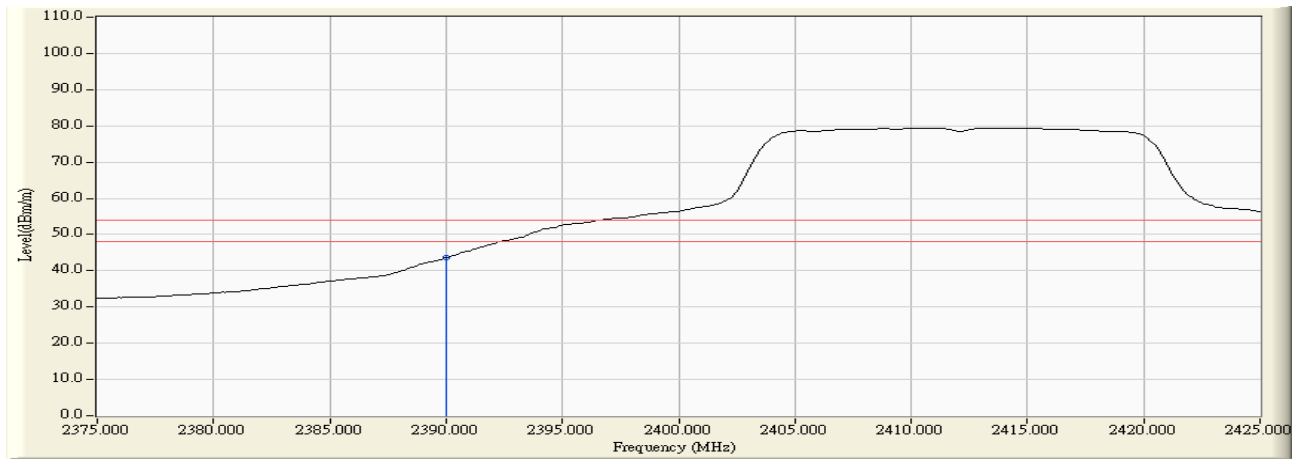
Channel	Frequency (MHz)	Correct Fcator (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
1 (Peak)	2390.000	-2.378	63.279	60.902	74.00	54.00	Pass
1 (Peak)	2400.000	-2.328	71.240	68.912	74.00	54.00	Pass
1 (Peak)	2415.100	-2.253	91.557	89.304	74.00	54.00	Pass
1 (Average)	2390.000	-2.378	45.942	43.565	74.00	54.00	Pass

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



Note: RBW=1MHz, VBW=1MHz, Sweep Time=500ms.

Figure Channel 1: Vertical (Average)



Note: RBW=1MHz, VBW=30Hz, Sweep Time=500ms.

Product : Ultra Mobile PC (UMPC)  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmitter 802.11g (2462 MHz)

**RF Radiated Measurement:**

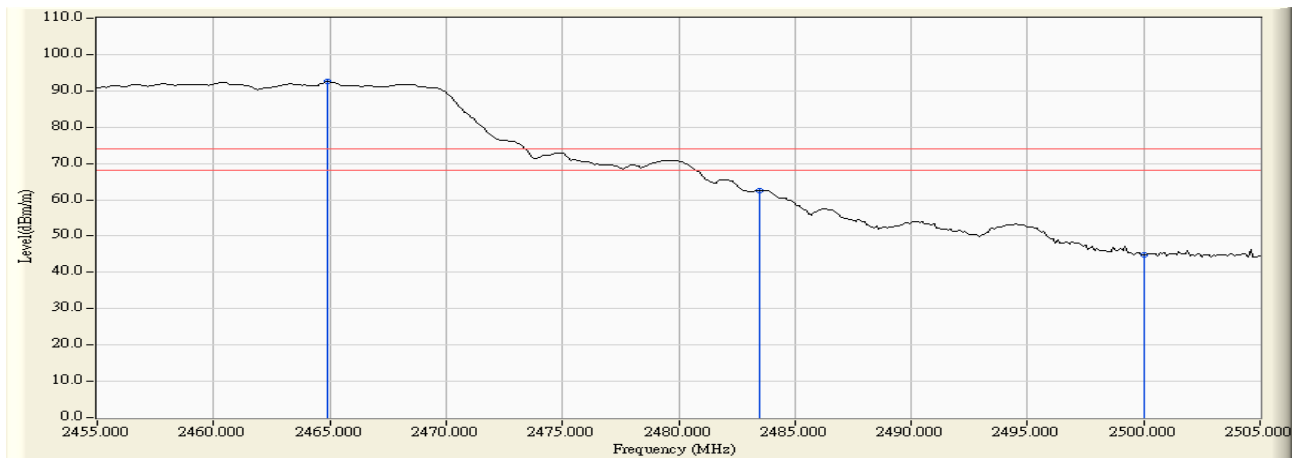
Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
11 (Horizontal)	>2483.5	>20	Pass

**RF Radiated Measurement (Horizontal):**

Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11(Peak)	2464.900	-2.020	94.513	92.493	74.00	54.00	Pass
11(Peak)	2483.500	-1.937	64.532	62.595	74.00	54.00	Pass
11(Peak)	2500.000	-1.886	46.703	44.817	74.00	54.00	Pass
11(Average)	2483.500	-1.937	48.173	46.236	74.00	54.00	Pass

**Figure Channel 11:**

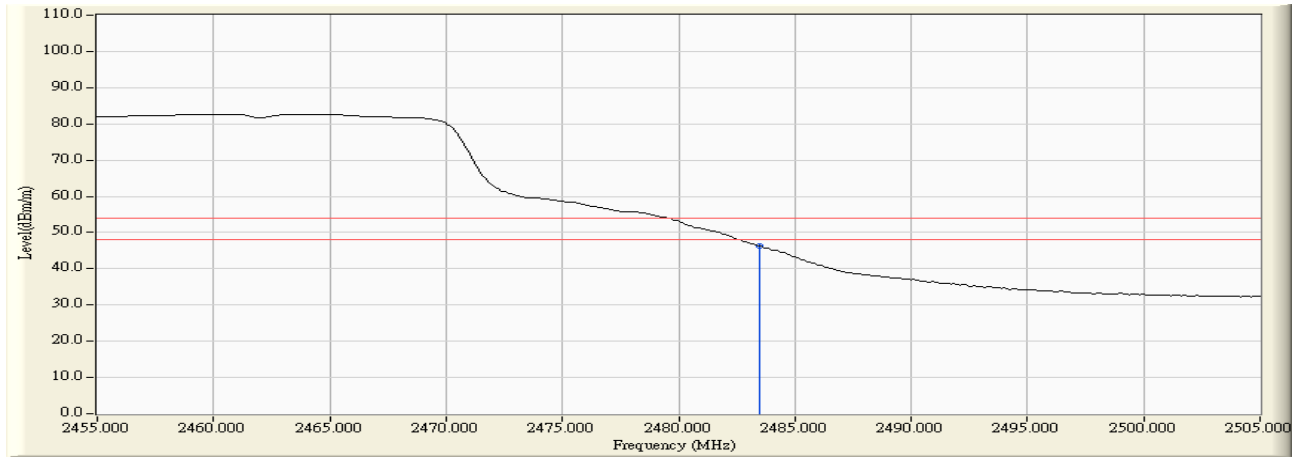
**Horizontal (Peak)**



Note: RBW=1MHz, VBW=1MHz, Sweep Time=500ms



Figure Channel 11: Horizontal (Average)



Note: RBW=1MHz, VBW=30Hz, Sweep Time=500ms

Product : Ultra Mobile PC (UMPC)  
 Test Item : Band Edge Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmitter 802.11g ( 2462 MHz)

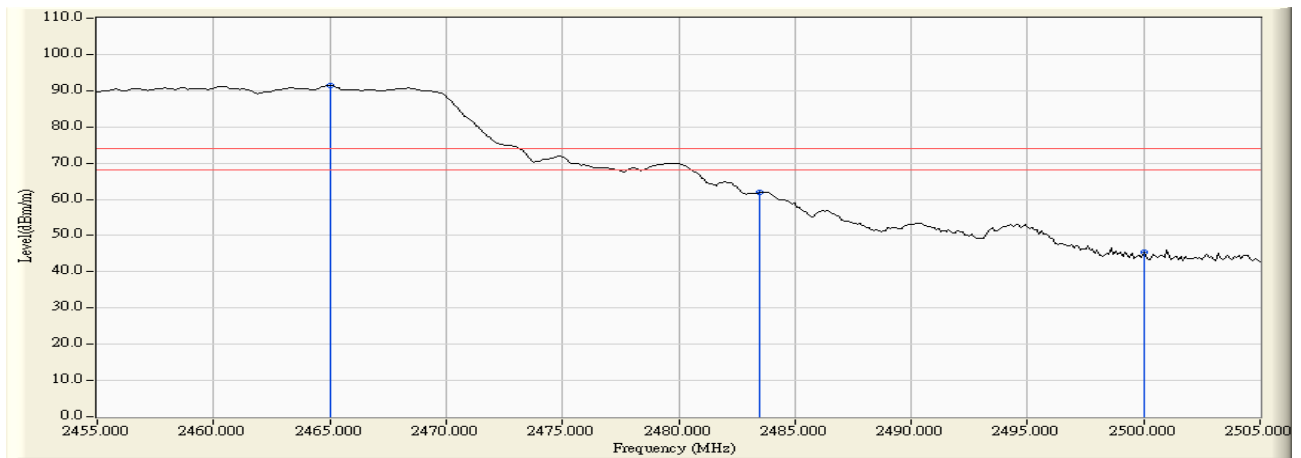
**RF Radiated Measurement:**

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
11 (Vertical)	>2483.5	>20	Pass

**RF Radiated Measurement (Vertical):**

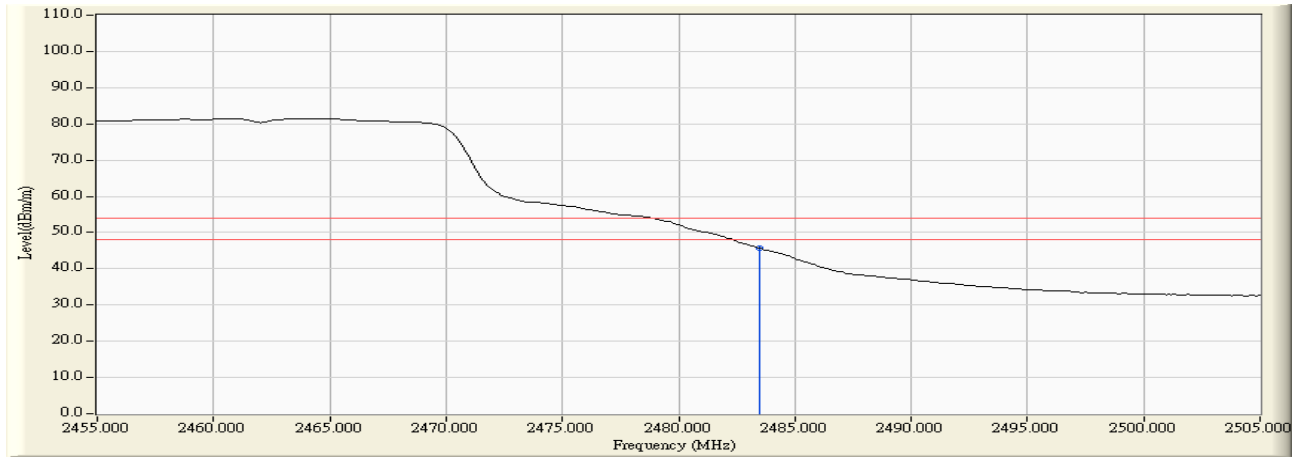
Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11(Peak)	2465.000	-2.020	93.343	91.324	74.00	54.00	Pass
11(Peak)	2483.500	-1.937	63.951	62.014	74.00	54.00	Pass
11(Peak)	2500.000	-1.886	47.192	45.306	74.00	54.00	Pass
11(Average)	2483.500	-1.937	47.621	45.684	74.00	54.00	Pass

**Figure Channel 11: Vertical (Peak)**



Note: RBW=1MHz, VBW=1MHz, Sweep Time=500ms.

Figure Channel 11: Vertical (Average)



Note: RBW=1MHz, VBW=30Hz, Sweep Time=500ms.

## 6. Occupied Bandwidth

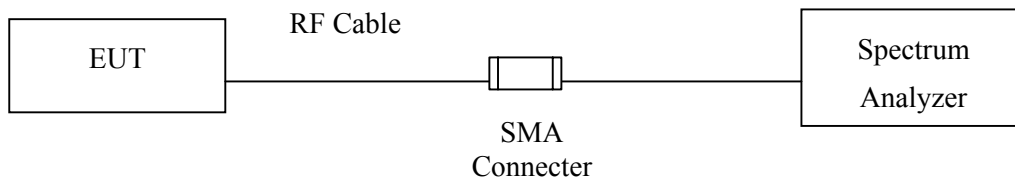
### 6.1. Test Equipment

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

Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2007

- Note:
1. All instruments are calibrated every one year.
  2. The test instruments marked by “X” are used to measure the final test results.

### 6.2. Test Setup



### 6.3. Limits

The minimum bandwidth shall be at least 500kHz.

### 6.4. Uncertainty

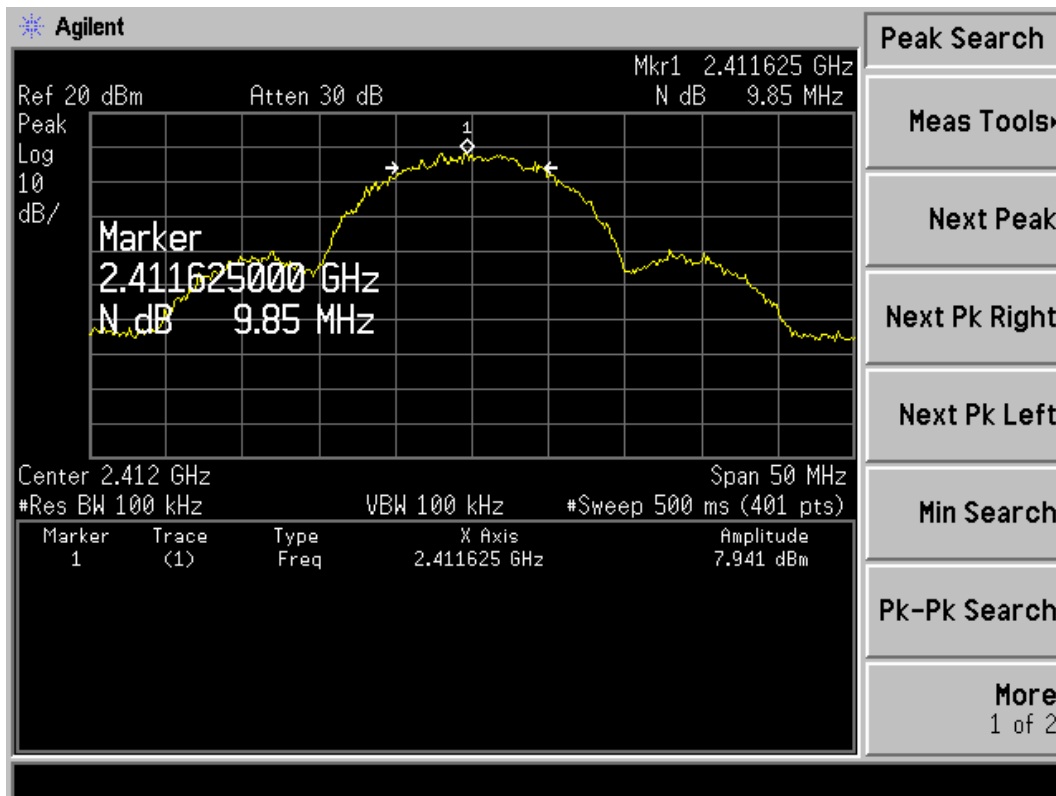
$\pm 150\text{Hz}$

### 6.5. Test Result of Occupied Bandwidth

Product : Ultra Mobile PC (UMPC)  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter 802.11b (2412MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1 (11Mbps)	2412.00	9850	>500	Pass

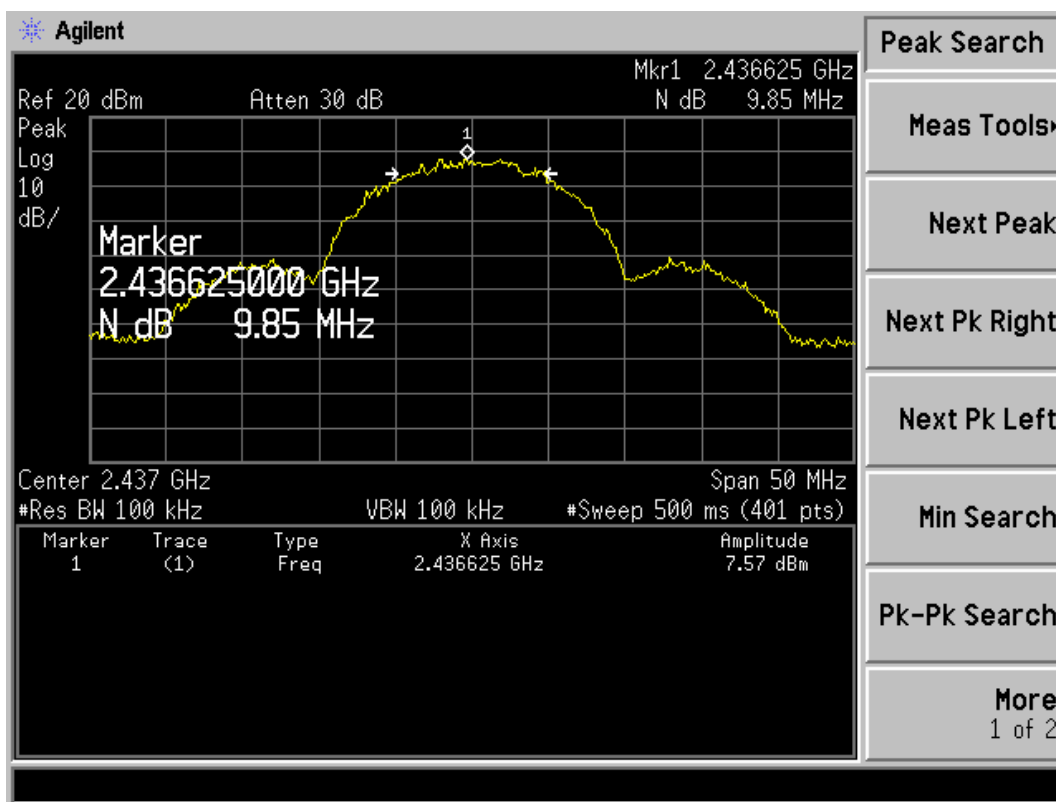
**Figure Channel 1:**



Product : Ultra Mobile PC (UMPC)  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter 802.11b (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6 (11Mbps)	2437.00	9850	>500	Pass

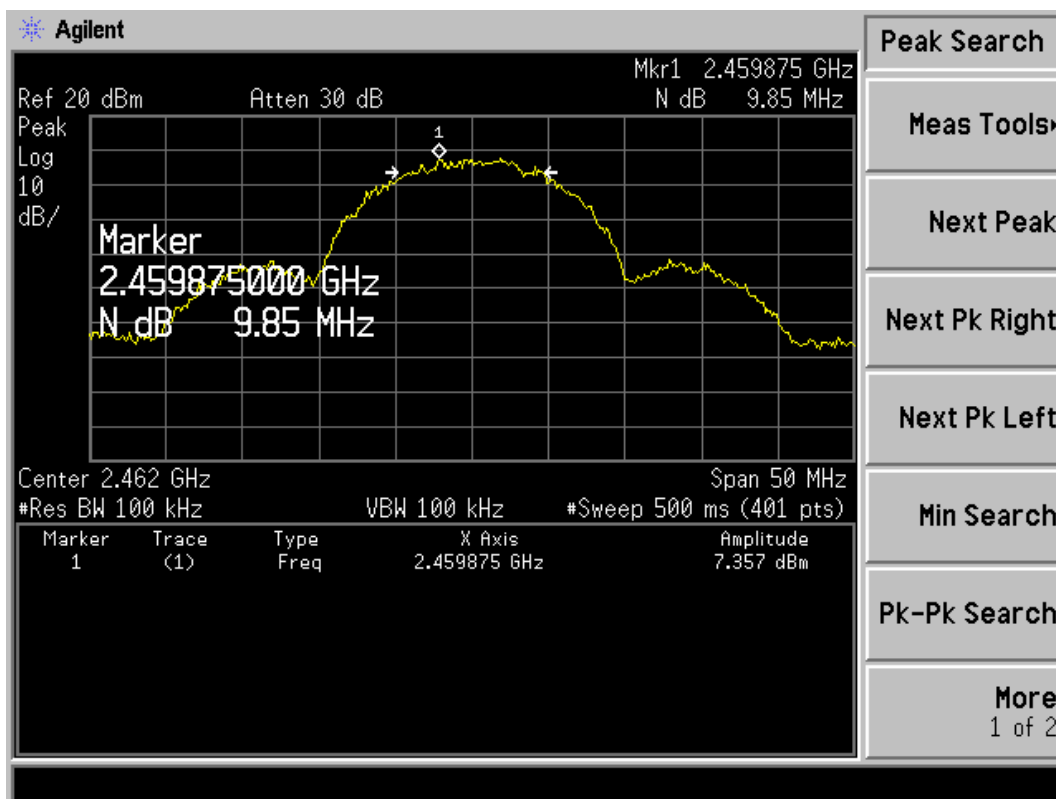
**Figure Channel 6:**



Product : Ultra Mobile PC (UMPC)  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter 802.11b (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11 (11Mbps)	2462.00	9850	>500	Pass

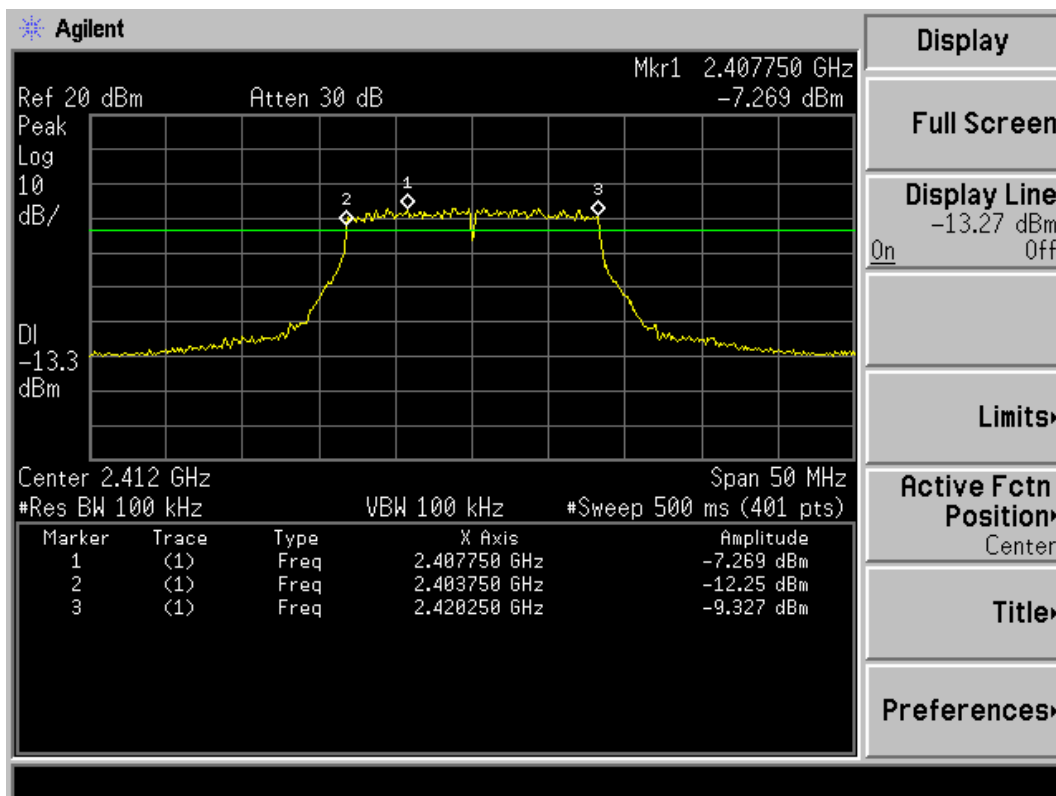
**Figure Channel 11:**



Product : Ultra Mobile PC (UMPC)  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmitter 802.11g (2412MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1 (54Mbps)	2412.00	16500	>500	Pass

**Figure Channel 1:**

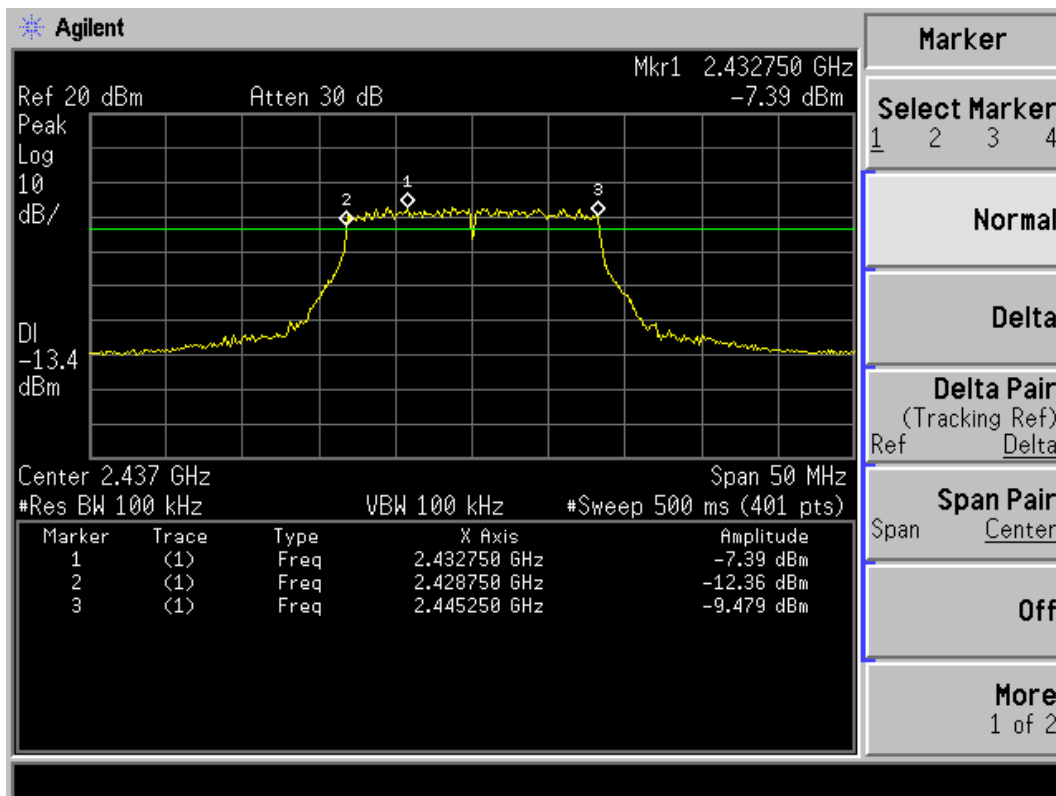




Product : Ultra Mobile PC (UMPC)  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmitter 802.11g (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6 (54Mbps)	2437.00	16500	>500	Pass

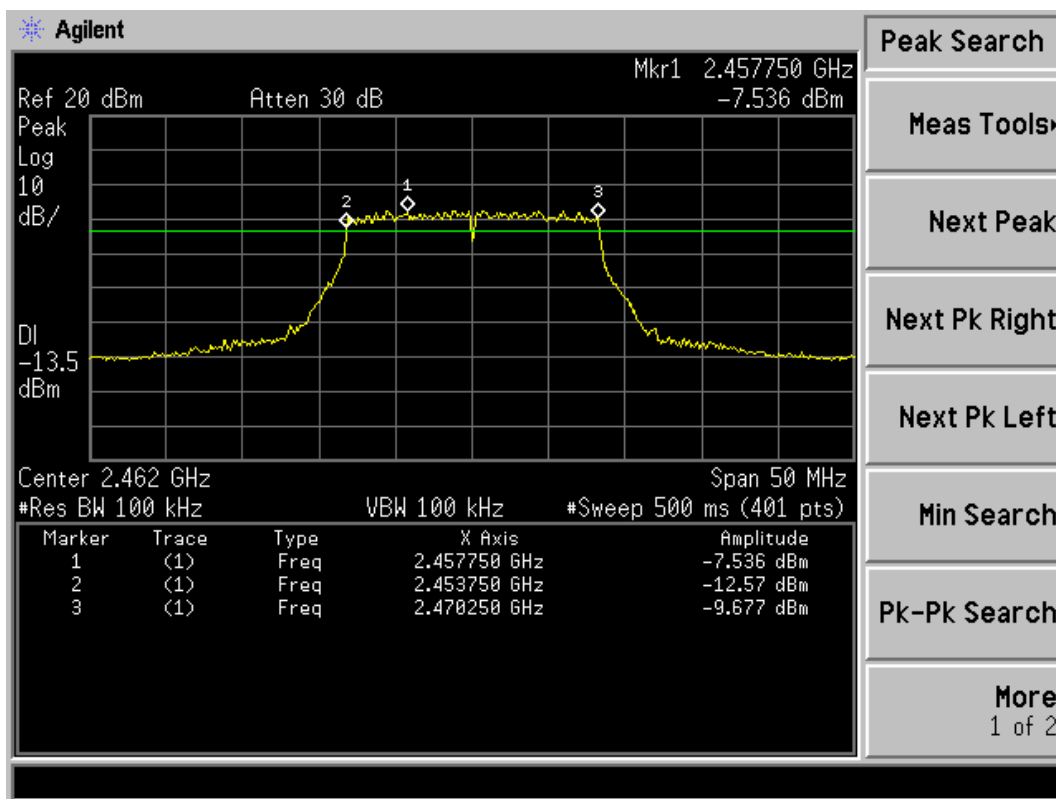
**Figure Channel 6:**



Product : Ultra Mobile PC (UMPC)  
 Test Item : Occupied Bandwidth Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmitter 802.11g (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11 (54Mbps)	2462.00	16500	>500	Pass

**Figure Channel 11:**



## 7. Power Density

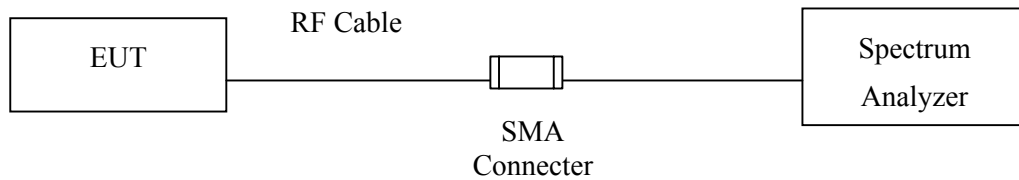
### 7.1. Test Equipment

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

Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2007

- Note:
1. All equipments are calibrated every one year.
  2. The test instruments marked by “X” are used to measure the final test results.

### 7.2. Test Setup



### 7.3. Limits

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

### 7.4. Uncertainty

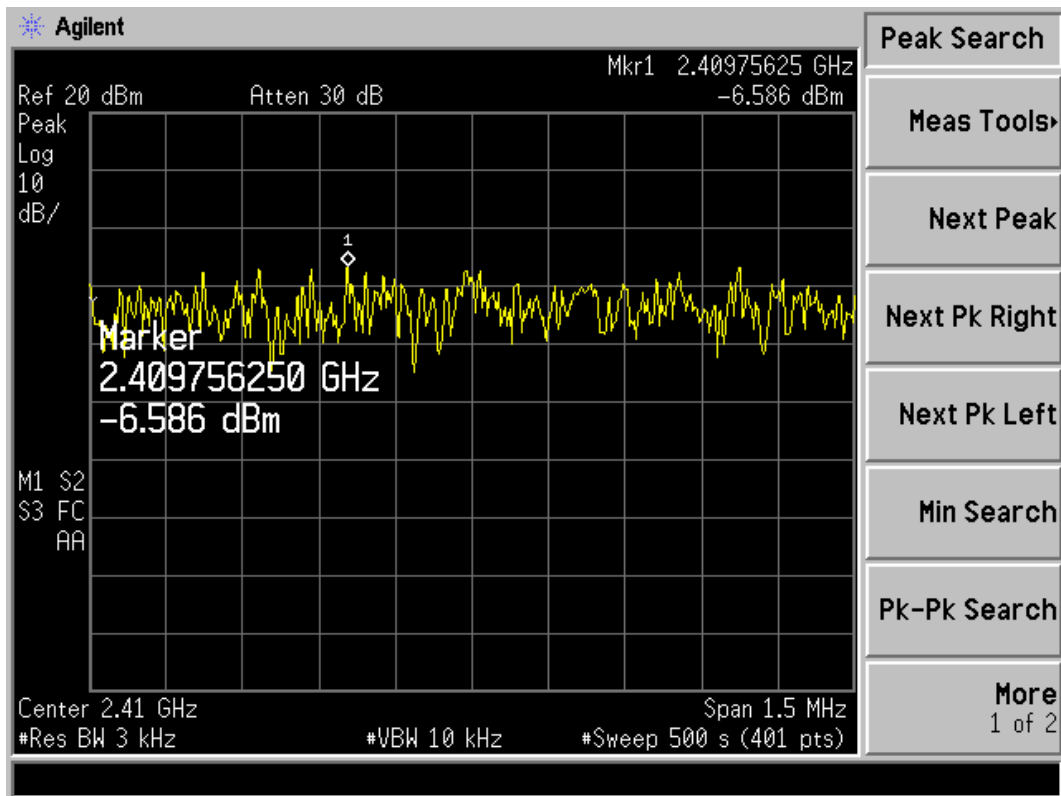
± 1.27 dB

**7.5. Test Result of Power Density**

Product : Ultra Mobile PC (UMPC)  
 Test Item : Power Density Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter 802.11b (2412MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1 (11Mbps)	2412.00	-6.586	< 8dBm	Pass

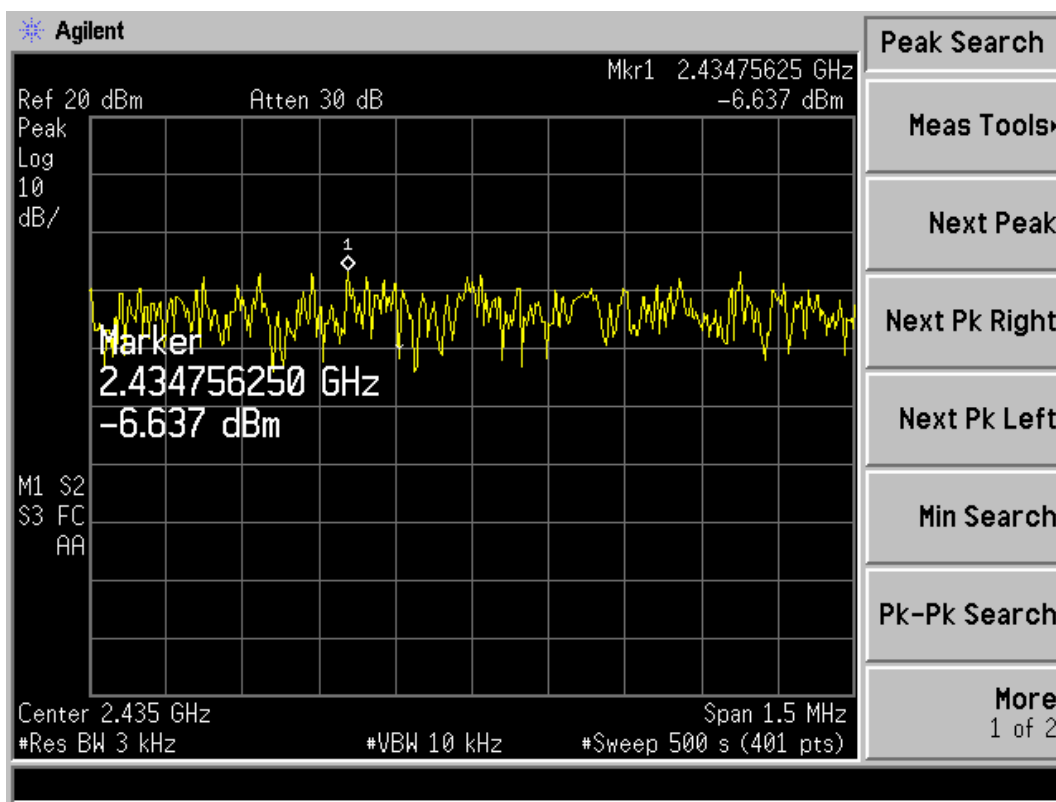
**Figure Channel 1: 11Mbps**



Product : Ultra Mobile PC (UMPC)  
 Test Item : Power Density Data  
 Test Site : No.3OATS  
 Test Mode : Mode 1: Transmitter 802.11b (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6 (11Mbps)	2437.000	-6.637	< 8dBm	Pass

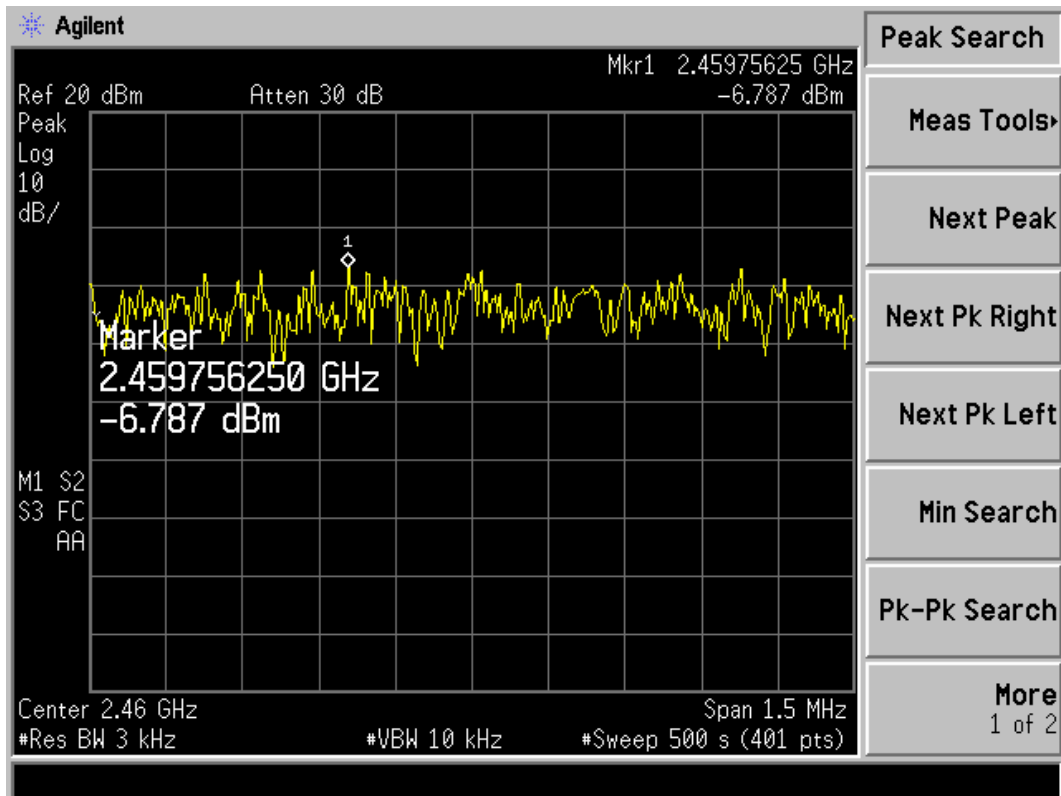
**Figure Channel 6: 11Mbps**



Product : Ultra Mobile PC (UMPC)  
 Test Item : Power Density Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 1: Transmitter 802.11b (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
11 (11Mbps)	2462.00	-6.787	< 8dBm	Pass

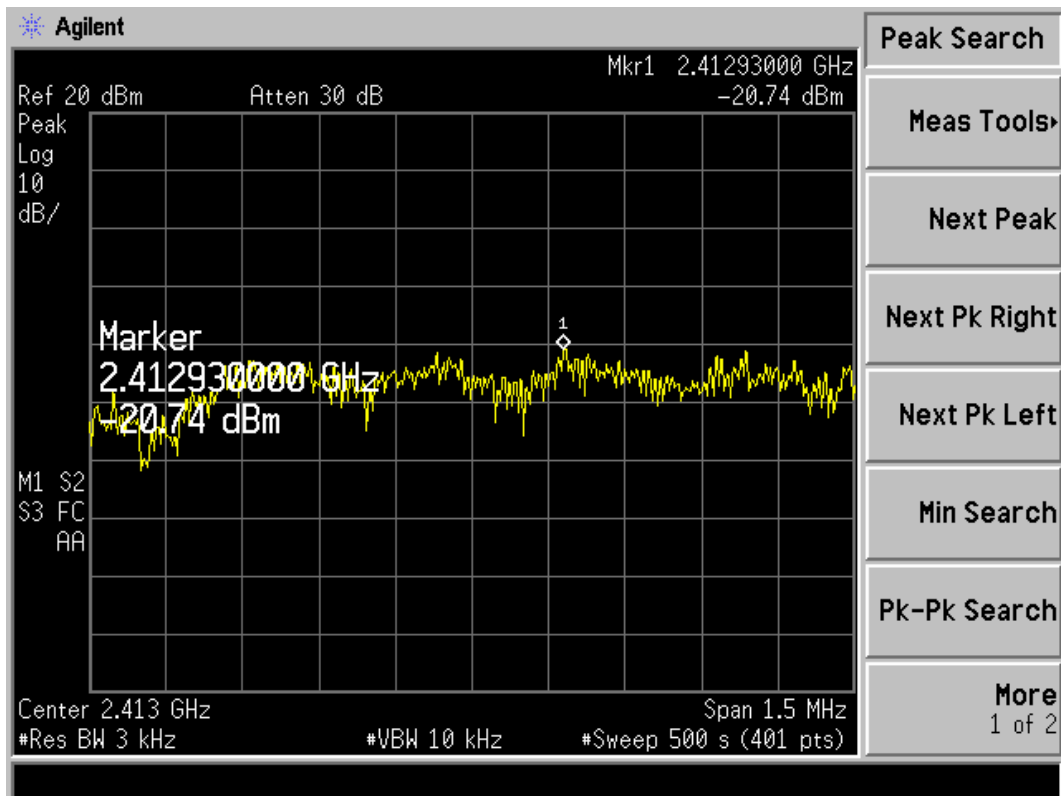
**Figure Channel 11: 11Mbps**



Product : Ultra Mobile PC (UMPC)  
 Test Item : Power Density Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmitter 802.11g (2412MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1(54Mbps)	2412.00	-20.74	< 8dBm	Pass

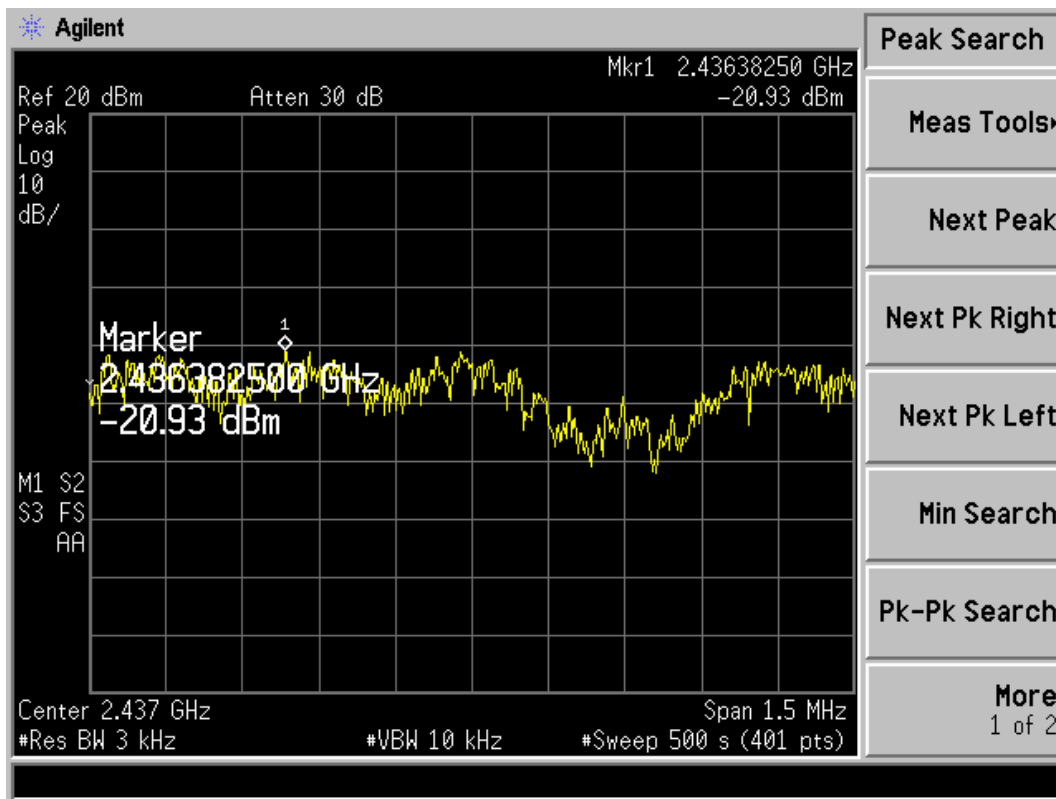
**Figure Channel 1:**



Product : Ultra Mobile PC (UMPC)  
 Test Item : Power Density Data  
 Test Site : No.3OATS  
 Test Mode : Mode 2: Transmitter 802.11g (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6 (54Mbps)	2437.000	-20.93	< 8dBm	Pass

**Figure Channel 6:**

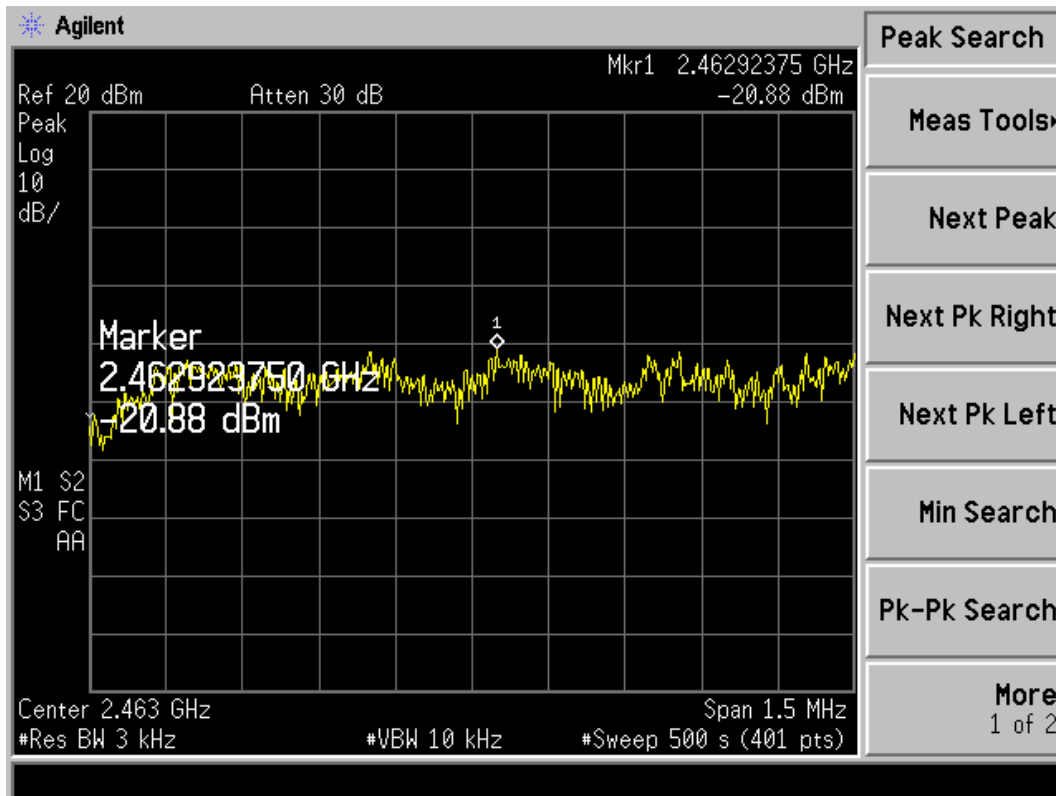




Product : Ultra Mobile PC (UMPC)  
 Test Item : Power Density Data  
 Test Site : No.3 OATS  
 Test Mode : Mode 2: Transmitter 802.11g (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
11 (54Mbps)	2462.00	-20.88	< 8dBm	Pass

**Figure Channel 11:**



## 8. EMI Reduction Method During Compliance Testing

No modification was made during testing.