

# Test Report

Industry Canada RSS-Gen Issue 2/RSS-210 Issue 7  
FCC Part15 Subpart C

Product Name : Eee PC  
Model No. : Eee PC 1015PD, Eee PC 1015PED,  
Eee PC 1016P  
FCC ID : MSQE15NB047H  
IC : 3568A-E15NB047H

Applicant : ASUSTEK COMPUTER INC.

Address : NO.150, Li-Te Rd., Peitou, Taipei, Taiwan, R. O. C

Date of Receipt : May. 21, 2010  
Test Date : May. 22, 2010 ~ May. 26, 2010  
Issued Date : May. 27, 2010  
Report No. : 105S039R-RF-US-P05V02  
Report Version : V1.0

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

This report must not be used to claim product endorsement by TAF, NVLAP or any agency of the Government.  
The test report shall not be reproduced except in full without the written approval of QuieTek Corporation.

# Test Report Certification

Issued Date : May. 27, 2010

Report No. : 105S039R-RF-US-P05V02



Product Name : Eee PC  
 Applicant : ASUSTEK COMPUTER INC.  
 Address : NO.150, Li-Te Rd., Peitou, Taipei, Taiwan, R. O. C  
 Manufacturer : PROTEK (SHANGHAI) LTD  
 Address : NO.3768 Xiu Yan Rd.Kang Qiao Town, PuDong Dist,  
 Shang Hai  
 Model No. : Eee PC 1015PD, Eee PC 1015PED, Eee PC 1016P  
 FCC ID : MSQE15NB047H  
 IC : 3568A-E15NB047H  
 EUT Voltage : 19Vdc  
 Trade Name : ASUS  
 Applicable Standard : FCC CFR Title 47 Part 15 Subpart C: 2008  
 ANSI C63.4: 2003  
 RSS-Gen Issue 2/RSS-210 Issue 7  
 Test Result : Complied  
 Performed Location : SuZhou EMC laboratory  
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 FCC Registration Number: 800392, IC Lab Code: 4075B

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## Laboratory Information

We, **Quietek Corporation**, are an independent EMC and safety consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted(audited or listed) by the following related bodies in compliance with ISO 17025, EN 45001 and specified testing scope:

Taiwan R.O.C.	: BSMI, NCC, TAF
Germany	: TUV Rheinland
Norway	: Nemko, DNV
USA	: FCC, NVLAP
Japan	: VCCI

The related certificate for our laboratories about the test site and management system can be downloaded from Quietek Corporation's Web Site : <http://www.quietek.com/tw/emc/accreditations/accreditations.htm>  
The address and introduction of Quietek Corporation's laboratories can be founded in our Web site : <http://www.quietek.com/>  
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## 1. General Information

### 1.1. EUT Description

Product Name	Eee PC
Trade Name	ASUS
Model No.	Eee PC 1015PD, Eee PC 1015PED, Eee PC 1016P
EUT Voltage	19Vdc
WLAN Module	AW-NB047H
Frequency Range	802.11b/g/n(20MHz): 2412~2462MHz
Channel Number	802.11b/g/n(20MHz): 11
Tech. of Modulation	802.11b: DSSS
	802.11g/n: OFDM
Data Rate	802.11g: 6/9/12/18/24/36/48/54 Mbps
	802.11b: 1/2/5.5/11 Mbps
	802.11n: up to 150 Mbps
Channel Control	Auto
Antenna Delivery	1*Tx + 2*Rx
Antenna Type	PIFA
Peak Antenna Gain	2.27 dBi for 2.4GHz band

Channel List

802.11b/g/n(20MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
01	2412 MHz	02	2417 MHz	03	2422 MHz	04	2427 MHz
05	2432 MHz	06	2437 MHz	07	2442 MHz	08	2447 MHz
09	2452 MHz	10	2457 MHz	11	2462 MHz	N/A	N/A

Antenna Information:

Antenna	Manufacturer	Model No.	Antenna Gain(dBi)
PIFA	ACON	APP6P-700432	2.27

**1.2. Mode of Operation**

Quietek has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Test Mode
Mode 1: Transmit by 802.11b
Mode 2: Transmit by 802.11g
Mode 3: Transmit by 802.11 n (20MHz)

**Note:**

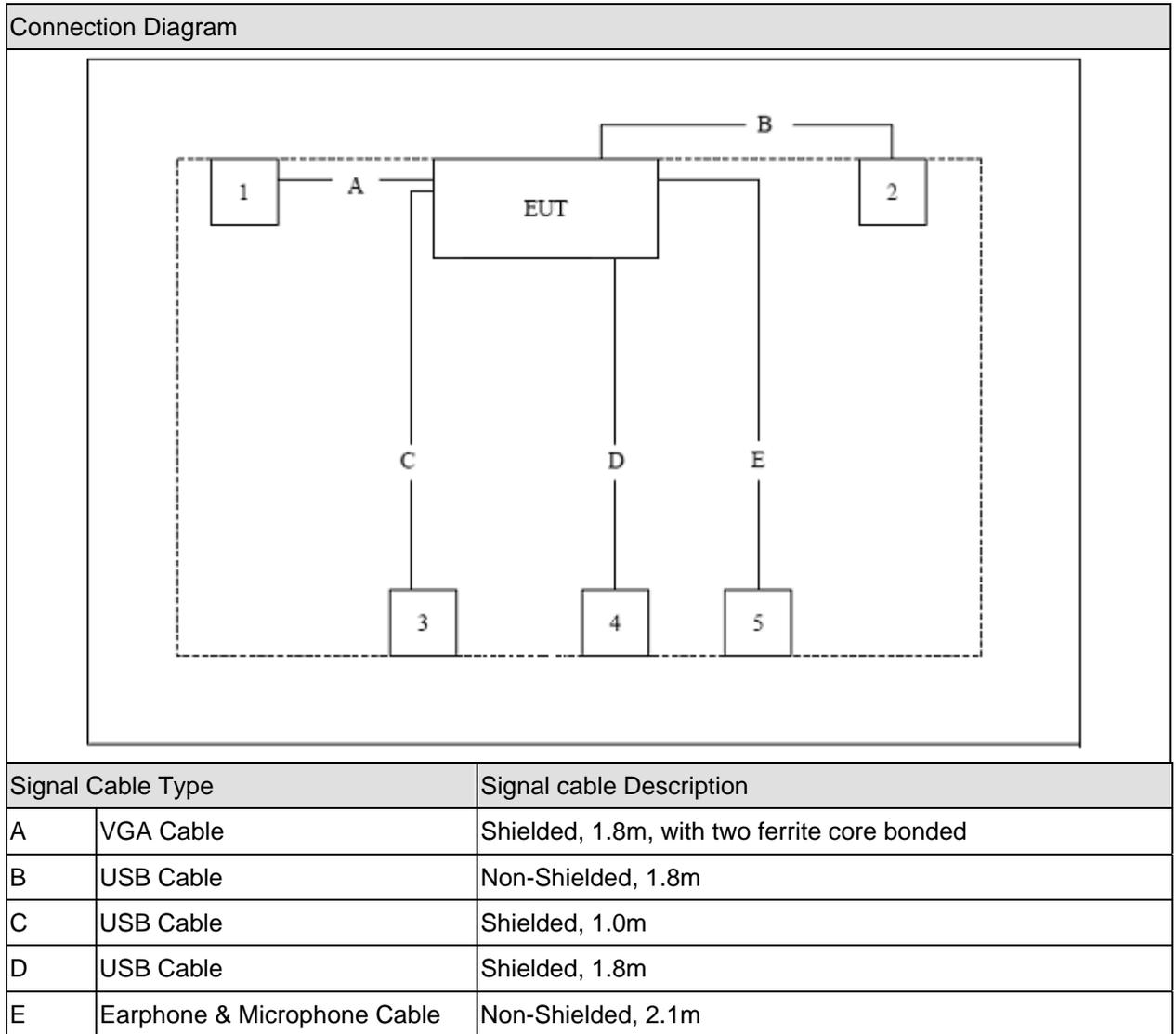
1. Regards to the frequency band operation: the lowest, middle and highest frequency of channel were selected to perform the test, then shown on this report.
2. This device is a composite device in accordance with Part 15 Subpart B regulations. The function for the receiver was measured and made a test report that the report number is 105S039R-RF-US-P05V01.

### 1.3. Tested System Details

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

Product	Manufacturer	Model No.	Serial No.	Power Cord
1 LCD Monitor	Lenovo	L2240pwD	9M0337992301042	Non-Shielded, 1.8m
2 Printer	EPSON	P950A	3KTE013597	Non-Shielded, 1.8m
3 Microphone & Earphone	SOMIC	CD-2688M.V	N/A	N/A
4 iPod	Apple	A1199	6U715UPHVQ5	Power by PC
5 USB Mouse	DELL	MO56UOA	F1B03EZZ	Power by PC

1.4. Configuration of Tested System



**1.5. EUT Exercise Software**

1	Setup the EUT and simulators as shown on above
2	Turn on the power of equipment.
3	Open some commands Provided by applicant
4	Select test channel and test mode for test.

## 2. Technical Test

### 2.1. Summary of Test Result

- No deviations from the test standards  
 Deviations from the test standards as below description:

Performed Test Item	Normative References	Test Performed	Deviation
Conducted Emission	FCC CFR Title 47 Part 15 Subpart C: 2008 Section 15.207	Yes	No
Radiated Emission	FCC CFR Title 47 Part 15 Subpart C: 2008 Section 15.209	Yes	No
RF Antenna Conducted Spurious	FCC CFR Title 47 Part 15 Subpart C: 2008 Section 15.247(d)	Yes	No
Radiated Emission Band Edge	FCC CFR Title 47 Part 15 Subpart C: 2008 15.247(d)	Yes	No
Operation Frequency Range of 20dB Bandwidth	FCC CFR Title 47 Part 15 Subpart C: 2008 15.215(c)	Yes	No
Occupied Bandwidth	FCC CFR Title 47 Part 15 Subpart C: 2008 Section 15.247(a)(2)	Yes	No
Power Output	FCC CFR Title 47 Part 15 Subpart C: 2008 Section 15.247(b)(3)	Yes	No
Power Spectral Density	FCC CFR Title 47 Part 15 Subpart C: 2008 Section 15.247(e)	Yes	No

Performed Test Item	Normative References	Test Performed	Deviation
Conducted Emission	RSS-Gen Issue 2 June 2007 Section 7.2.2	Yes	No
Radiated Emission	RSS-210 Issue 7 June 2007 Section 2.7 Table 2 and Table 3	Yes	No
RF Antenna Conducted Spurious	RSS-210 Issue 7 June 2007 Section A8.5	Yes	No
Radiated Emission Band Edge	RSS-210 Issue 7 June 2007 Section A8.5	Yes	No
Occupied Bandwidth	RSS-Gen Issue 2 June 2007 Section 4.6.1 and 4.6.2 RSS-210 Issue 7 June 2007 Section A8.2(1)	Yes	No
Power Output	RSS-210 Issue 7 June 2007 Section A8.4(4)	Yes	No
Power Spectral Density	RSS-210 Issue 7 June 2007 Section A8.2(2)	Yes	No

**2.2. Test Environment**

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	21
Humidity (%RH)	25-75	50
Barometric pressure (mbar)	860-1060	950-1000

### 3. Conducted Emission

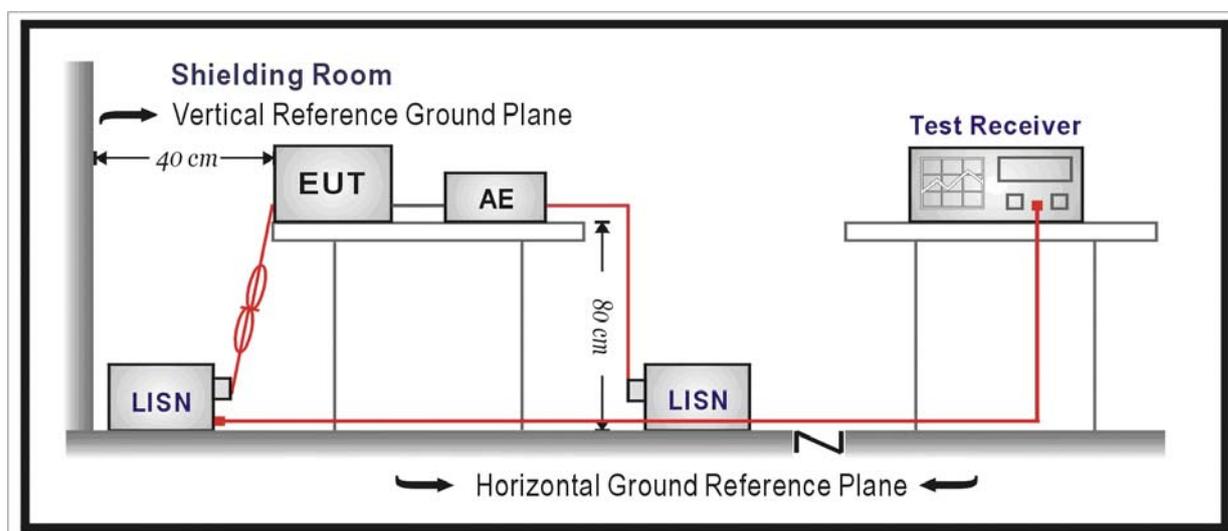
#### 3.1. Test Equipment

Conducted Emission / TR-1

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
EMI Test Receiver	R&S	ESCI	100726	2010.04.23
Two-Line V-Network	R&S	ENV216	100043	2009.09.07
Two-Line V-Network	R&S	ENV216	100044	2009.09.07
50ohm Coaxial Switch	Anritsu	MP59B	6200464462	2010.05.25
50ohm Termination	SHX	TF2	07081401	2009.09.29
Temperature/Humidity Meter	zhicheng	ZC1-2	TR1-TH	2010.01.14

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

#### 3.2. Test Setup



**3.3. Limit**

FCC Part 15 Subpart C Paragraph 15.207 Limits		
Frequency (MHz)	QP (dBuV)	AV (dBuV)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

**3.4. Test Procedure**

The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)

Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

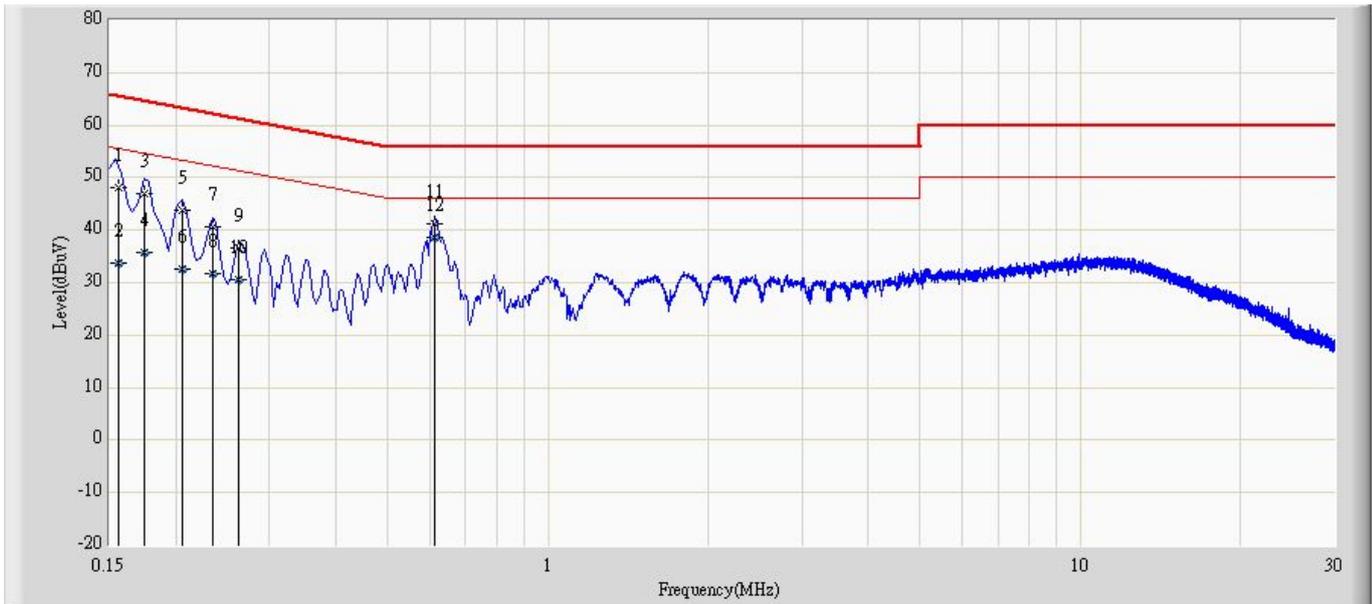
The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length. Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

**3.5. Uncertainty**

The measurement uncertainty is defined as  $\pm 2.02$  dB

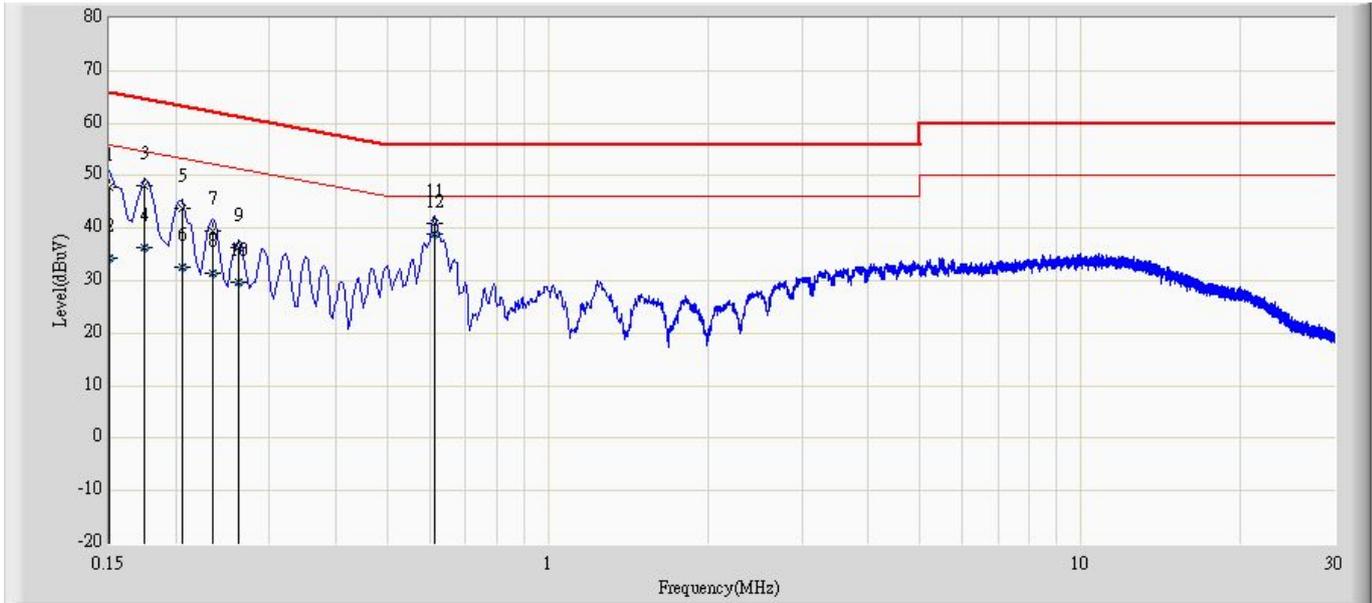
### 3.6. Test Result

Engineer: Jame	
Site: TR1	Time: 2010/05/26 - 17:32
Limit: FCC_Part15.207_CE_AC Power_ClassB	Margin: 0
Probe: ENV216_101043(0.009-30MHz)	Polarity: Line
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1		0.156	48.237	38.654	-17.418	65.656	9.583	QP
2		0.156	33.678	24.095	-21.977	55.656	9.583	AV
3		0.174	46.879	37.262	-17.888	64.767	9.618	QP
4		0.174	35.638	26.020	-19.130	54.767	9.618	AV
5		0.206	43.815	34.147	-19.550	63.365	9.669	QP
6		0.206	32.720	23.052	-20.645	53.365	9.669	AV
7		0.234	40.516	30.836	-21.790	62.307	9.680	QP
8		0.234	31.701	22.021	-20.606	52.307	9.680	AV
9		0.262	36.631	26.951	-24.737	61.368	9.680	QP
10		0.262	30.485	20.805	-20.883	51.368	9.680	AV
11		0.614	41.139	31.449	-14.861	56.000	9.690	QP
12	*	0.614	38.656	28.966	-7.344	46.000	9.690	AV

Engineer: Jame	
Site: TR1	Time: 2010/05/26 - 17:38
Limit: FCC_Part15.207_CE_AC Power_ClassB	Margin: 0
Probe: ENV216_101043(0.009-30MHz)	Polarity: Neutral
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1	



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1		0.150	47.702	37.961	-18.298	66.000	9.741	QP
2		0.150	34.305	24.564	-21.695	56.000	9.741	AV
3		0.174	48.032	38.320	-16.735	64.767	9.712	QP
4		0.174	36.362	26.649	-18.405	54.767	9.712	AV
5		0.206	43.735	34.073	-19.630	63.365	9.662	QP
6		0.206	32.635	22.974	-20.730	53.365	9.662	AV
7		0.234	39.369	29.718	-22.938	62.307	9.651	QP
8		0.234	31.397	21.745	-20.910	52.307	9.651	AV
9		0.262	36.250	26.598	-25.117	61.368	9.652	QP
10		0.262	29.751	20.099	-21.617	51.368	9.652	AV
11		0.614	40.833	31.151	-15.167	56.000	9.681	QP
12	*	0.614	38.818	29.136	-7.182	46.000	9.681	AV

## 4. Radiated Emission

### 4.1. Test Equipment

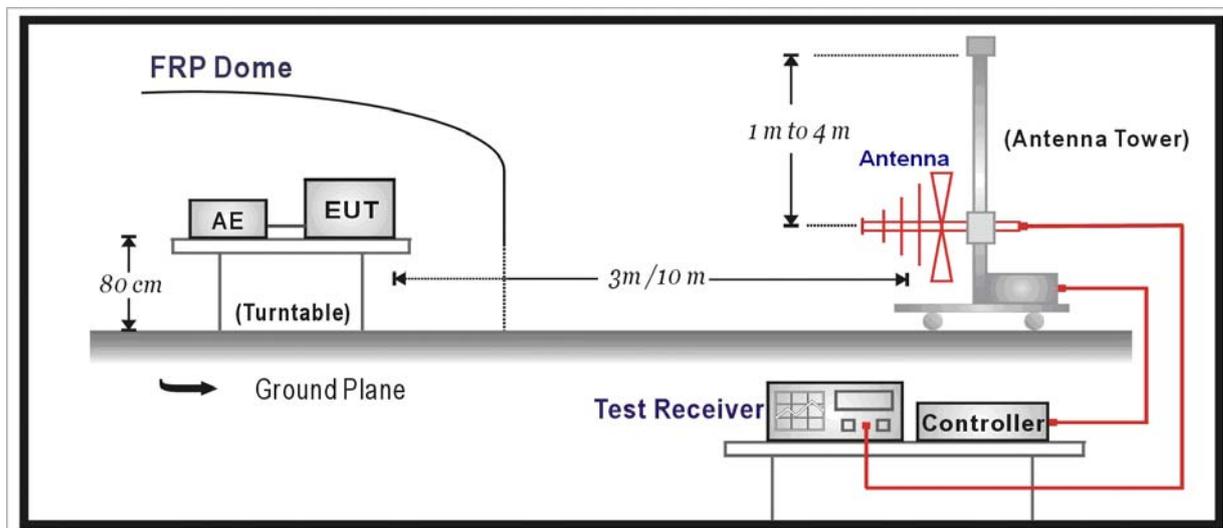
Radiated Emission / AC-2

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2010.04.23
EMI Test Receiver	R&S	ESCI	100906	2010.01.15
Preamplifier	Quietek	AP-180C	CHM-0602013	2010.05.05
Preamplifier	Quietek	AP-040G	CHM-0906001	2010.05.05
Bilog Antenna	Teseq GmbH	CBL6112D	27612	2009.11.12
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	737	2009.11.24
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2009.11.24
Temperature/Humidity Meter	Zhicheng	ZC1-2	AC5-TH	2010.01.14

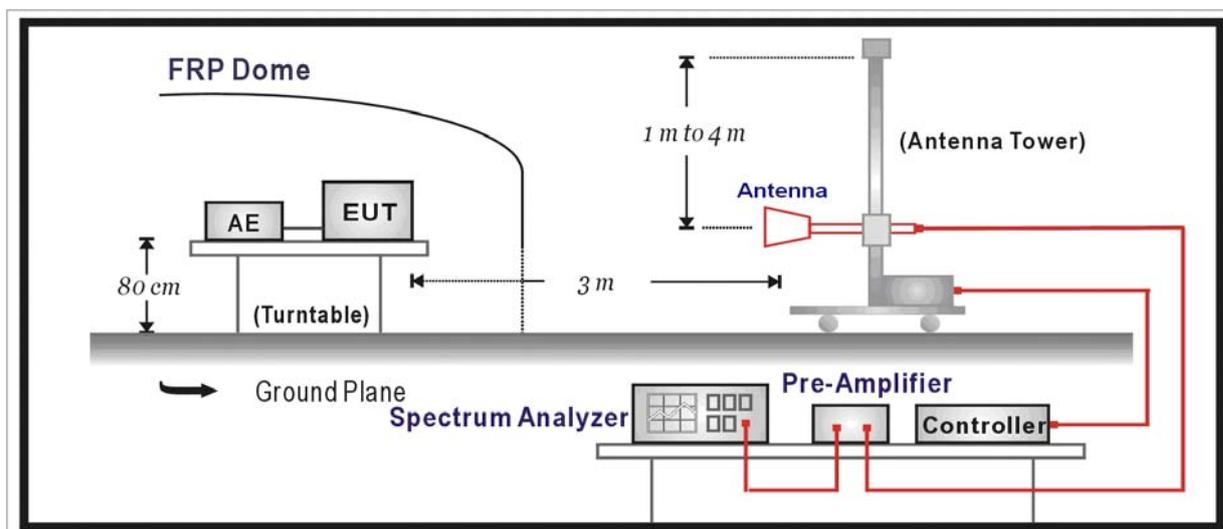
Note 1: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

## 4.2. Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



**4.3. Limit**

FCC Part 15 Subpart C Paragraph 15.209		
Frequency (MHz)	Distance (m)	Level (dBuV/m)
30 - 88	3	40
88 - 216	3	43.5
216 - 960	3	46
Above 960	3	54

Note 1: The lower limit shall apply at the transition frequency.

Note 2: Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

Note 3: E field strength (dBuV/m) = 20 log E field strength (uV/m)

**4.4. Test Procedure**

The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 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 is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2003 on radiated measurement.

The resolution bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

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

Note: When doing emission measurement above 1GHz, the horn antenna will be bended down a little (as horn antenna has the narrow beamwidth) in order to keeping the antenna in the “cone of radiation” of EUT. The 3dB beamwidth is 10~60 degrees for H-plane and 10~90 degrees for E-plane.

**4.5. Uncertainty**

The measurement uncertainty above 1G is defined as ± 3.9 dB  
 below 1G is defined as ± 3.8 dB

**4.6. Test Result**

All of the test result shown indicates the worst case, and spectrum analyzer parameters setting as shown below:

Peak detector: RBW = 1MHz, VBW = 3MHz, sweep time = 200ms;

Average detector: RBW = 1MHz, VBW = 10Hz, sweep time = auto.

Measure Level = Reading Level + Cable Loss + Antenna Factor - Preamplifier Gain

802.11b

CH	Antenna	Frequen cy (MHz)	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	H	2410.1	74.6	30.5	105.1	Fundamental	/	PK
	H	451.4	39.0	-4.4	34.6	46	-11.4	QP
	H	582.4	28.2	-1.6	26.6	46	-19.4	QP
	V	2997.5	59.3	-17.8	41.5	54(Note)	-12.5	PK
	H	4824.0	62.2	-14.3	47.9	54(Note)	-6.1	PK
	H	7236.0	51.5	-6.1	45.4	54(Note)	-8.6	PK
	H	24000.0	59.1	-8.9	50.2	54(Note)	-3.8	PK
6	H	2435.3	75.2	30.8	106.0	Fundamental	/	PK
	H	451.4	39.0	-4.4	34.6	46	-11.4	QP
	H	582.4	28.2	-1.6	26.6	46	-19.4	QP
	V	2997.5	59.3	-17.8	41.5	54(Note)	-12.5	PK
	H	4874.0	56.4	-14.0	42.4	54(Note)	-11.6	PK
	H	7311.0	52.1	-6.0	46.1	54(Note)	-7.9	PK
	H	24000.0	59.1	-8.9	50.2	54(Note)	-3.8	PK
11	H	2463.2	76.7	30.4	107.1	Fundamental	/	PK
	H	451.4	39.0	-4.4	34.6	46	-11.4	QP
	H	582.4	28.2	-1.6	26.6	46	-19.4	QP
	V	2997.5	59.3	-17.8	41.5	54(Note)	-12.5	PK
	H	4924.0	58.1	-13.9	44.2	54(Note)	-9.8	PK
	H	7386.0	51.8	-5.6	46.2	54(Note)	-7.8	PK
	H	24000.0	59.1	-8.9	50.2	54(Note)	-3.8	PK

802.11g

CH	Antenna	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	H	2404.9	76.8	30.5	107.3	Fundamental	/	PK
	H	451.4	39.0	-4.4	34.6	46	-11.4	QP
	H	582.4	28.2	-1.6	26.6	46	-19.4	QP
	V	2997.5	59.3	-17.8	41.5	54(Note)	-12.5	PK
	H	4824.0	56.4	-14.3	42.1	54(Note)	-11.9	PK
	H	7236.0	51.6	-6.1	45.5	54(Note)	-8.5	PK
	H	24000.0	59.1	-8.9	50.2	54(Note)	-3.8	PK
6	H	2435.1	76.2	30.9	107.1	Fundamental	/	PK
	H	451.4	39.0	-4.4	34.6	46	-11.4	QP
	H	582.4	28.2	-1.6	26.6	46	-19.4	QP
	V	2997.5	59.3	-17.8	41.5	54(Note)	-12.5	PK
	H	4874.0	58.3	-14.0	44.3	54(Note)	-9.7	PK
	H	7311.0	51.9	-6.0	45.9	54(Note)	-8.1	PK
	H	24000.0	59.1	-8.9	50.2	54(Note)	-3.8	PK
11	H	2468.5	76.2	30.4	106.6	Fundamental	/	PK
	H	451.4	39.0	-4.4	34.6	46	-11.4	QP
	H	582.4	28.2	-1.6	26.6	46	-19.4	QP
	V	2997.5	59.3	-17.8	41.5	54(Note)	-12.5	PK
	H	4924.0	61.1	-13.9	47.2	54(Note)	-6.8	PK
	H	7386.0	52.6	-5.6	47.0	54(Note)	-7.0	PK
	H	24000.0	59.1	-8.9	50.2	54(Note)	-3.8	PK

802.11n(20MHz)

CH	Antenna	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	H	2405.2	75.9	30.5	106.6	Fundamental	/	PK
	H	451.4	39.0	-4.4	34.6	46	-11.4	QP
	H	582.4	28.2	-1.6	26.6	46	-19.4	QP
	V	2997.5	59.3	-17.8	41.5	54(Note)	-12.5	PK
	H	4824.0	61.1	-14.3	46.8	54(Note)	-7.2	PK
	H	7236.0	52.1	-6.1	46.0	54(Note)	-8.0	PK
	H	24000.0	59.1	-8.9	50.2	54(Note)	-3.8	PK
6	H	2439.3	75.1	30.9	106.0	Fundamental	/	PK
	H	451.4	39.0	-4.4	34.6	46	-11.4	QP
	H	582.4	28.2	-1.6	26.6	46	-19.4	QP
	V	2997.5	59.3	-17.8	41.5	54(Note)	-12.5	PK
	H	4874.0	58.3	-14.0	44.3	54(Note)	-9.7	PK
	H	7311.0	52.4	-6.0	46.4	54(Note)	-7.6	PK
	H	24000.0	59.1	-8.9	50.2	54(Note)	-3.8	PK
11	V	2468.7	76.3	30.3	106.6	Fundamental	/	PK
	H	451.4	39.0	-4.4	34.6	46	-11.4	QP
	H	582.4	28.2	-1.6	26.6	46	-19.4	QP
	V	2997.5	59.3	-17.8	41.5	54(Note)	-12.5	PK
	H	4924.0	60.2	-13.9	46.3	54(Note)	-7.7	PK
	H	7386.0	51.9	-5.6	46.3	54(Note)	-7.7	PK
	H	24000.0	59.1	-8.9	50.2	54(Note)	-3.8	PK

Note: This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

## 5. RF Antenna Conducted Spurious

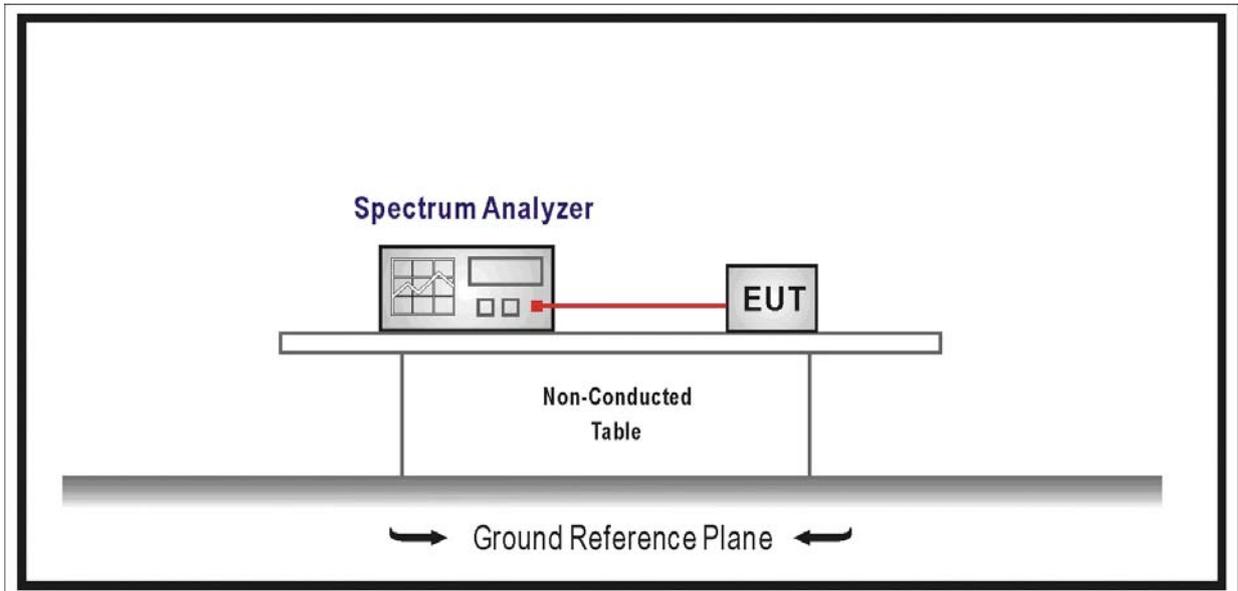
### 5.1. Test Equipment

RF Antenna Conducted Spurious / AC-6

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2010.04.30
Temperature/Humidity Meter	zhicheng	ZC1-2	AC6-TH	2010.01.14

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

### 5.2. Test Setup



### 5.3. Limit

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.

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

The EUT was tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 100 kHz, Set VBW > RBW, scan up through 10th harmonic.

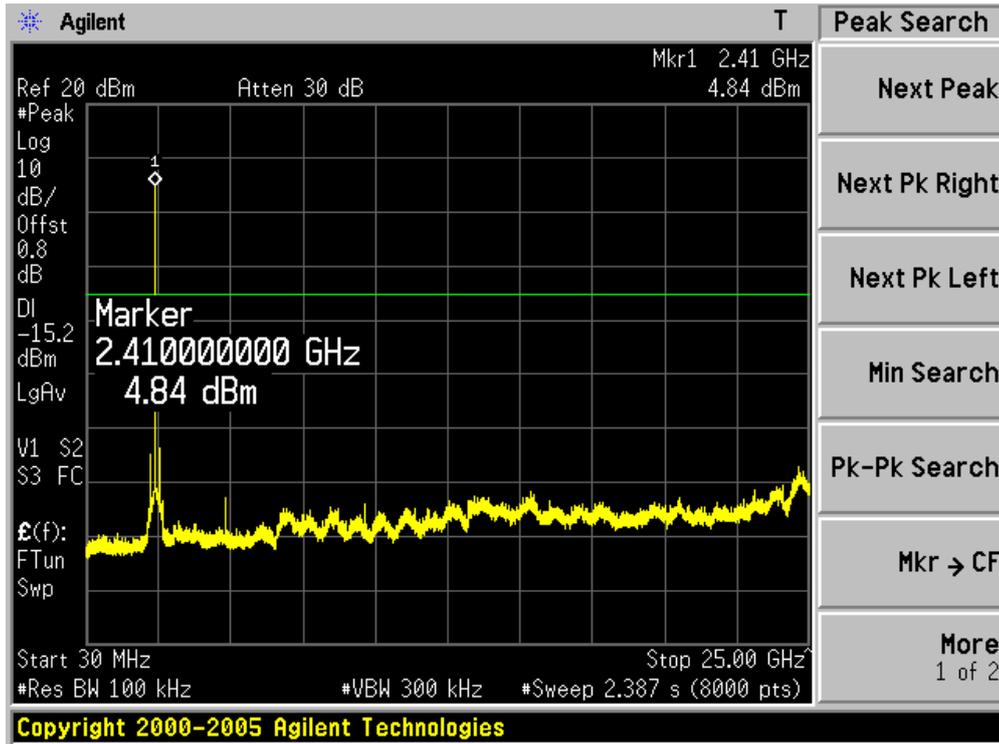
#### **5.5. Uncertainty**

The measurement uncertainty is defined as  $\pm 1.27$  dB

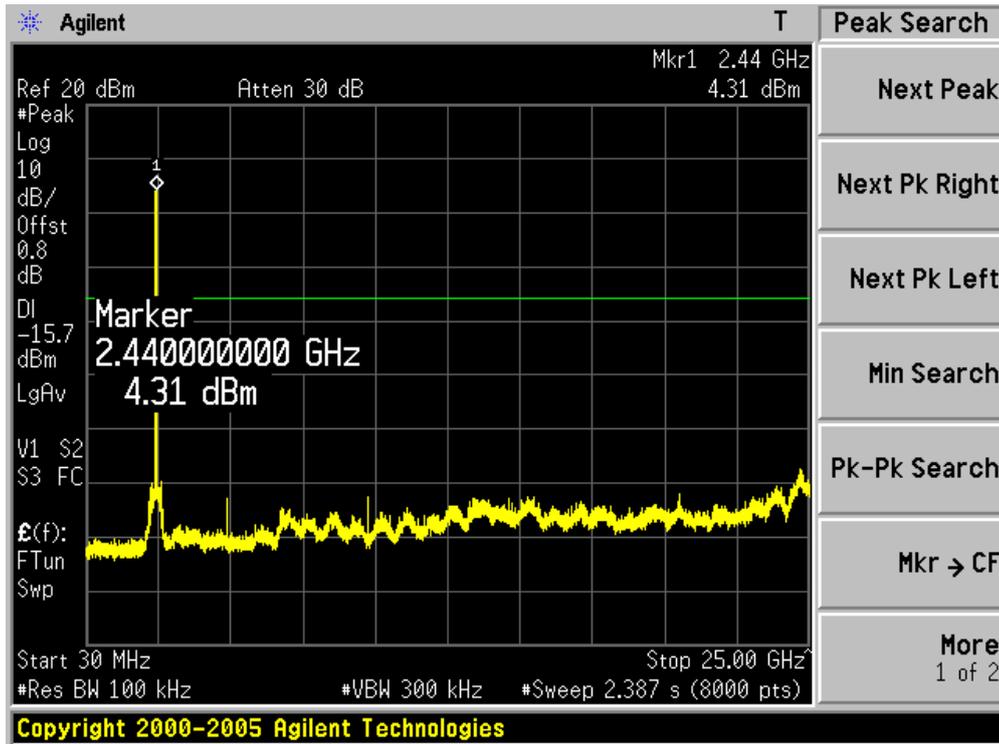
5.6. Test Result

Product	:	Eee PC
Test Item	:	RF Antenna Conducted Spurious
Test Mode	:	Mode 1: Transmit by 802.11b

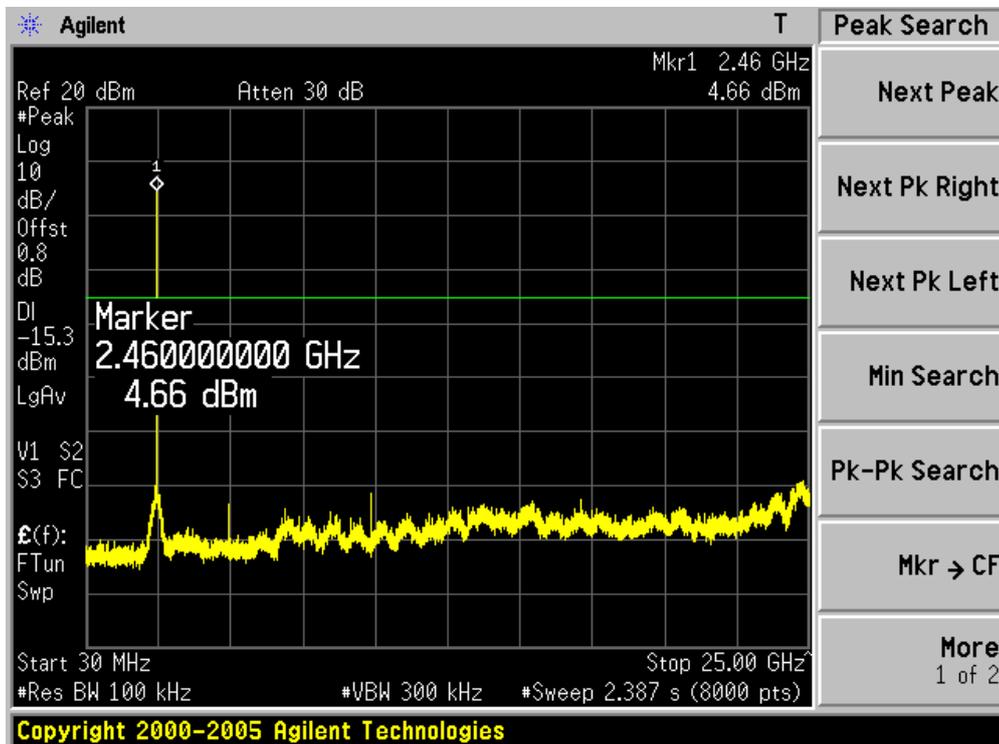
Channel 01 (2412MHz)



Channel 06 (2437MHz)

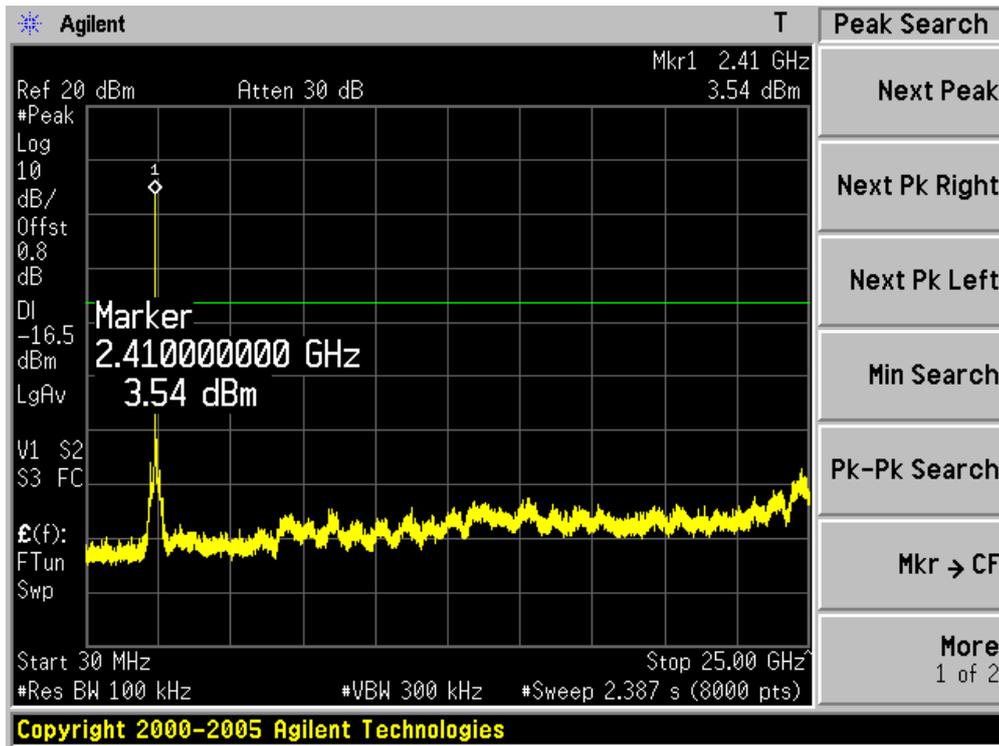


Channel 11 (2462MHz)

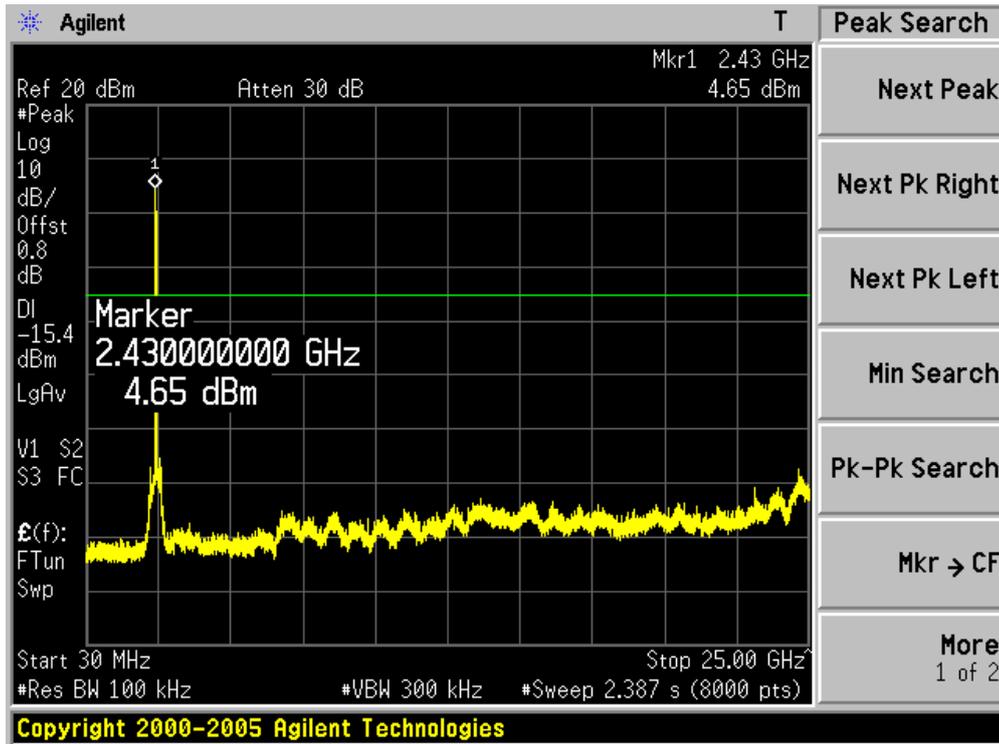


Product	:	Eee PC
Test Item	:	RF Antenna Conducted Spurious
Test Mode	:	Mode 2: Transmit by 802.11g

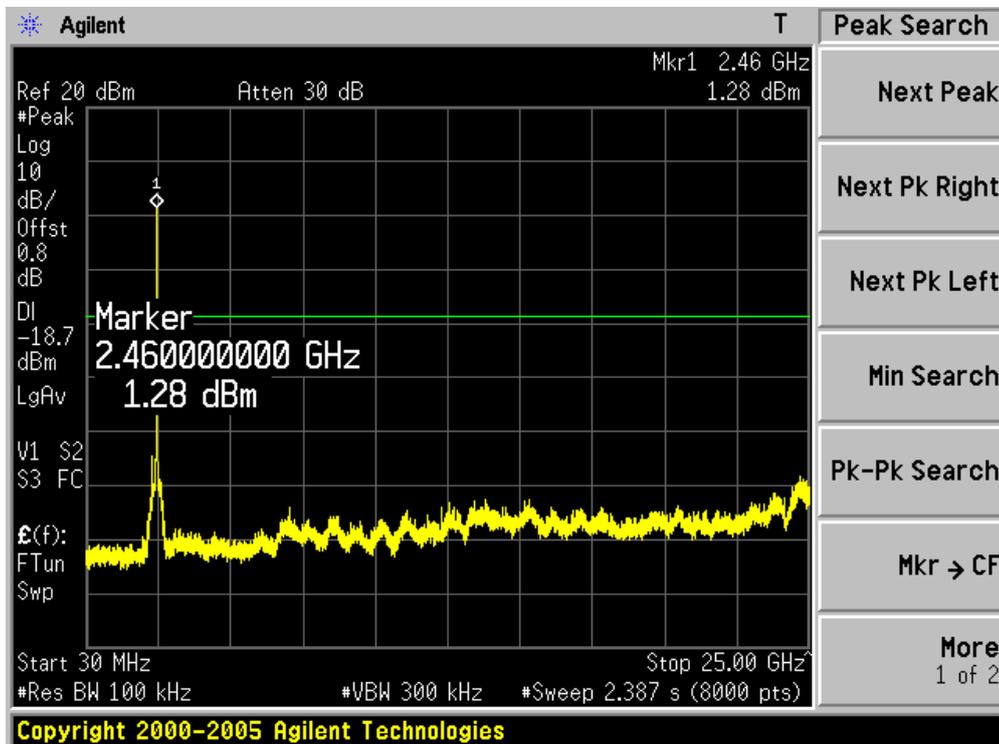
Channel 01 (2412MHz)



Channel 06 (2437MHz)

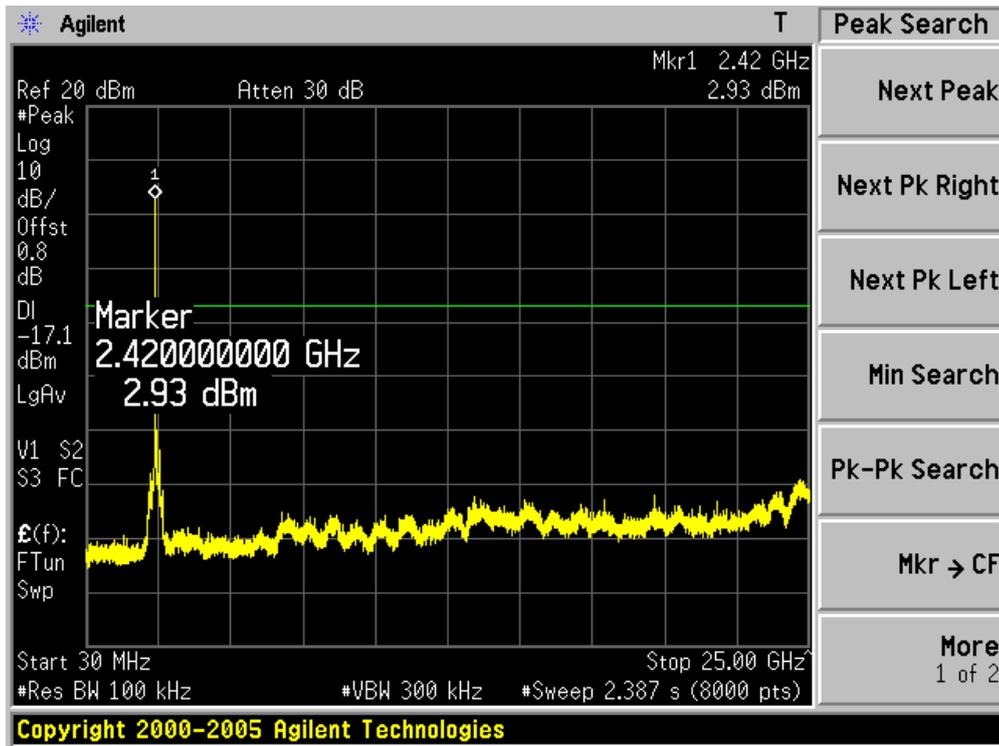


Channel 11 (2462MHz)

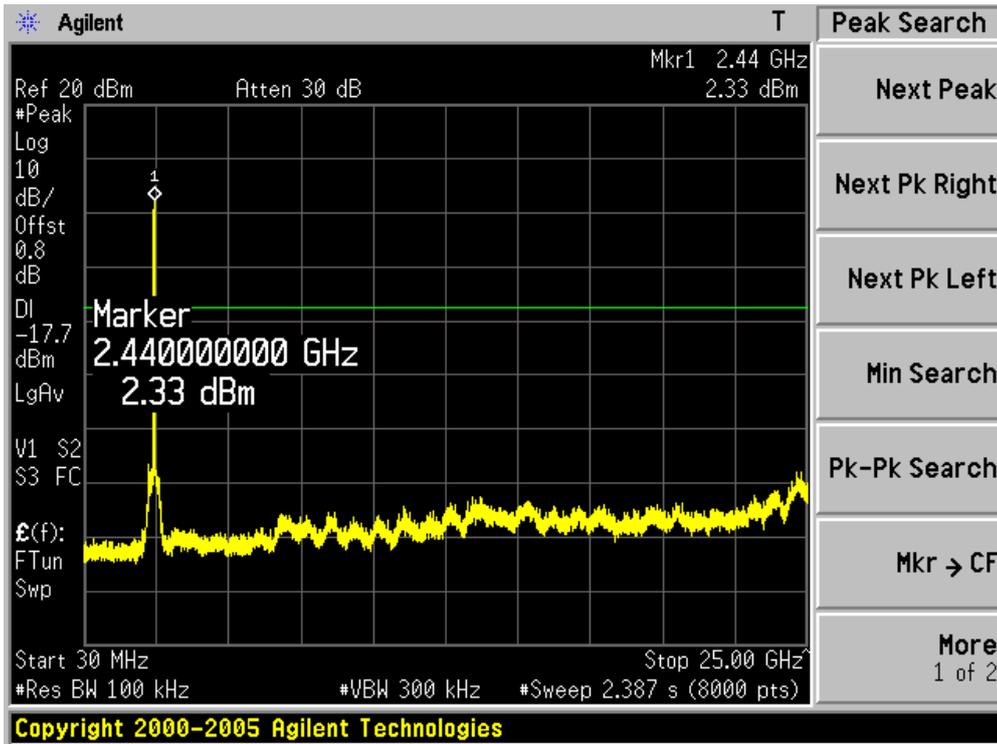


Product	:	Eee PC
Test Item	:	RF Antenna Conducted Spurious
Test Mode	:	Mode 3: Transmit by 802.11n (20MHz)

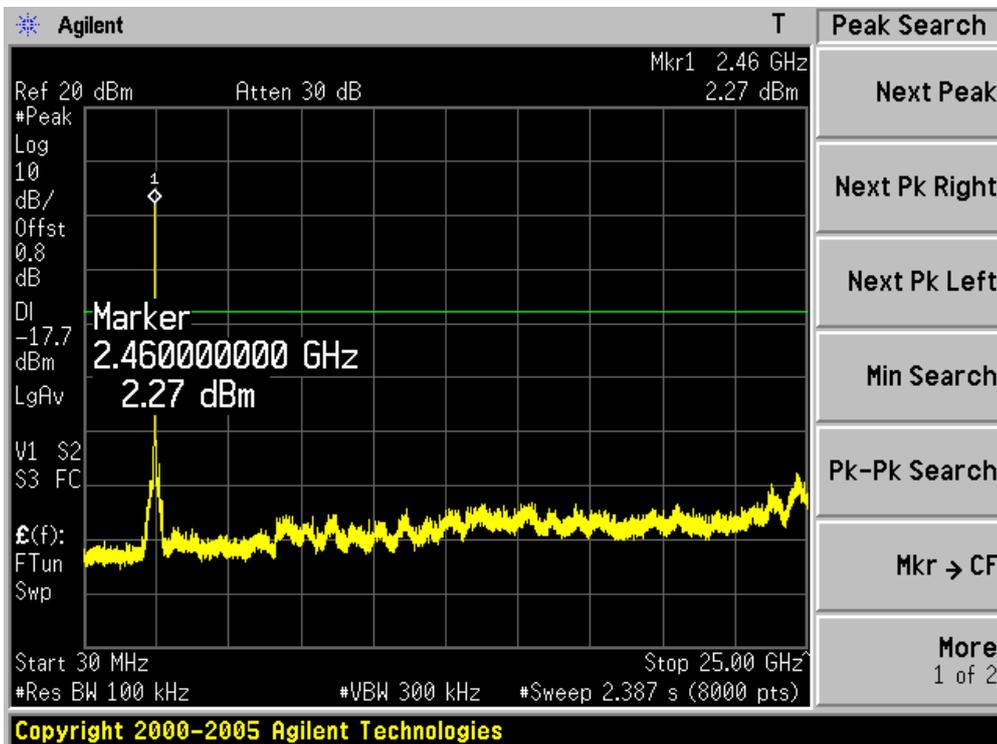
Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)



**6. Radiated Emission Band Edge**

**6.1. Test Equipment**

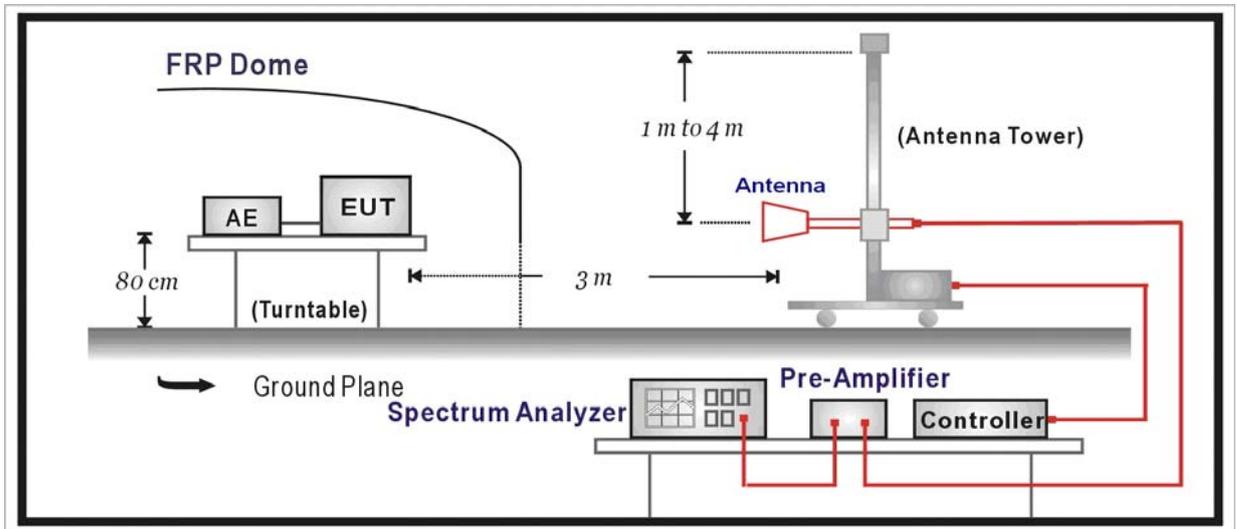
Radiated Emission / AC-2

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2010.04.23
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	737	2009.11.24
Temperature/Humidity Meter	Zhicheng	ZC1-2	AC5-TH	2010.01.14

Note 1: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

Note 2: The test instruments marked with "X" are used to measure the final test results.

**6.2. Test Setup**



**6.3. Limit**

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

**6.4. Test Procedure**

The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements. The EUT is placed on a turn table which is 0.8 meter above ground. The turn table is rotated 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 is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2003 on radiated measurement.

**6.5. Uncertainty**

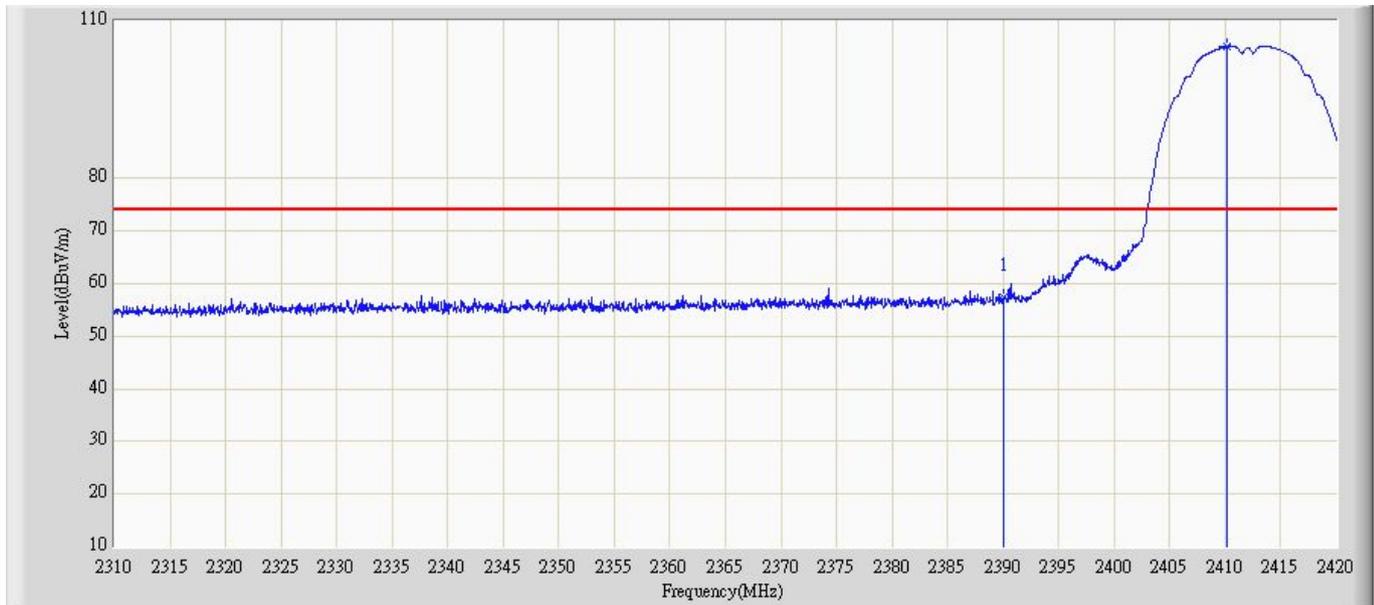
The measurement uncertainty above 1G is defined as  $\pm 3.9$  dB

6.6. Test Result

Peak detector: RBW = 1MHz, VBW = 3MHz, sweep time = 200ms;

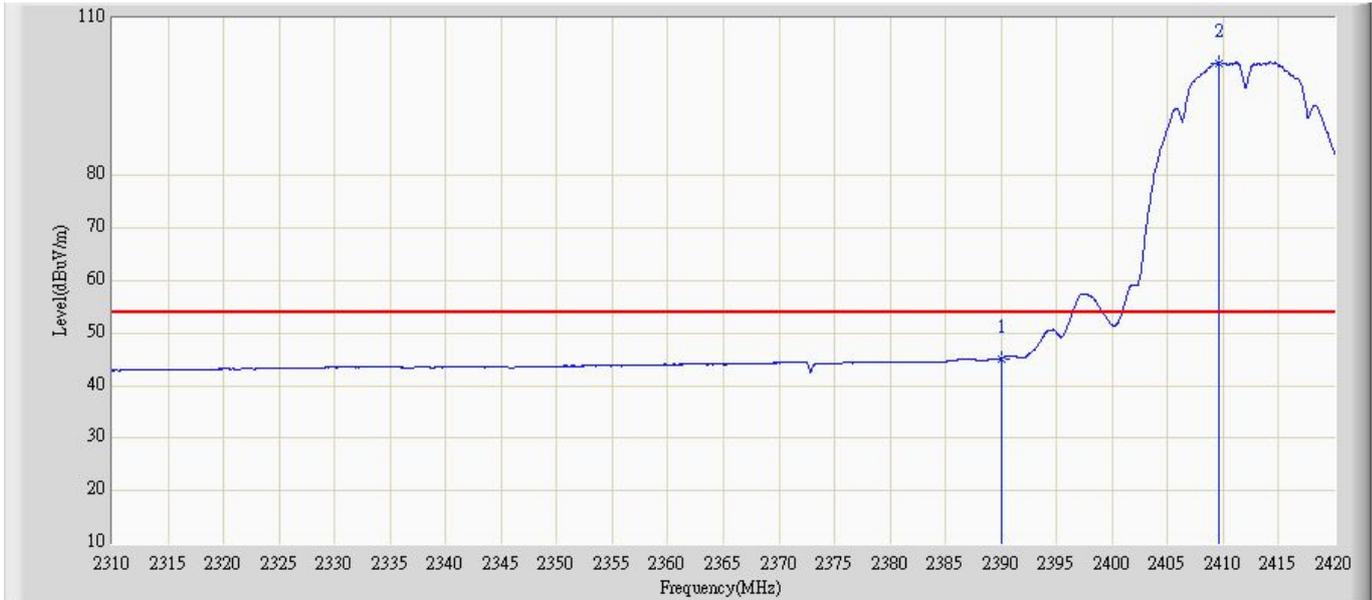
Average detector: RBW = 1MHz, VBW = 10Hz, sweep time = auto.

Engineer: Aileen	
Site: AC2	Time: 2010/05/25 - 10:36
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1: Transmit by 802.11b at channel 2412MHz	



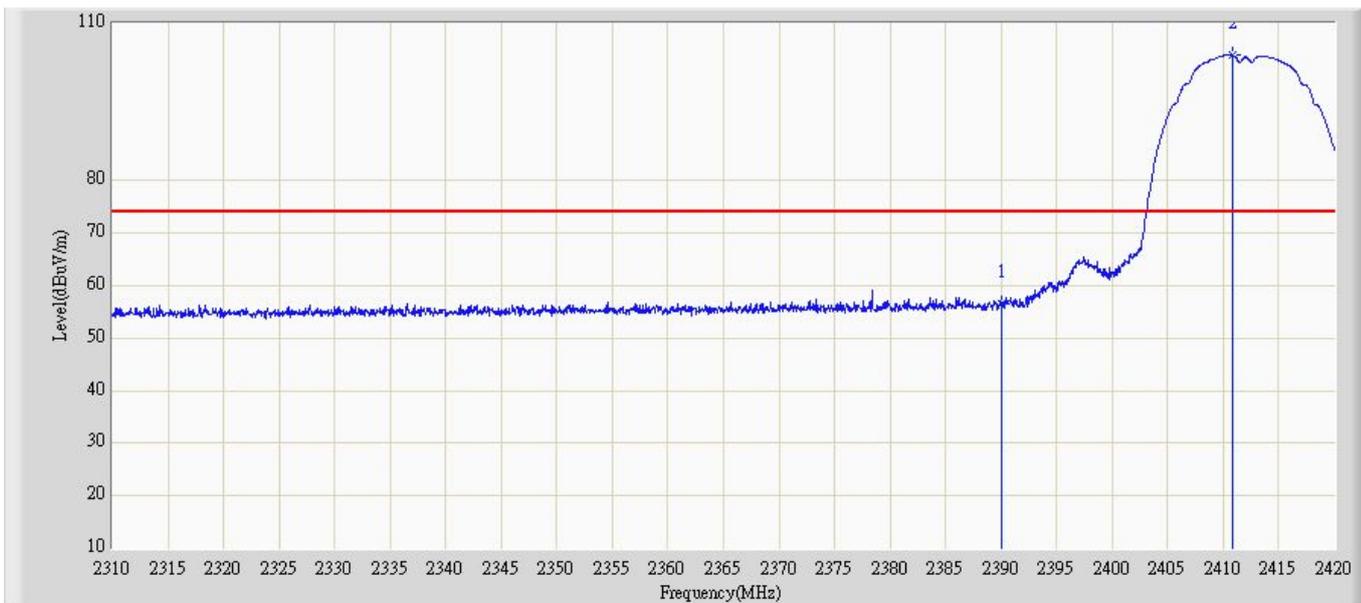
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		2390.000	57.496	26.941	-16.504	74.000	30.555	PK
2	*	2410.155	105.201	74.645	N/A	N/A	30.556	PK

Engineer: Aileen	
Site: AC2	Time: 2010/05/25 - 10:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1: Transmit by 802.11b at channel 2412MHz	



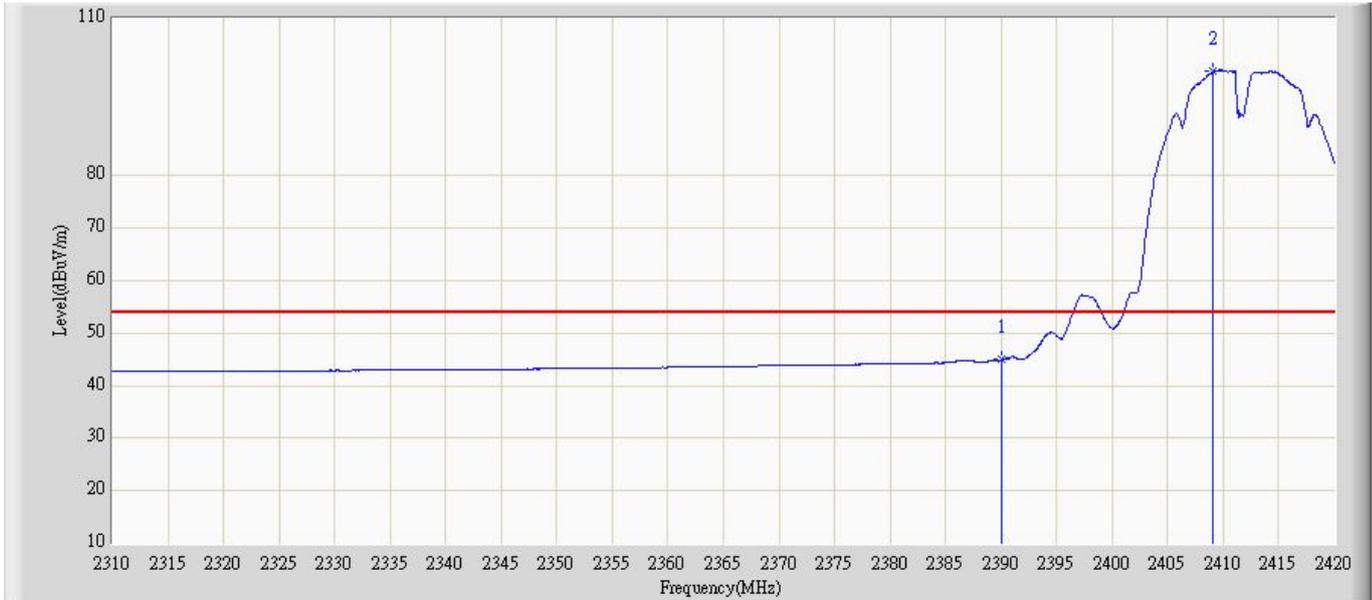
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		2390.000	45.184	14.629	-8.816	54.000	30.555	AV
2	*	2409.550	101.463	70.906	N/A	N/A	30.557	AV

Engineer: Aileen	
Site: AC2	Time: 2010/05/25 - 10:42
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1: Transmit by 802.11b at channel 2412MHz	



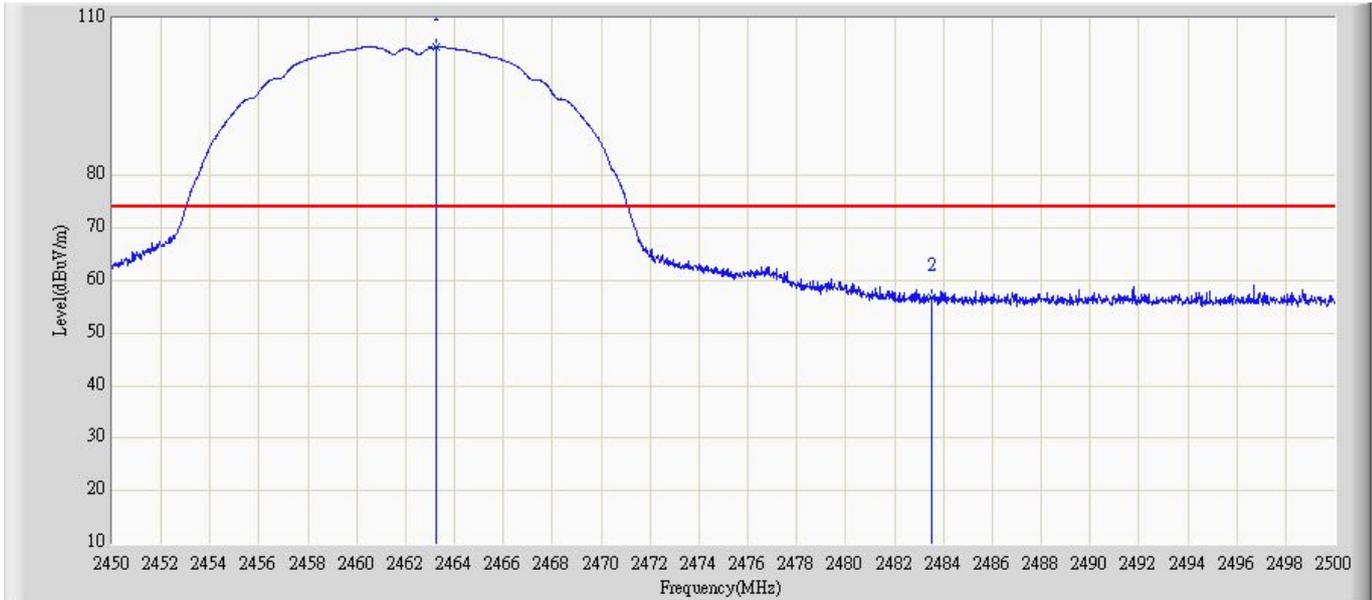
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		2390.000	56.524	25.969	-17.476	74.000	30.555	PK
2	*	2410.815	103.853	73.297	N/A	N/A	30.556	PK

Engineer: Aileen	
Site: AC2	Time: 2010/05/25 - 10:43
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1: Transmit by 802.11b at channel 2412MHz	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	44.953	14.398	-9.047	54.000	30.555	AV
2	*	2409.110	99.960	69.403	N/A	N/A	30.557	AV

Engineer: Aileen	
Site: AC2	Time: 2010/05/25 - 10:54
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1: Transmit by 802.11b at channel 2462MHz	



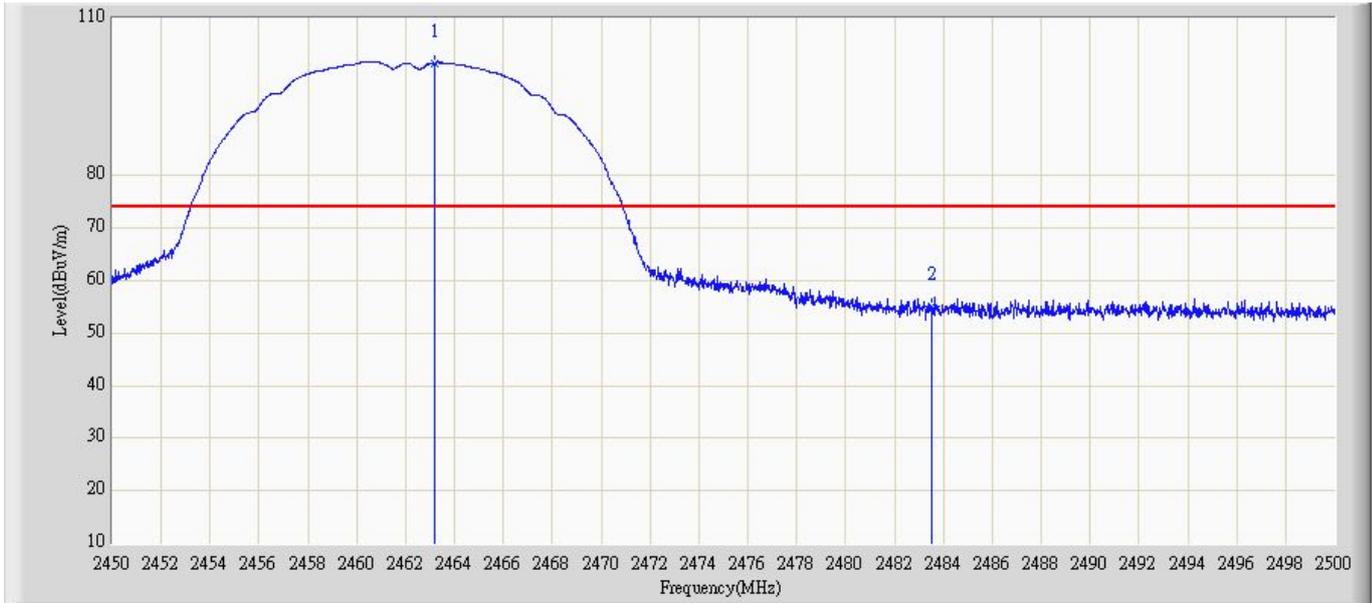
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	*	2463.275	104.434	74.003	N/A	N/A	30.430	PK
2		2483.500	56.930	26.608	-17.070	74.000	30.321	PK

Engineer: Aileen	
Site: AC2	Time: 2010/05/25 - 11:00
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1: Transmit by 802.11b at channel 2462MHz	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	*	2463.975	99.757	69.330	N/A	N/A	30.426	AV
2		2483.500	44.914	14.592	-9.086	54.000	30.321	AV

Engineer: Aileen	
Site: AC2	Time: 2010/05/25 - 11:02
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1: Transmit by 802.11b at channel 2462MHz	



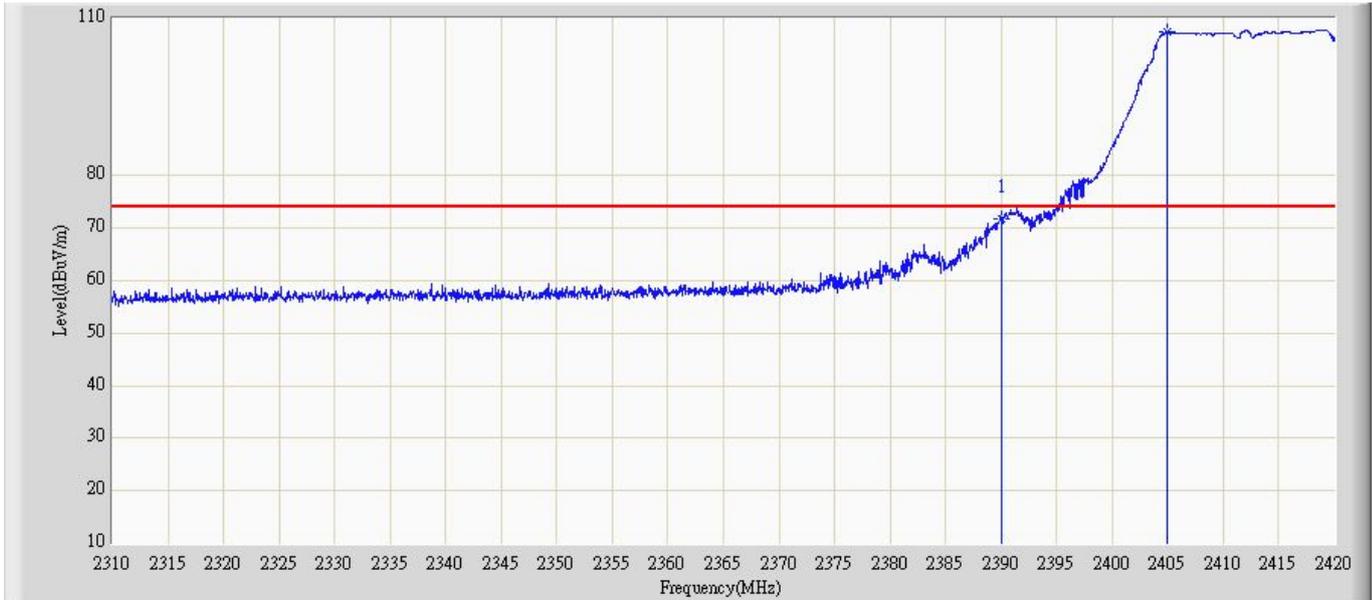
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	*	2463.200	101.517	71.086	N/A	N/A	30.431	PK
2		2483.500	55.232	24.910	-18.768	74.000	30.321	PK

Engineer: Aileen	
Site: AC2	Time: 2010/05/25 - 11:16
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1: Transmit by 802.11b at channel 2462MHz	



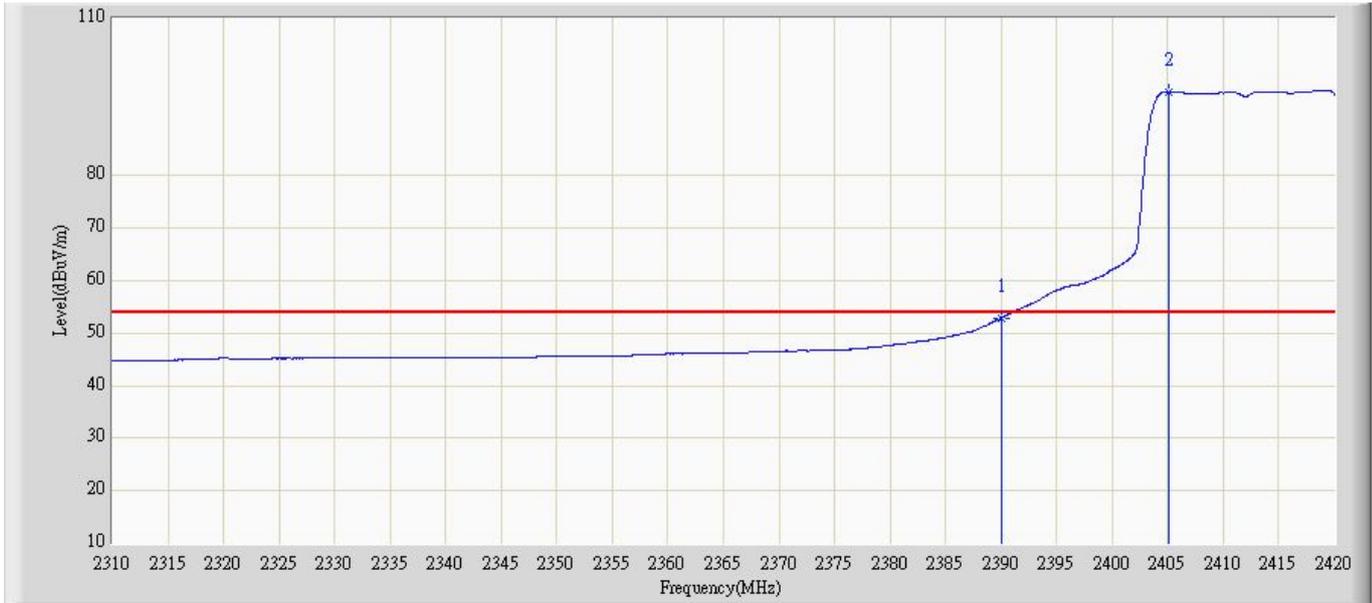
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	*	2464.225	97.496	67.071	N/A	N/A	30.425	AV
2		2483.500	43.729	13.407	-10.271	54.000	30.321	AV

Engineer: Aileen	
Site: AC2	Time: 2010/05/25 - 11:25
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 2: Transmit by 802.11g at channel 2412MHz	



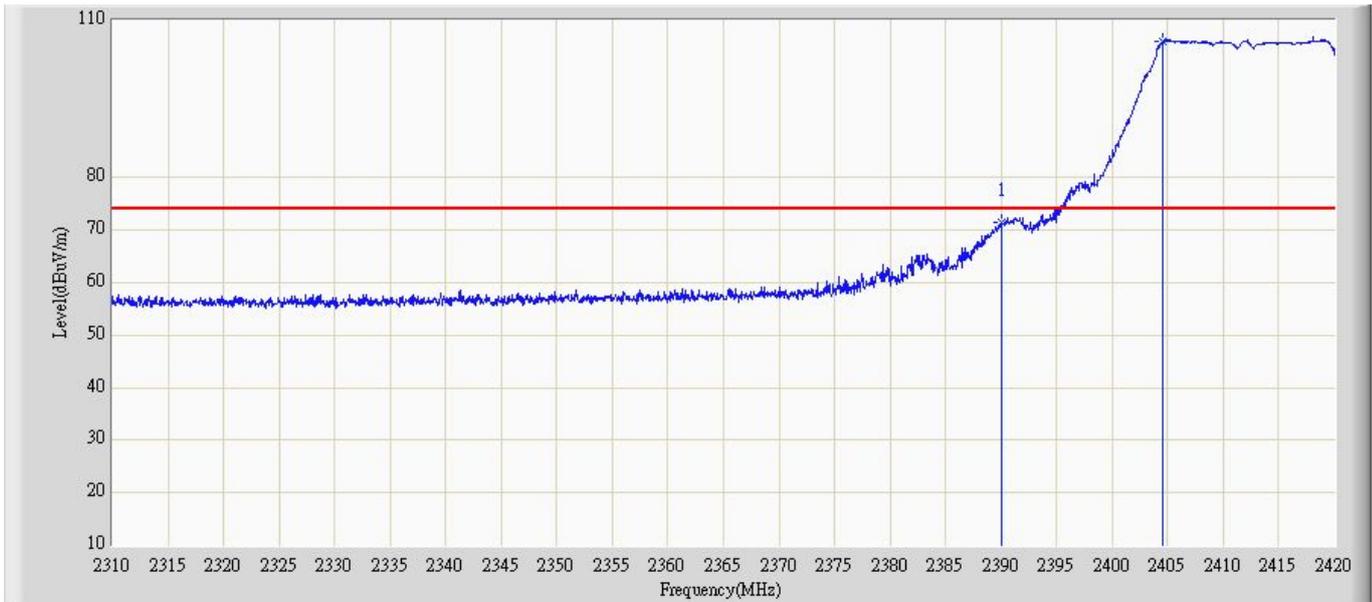
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		2390.000	71.922	41.367	-2.078	74.000	30.555	PK
2	*	2404.930	107.380	76.821	N/A	N/A	30.559	PK

Engineer: Aileen	
Site: AC2	Time: 2010/05/25 - 11:30
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 2: Transmit by 802.11g at channel 2412MHz	



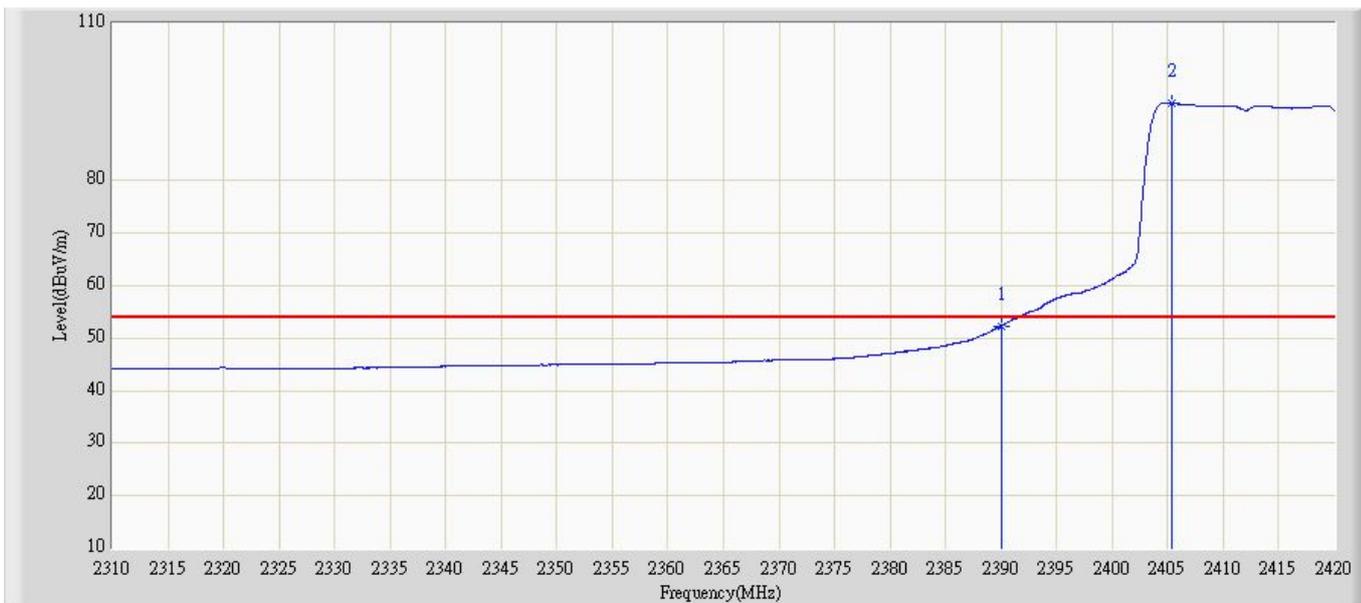
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		2390.000	52.869	22.314	-1.131	54.000	30.555	AV
2	*	2405.150	95.968	65.409	N/A	N/A	30.559	AV

Engineer: Aileen	
Site: AC2	Time: 2010/05/25 - 11:31
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 2: Transmit by 802.11g at channel 2412MHz	



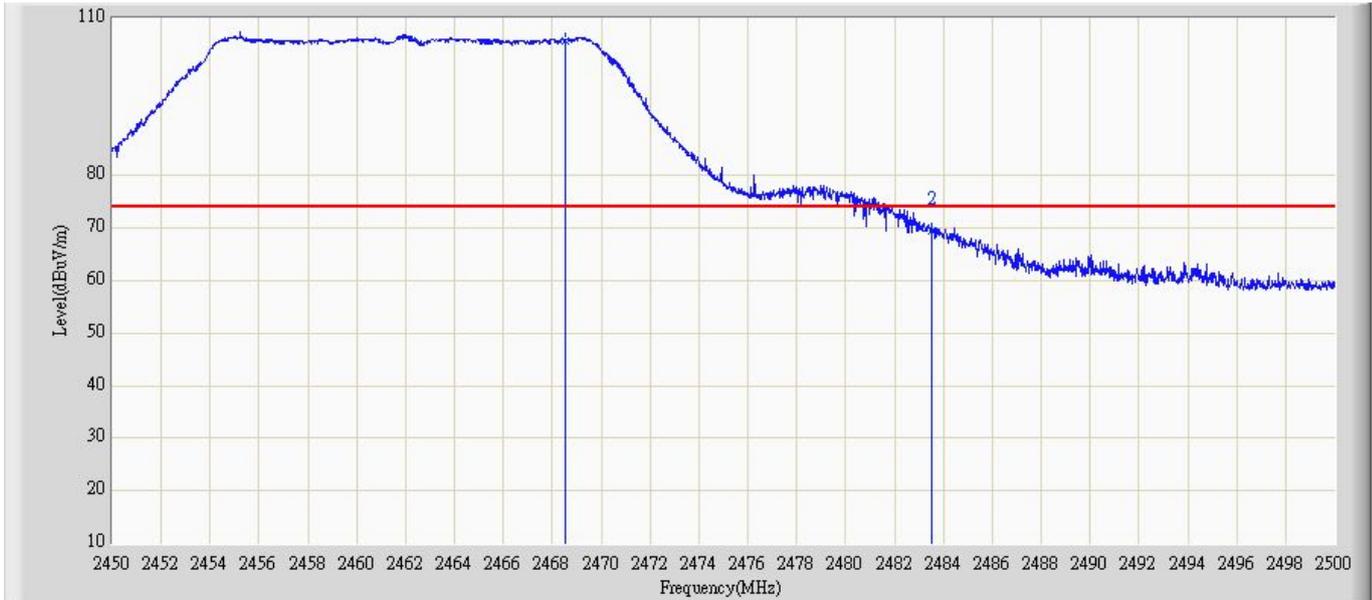
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		2390.000	71.412	40.857	-2.588	74.000	30.555	PK
2	*	2404.600	105.897	75.338	N/A	N/A	30.559	PK

Engineer: Aileen	
Site: AC2	Time: 2010/05/25 - 11:33
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 2: Transmit by 802.11g at channel 2412MHz	



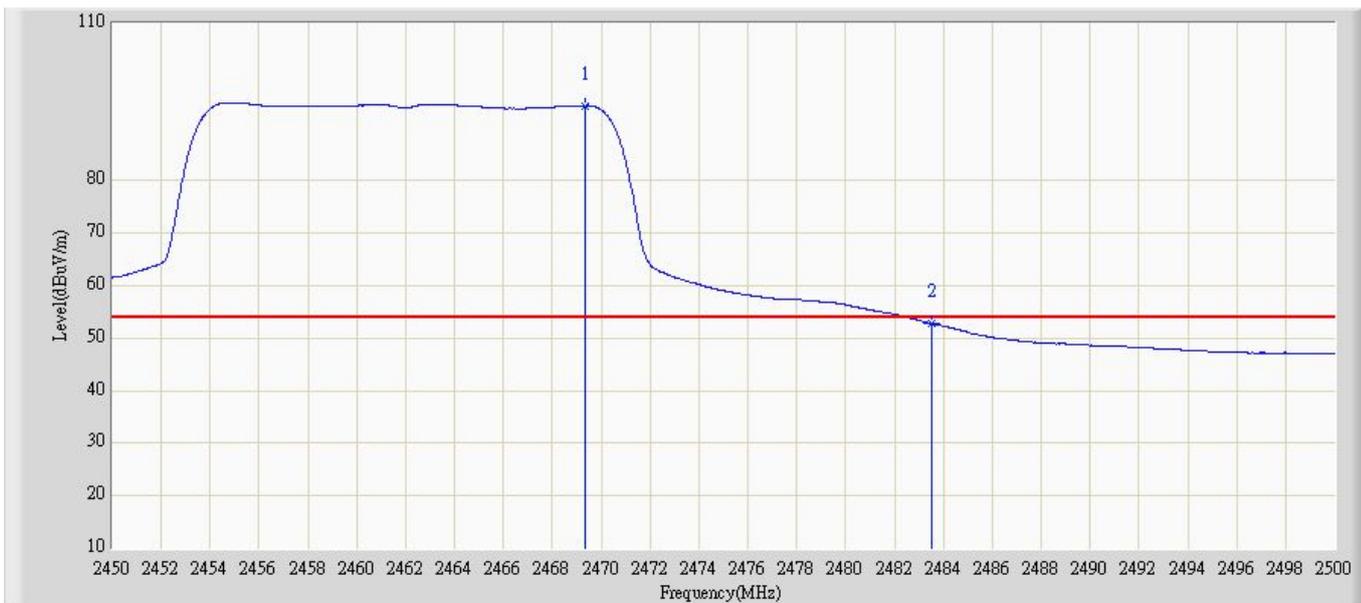
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		2390.000	52.313	21.758	-1.687	54.000	30.555	AV
2	*	2405.315	94.834	64.275	N/A	N/A	30.559	AV

Engineer: Aileen	
Site: AC2	Time: 2010/05/25 - 11:35
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 2: Transmit by 802.11g at channel 2462MHz	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	*	2468.525	105.759	75.359	N/A	N/A	30.401	PK
2		2483.500	69.538	39.216	-4.462	74.000	30.321	PK

Engineer: Aileen	
Site: AC2	Time: 2010/05/25 - 11:37
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 2: Transmit by 802.11g at channel 2462MHz	



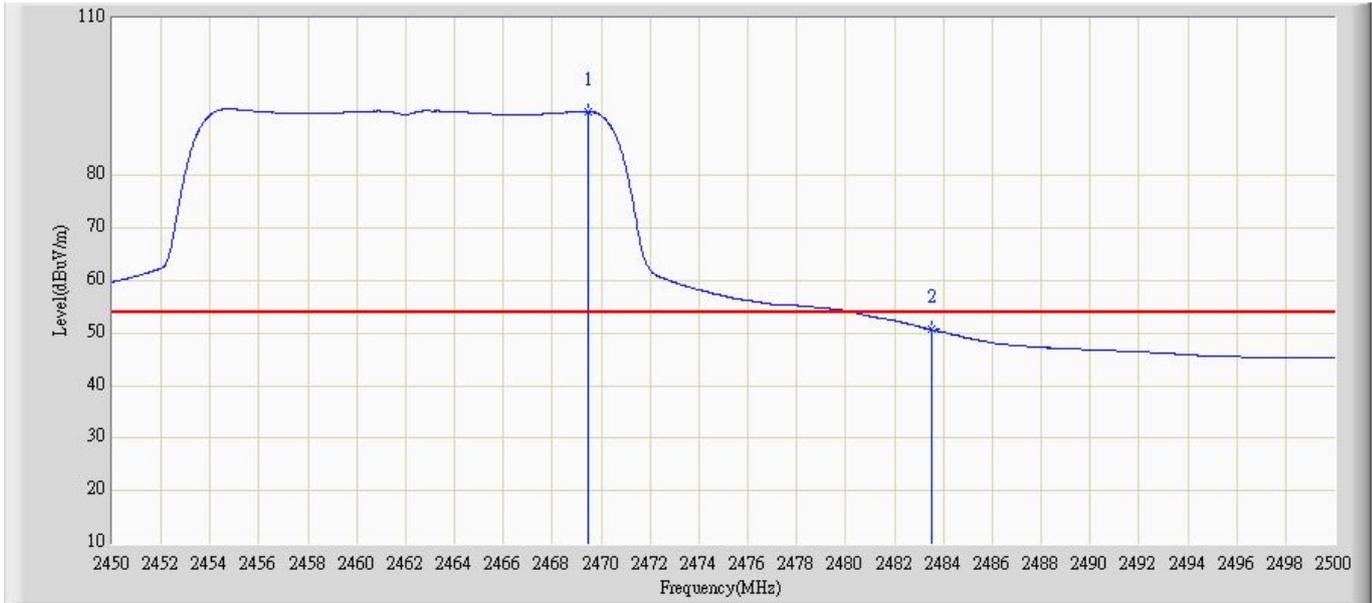
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	*	2469.350	94.319	63.923	N/A	N/A	30.396	AV
2		2483.500	52.831	22.509	-1.169	54.000	30.321	AV

Engineer: Aileen	
Site: AC2	Time: 2010/05/25 - 11:38
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 2: Transmit by 802.11g at channel 2462MHz	



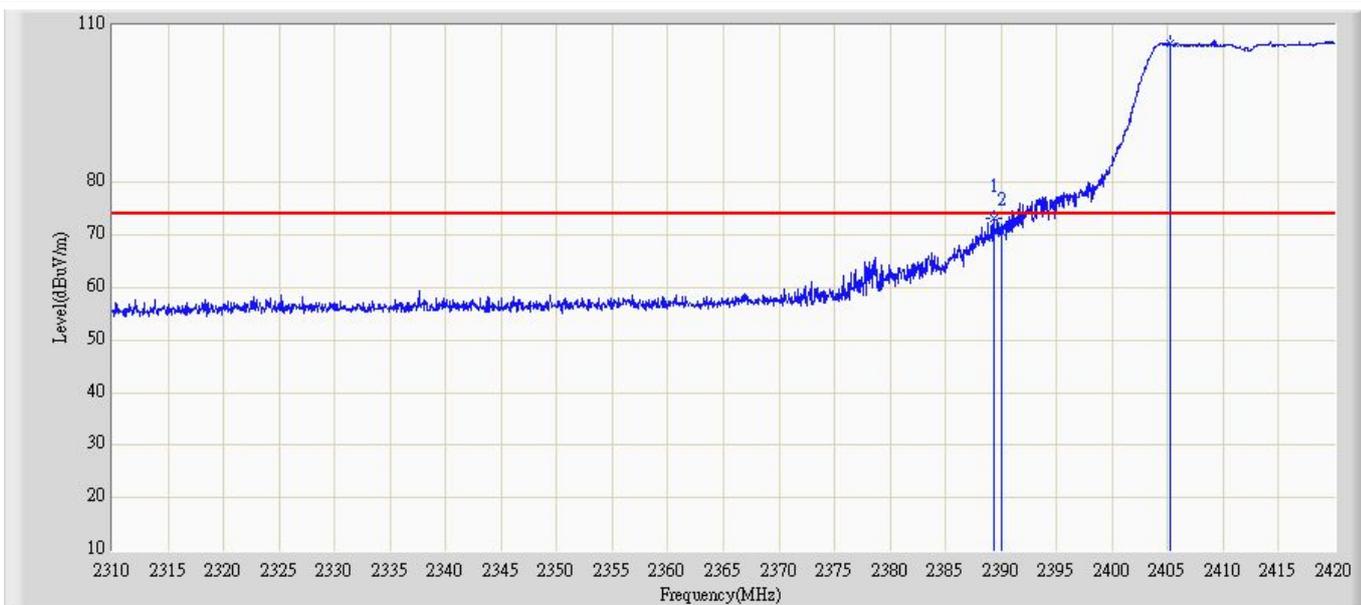
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	*	2469.075	103.586	73.189	N/A	N/A	30.397	PK
2		2483.500	69.055	38.733	-4.945	74.000	30.321	PK

Engineer: Aileen	
Site: AC2	Time: 2010/05/25 - 11:40
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 2: Transmit by 802.11g at channel 2462MHz	



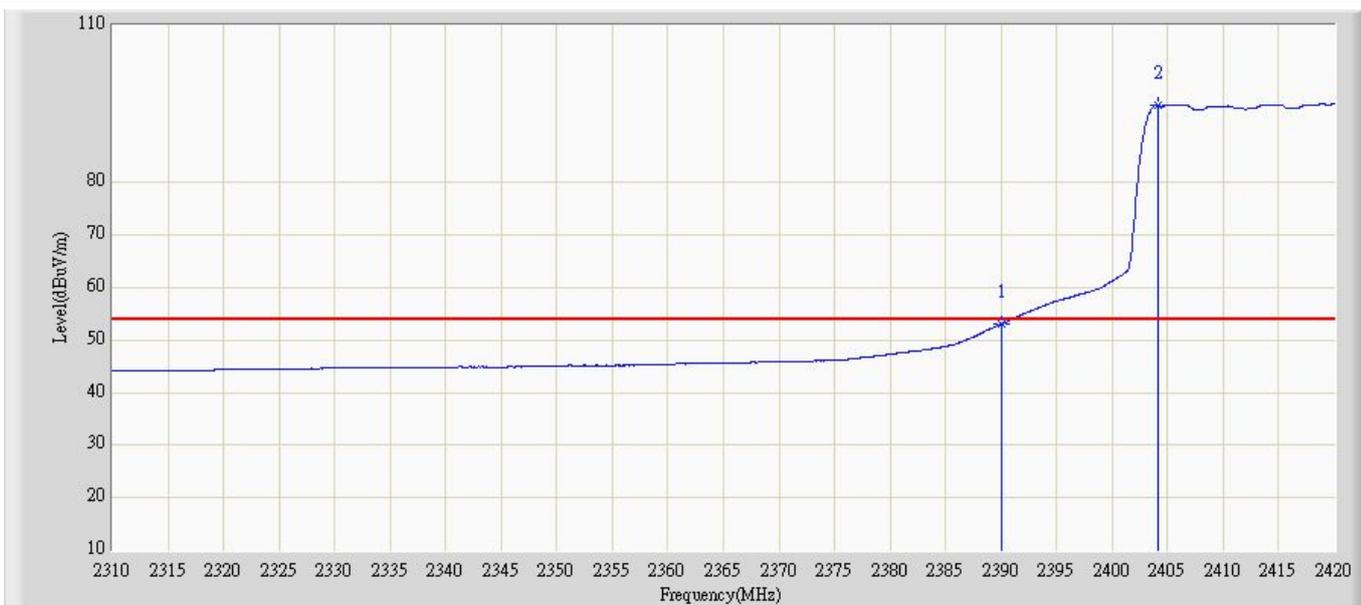
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	*	2469.450	92.240	61.845	N/A	N/A	30.395	AV
2		2483.500	50.700	20.378	-3.300	54.000	30.321	AV

Engineer: Aileen	
Site: AC2	Time: 2010/05/25 - 11:41
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 3: Transmit by 802.11n at channel 2412MHz	



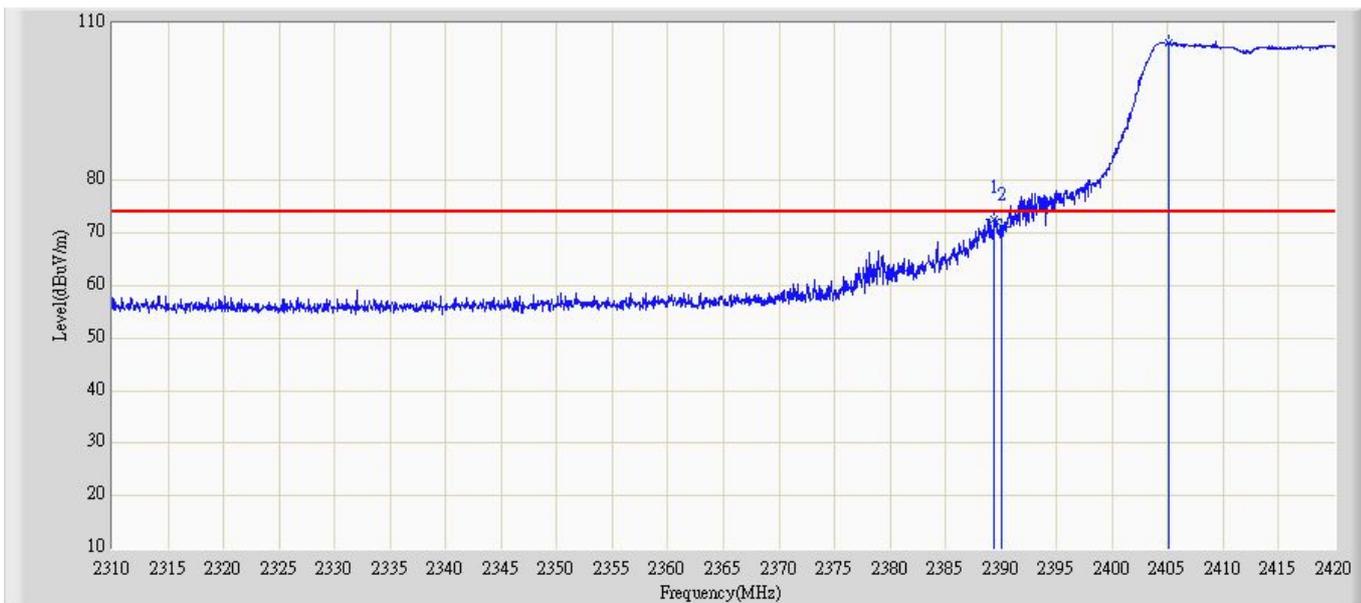
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		2389.310	73.117	42.563	-0.883	74.000	30.553	PK
2		2390.000	70.612	40.057	-3.388	74.000	30.555	PK
3	*	2405.260	106.485	75.926	N/A	N/A	30.559	PK

Engineer: Aileen	
Site: AC2	Time: 2010/05/25 - 11:45
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 3: Transmit by 802.11n at channel 2412MHz	



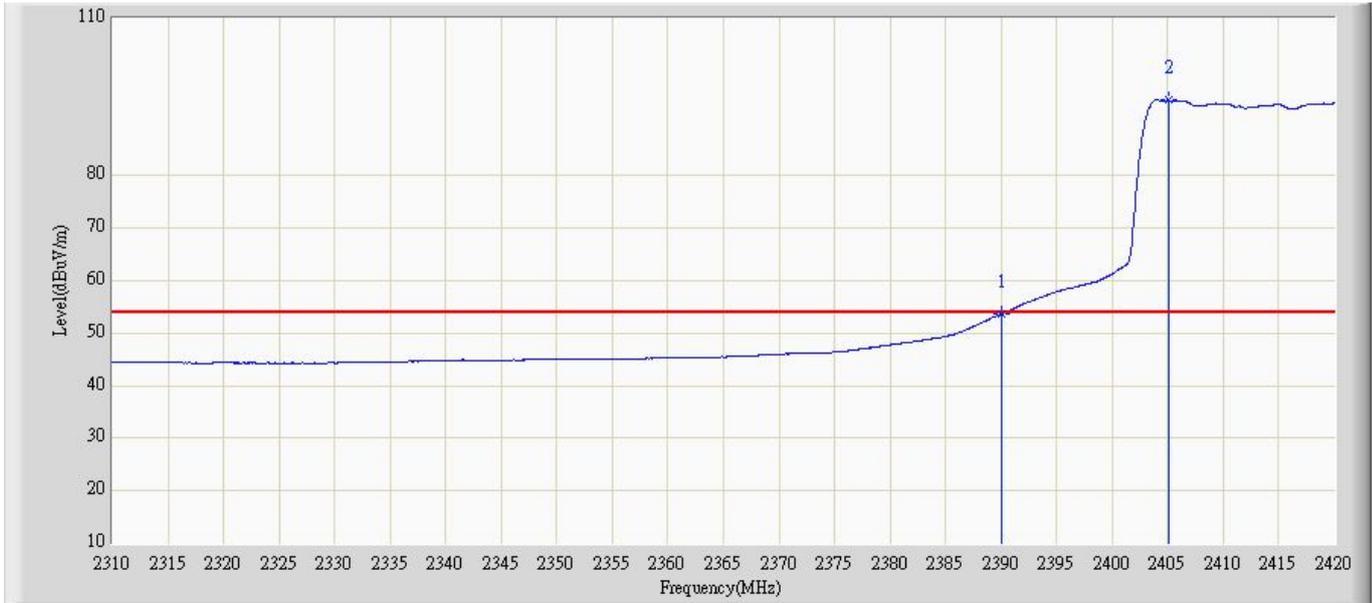
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		2390.000	53.081	22.526	-0.919	54.000	30.555	AV
2	*	2404.105	94.733	64.174	N/A	N/A	30.559	AV

Engineer: Aileen	
Site: AC2	Time: 2010/05/25 - 11:50
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 3: Transmit by 802.11n at channel 2412MHz	



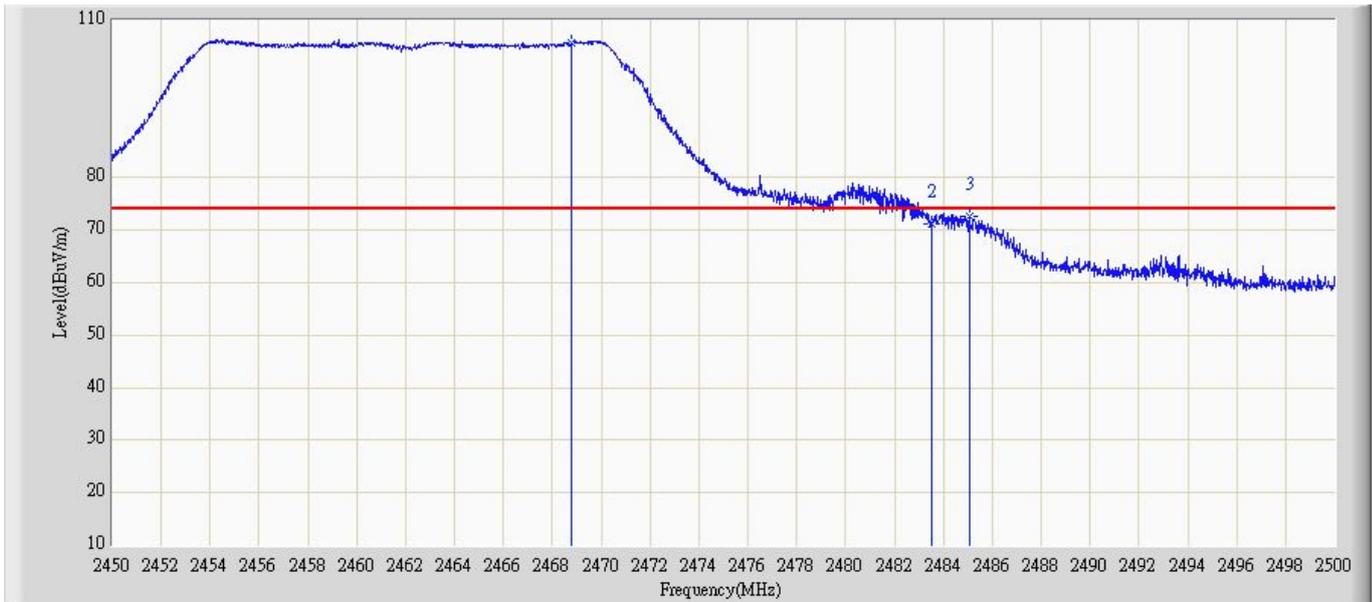
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		2389.365	72.654	42.100	-1.346	74.000	30.554	PK
2		2390.000	71.139	40.584	-2.861	74.000	30.555	PK
3	*	2405.040	106.166	75.607	N/A	N/A	30.559	PK

Engineer: Aileen	
Site: AC2	Time: 2010/05/25 - 11:50
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 3: Transmit by 802.11n at channel 2412MHz	



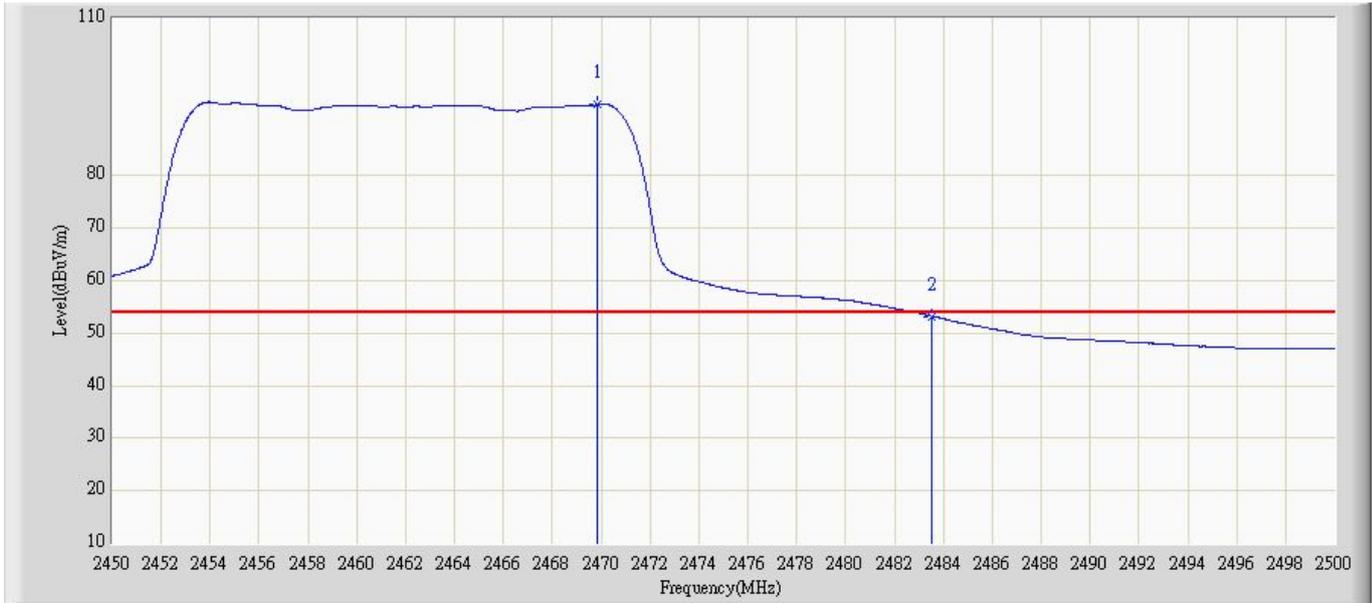
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		2390.000	53.648	23.093	-0.352	54.000	30.555	AV
2	*	2405.040	94.367	63.808	N/A	N/A	30.559	AV

Engineer: Aileen	
Site: AC2	Time: 2010/05/25 - 13:05
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 3: Transmit by 802.11n at channel 2462MHz	



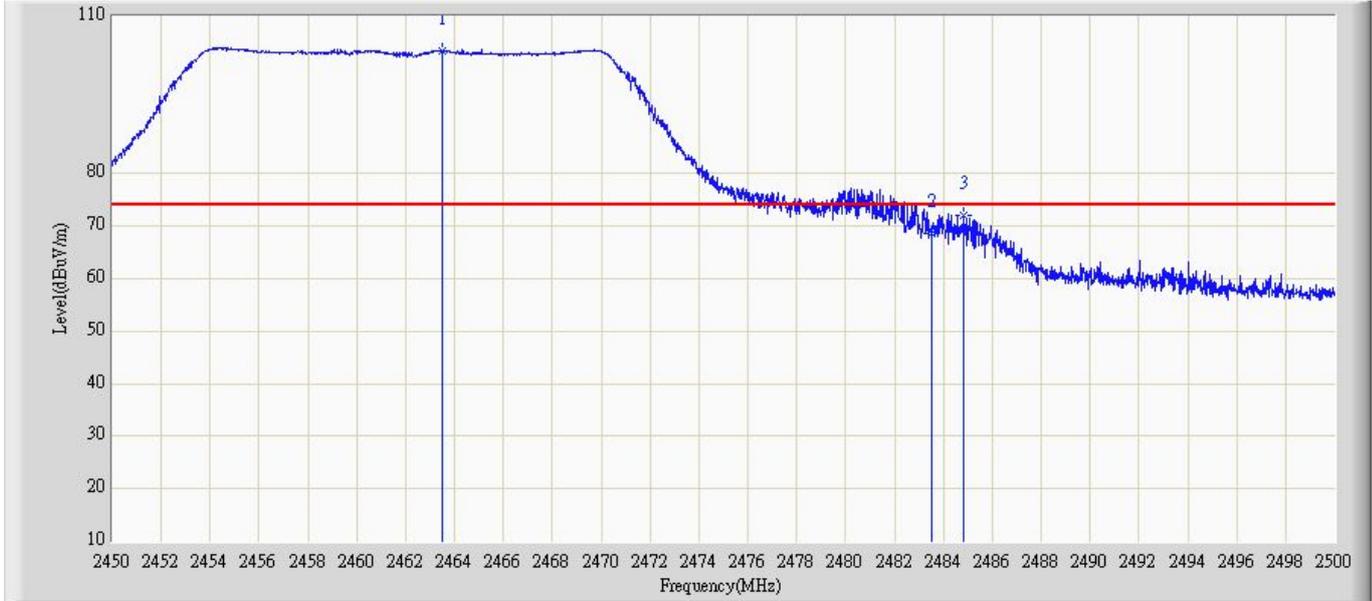
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	*	2468.750	105.746	75.347	N/A	N/A	30.399	PK
2		2483.500	71.285	40.963	-2.715	74.000	30.321	PK
3		2485.050	72.664	42.348	-1.336	74.000	30.316	PK

Engineer: Aileen	
Site: AC2	Time: 2010/05/25 - 13:05
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 3: Transmit by 802.11n at channel 2462MHz	



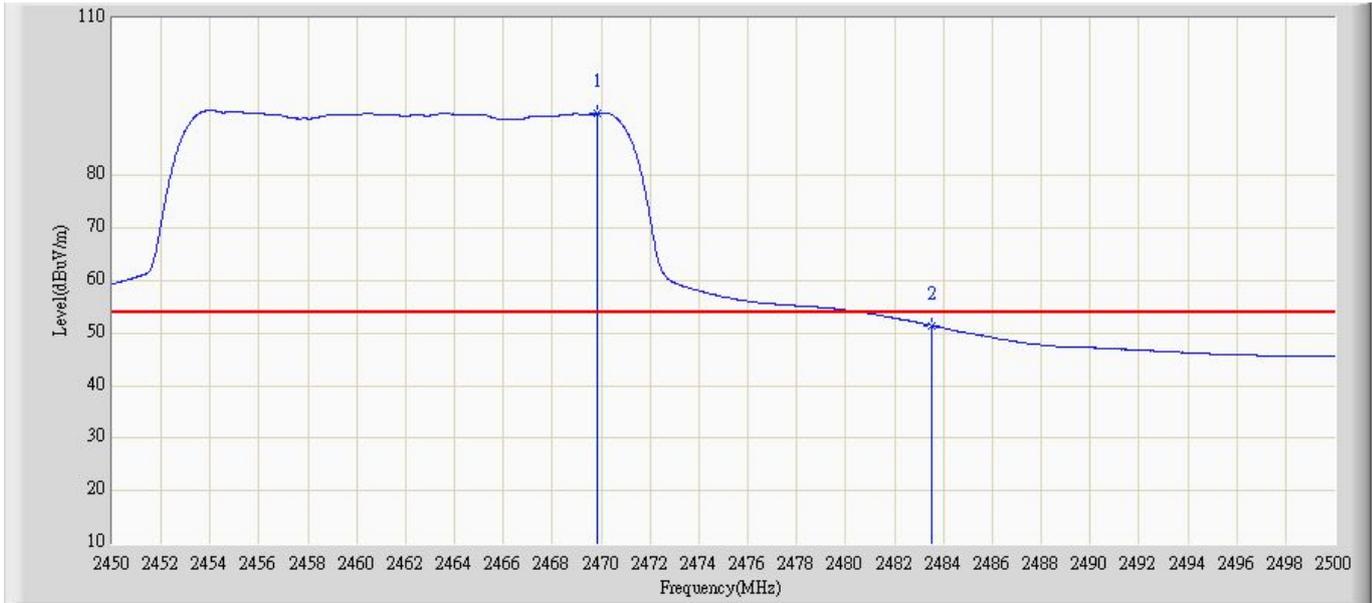
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	*	2469.850	93.542	63.149	N/A	N/A	30.393	AV
2		2483.500	53.238	22.916	-0.762	54.000	30.321	AV

Engineer: Aileen	
Site: AC2	Time: 2010/05/25 - 13:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 3: Transmit by 802.11n at channel 2462MHz	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	*	2463.525	103.430	73.001	N/A	N/A	30.429	PK
2		2483.500	68.613	38.291	-5.387	74.000	30.321	PK
3		2484.800	72.142	41.825	-1.858	74.000	30.316	PK

Engineer: Aileen	
Site: AC2	Time: 2010/05/25 - 13:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 3: Transmit by 802.11n at channel 2462MHz	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	*	2469.850	91.883	61.490	N/A	N/A	30.393	AV
2		2483.500	51.512	21.190	-2.488	54.000	30.321	AV

**7. Operation Frequency Range of 20dB Bandwidth**

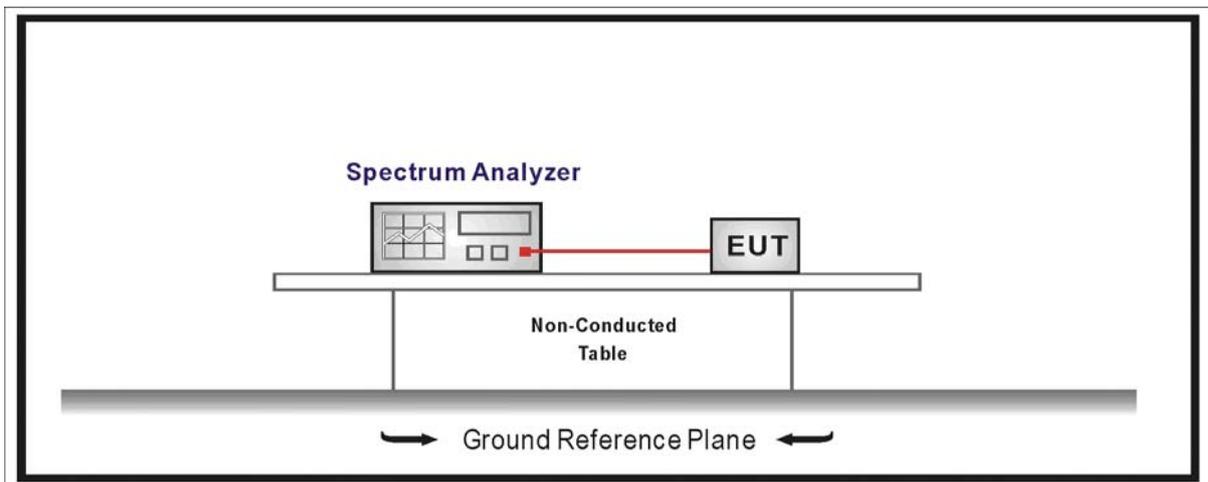
**7.1. Test Equipment**

Operation Frequency Range of 20dB Bandwidth / AC-6

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2010.04.30
Temperature/Humidity Meter	zhicheng	ZC1-2	AC6-TH	2010.01.14

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

**7.2. Test Setup**



**7.3. Limit**

20 dB bandwidth of the emission is contained within the operation frequency band.

**7.4. Test Procedure**

The EUT was tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 100 kHz, Span greater than RBW.

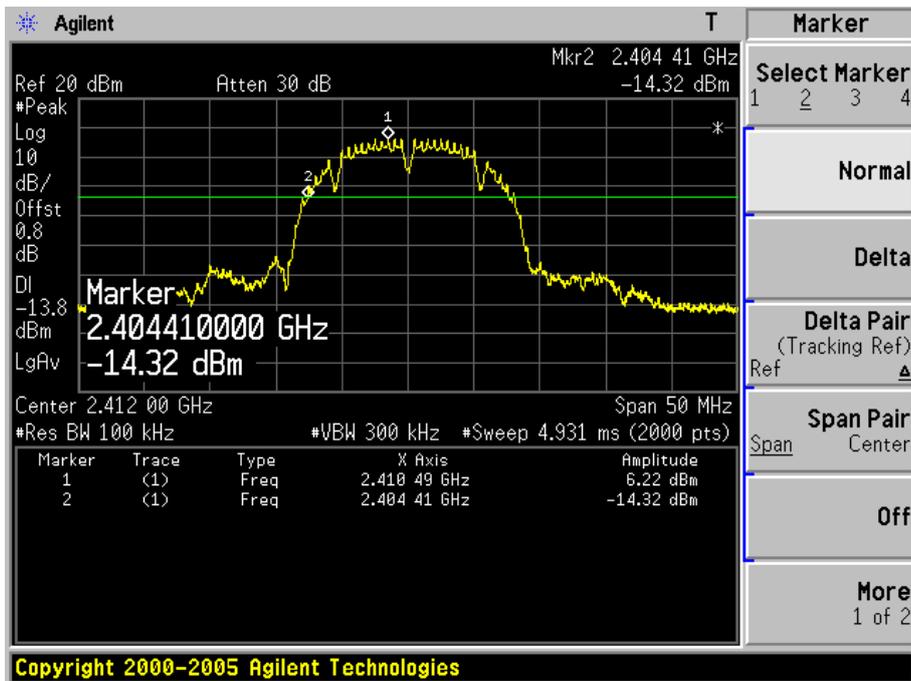
**7.5. Uncertainty**

The measurement uncertainty is defined as  $\pm 1$  kHz

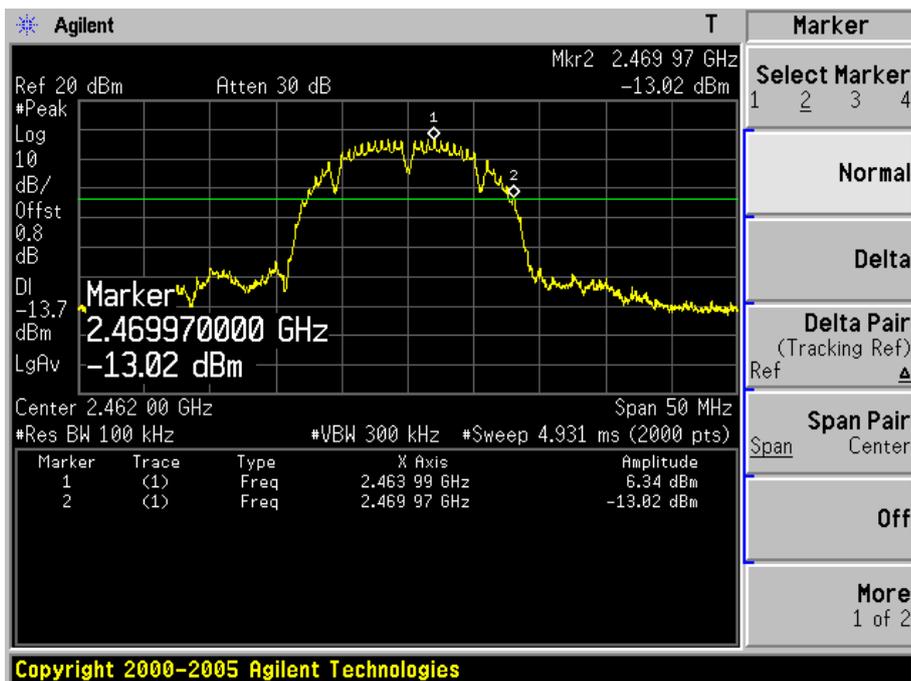
7.6. Test Result

Product	:	Eee PC
Test Item	:	Operation Frequency Range of 20dB Bandwidth
Test Mode	:	Mode 1: Transmit by 802.11b

Channel 01 (2412MHz)

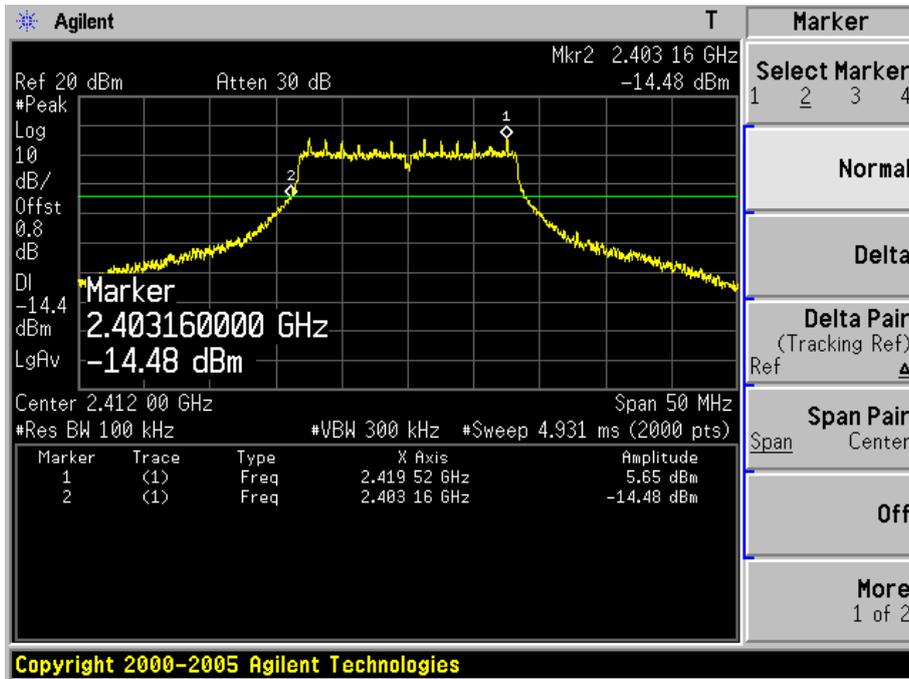


Channel 11 (2462MHz)

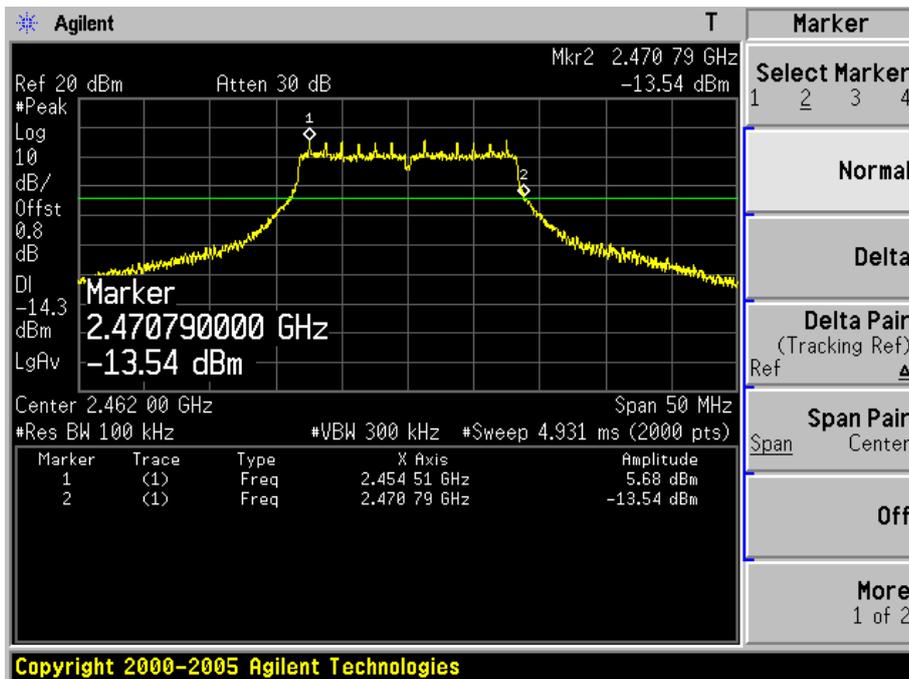


Product	:	Eee PC
Test Item	:	Operation Frequency Range of 20dB Bandwidth
Test Mode	:	Mode 2: Transmit by 802.11g

Channel 01 (2412MHz)

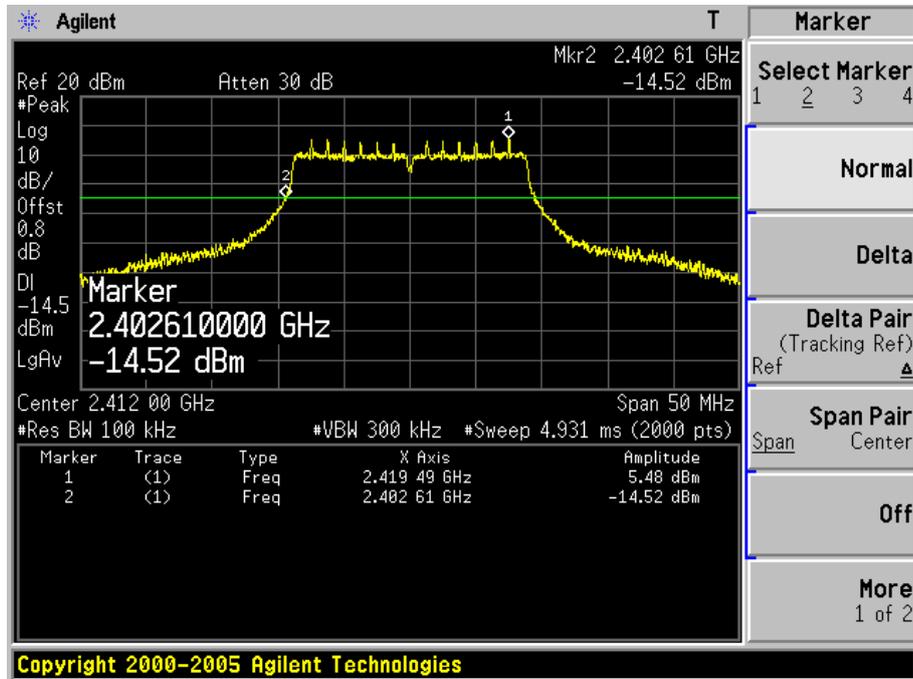


Channel 11 (2462MHz)

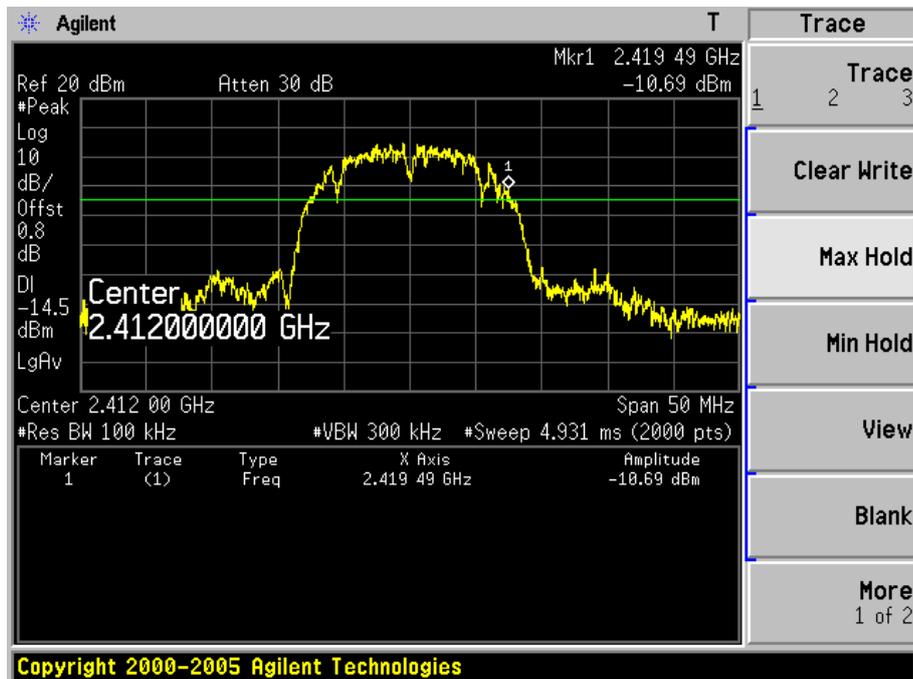


Product	:	Eee PC
Test Item	:	Operation Frequency Range of 20dB Bandwidth
Test Mode	:	Mode 3: Transmit by 802.11n (20MHz)

### Channel 01 (2412MHz)



### Channel 11 (2462MHz)



## 8. Occupied Bandwidth

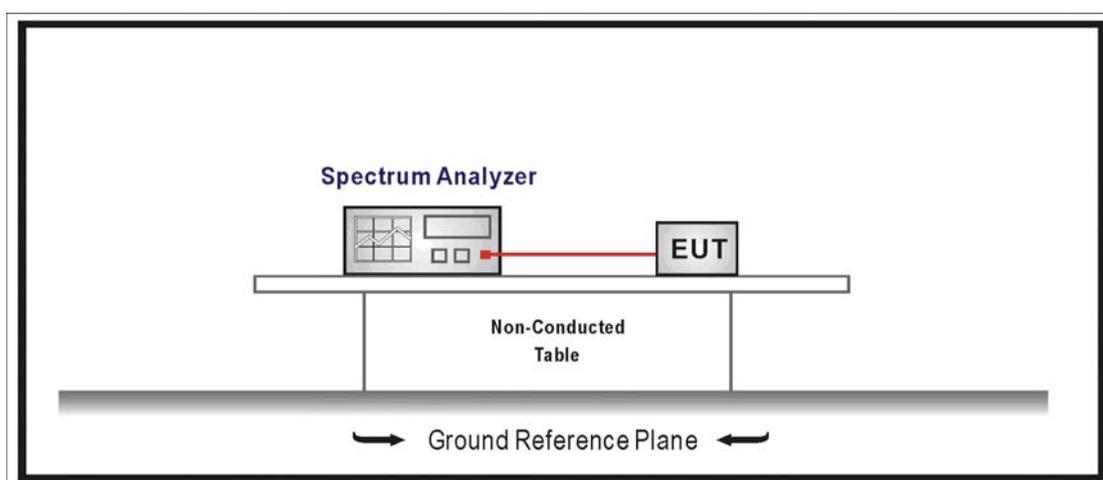
### 8.1. Test Equipment

Occupied Bandwidth / AC-6

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2010.04.30
Temperature/Humidity Meter	zhicheng	ZC1-2	AC6-TH	2010.01.14

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

### 8.2. Test Setup



### 8.3. Limit

The minimum 6 dB bandwidth shall be at least 500 kHz.

### 8.4. Test Procedure

The EUT was tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 100 kHz, Span greater than RBW.

### 8.5. Uncertainty

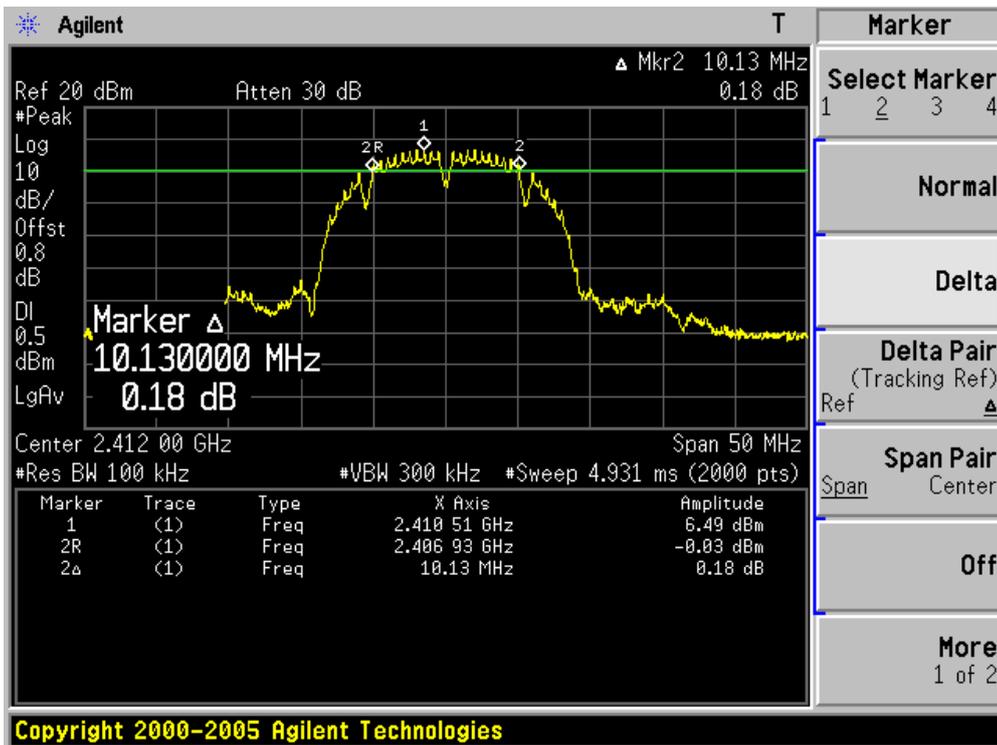
The measurement uncertainty is defined as  $\pm 1$  kHz

8.6. Test Result

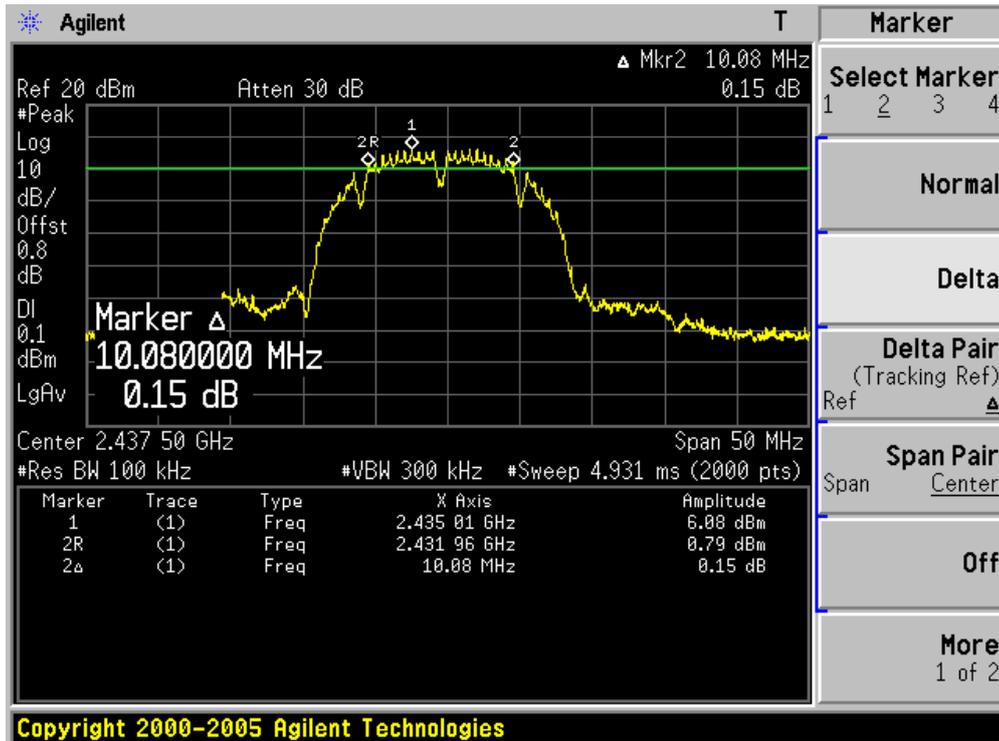
Product	:	Eee PC
Test Item	:	6dB Occupied Bandwidth
Test Mode	:	Mode 1: Transmit by 802.11b

Channel No.	Frequency (MHz)	Occupied Bandwidth (kHz)	Limit (kHz)	Result
01	2412	10130	500	Pass
06	2437	10080	500	Pass
11	2462	10010	500	Pass

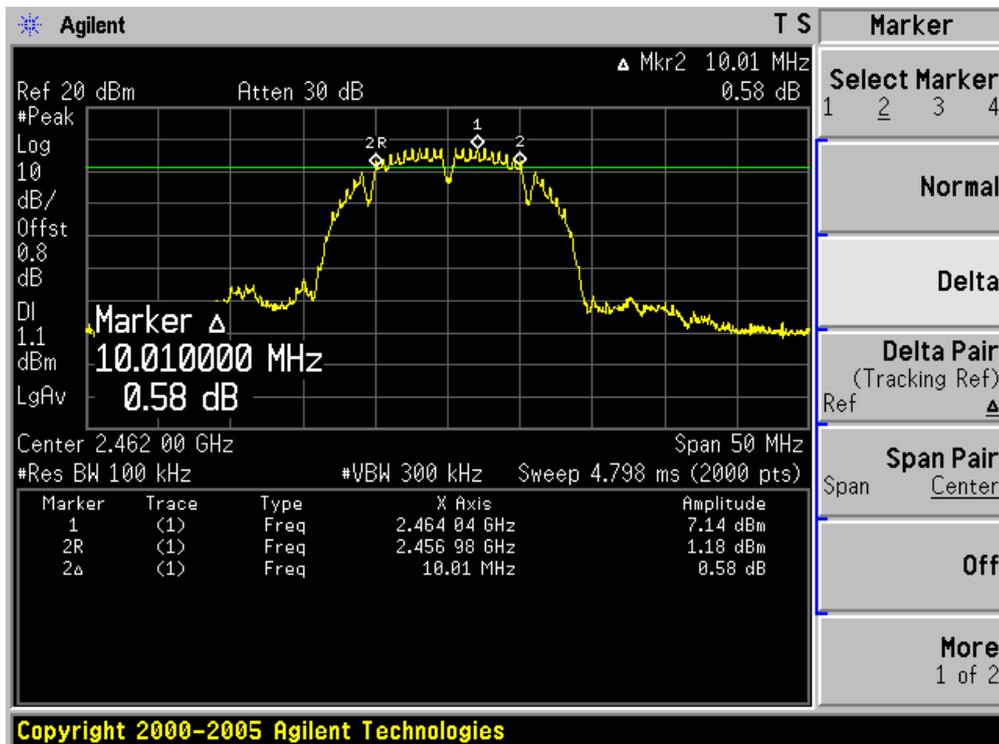
Channel 01 (2412MHz)



Channel 06 (2437MHz)



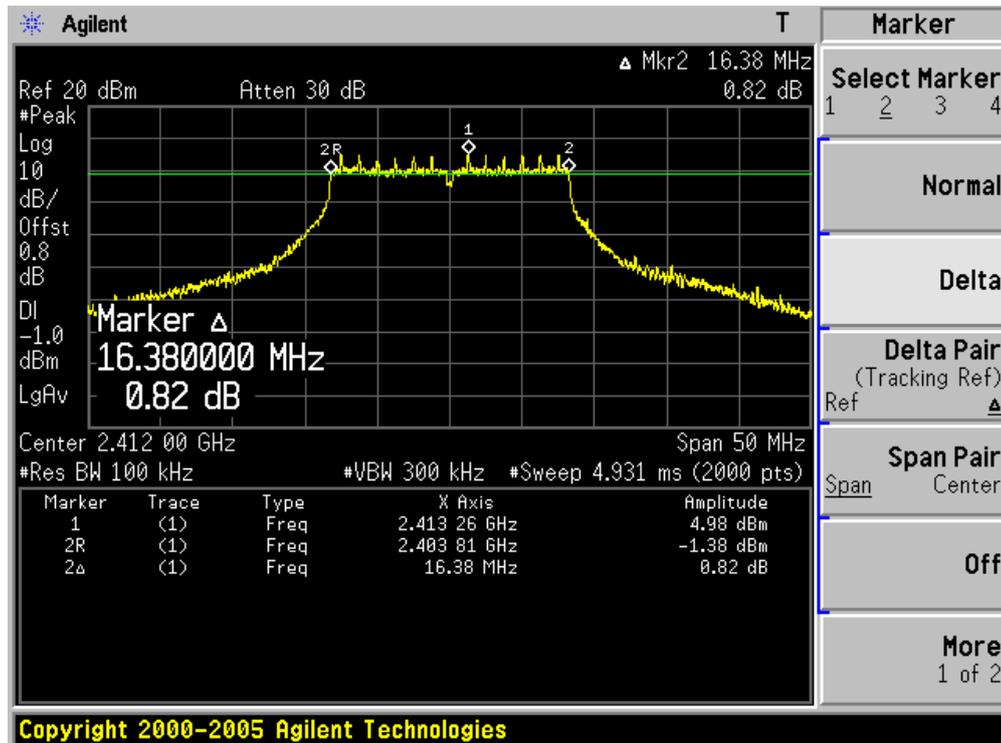
Channel 11 (2462MHz)



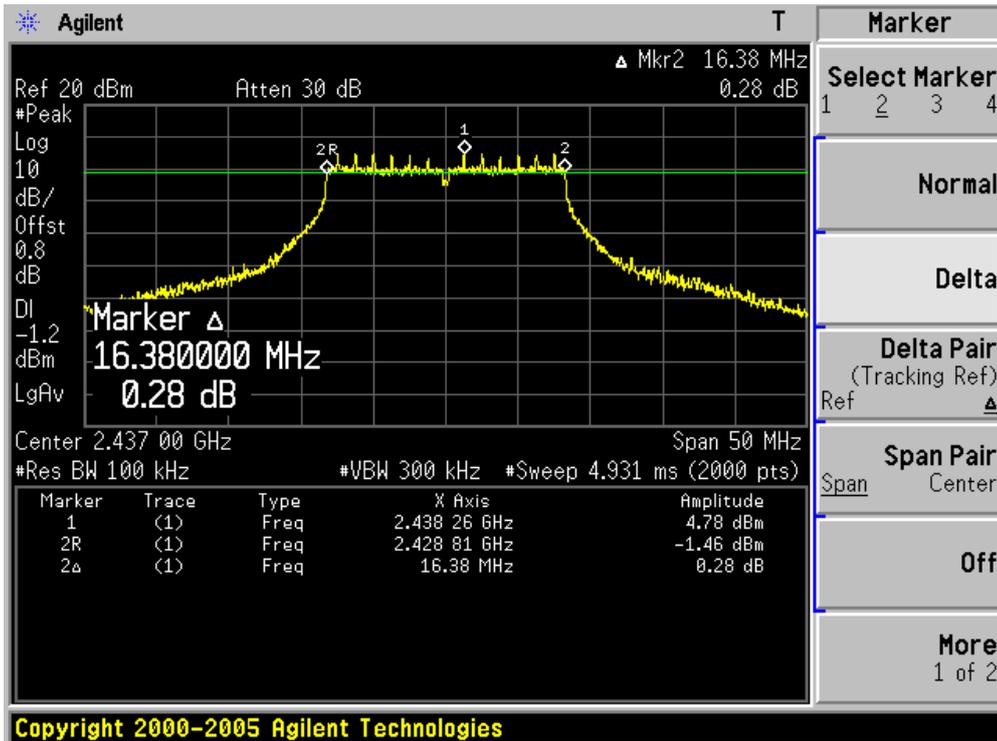
Product	:	Eee PC
Test Item	:	6dB Occupied Bandwidth
Test Mode	:	Mode 2: Transmit by 802.11g

Channel No.	Frequency (MHz)	Occupied Bandwidth (kHz)	Limit (kHz)	Result
01	2412	16380	500	Pass
06	2437	16380	500	Pass
11	2462	16260	500	Pass

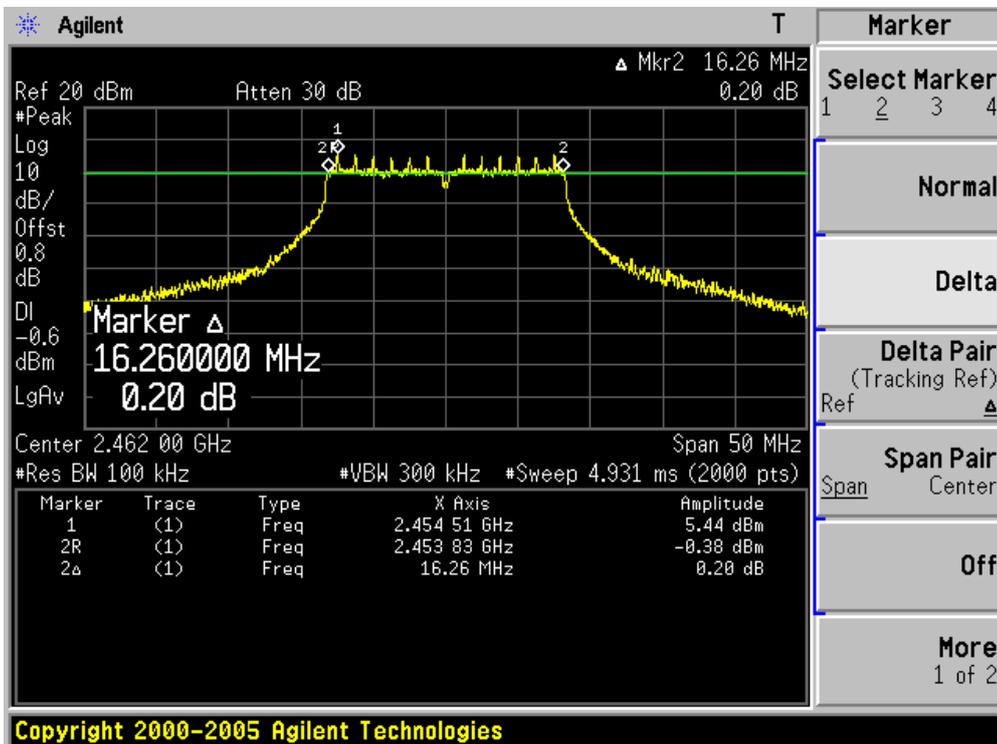
### Channel 01 (2412MHz)



Channel 06 (2437MHz)



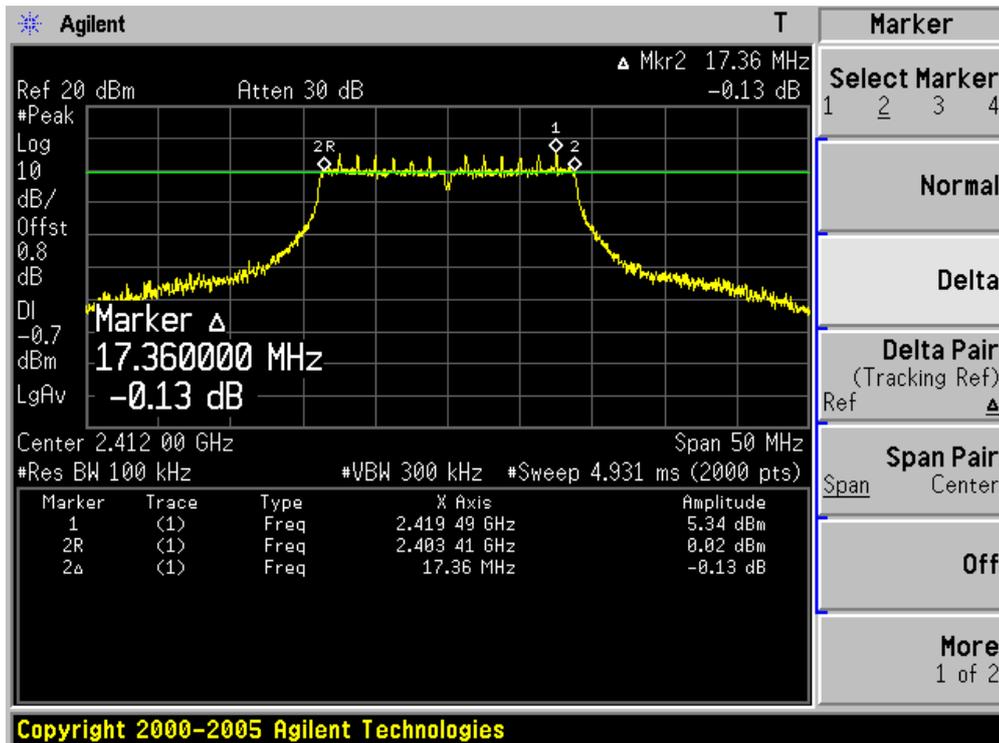
Channel 11 (2462MHz)



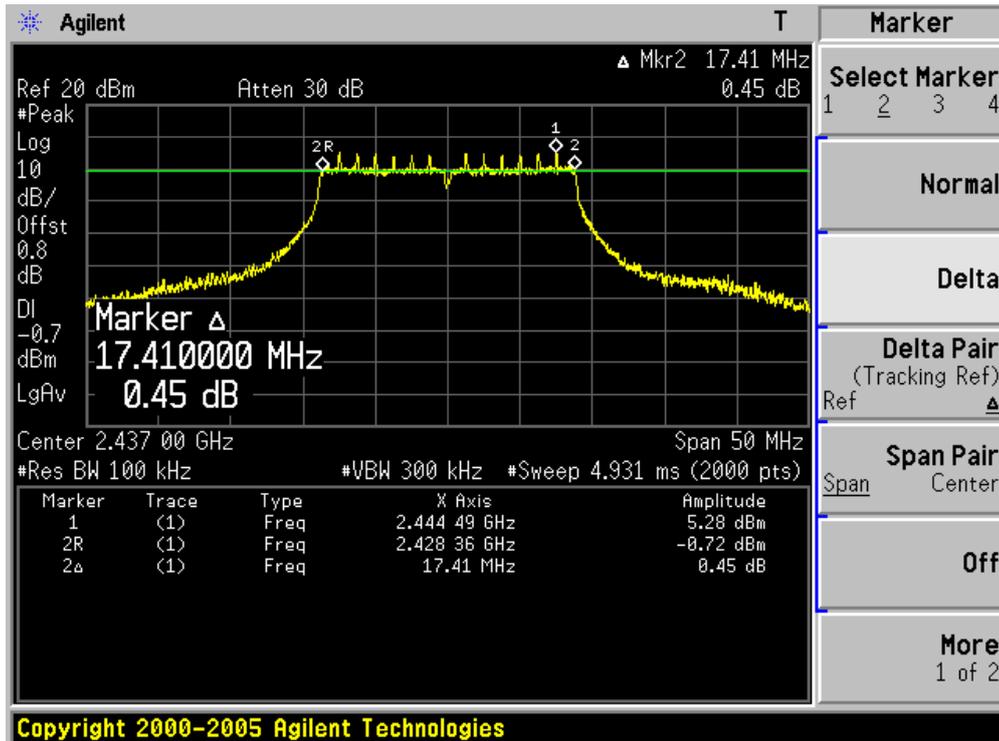
Product	:	Eee PC
Test Item	:	6dB Occupied Bandwidth
Test Mode	:	Mode 3: Transmit by 802.11n (20MHz)

Channel No.	Frequency (MHz)	Occupied Bandwidth (kHz)	Limit (kHz)	Result
01	2412	17360	500	Pass
06	2437	17410	500	Pass
11	2462	17560	500	Pass

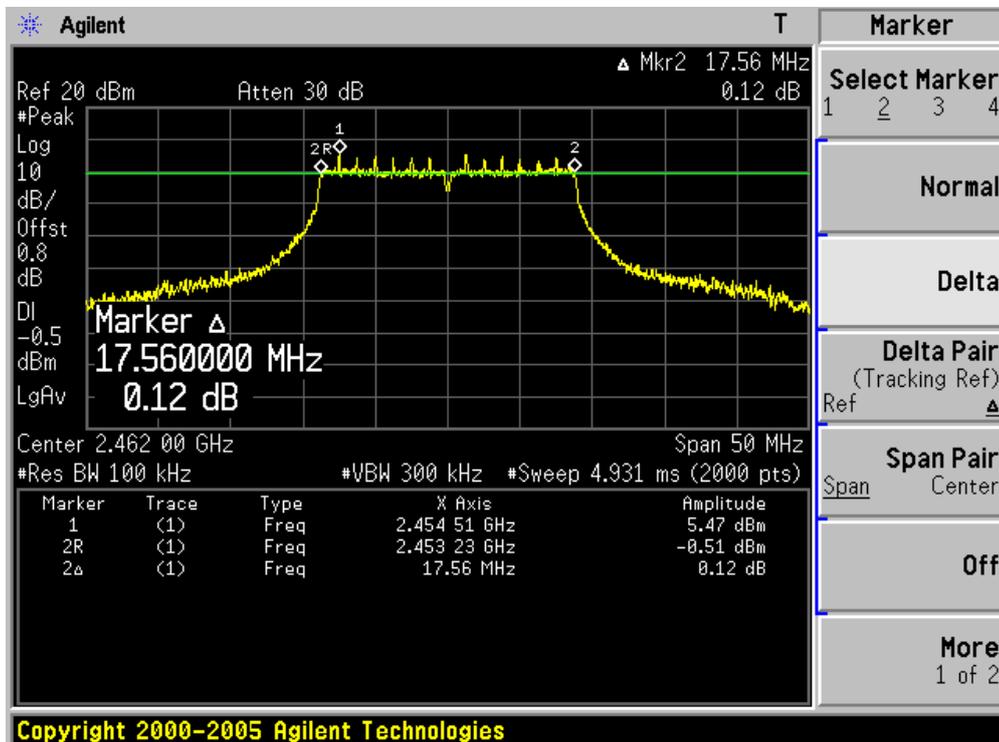
### Channel 01 (2412MHz)



Channel 06 (2437MHz)



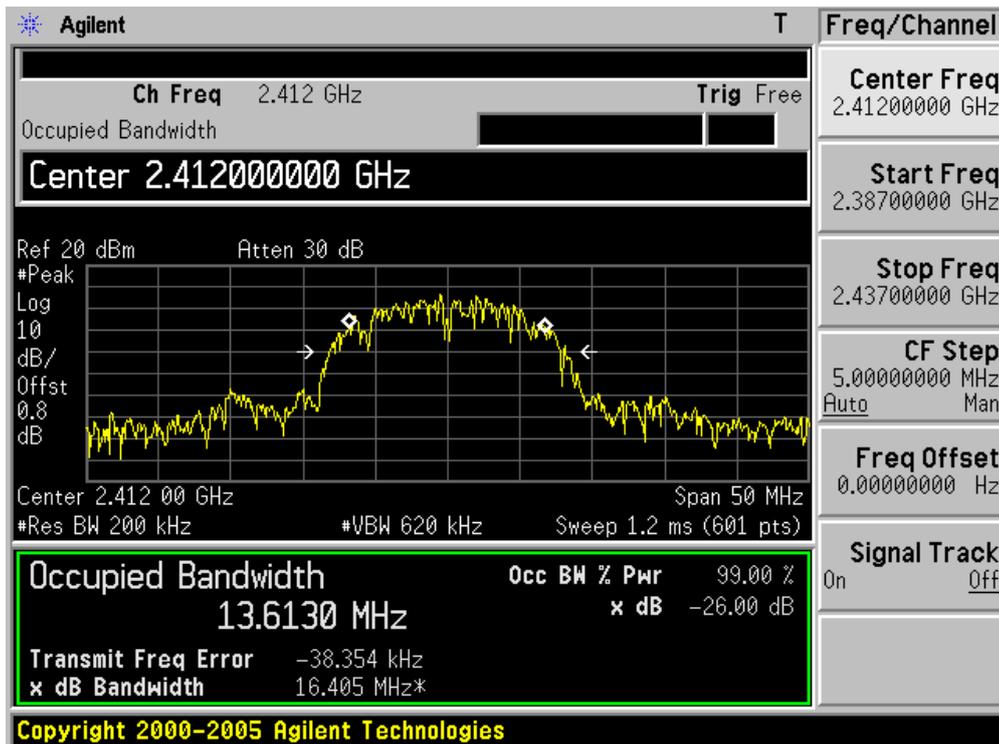
Channel 11 (2462MHz)



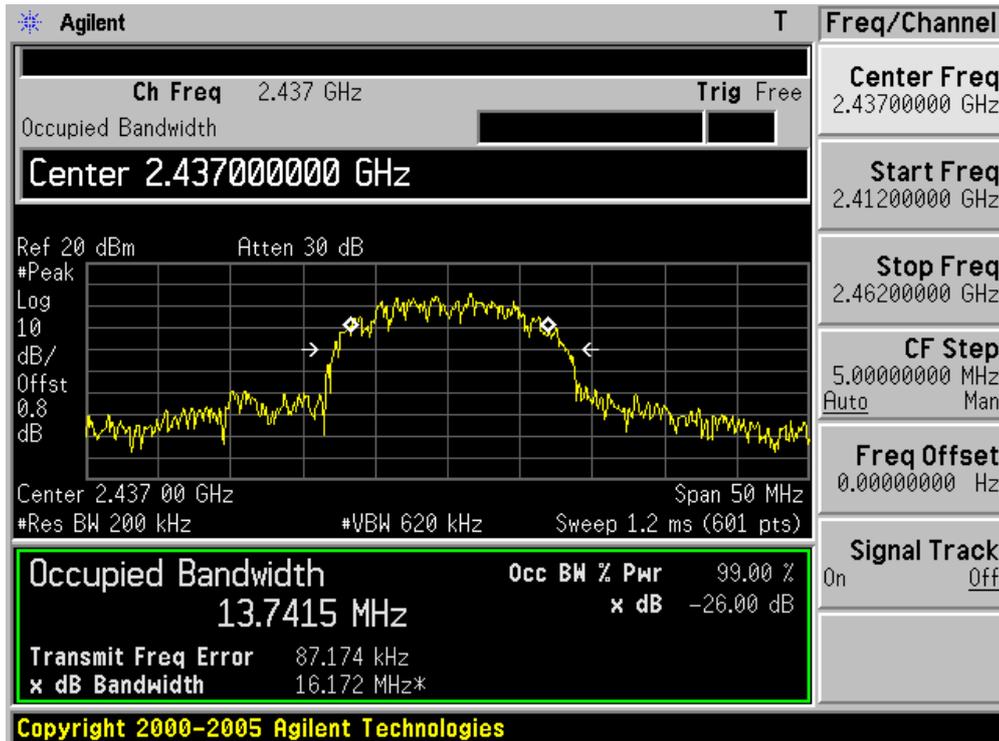
Product	:	Eee PC
Test Item	:	99% Occupied Bandwidth
Test Site	:	AC-6
Test Mode	:	Mode 1: Transmit by 802.11b

Channel No.	Frequency (MHz)	99% Occupied Bandwidth (kHz)	Result
01	2412	13613.0	Pass
06	2437	13741.5	Pass
11	2462	13407.8	Pass

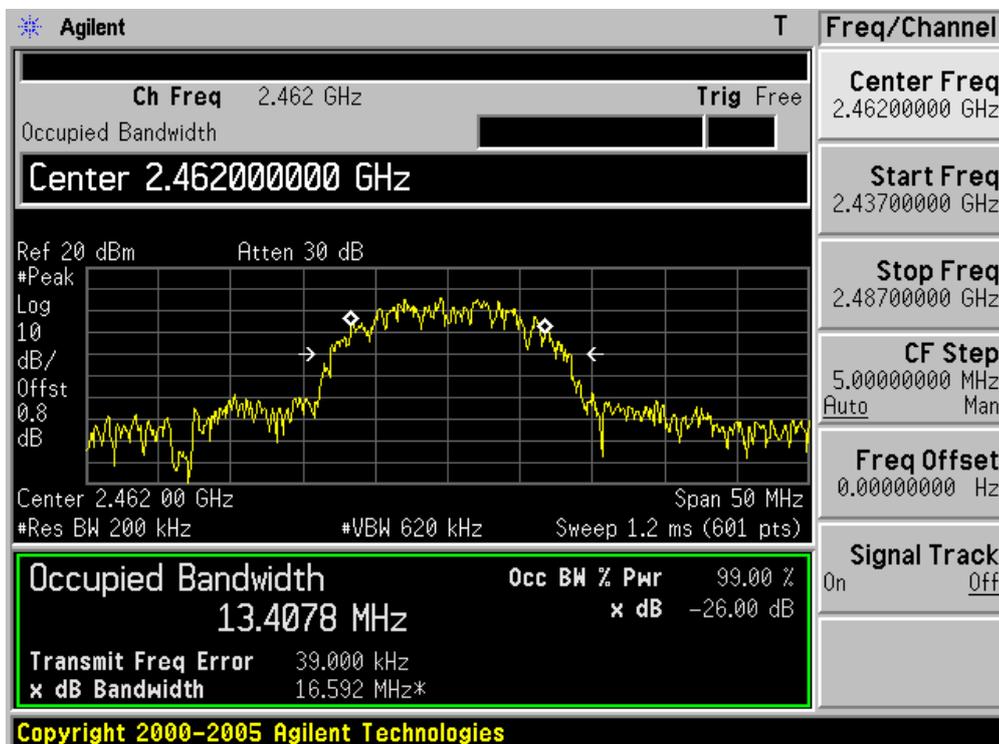
### Channel 01 (2412MHz)



Channel 06 (2437MHz)



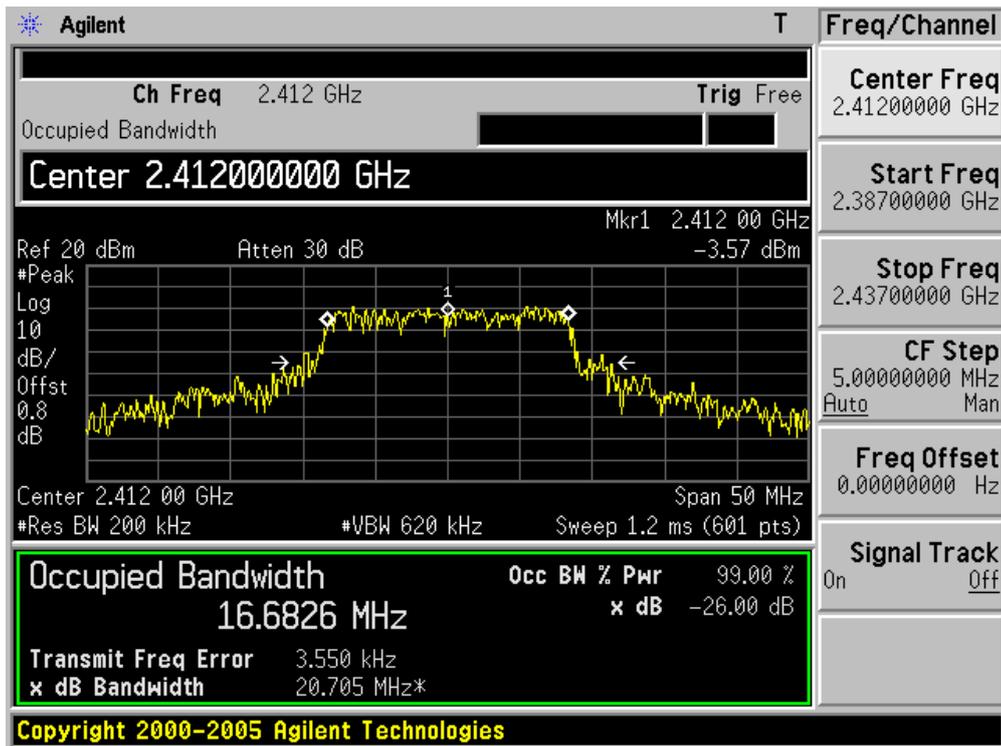
Channel 11 (2462MHz)



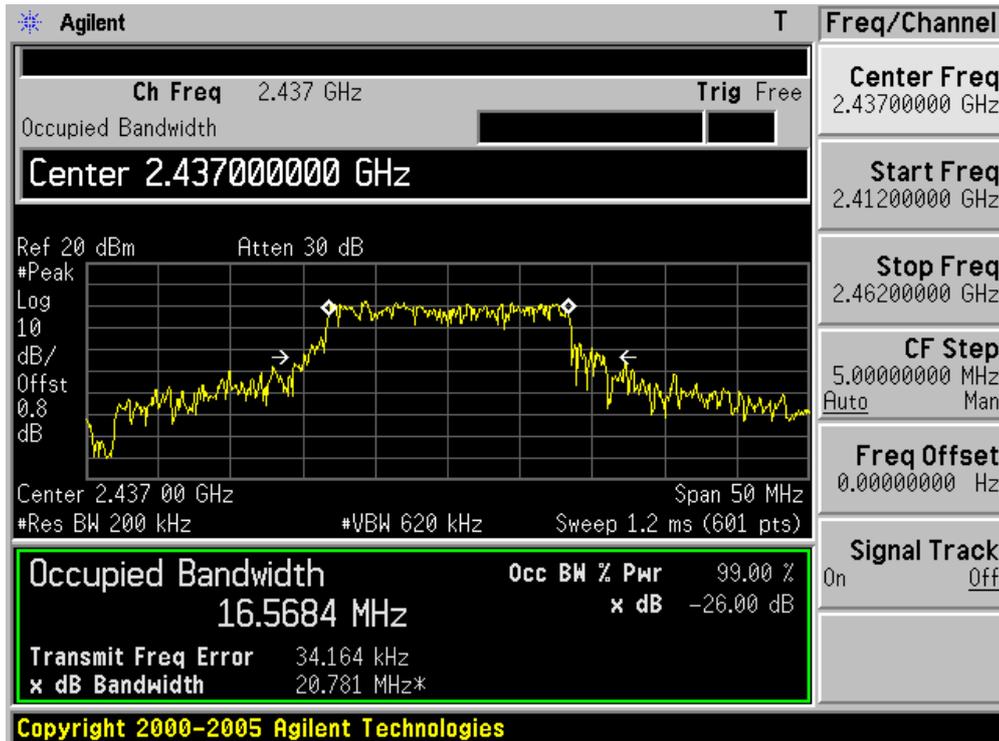
Product	:	Eee PC
Test Item	:	99% Occupied Bandwidth
Test Site	:	AC-6
Test Mode	:	Mode 2: Transmit by 802.11g

Channel No.	Frequency (MHz)	99% Occupied Bandwidth (kHz)	Result
01	2412	16682.6	Pass
06	2437	16568.4	Pass
11	2462	16612.7	Pass

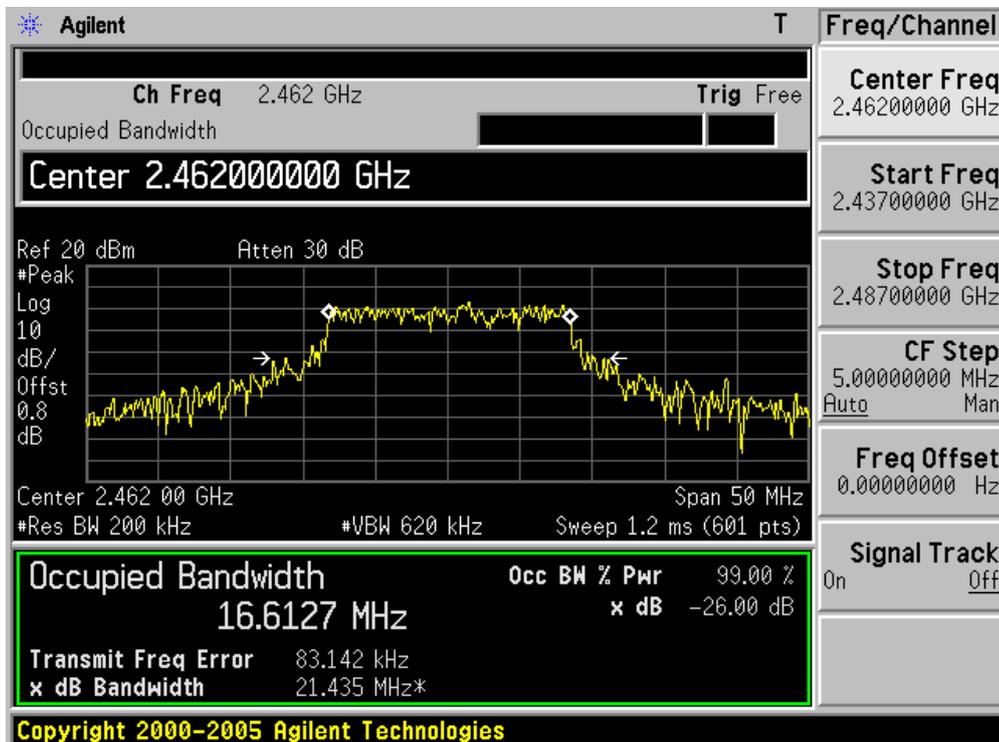
### Channel 01 (2412MHz)



Channel 06 (2437MHz)



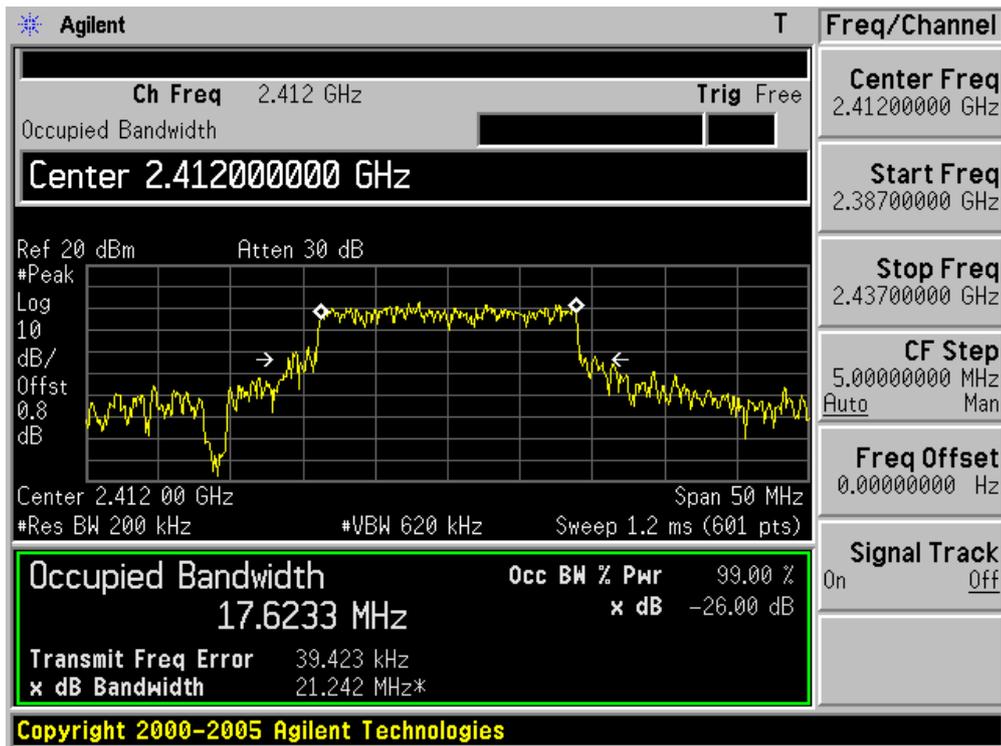
Channel 11 (2462MHz)



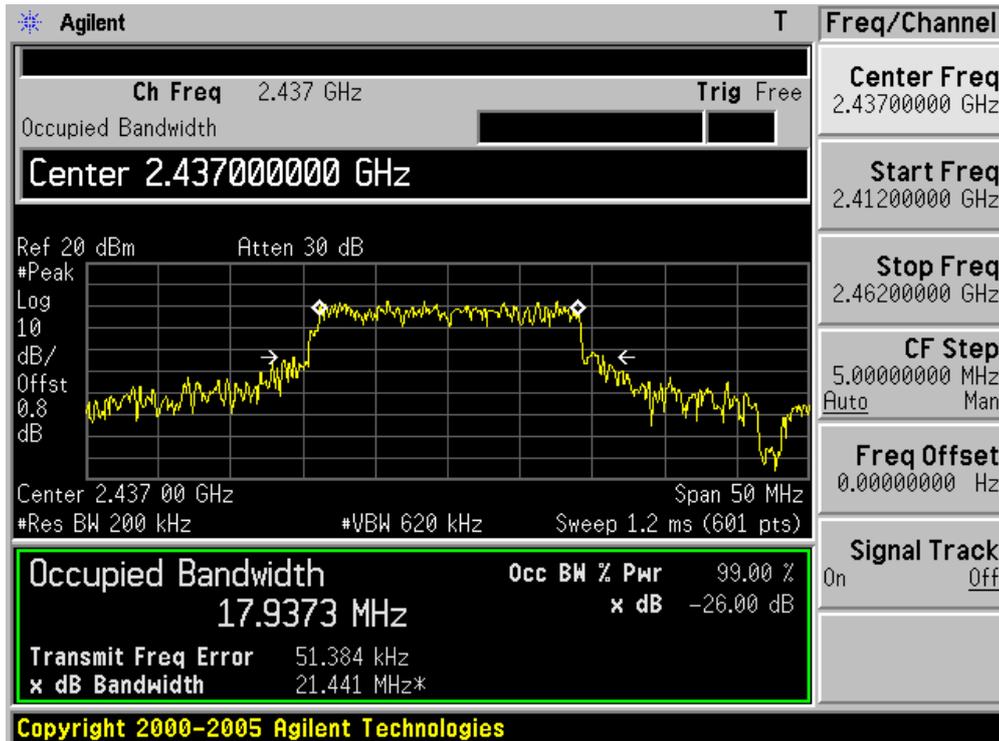
Product	:	Eee PC
Test Item	:	99% Occupied Bandwidth
Test Site	:	AC-6
Test Mode	:	Mode 3: Transmit by 802.11n (20MHz)

Channel No.	Frequency (MHz)	99% Occupied Bandwidth (kHz)	Result
01	2412	17623.3	Pass
06	2437	17937.3	Pass
11	2462	17779.6	Pass

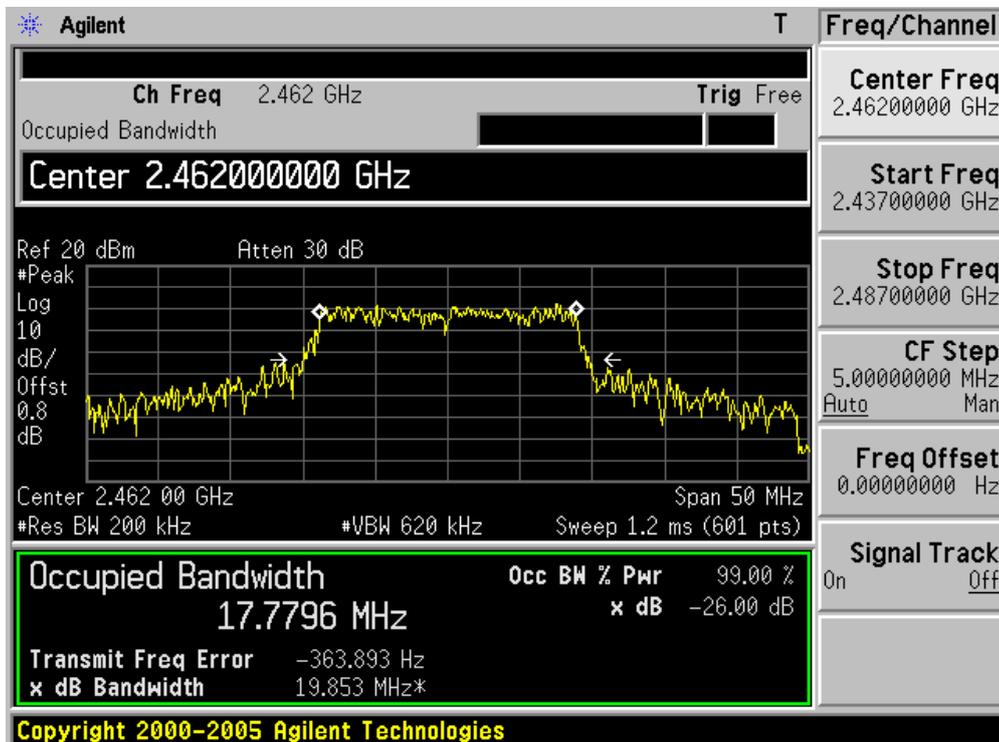
### Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)



## 9. Power Output

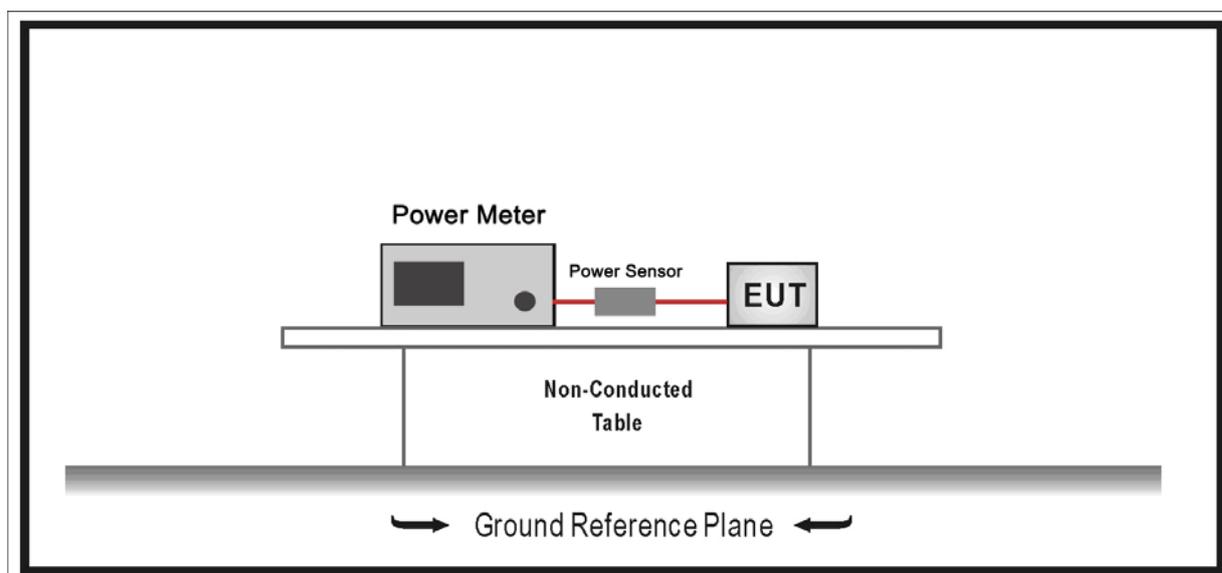
### 9.1. Test Equipment

Power Output / AC-6

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Wideband Peak Power Meter	Anritsu	ML2495A	0905006	2010.01.12
Power Sensor	Anritsu	MA2411B	0846014	2010.01.12
Temperature/Humidity Meter	zhicheng	ZC1-2	AC6-TH	2010.01.14

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

### 9.2. Test Setup



### 9.3. Limit

The maximum peak power shall be less 1 Watt (30dBm).

Note: the conducted output power limit specified above is based on the use the antennas with directional gains that do not exceed 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values above, as appropriate, by the amount in dB that the directional gain of antenna exceeds 6 dBi.

**9.4. Test Procedure**

The EUT was tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Use the wideband power meter to test peak power and record the result.

**9.5. Uncertainty**

The measurement uncertainty is defined as  $\pm 1.27$  dB

**9.6. Test Result**

Power output test was verified over all data rates of each mode shown as below, and then choose the maximum power output (blue marker) for final test of each channel.

MCS Index for 802.11n	Spatial Streams	Data Rate (Mbps)			
		802.11b	802.11g	20MHz Bandwidth	
				800ns GI	400ns GI
0	1	1	6	6.5	7.2
1	1	2	9	13.0	14.4
2	1	5.5	12	19.5	21.7
3	1	11	18	26.0	28.9
4	1	---	24	39.0	43.3
5	1	---	36	52.0	57.8
6	1	---	48	58.5	65.0
7	1	---	54	65.0	72.2

Power output at various data rates:

Test Mode	Frequency (MHz)	Channel	Data Rate	Peak Power (dBm)			
802.11b	2437	6	1	18.70			
			2	18.52			
			5.5	18.36			
			11	18.11			
802.11g	2437	6	6	23.65			
			9	23.51			
			12	23.39			
			18	23.25			
			24	23.11			
			36	22.96			
			48	22.82			
			54	22.74			
			802.11n (20M)	2437	6	6.5	23.70
						13.0	23.52
19.5	23.41						
26.0	23.25						
39.0	23.10						
52.0	22.76						
58.5	22.13						
65.0	21.64						

Product	:	Eee PC
Test Item	:	Power Output

Test Mode	Channel No.	Frequency (MHz)	Conducted Power (dBm)	Limit (dBm)	Result
802.11b	01	2412	17.30	30	Pass
	06	2437	18.70	30	Pass
	11	2462	18.90	30	Pass
802.11g	01	2412	23.87	30	Pass
	06	2437	23.65	30	Pass
	11	2462	23.92	30	Pass
802.11n(20M)	01	2412	23.89	30	Pass
	06	2437	23.70	30	Pass
	11	2462	23.95	30	Pass

## 10. Power Spectral Density

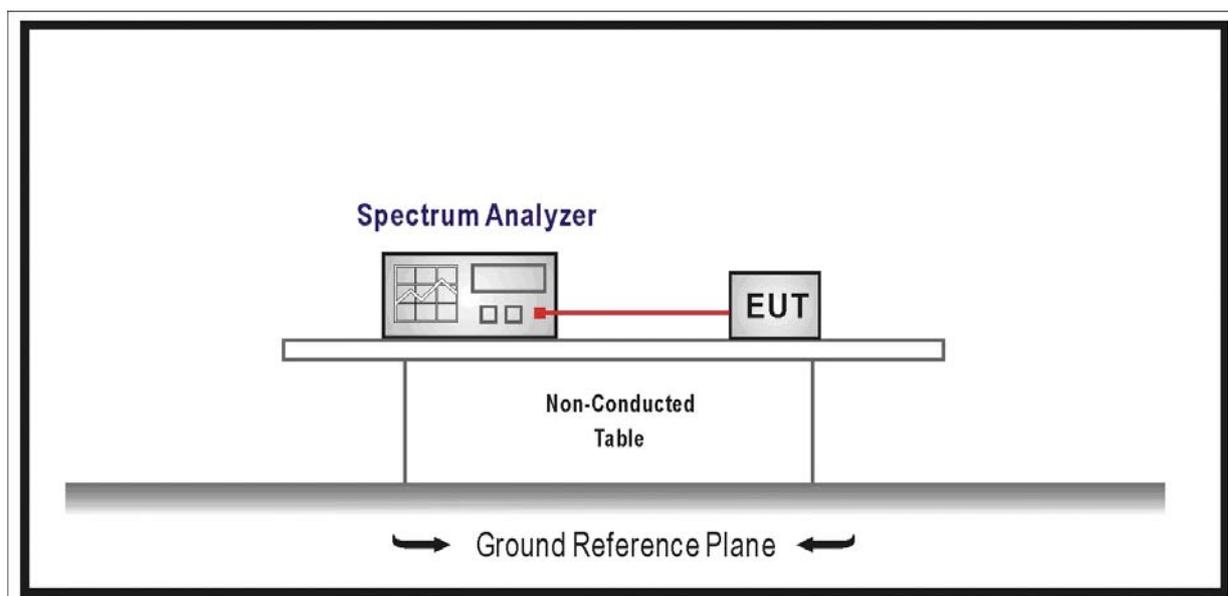
### 10.1. Test Equipment

Power Spectral Density / AC-6

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2010.04.30
Temperature/Humidity Meter	zhicheng	ZC1-2	AC6-TH	2010.01.14

Note: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

### 10.2. Test Setup



### 10.3. Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiated to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.

**10.4. Test Procedure**

The EUT was tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW= 3 kHz, Set VBW  $\geq$  10 kHz, Sweep time=100s, Set detector=Peak detector.

**10.5. Uncertainty**

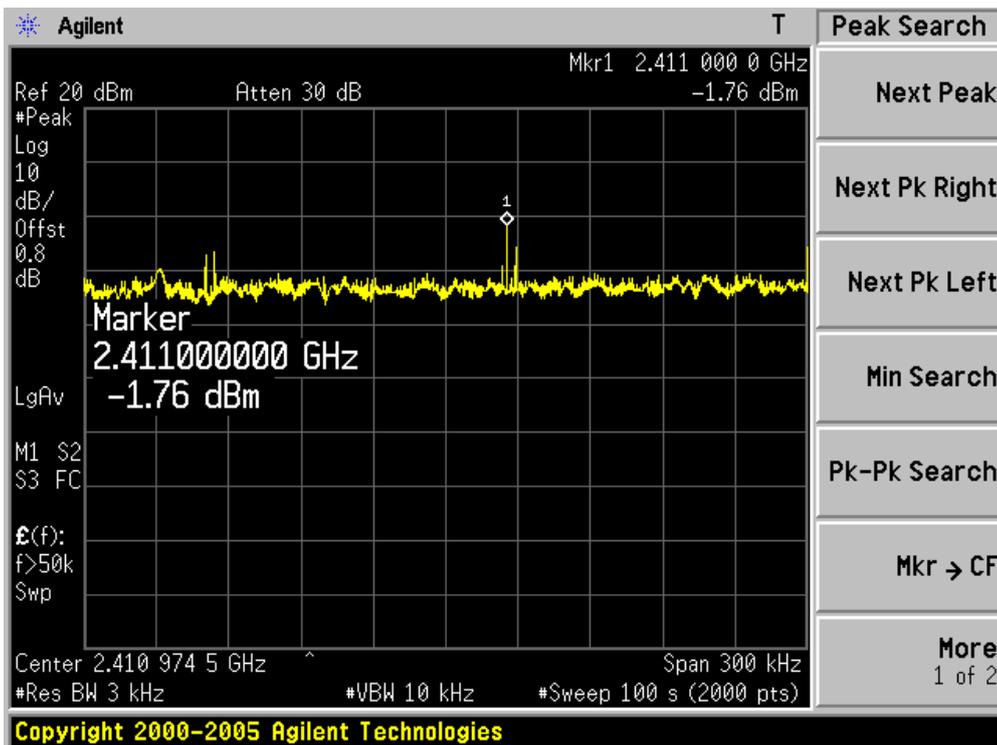
The measurement uncertainty is defined as  $\pm 1.27$  dB

10.6. Test Result

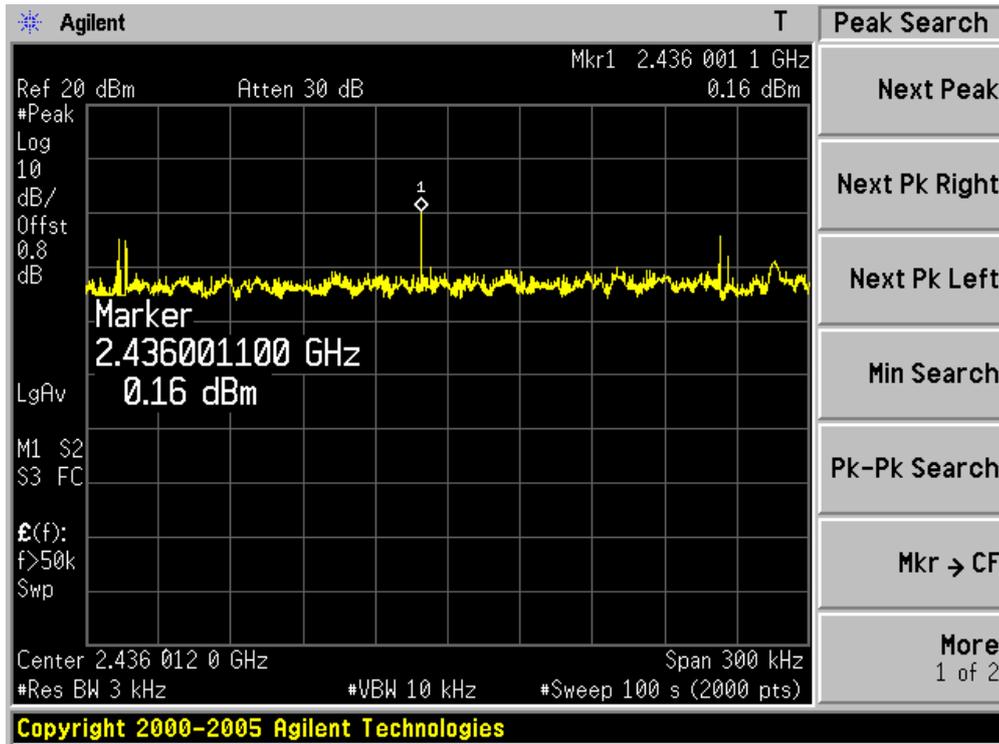
Product	:	Eee PC
Test Item	:	Power Spectral Density
Test Mode	:	Mode 1: Transmit by 802.11b

Channel No.	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm)	Result
01	2412	-1.76	8	Pass
06	2437	0.16	8	Pass
11	2462	0.04	8	Pass

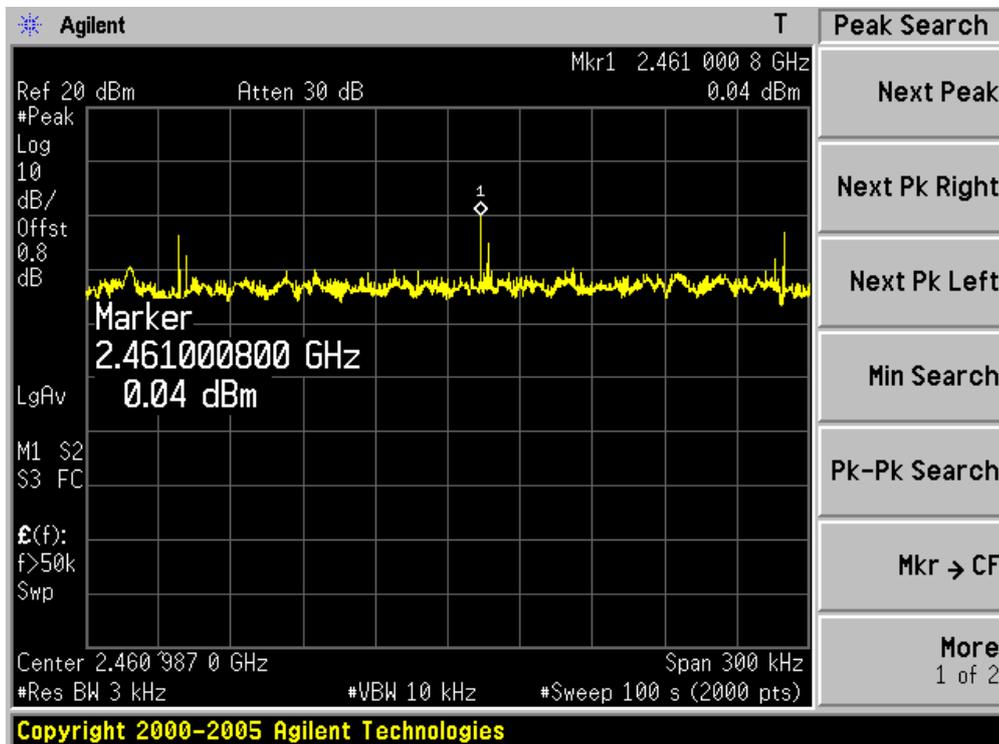
Channel 01 (2412MHz)



Channel 06 (2437MHz)



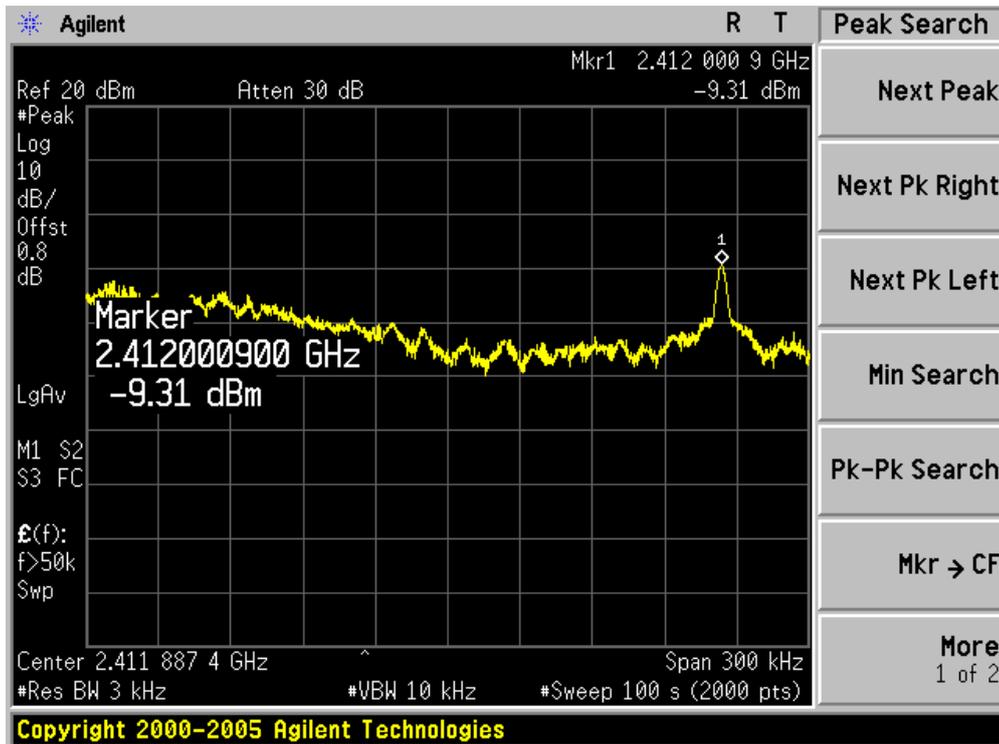
Channel 11 (2462MHz)



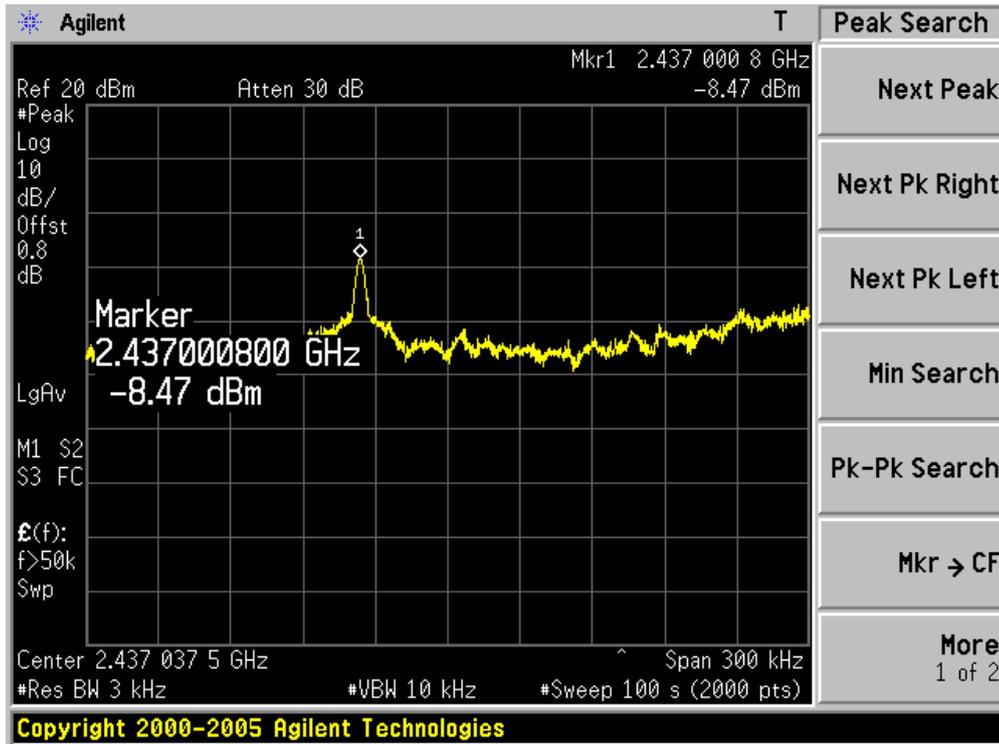
Product	:	Eee PC
Test Item	:	Power Spectral Density
Test Mode	:	Mode 2: Transmit by 802.11g

Channel No.	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm)	Result
01	2412	-9.31	8	Pass
06	2437	-8.47	8	Pass
11	2462	-8.21	8	Pass

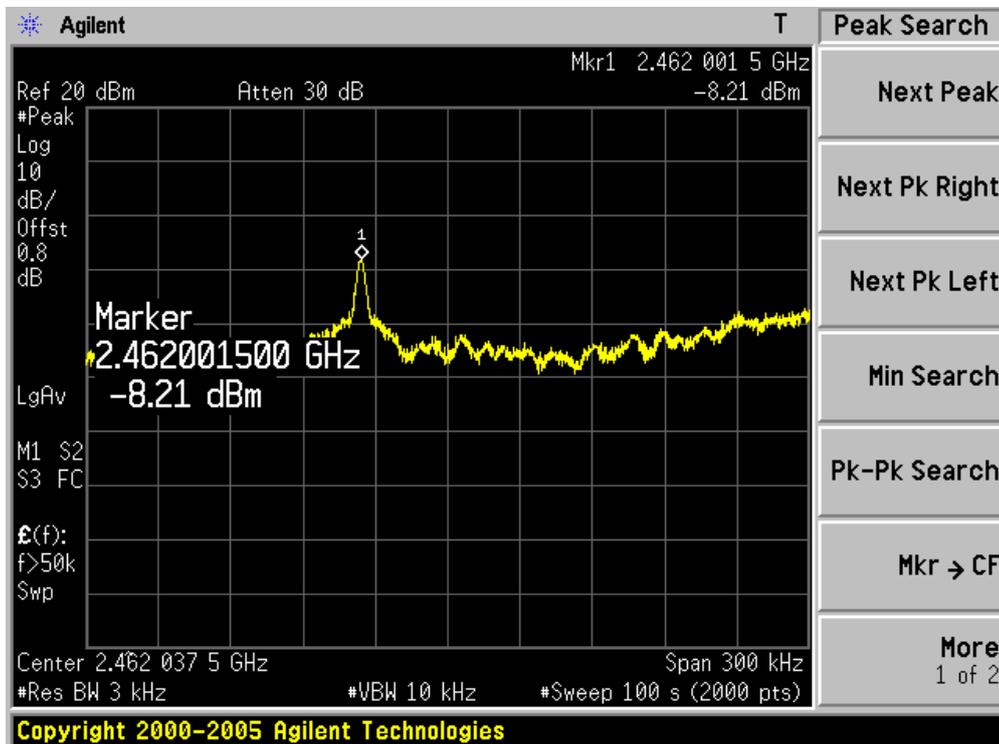
### Channel 01 (2412MHz)



Channel 06 (2437MHz)



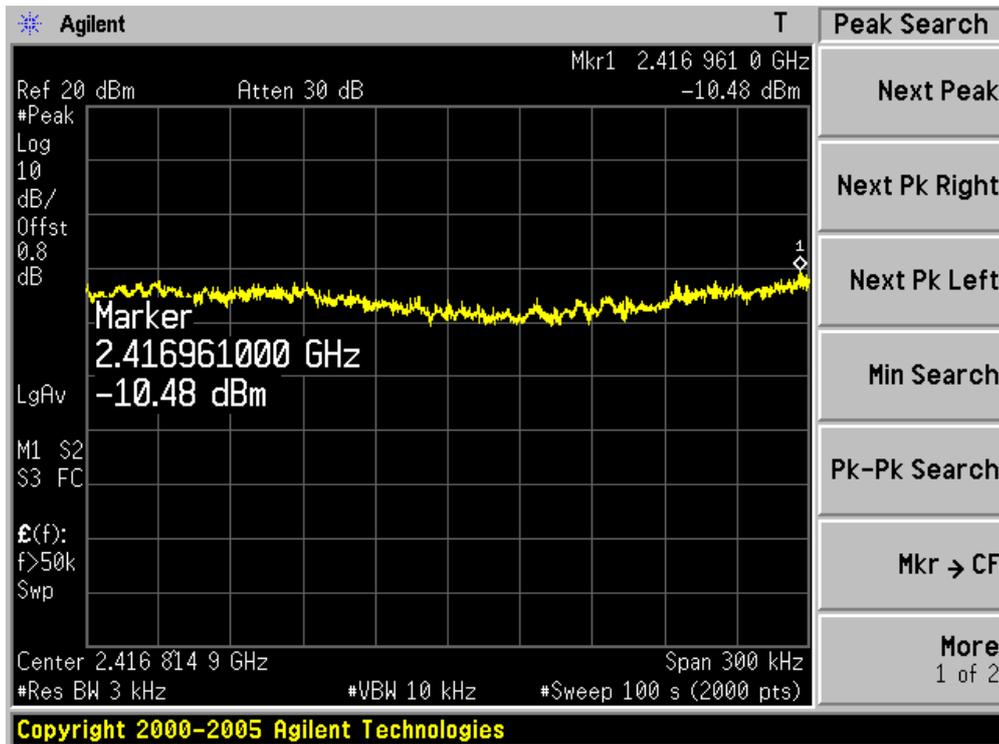
Channel 11 (2462MHz)



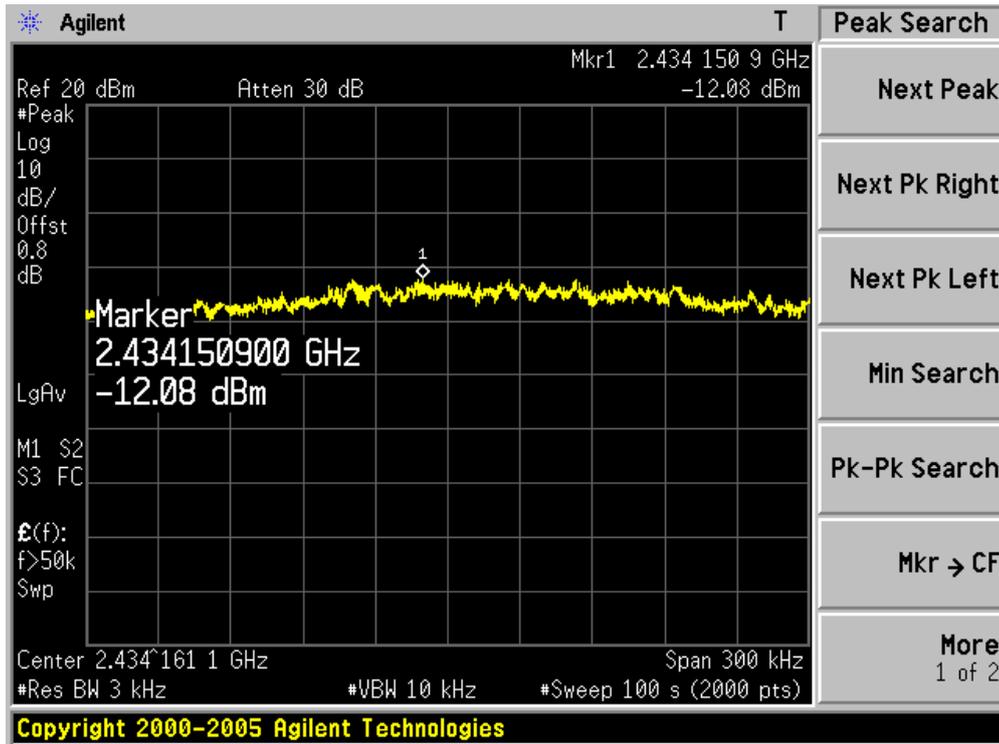
Product	:	Eee PC
Test Item	:	Power Spectral Density
Test Mode	:	Mode 3: Transmit by 802.11n (20MHz)

Channel No.	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm)	Result
01	2412	-10.48	8	Pass
06	2437	-12.08	8	Pass
11	2462	-11.79	8	Pass

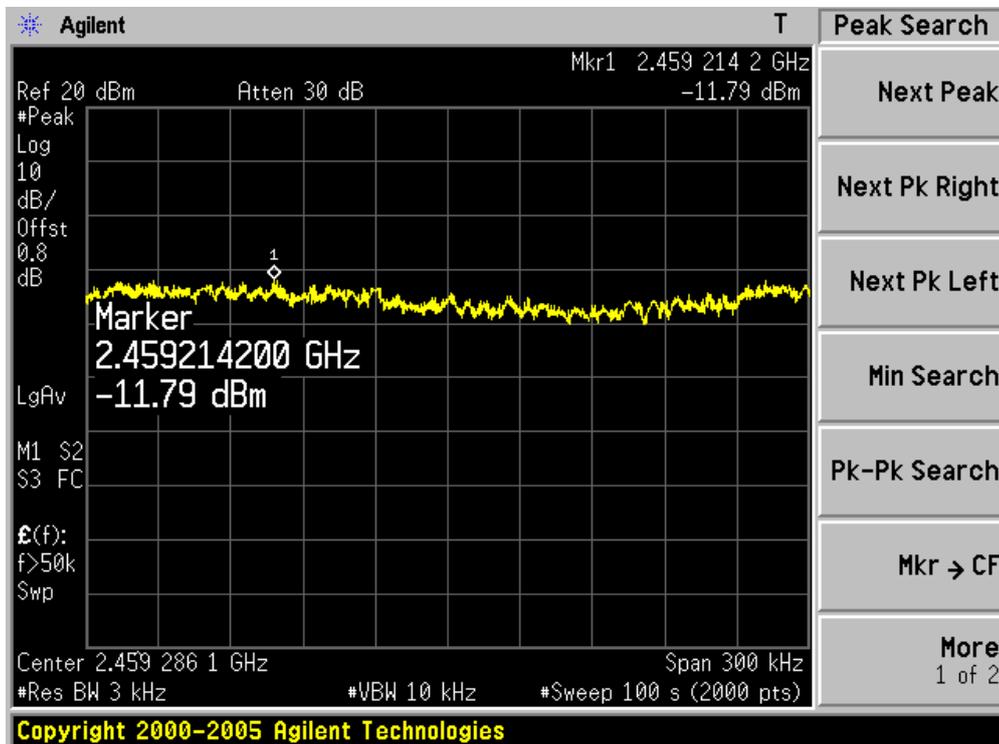
### Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)



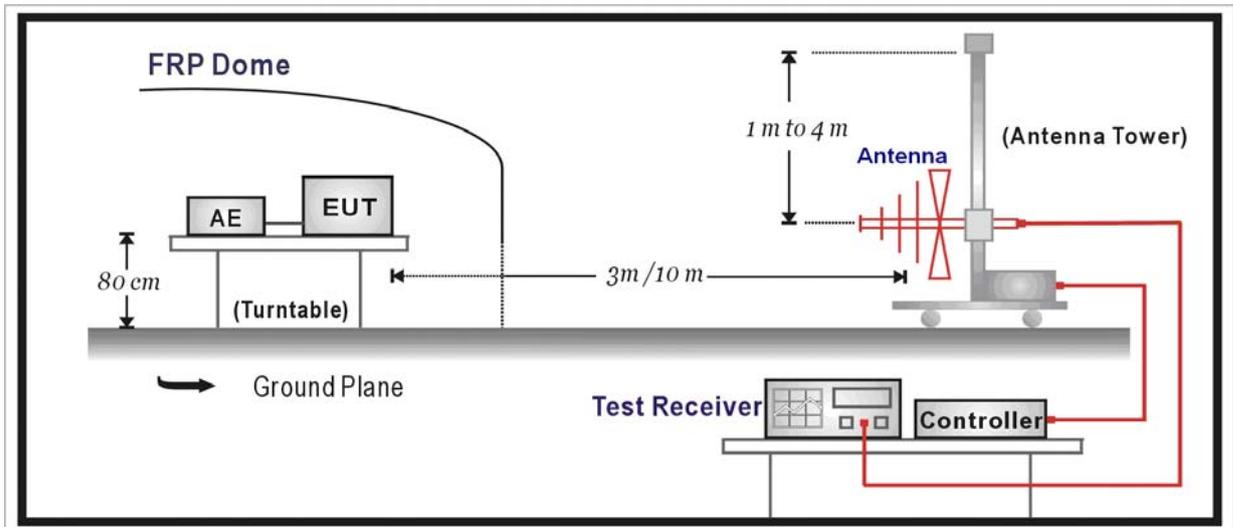
## 11. Receiver Spurious Emission for RSS-GEN

### 11.1. Test Specification

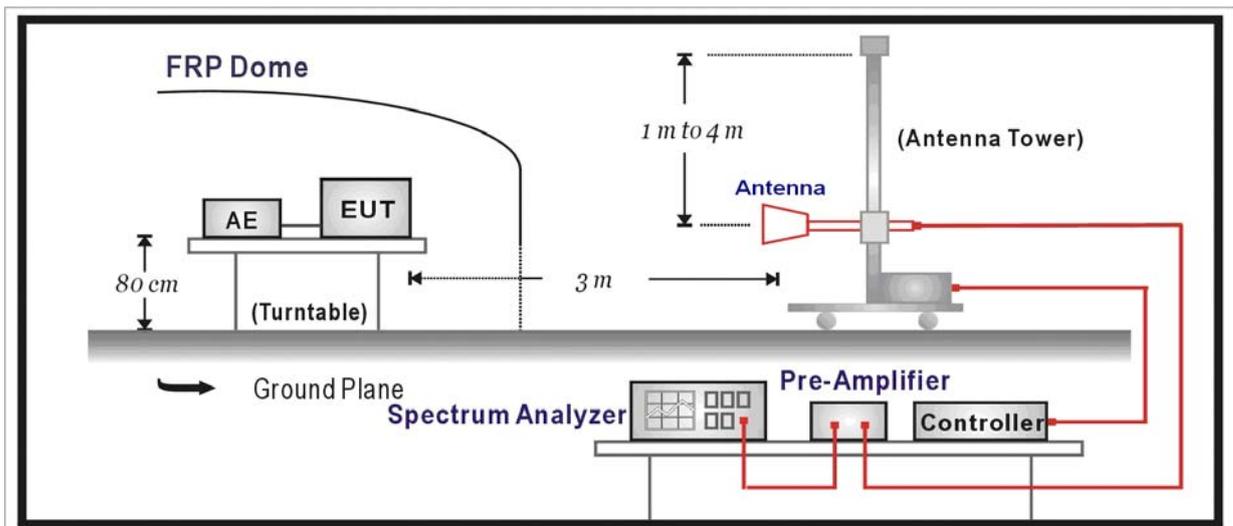
According to EMC Standard: FCC Part 15 Subpart B Class B, ANSI C63.4 or RSS-GEN

### 11.2. Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



**11.3. Limit**

<b>FCC Part 15 Subpart B Paragraph 15.109 &amp; RSS-GEN</b>		
<b>Frequency (MHz)</b>	<b>Distance (m)</b>	<b>Level (dBuV/m)</b>
30 - 88	3	40
88 - 216	3	43.5
216 - 960	3	46
Above 960	3	54

Note 1: The lower limit shall apply at the transition frequency.

Note 2: Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

Note 3: E field strength (dBuV/m) = 20 log E field strength (uV/m)

**11.4. 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 10 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 on radiated measurement.

For an unintentional radiator, including a digital device, the spectrum shall be investigated from the lowest radio frequency signal generated or used in the device, without going below the lowest frequency for which a radiated emission limit is specified, up to the frequency shown in the following table:

<b>Highest frequency generated or used in the device or on which the device operates or tunes (MHz)</b>	<b>Upper frequency of measurement range (MHz)</b>
Below 1.705	30
1.705 - 108	1000
108 - 500	2000

500 - 1000	5000
Above 1000	5th harmonic of the highest frequency or 40 GHz, whichever is lower

On any frequency or frequencies below or equal to 1000 MHz, the radiated limits shown are based on measuring equipment employing a quasi-peak detector function and above 1000 MHz, the radiated limits shown are based measuring equipment employing an average detector function.

When average radiated emission measurement are included emission measurement Above 1000 MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit.

For class A, the measurement distance between the EUT and antenna is 10 meters for under 1GHz and above 1GHz.

For class B, the measurement distance between the EUT and antenna is 10 meters for under 1GHz and 3 meters for above 1GHz.

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

Note: When measurement above 1GHz, the horn antenna will bend down a little (as horn antenna have the narrow beamwidth) in order to find the maximum emission of EUT.

### 11.5. Deviation from Test Standard

No deviation.

11.6. Test Result

All of the test result shown indicates the worst case, and spectrum analyzer parameters setting as shown below:

Peak detector: RBW = 1MHz, VBW = 3MHz, sweep time = 200ms;

Average detector: RBW = 1MHz, VBW = 10Hz, sweep time = auto.

Measure Level = Reading Level + Cable Loss + Antenna Factor - Preamplifier Gain

802.11n(20MHz)

CH	Antenna	Frequen cy (MHz)	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	H	451.4	39.0	-4.4	34.6	46	-11.4	QP
	H	582.4	28.2	-1.6	26.6	46	-19.4	QP
	H	1255.0	64.8	-23.4	41.4	54 (Note)	-12.6	PK
	H	1892.5	61.8	-22.0	39.8	54 (Note)	-14.2	PK
6	H	451.4	39.0	-4.4	34.6	46	-11.4	QP
	H	582.4	28.2	-1.6	26.6	46	-19.4	QP
	H	1255.0	64.8	-23.4	41.4	54 (Note)	-12.6	PK
	H	1892.5	61.8	-22.0	39.8	54 (Note)	-14.2	PK
11	H	451.4	39.0	-4.4	34.6	46	-11.4	QP
	H	582.4	28.2	-1.6	26.6	46	-19.4	QP
	H	1255.0	64.8	-23.4	41.4	54 (Note)	-12.6	PK
	H	1892.5	61.8	-22.0	39.8	54 (Note)	-14.2	PK

Note: This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.