

Test Report

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

Product Name : Eee PC
Model No. : Eee PC 1018P
FCC ID : MSQE18NB047H
IC : 3568A-E18NB047H

Applicant : ASUSTEK COMPUTER INC.

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

Date of Receipt : Apr. 27, 2010
Test Date : Apr. 28, 2010 ~ May. 5, 2010
Issued Date : May. 10, 2010
Report No. : 104S058R-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.

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Test Report Certification

Issued Date : May. 10, 2010

Report No. : 104S058R-RF-US-P05V02



Product Name : Eee PC
Applicant : ASUSTEK COMPUTER INC.
Address : NO.150, Li-Te Rd., Peitou, Taipei, Taiwan, R. O. C
Manufacturer(1) : PEGATRON CORP TAOYUAN MFG
Address(1) : 5, SHING YEH ST., KWEI SHAN HSIANG, TAOYUAN
333, TAIWAN
Manufacturer(2) : PROTEK (SHANGHAI) LTD
Address(2) : 3768 XIU YAN RD KANG QIAO TOWN PU DONG NEW
District, Shanghai, China
Manufacturer(3) : FULIN ELECTRONICAL TECHONOLOGY
(CHANGSHU) CO LTD
Address(3) : HUANGPU RD DONGNAN ECONOMICAL
DEVELOPMENT ZONE CHANGSHU JIANGSU CHINA
Manufacturer(4) : FUXIANG PRECISION INDUSTRIAL (KUNSHAN) CO
LTD
Address(4) : 299 NANSONG RD YU SHAN TOWN KUN SHAN
JIANGSU CHINA
Model No. : Eee PC 1018P
FCC ID : MSQE18NB047H
IC : 3568A-E18NB047H
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
No.99 Hongye Rd., Suzhou Industrial Park Loufeng
Hi-Tech Development Zone., SuZhou, China
TEL: +86-512-6251-5088 / FAX: +86-512-6251-5098
FCC Registration Number: 800392, IC Lab Code: 4075B

Documented By : Alice Ni
(Engineering ADM: Alice Ni)

Reviewed By : Marlin Chen
(Engineering Supervisor: Marlin Chen)

Approved By : Dream Cao
(Engineering Manager: Dream Cao)

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/>
If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

HsinChu Testing Laboratory :

No.75-2, 3rd Lin, Wangye Keng, Yonghxing Tsuen, Qionglin Shiang, Hsinchu County 307, Taiwan, R.O.C.
TEL:+886-3-592-8858 / FAX:+886-3-592-8859 E-Mail : service@quietek.com



LinKou Testing Laboratory :

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



Suzhou (China) Testing Laboratory :

No. 99 Hongye Rd., Suzhou Industrial Park Loufeng Hi-Tech Development Zone., Suzhou,China.
TEL : +86-512-6251-5088 / FAX : +86-512-6251-5098 E-Mail : service@quietek.com



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1. General Information

1.1. EUT Description

Product Name	Eee PC
Trade Name	ASUS
Model No.	Eee PC 1018P
EUT Voltage	19Vdc
WLAN Module	FAW-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	2.12 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-700415	2.12

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:

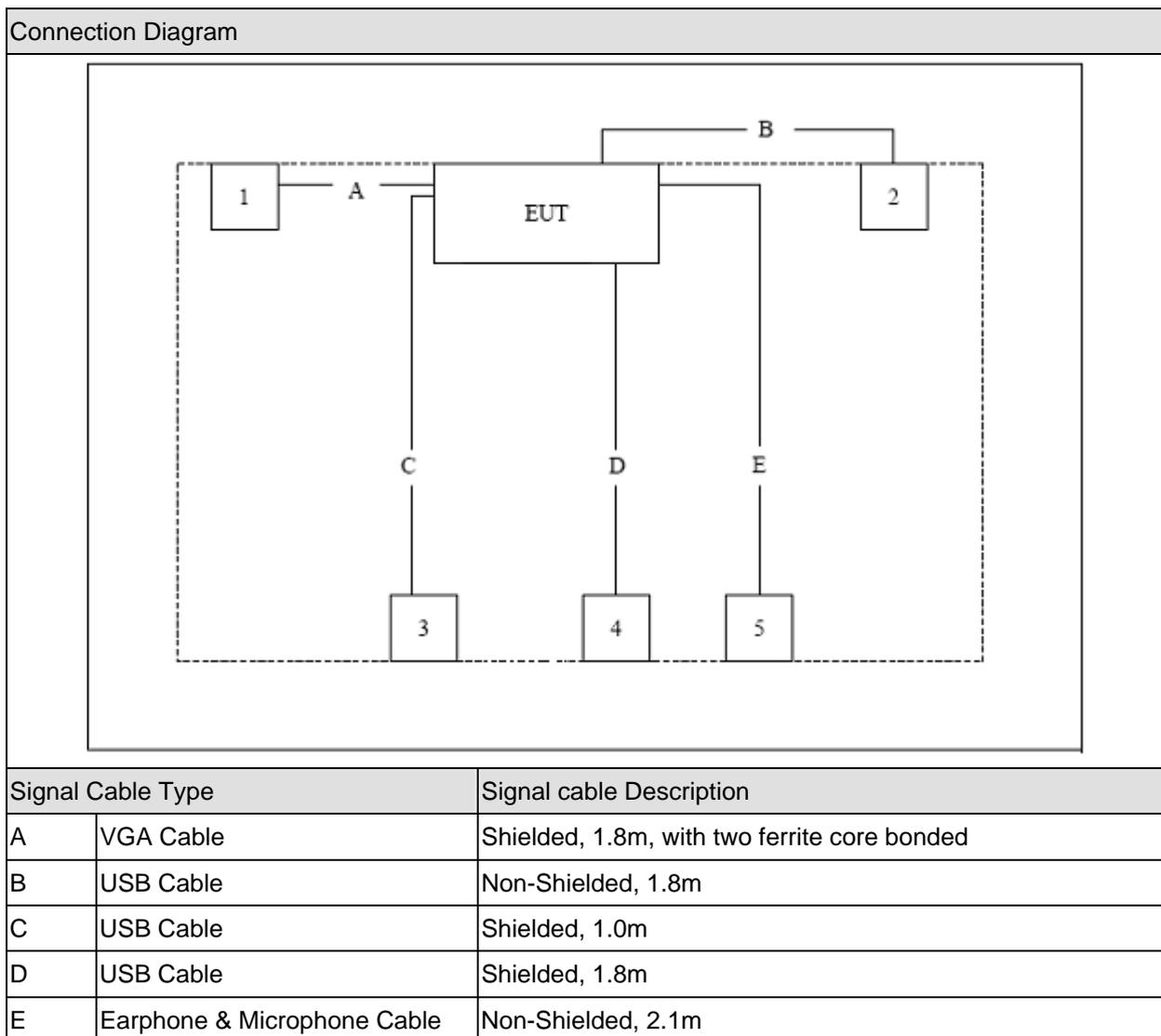
1. Regards to the frequency band operation: the lowest, middle and highest frequency of channel were selected to perform the test, then shown on this report.
2. This device is a composite device in accordance with Part 15 Subpart B regulations. The report number is 104393R.

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	Run control software "ART V1.4" 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

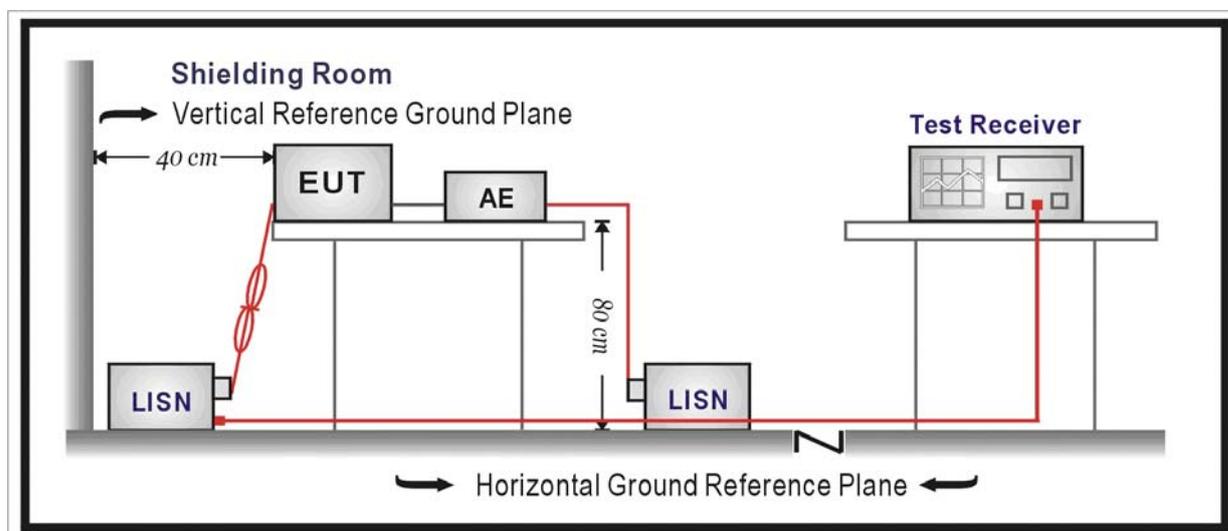
3.1. Test Equipment

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
Coaxial Cable	Luthi	RG223	TR1-TH	2010.01.14
Temperature/Humidity Meter	zhicheng	ZC1-2	100726	2010.04.23

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.

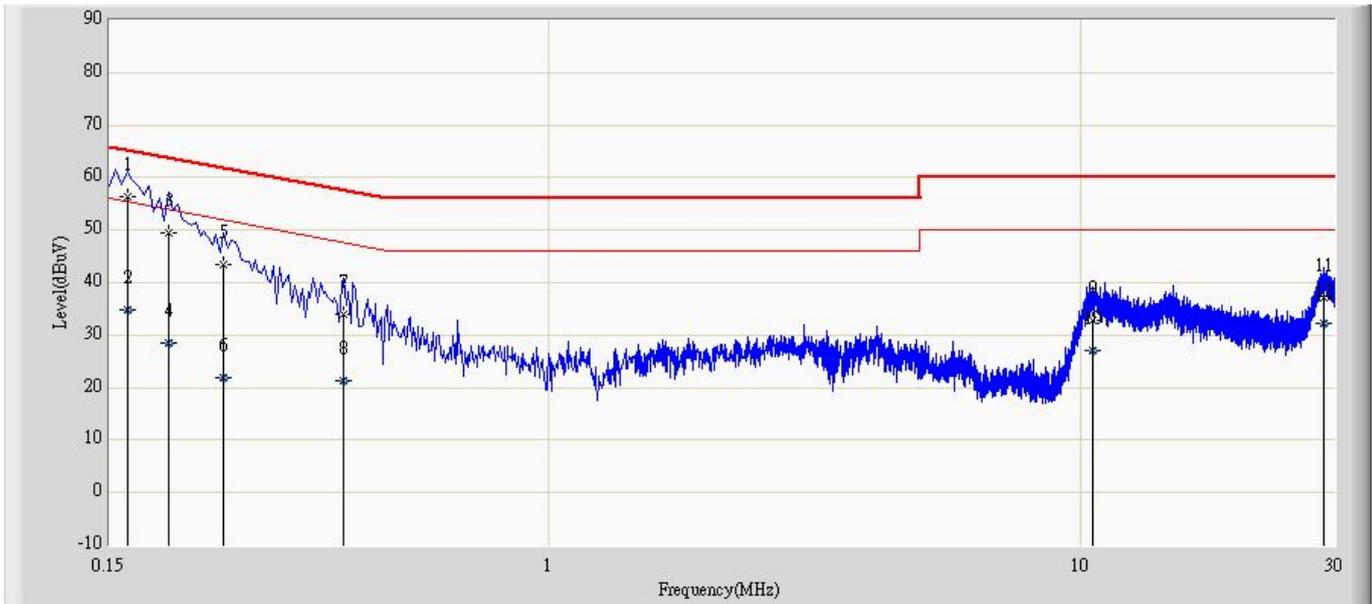
The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length. Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

3.5. Uncertainty

The measurement uncertainty is defined as ± 2.02 dB

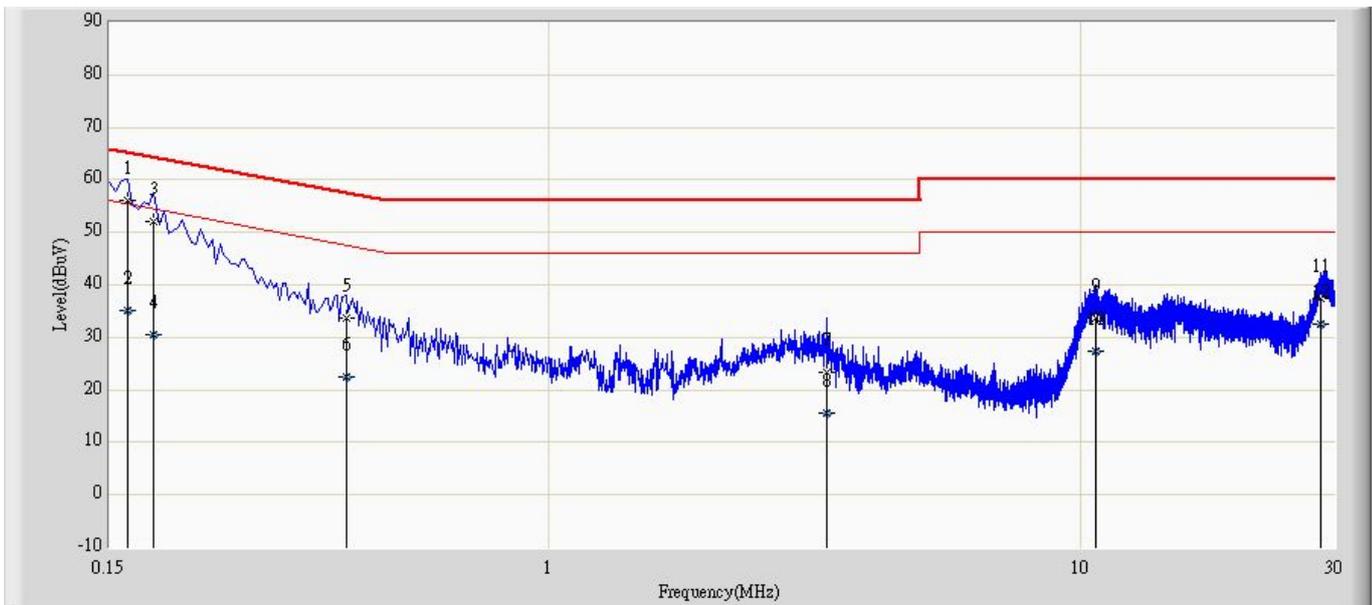
3.6. Test Result

Engineer: Seven	
Site: TR1	Time: 2010/04/29 - 13:53
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	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor	Type
1		*	0.162	56.452	46.863	-8.909	65.361	9.589	QP
2			0.162	34.951	25.362	-20.41	55.361	9.589	AV
3			0.194	49.383	39.725	-14.48	63.864	9.658	QP
4			0.194	28.557	18.899	-25.307	53.864	9.658	AV
5			0.246	43.496	33.816	-18.396	61.891	9.68	QP
6			0.246	21.8	12.12	-30.091	51.891	9.68	AV
7			0.414	33.943	24.255	-23.625	57.568	9.688	QP
8			0.414	21.326	11.637	-26.242	47.568	9.688	AV
9			10.522	32.883	22.9	-27.117	60	9.983	QP
10			10.522	27.015	17.032	-22.985	50	9.983	AV
11			28.61	37.25	26.77	-22.75	60	10.48	QP
12			28.61	32.248	21.768	-17.752	50	10.48	AV

Engineer: Seven	
Site: TR1	Time: 2010/04/29 - 14:00
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	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor	Type
1		*	0.162	56.229	46.487	-9.132	65.361	9.741	QP
2			0.162	35.187	25.445	-20.174	55.361	9.741	AV
3			0.182	52.011	42.318	-12.383	64.394	9.693	QP
4			0.182	30.612	20.919	-23.781	54.394	9.693	AV
5			0.418	33.613	23.946	-23.875	57.488	9.667	QP
6			0.418	22.495	12.828	-24.993	47.488	9.667	AV
7			3.334	23.372	13.599	-32.628	56	9.773	QP
8			3.334	15.503	5.729	-30.497	46	9.773	AV
9			10.718	33.601	23.581	-26.399	60	10.021	QP
10			10.718	27.427	17.406	-22.573	50	10.021	AV
11			28.306	37.413	26.845	-22.587	60	10.568	QP
12			28.306	32.501	21.933	-17.499	50	10.568	AV

4. Radiated Emission

4.1. Test Equipment

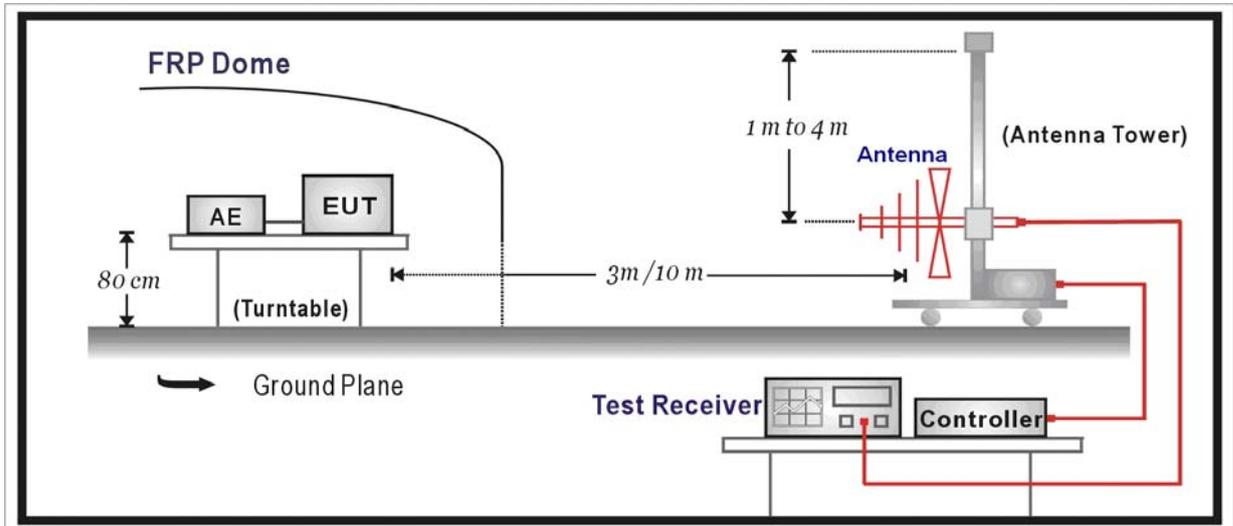
Radiated Emission / AC-5

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	499	2009.06.11
High-Pass Filter	Wainwright	WHKX2.8/18G-12SS	SN1	2010.03.03
High-Pass Filter	Wainwright	WHKX7.0/18G-8SS	SN16	2010.03.03
Lowpass Filter	Wainwright	WLKS4500-9SS	SN2	2009.03.03
Temperature/Humidity Meter	Zhicheng	ZC1-2	AC5-TH	2010.01.14

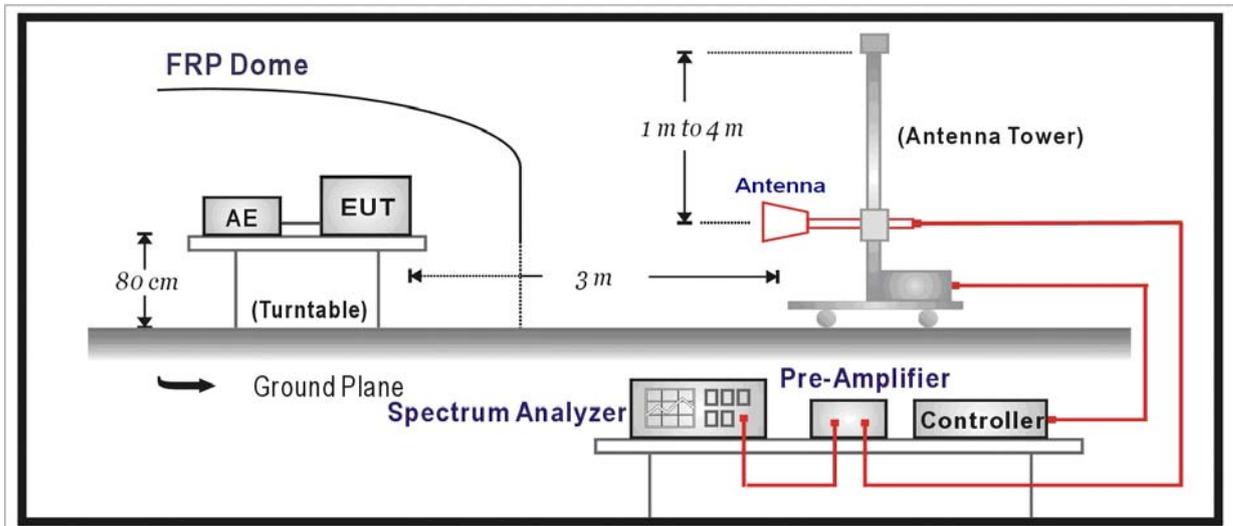
Note 1: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

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	2413.2	74.4	30.6	105.0	Fundamental	/	PK
	V	336.0	12.7	16.6	29.3	46	-16.7	QP
	V	415.2	11.2	20.4	31.6	46	-14.4	QP
	V	3201.5	58.2	-17.1	41.1	54	-12.9	PK
	H	4824.0	59.4	-14.0	45.4	54	-8.6	PK
	H	7236.0	52.1	-5.5	46.6	54	-7.4	PK
	H	24000.0	59.1	-8.9	50.2	54	-3.8	PK
6	H	2435.3	74.1	30.9	105.0	Fundamental	/	PK
	V	336.0	12.7	16.6	29.3	46	-16.7	QP
	V	415.2	11.2	20.4	31.6	46	-14.4	QP
	V	3201.5	58.2	-17.1	41.1	54	-12.9	PK
	H	4874.0	59.4	-13.6	45.8	54	-8.2	PK
	H	7311.0	51.5	-5.3	46.2	54	-7.8	PK
	H	24000.0	59.1	-8.9	50.2	54	-3.8	PK
11	H	2463.1	73.1	30.8	103.9	Fundamental	/	PK
	V	336.0	12.7	16.6	29.3	46	-16.7	QP
	V	415.2	11.2	20.4	31.6	46	-14.4	QP
	V	3201.5	58.2	-17.1	41.1	54	-12.9	PK
	H	4924.0	59.9	-13.7	46.2	54	-7.8	PK
	H	7386.0	51.6	-5.0	46.6	54	-7.4	PK
	H	24000.0	59.1	-8.9	50.2	54	-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	2410.6	76.9	30.5	107.4	Fundamental	/	PK
	V	336.0	12.7	16.6	29.3	46	-16.7	QP
	V	415.2	11.2	20.4	31.6	46	-14.4	QP
	V	3201.5	58.2	-17.1	41.1	54	-12.9	PK
	H	4824.0	53.5	-14.0	39.5	54	-14.5	PK
	H	7236.0	52.9	-5.5	47.4	54	-6.6	PK
	H	24000.0	59.1	-8.9	50.2	54	-3.8	PK
6	H	2435.1	76.2	30.9	107.1	Fundamental	/	PK
	V	336.0	12.7	16.6	29.3	46	-16.7	QP
	V	415.2	11.2	20.4	31.6	46	-14.4	QP
	V	3201.5	58.2	-17.1	41.1	54	-12.9	PK
	H	4874.0	60.5	-13.6	46.9	54	-7.1	PK
	H	7311.0	51.8	-5.3	46.5	54	-7.5	PK
	H	24000.0	59.1	-8.9	50.2	54	-3.8	PK
11	H	2462.1	75.9	30.7	106.6	Fundamental	/	PK
	V	336.0	12.7	16.6	29.3	46	-16.7	QP
	V	415.2	11.2	20.4	31.6	46	-14.4	QP
	V	3201.5	58.2	-17.1	41.1	54	-12.9	PK
	H	4924.0	60.8	-13.7	47.1	54	-6.9	PK
	H	7386.0	51.5	-5.0	46.5	54	-7.5	PK
	H	24000.0	59.1	-8.9	50.2	54	-3.8	PK

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	2411.8	76.0	30.6	106.6	Fundamental	/	PK
	V	336.0	12.7	16.6	29.3	46	-16.7	QP
	V	415.2	11.2	20.4	31.6	46	-14.4	QP
	V	3201.5	58.2	-17.1	41.1	54	-12.9	PK
	H	4824.0	56.8	-14.0	42.8	54	-11.2	PK
	H	7236.0	52.5	-5.5	47.0	54	-7.0	PK
	H	24000.0	59.1	-8.9	50.2	54	-3.8	PK
6	H	2439.3	75.4	30.9	106.3	Fundamental	/	PK
	V	336.0	12.7	16.6	29.3	46	-16.7	QP
	V	415.2	11.2	20.4	31.6	46	-14.4	QP
	V	3201.5	58.2	-17.1	41.1	54	-12.9	PK
	H	4874.0	61.4	-13.6	47.8	54	-6.2	PK
	H	7311.0	51.6	-5.3	46.3	54	-7.7	PK
	H	24000.0	59.1	-8.9	50.2	54	-3.8	PK
	H	357.6	18.0	18.3	36.3	46	-9.7	QP
11	V	2461.9	75.2	30.8	106.0	Fundamental	/	PK
	V	336.0	12.7	16.6	29.3	46	-16.7	QP
	V	415.2	11.2	20.4	31.6	46	-14.4	QP
	H	3201.5	58.2	-17.1	41.1	54	-12.9	PK
	H	4924.0	61.5	-13.7	47.8	54	-6.2	PK
	H	7386.0	51.8	-5.0	46.8	54	-7.2	PK
	H	24000.0	59.1	-8.9	50.2	54	-3.8	PK

Note 1: 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

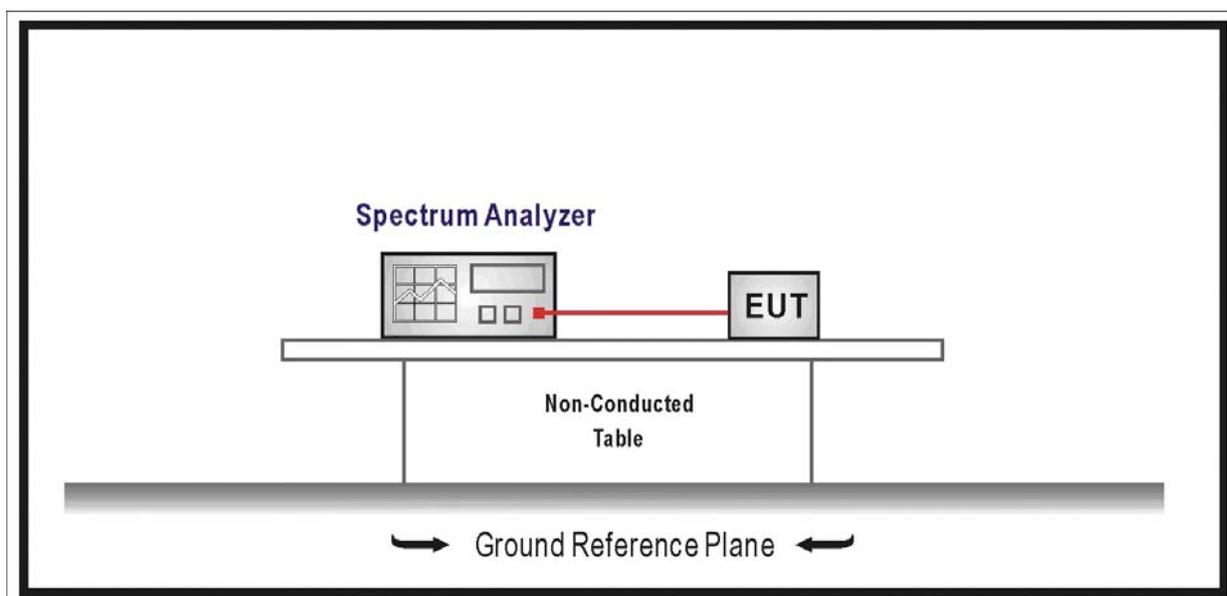
5.1. Test Equipment

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.

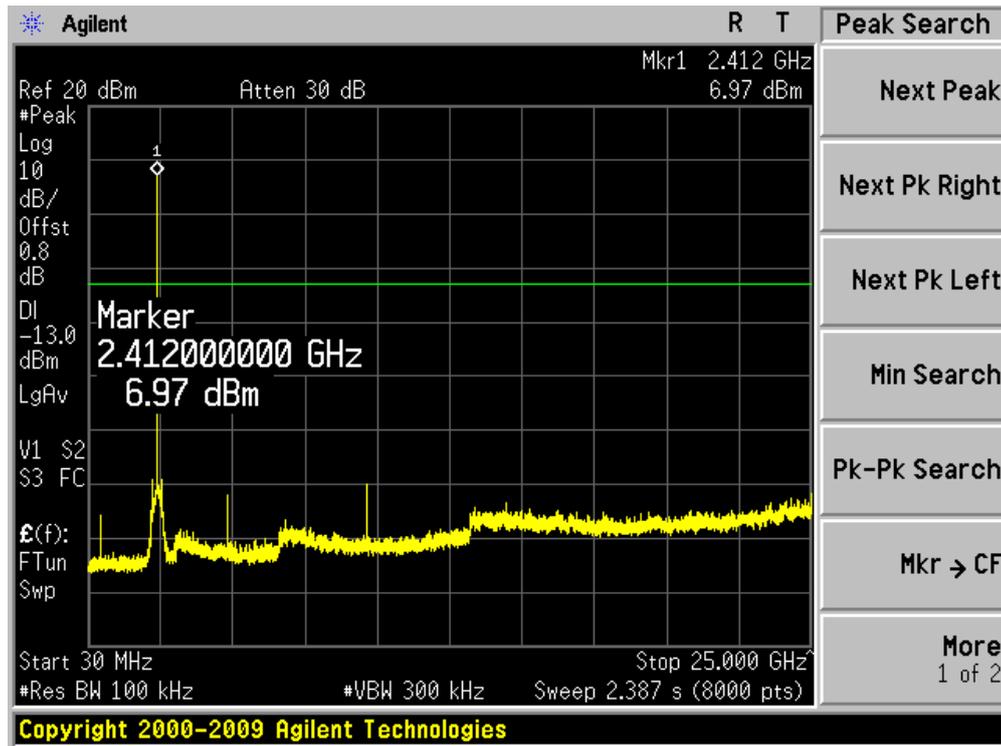
5.5. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB

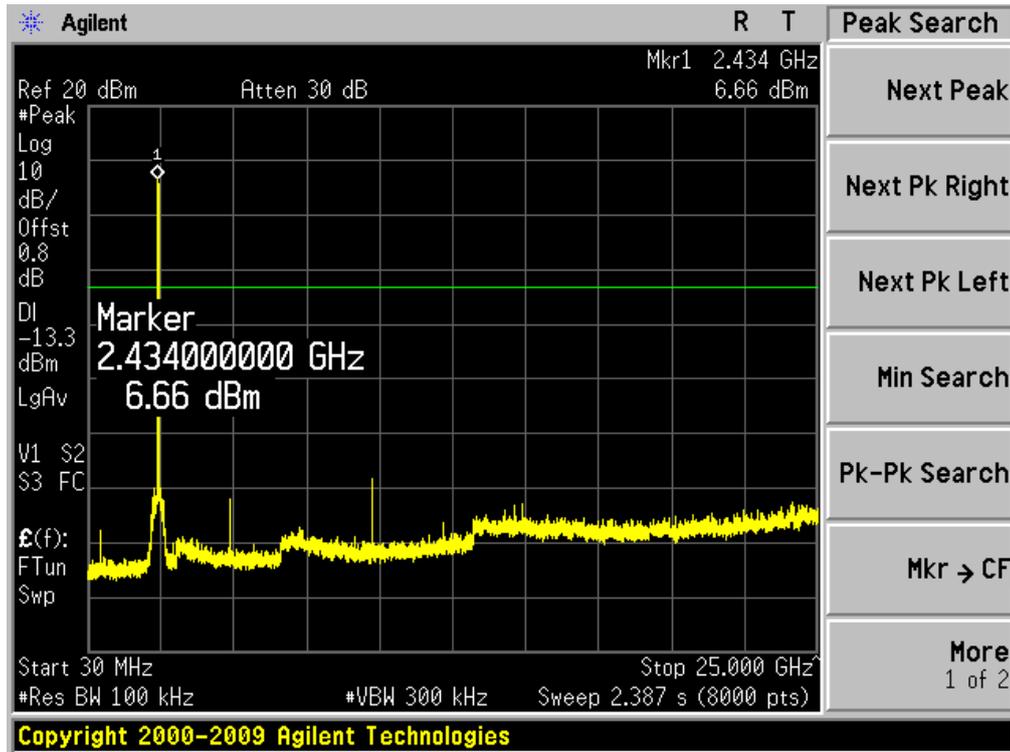
5.6. Test Result

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

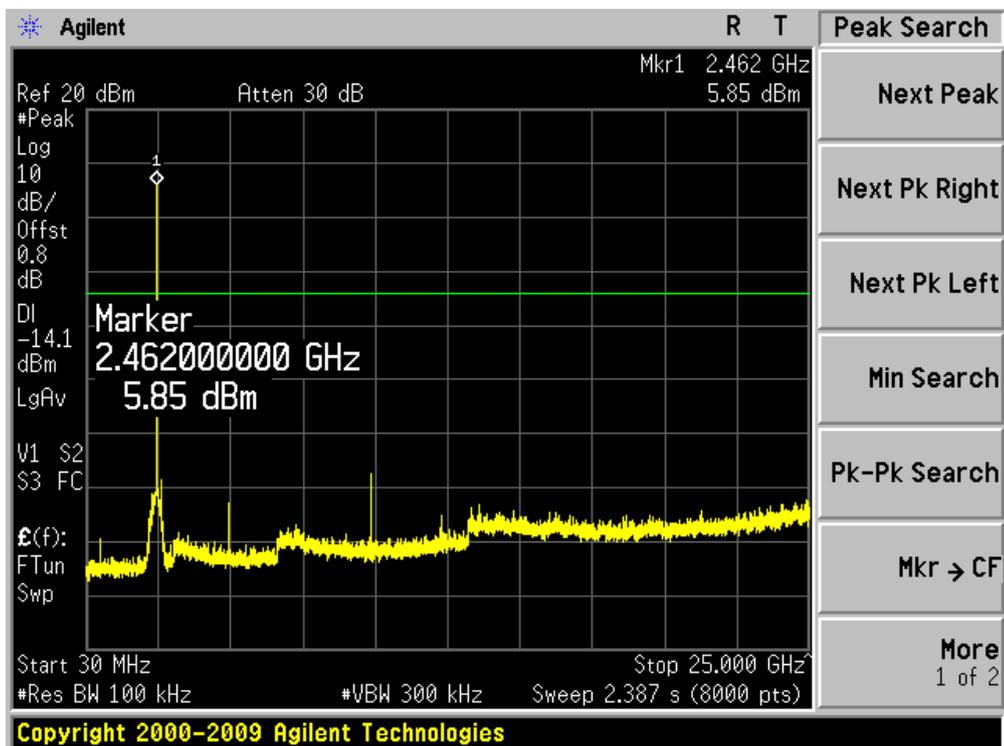
Channel 01 (2412MHz)



Channel 06 (2437MHz)

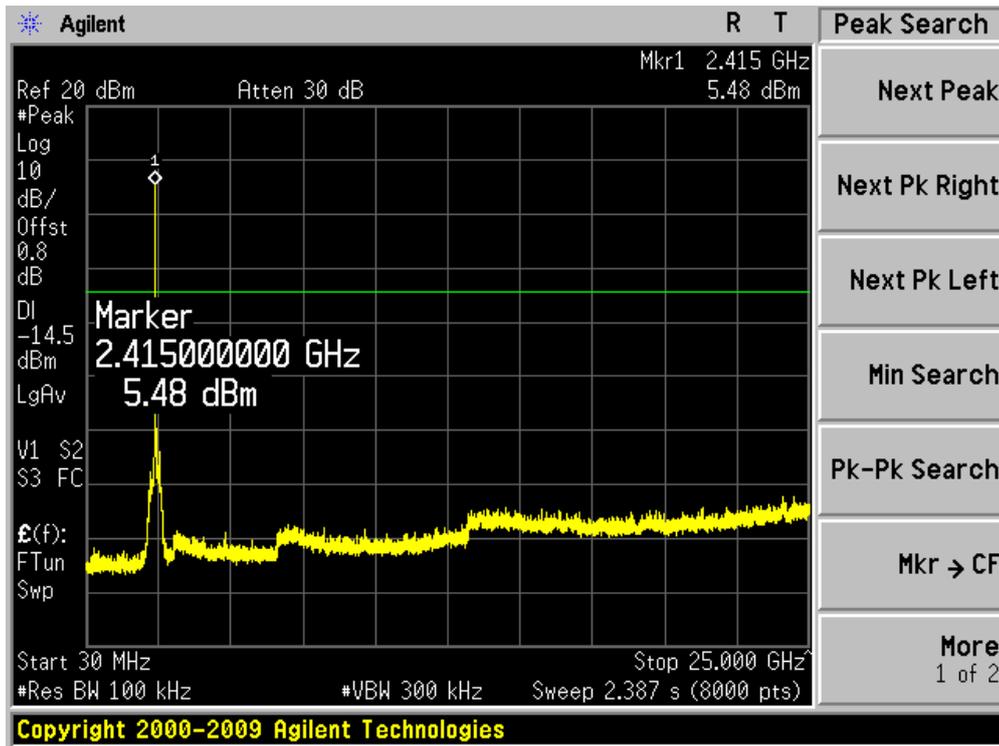


Channel 11 (2462MHz)

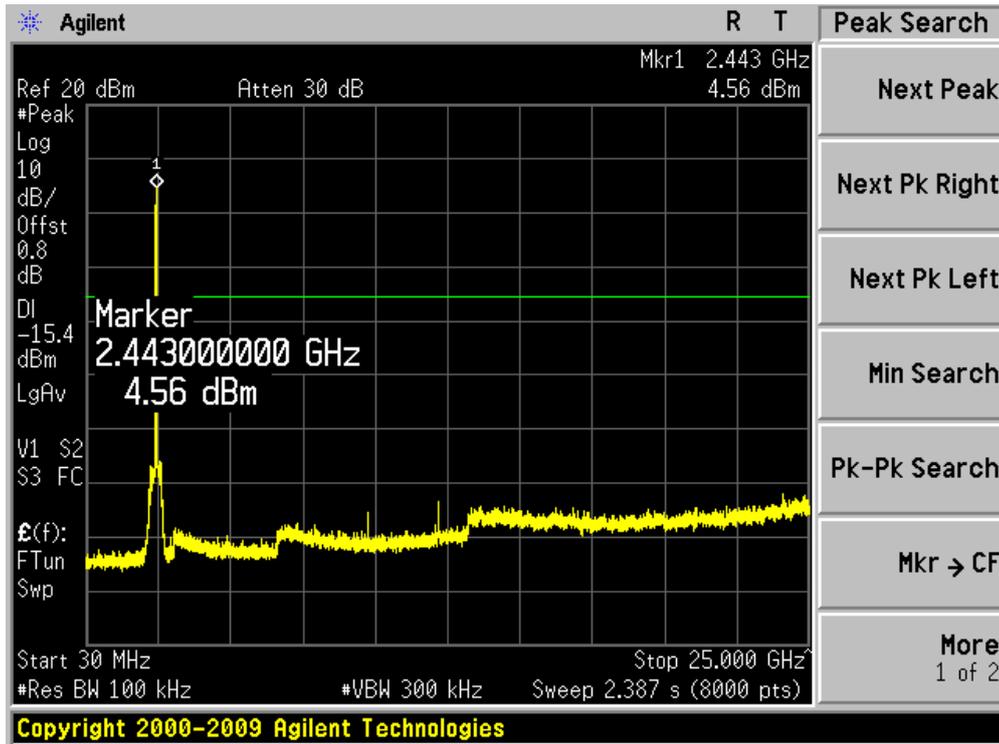


Product	:	Eee PC
Test Item	:	RF Antenna Conducted Spurious
Test Mode	:	Mode 2: Transmit by 802.11g

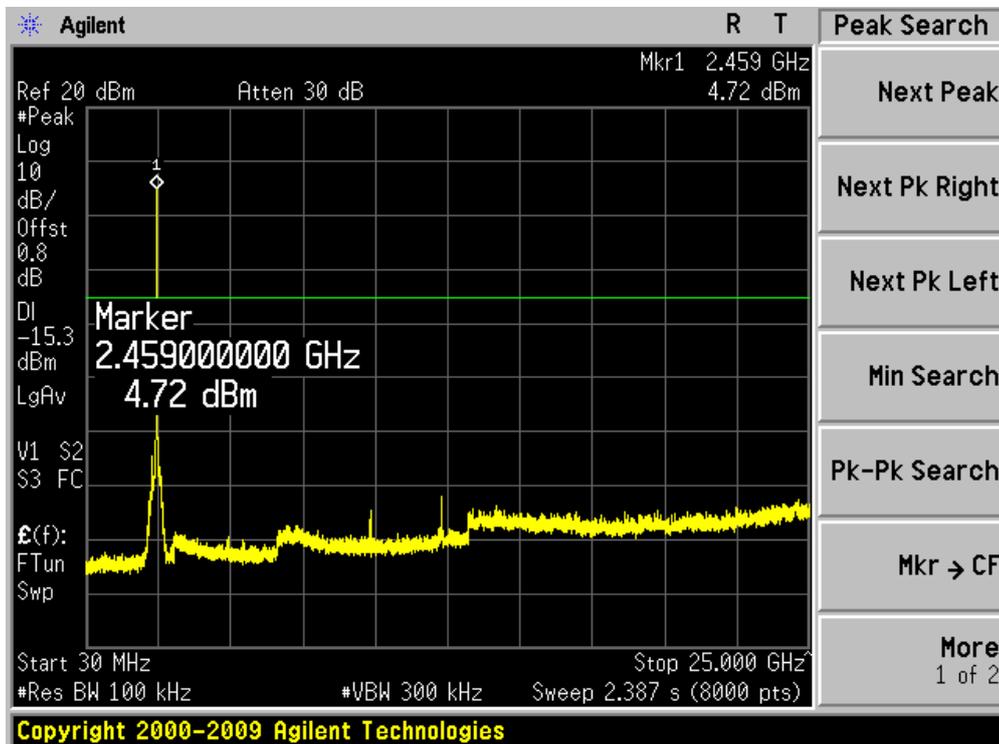
Channel 01 (2412MHz)



Channel 06 (2437MHz)

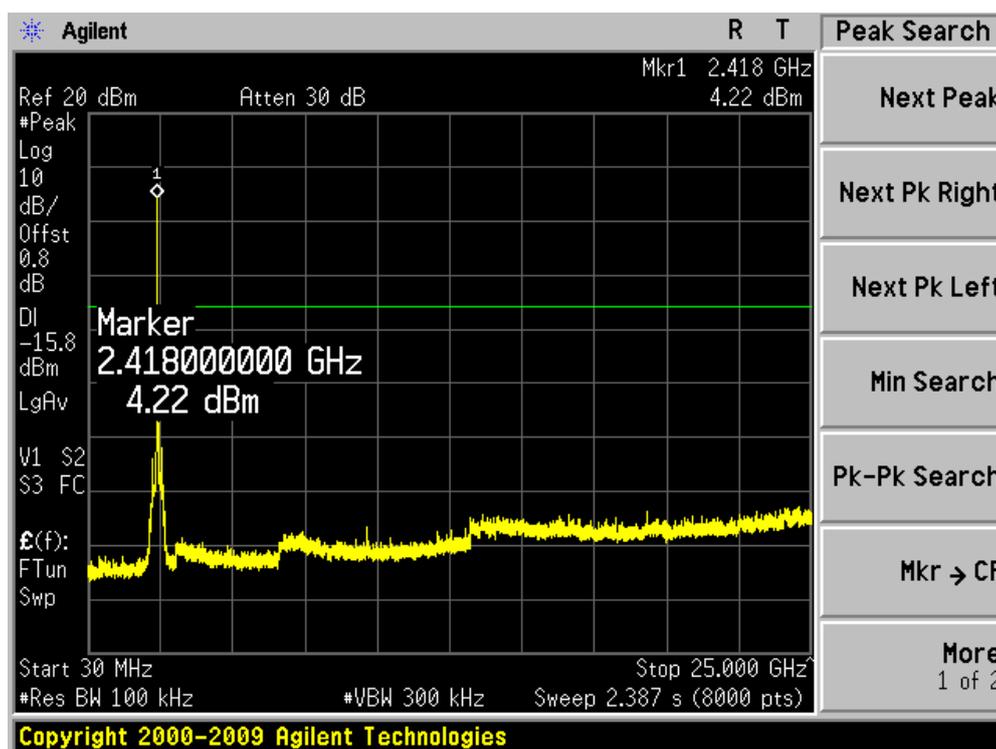


Channel 11 (2462MHz)

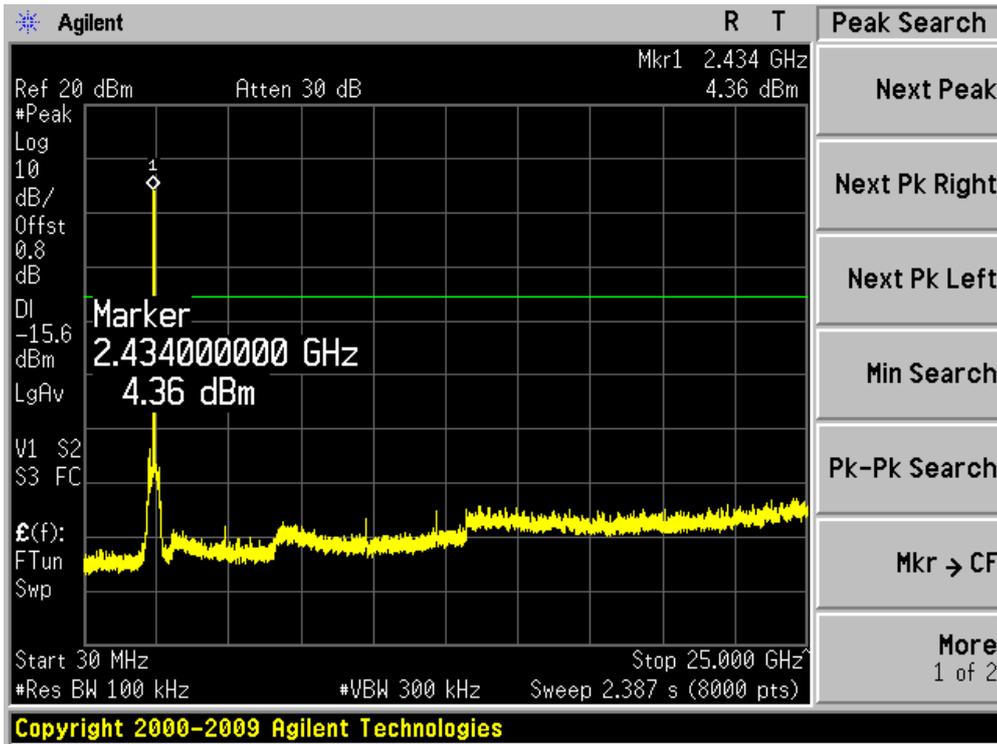


Product	:	Eee PC
Test Item	:	RF Antenna Conducted Spurious
Test Mode	:	Mode 3: Transmit by 802.11n (20MHz)

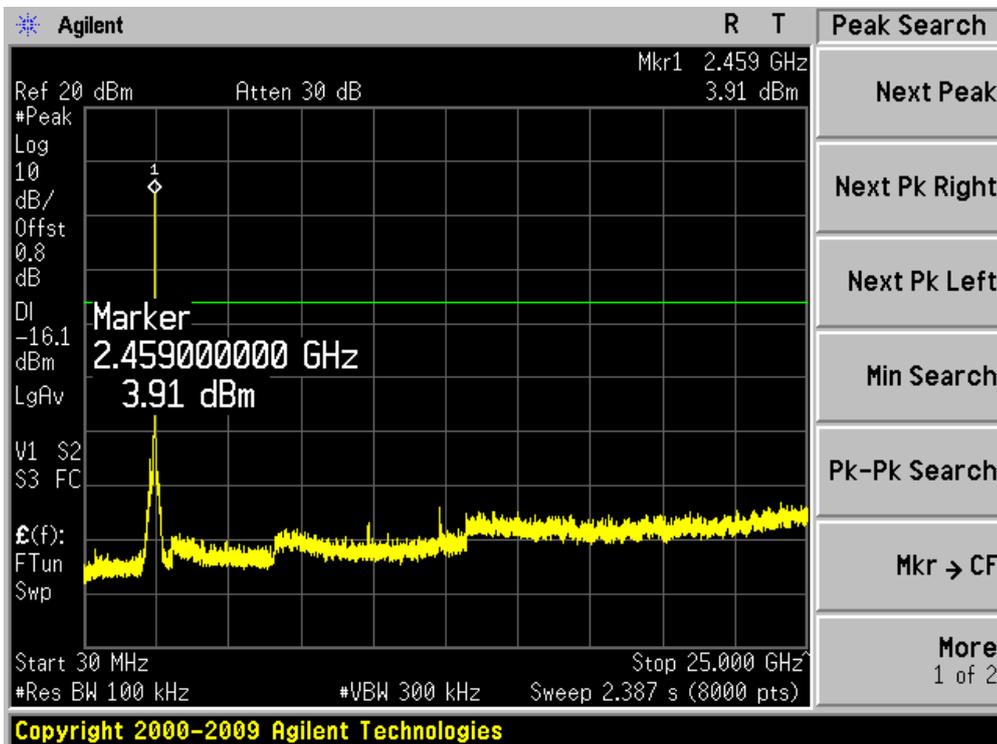
Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)



6. Radiated Emission Band Edge

6.1. Test Equipment

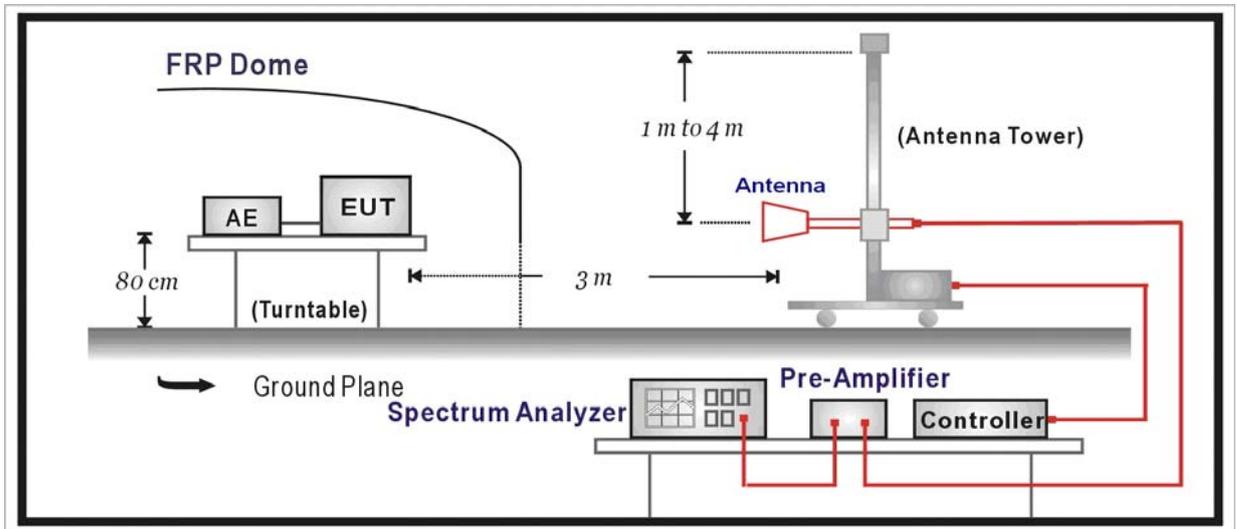
Radiated Emission / AC-5

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2010.04.23
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	499	2009.06.11
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

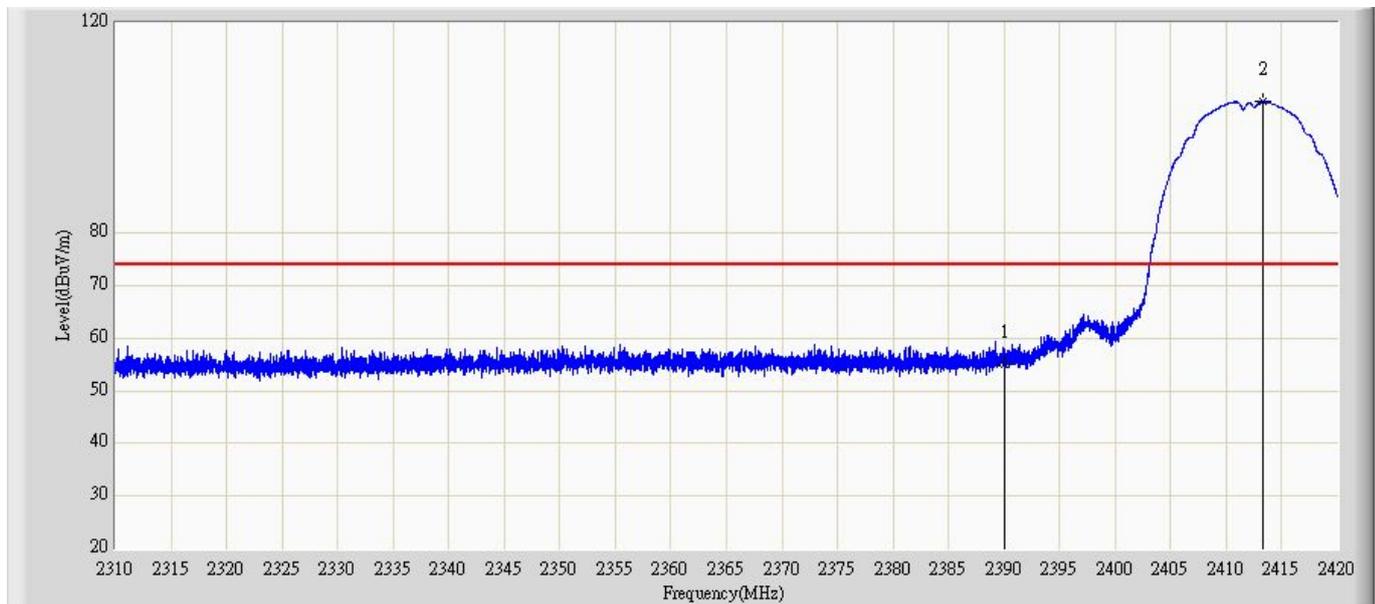
The measurement uncertainty above 1G is defined as ± 3.9 dB

6.6. Test Result

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

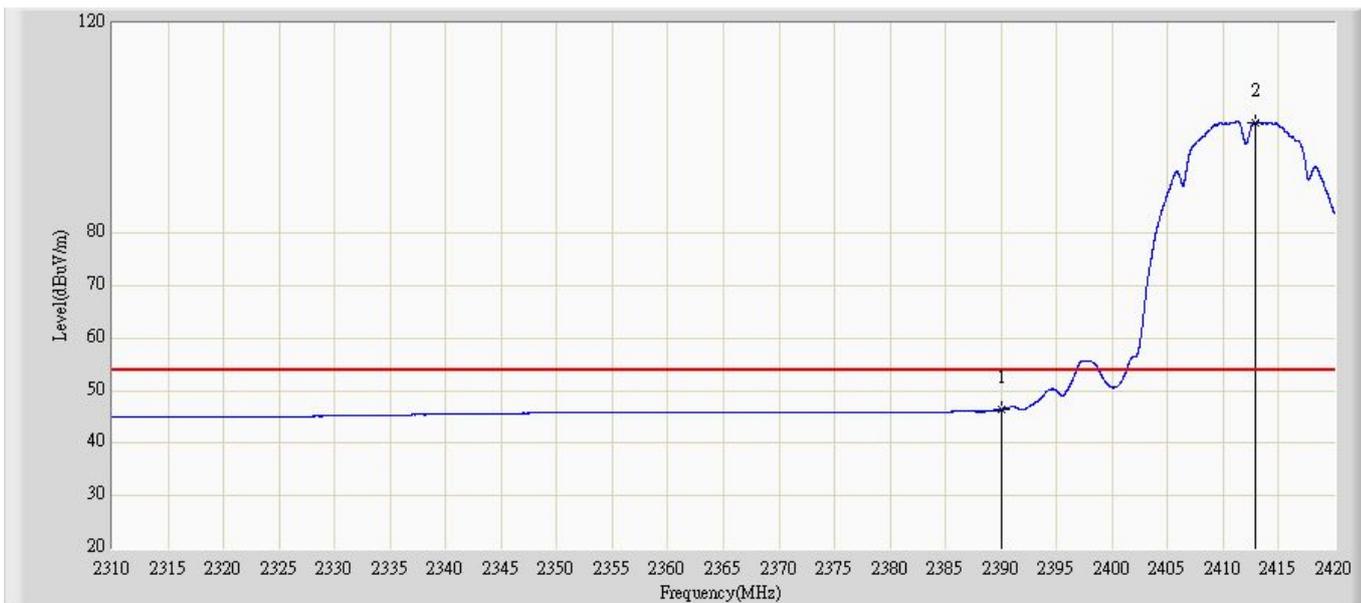
Average detector: RBW = 1MHz, VBW = 10Hz, sweep time = auto.

Engineer: Jame	
Site: AC5	Time: 2010/04/29 - 13:31
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	



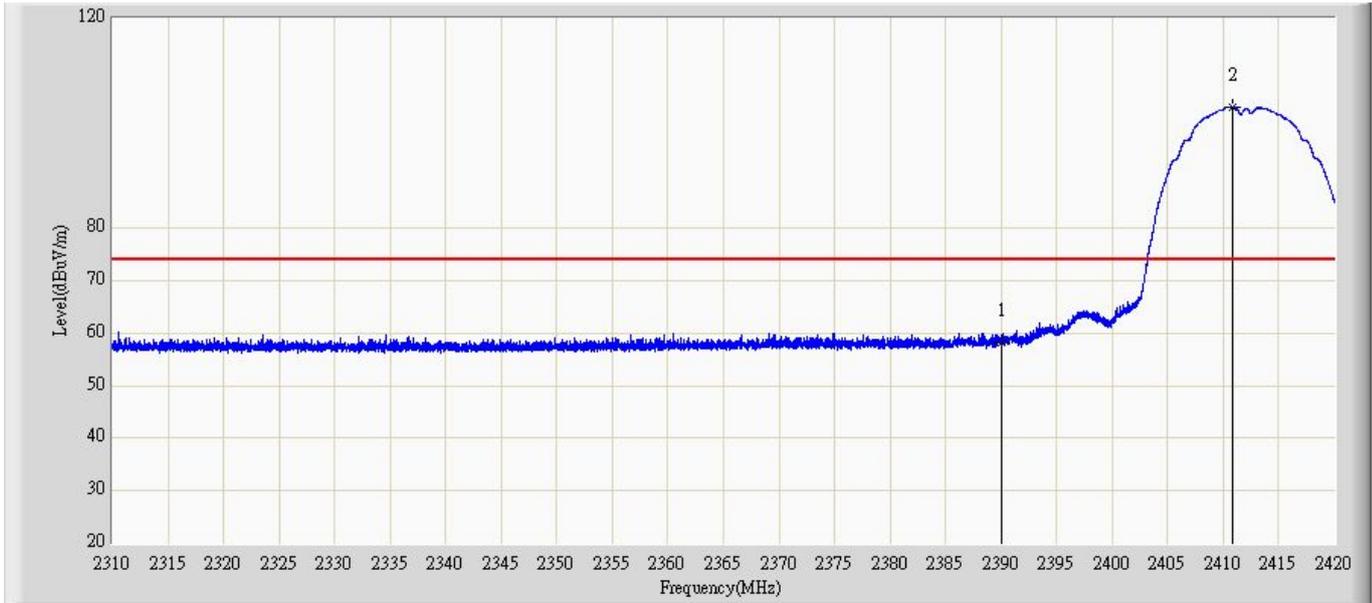
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390	55.2	24.656	-18.8	74	30.543	PK
2	X	*	2413.235	105.001	74.411	N/A	N/A	30.59	PK

Engineer: Jame	
Site: AC5	Time: 2010/04/29 - 13:34
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	



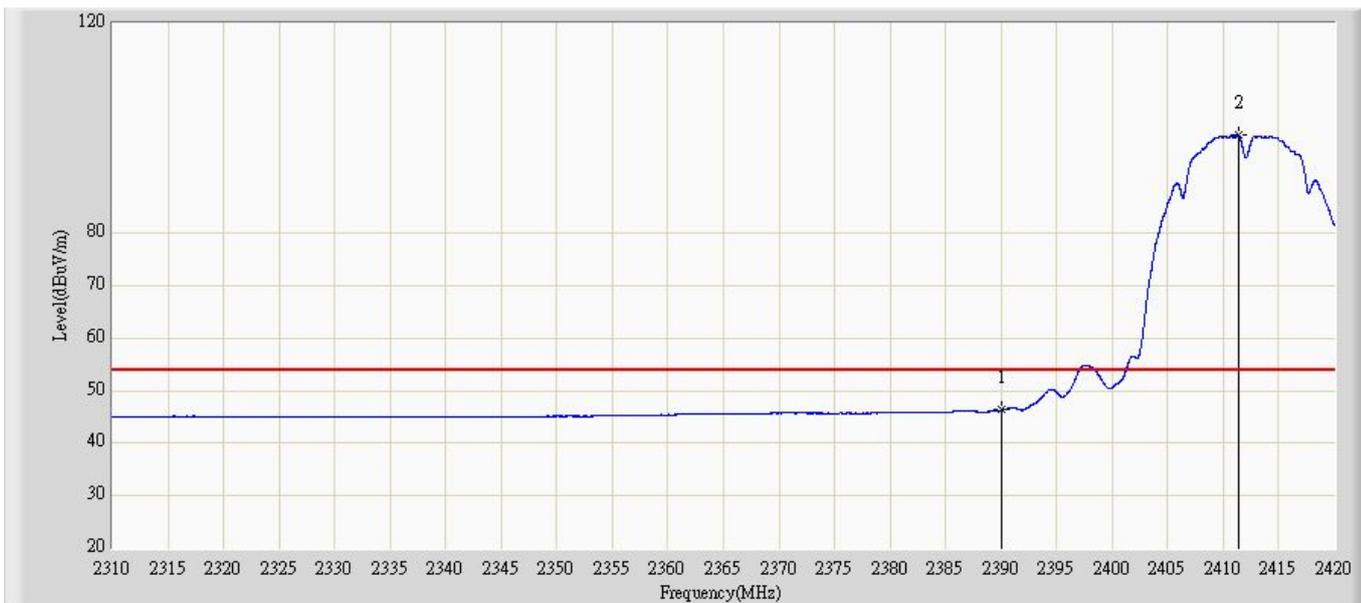
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390	46.426	15.882	-7.574	54	30.543	AV
2	X	*	2412.891	101.112	70.525	N/A	N/A	30.587	AV

Engineer: Jame	
Site: AC5	Time: 2010/04/29 - 13:44
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	



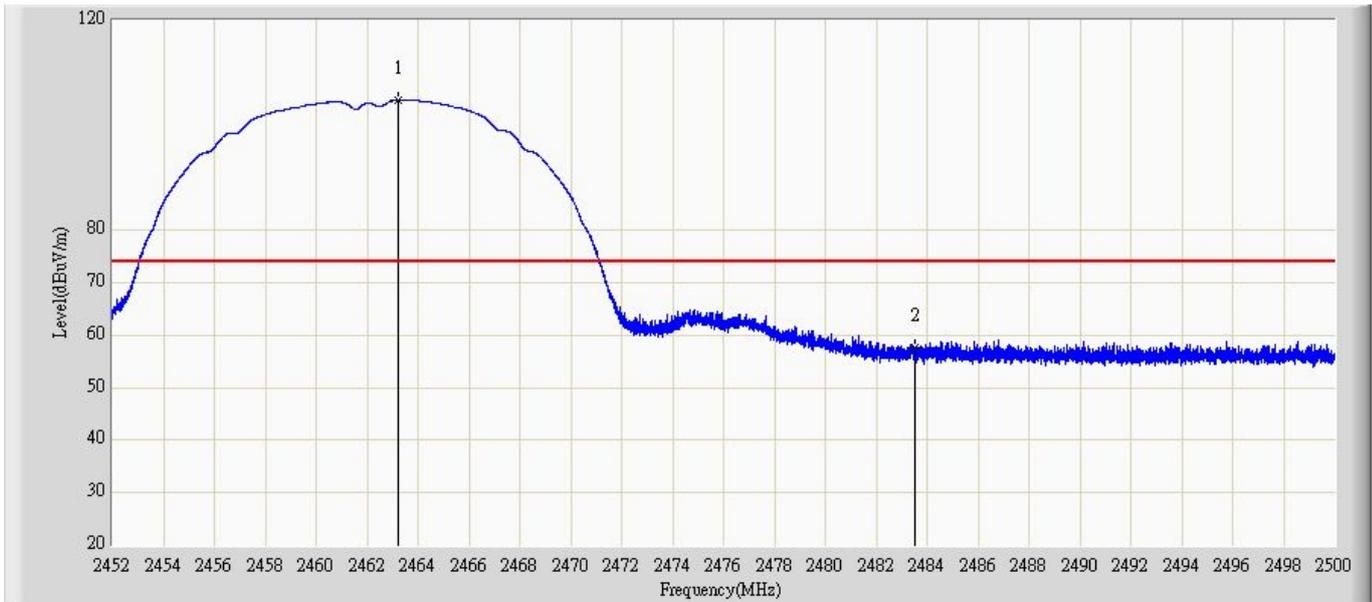
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390	58.12	27.576	-15.88	74	30.543	PK
2	X	*	2410.829	103.041	72.472	N/A	N/A	30.569	PK

Engineer: Jame	
Site: AC5	Time: 2010/04/29 - 13:44
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	



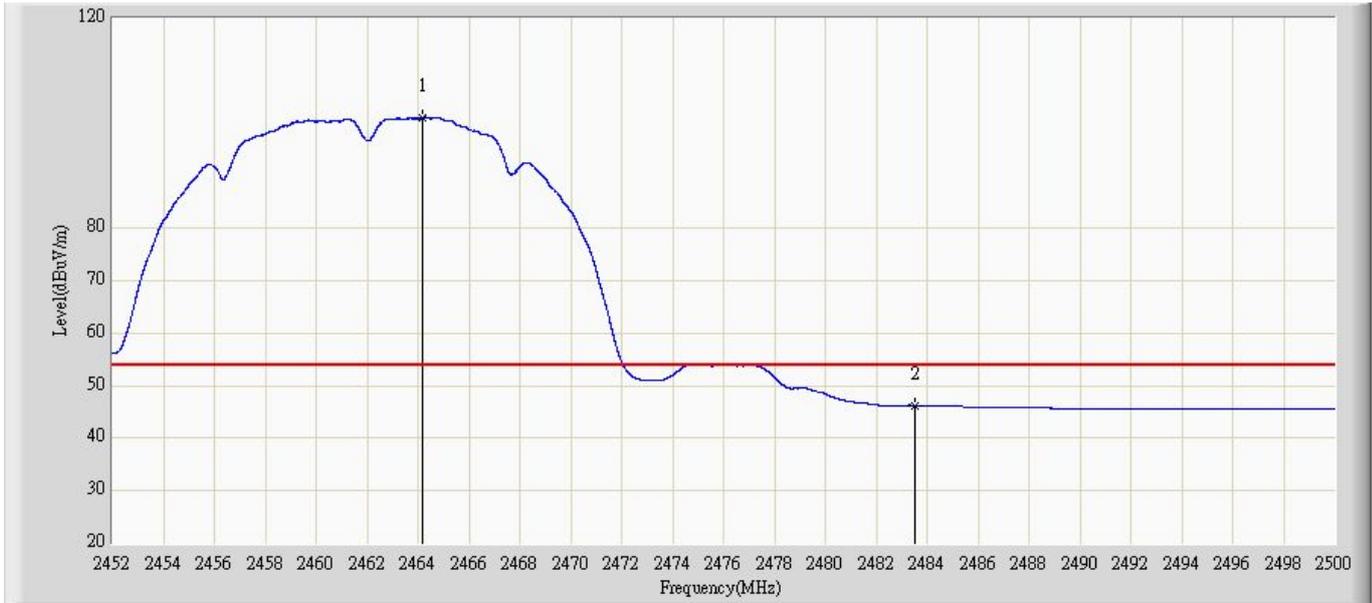
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390	46.306	15.762	-7.694	54	30.543	AV
2	X	*	2411.337	98.631	68.058	N/A	N/A	30.573	AV

Engineer: Jame	
Site: AC5	Time: 2010/04/29 - 13:45
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_499(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1: Transmit by 802.11b at channel 2462MHz	



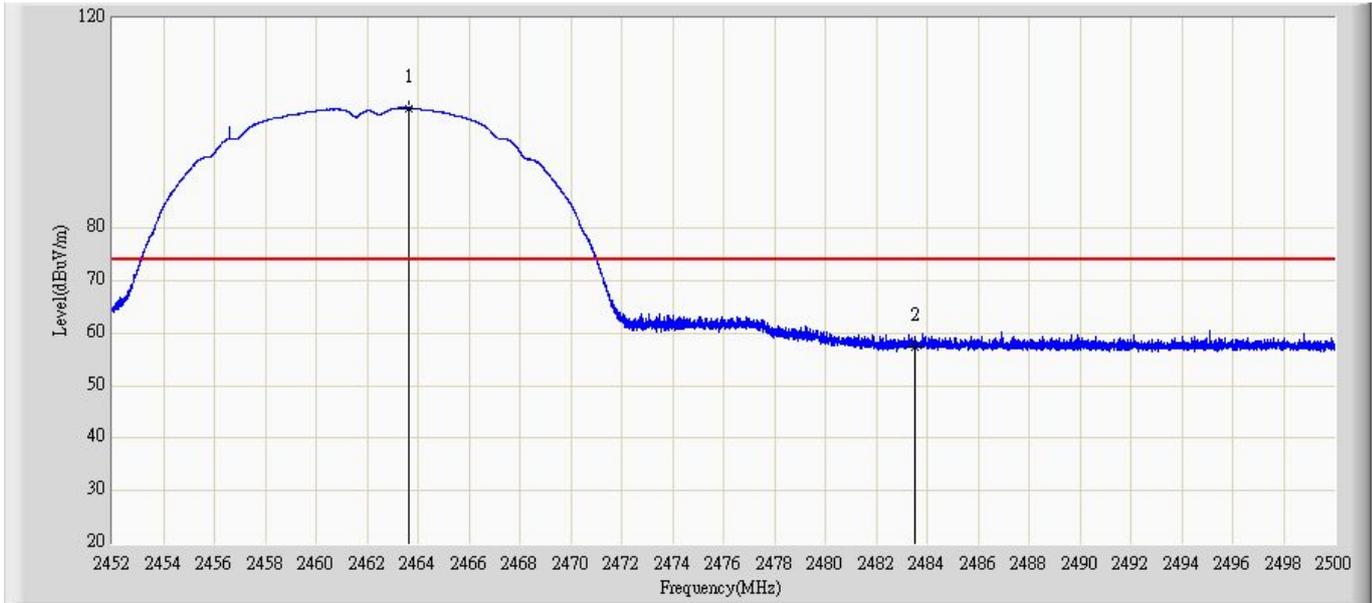
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2463.196	104.79	74.018	N/A	N/A	30.772	PK
2			2483.5	57.726	27.087	-16.274	74	30.638	PK

Engineer: Jame	
Site: AC5	Time: 2010/04/29 - 13:48
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	



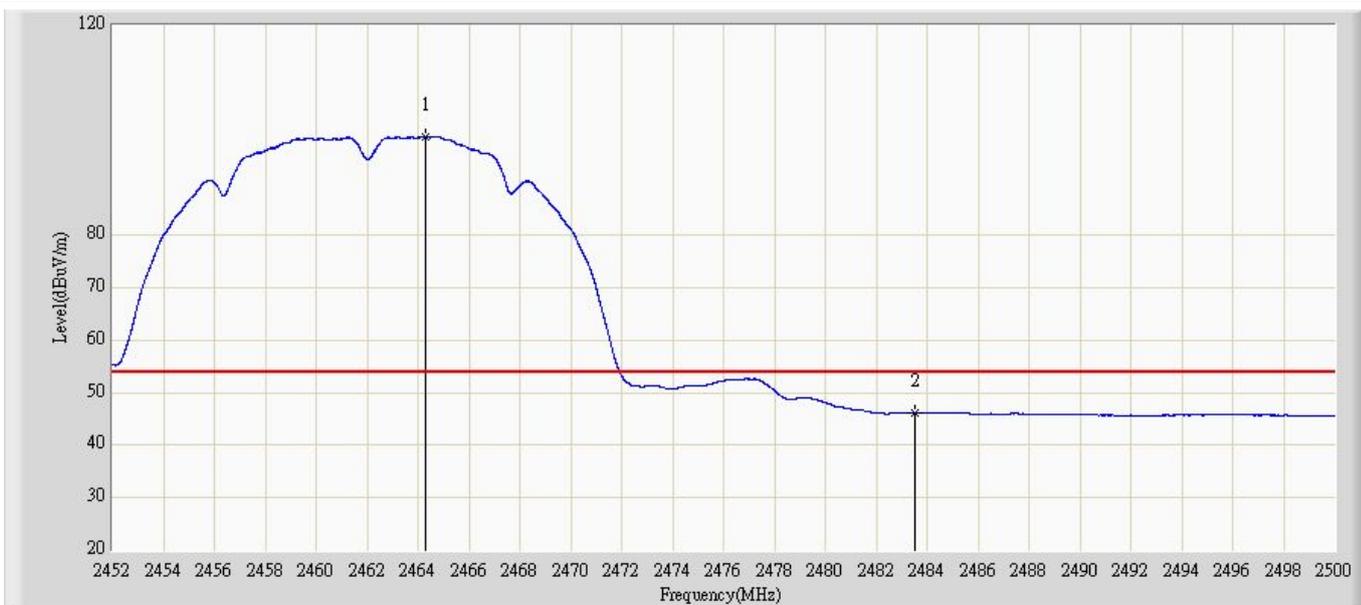
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2464.15	101.109	70.344	N/A	N/A	30.764	AV
2			2483.5	46.23	15.591	-7.77	54	30.638	AV

Engineer: Jame	
Site: AC5	Time: 2010/04/29 - 13:48
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	



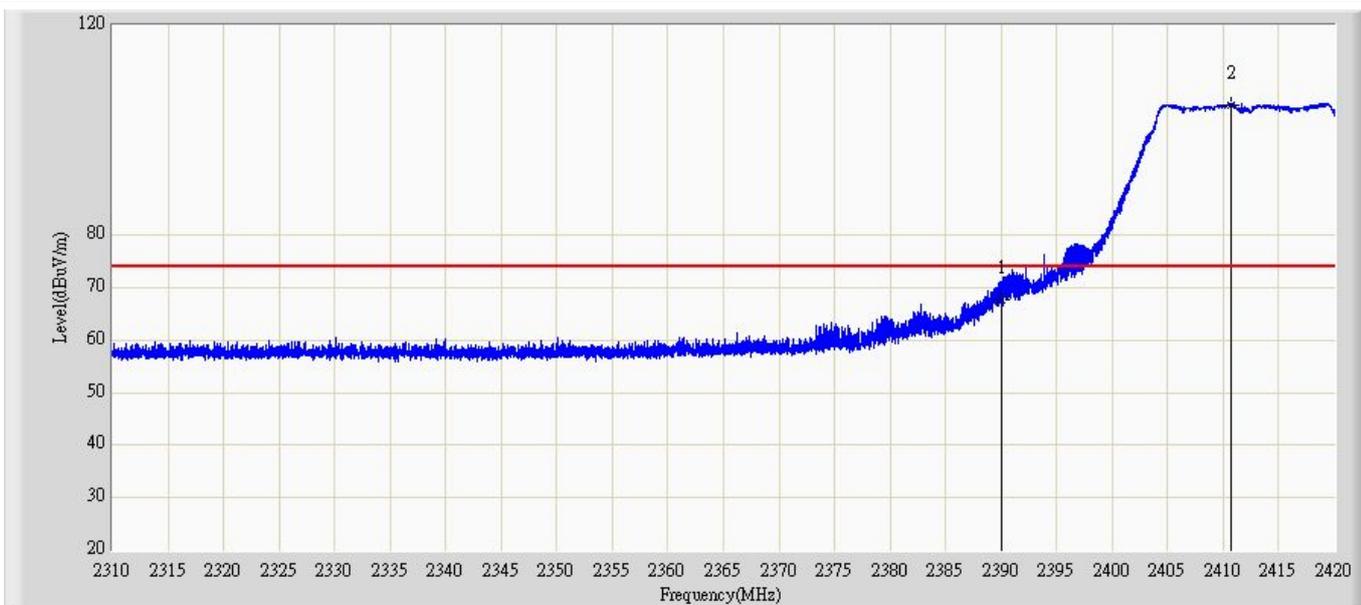
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2463.646	102.891	72.123	N/A	N/A	30.768	PK
2			2483.5	57.362	26.723	-16.638	74	30.638	PK

Engineer: Jame	
Site: AC5	Time: 2010/04/29 - 13:51
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	



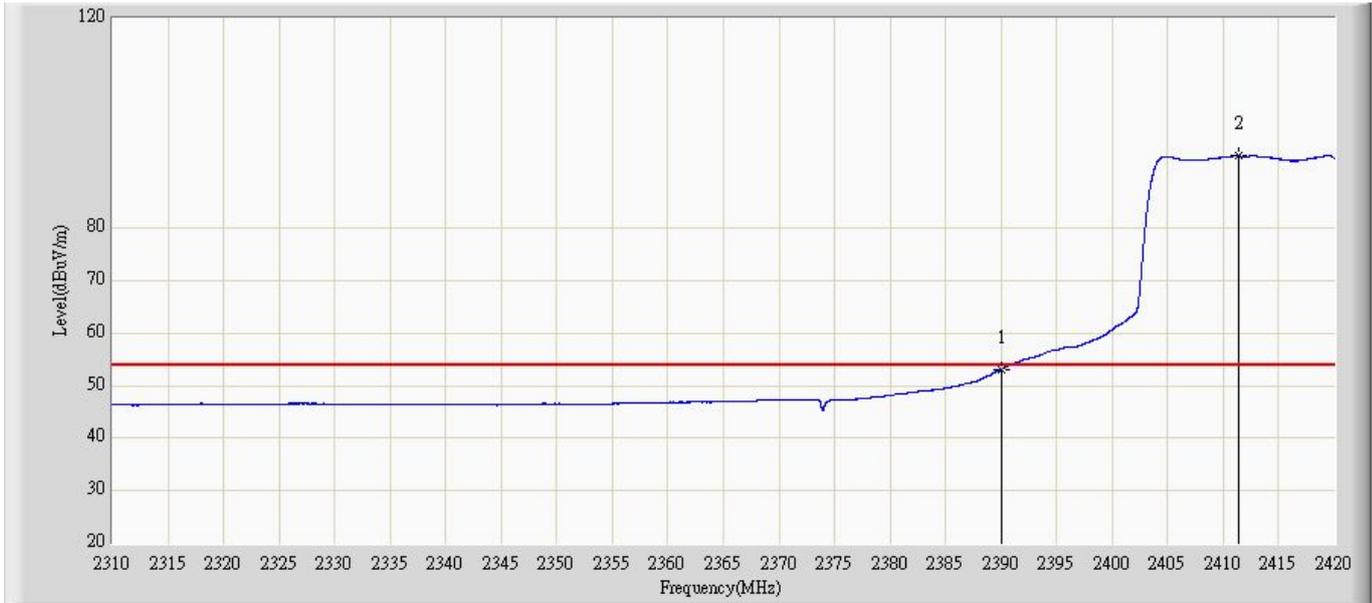
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2464.324	98.824	68.06	N/A	N/A	30.763	AV
2			2483.5	46.107	15.468	-7.893	54	30.638	AV

Engineer: Jame	
Site: AC5	Time: 2010/04/29 - 13:53
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	



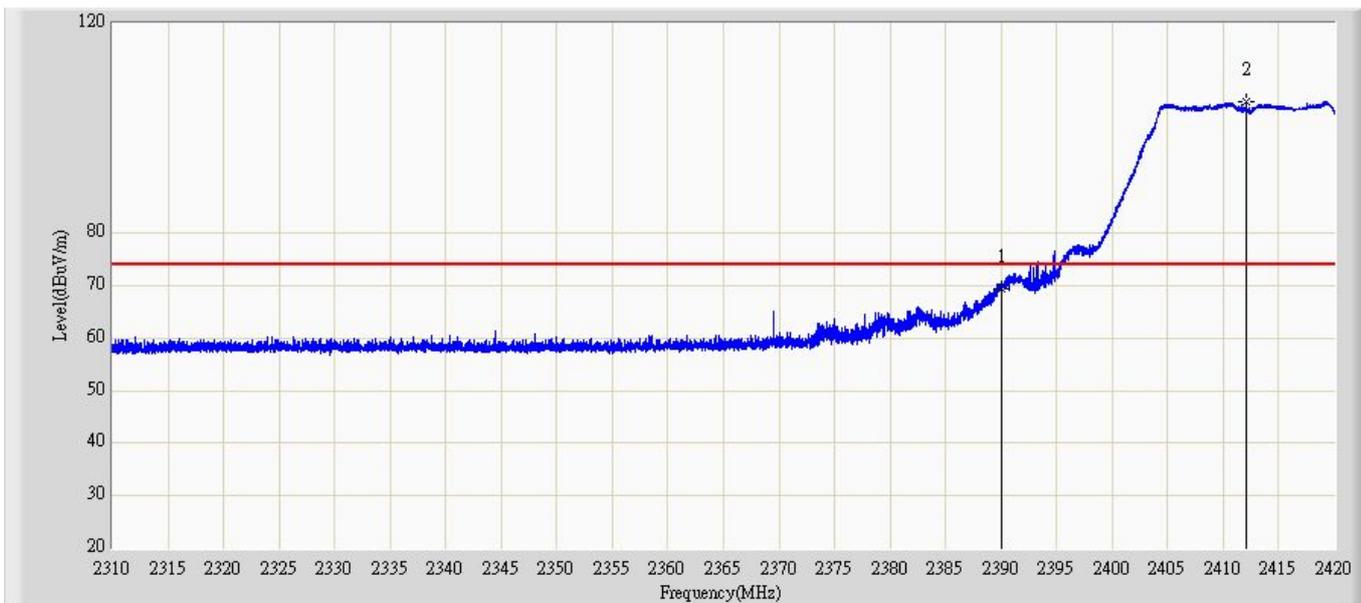
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390	67.804	37.26	-6.196	74	30.543	PK
2	X	*	2410.65	104.82	74.251	N/A	N/A	30.569	PK

Engineer: Jame	
Site: AC5	Time: 2010/04/29 - 13:56
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	



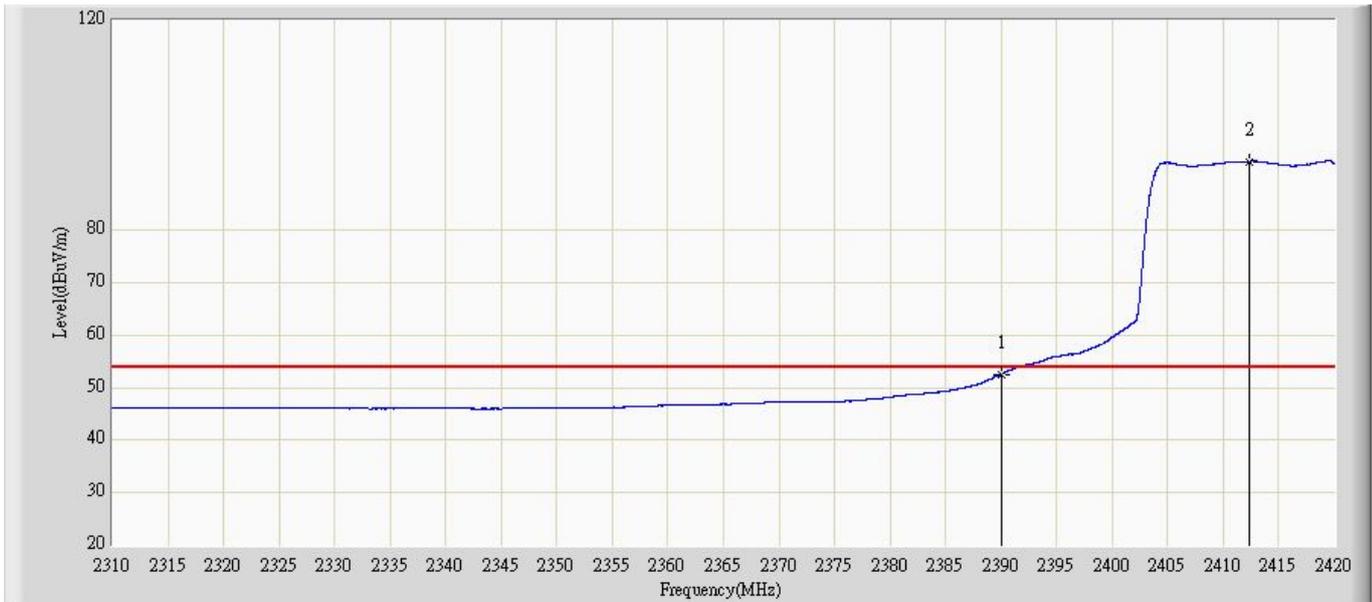
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390	53.094	22.55	-0.906	54	30.543	AV
2	X	*	2411.365	93.746	63.173	N/A	N/A	30.573	AV

Engineer: Jame	
Site: AC5	Time: 2010/04/29 - 13:57
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	



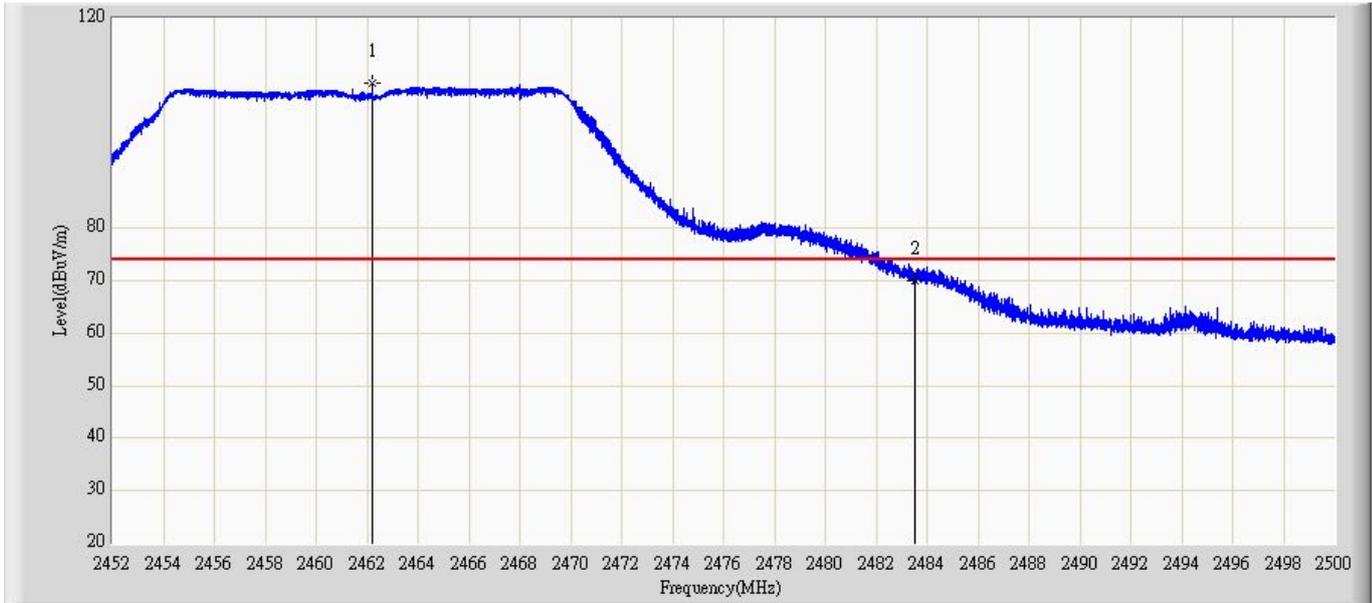
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390	69.504	38.96	-4.496	74	30.543	PK
2	X	*	2412.08	105.062	74.482	N/A	N/A	30.579	PK

Engineer: Jame	
Site: AC5	Time: 2010/04/29 - 13:59
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	



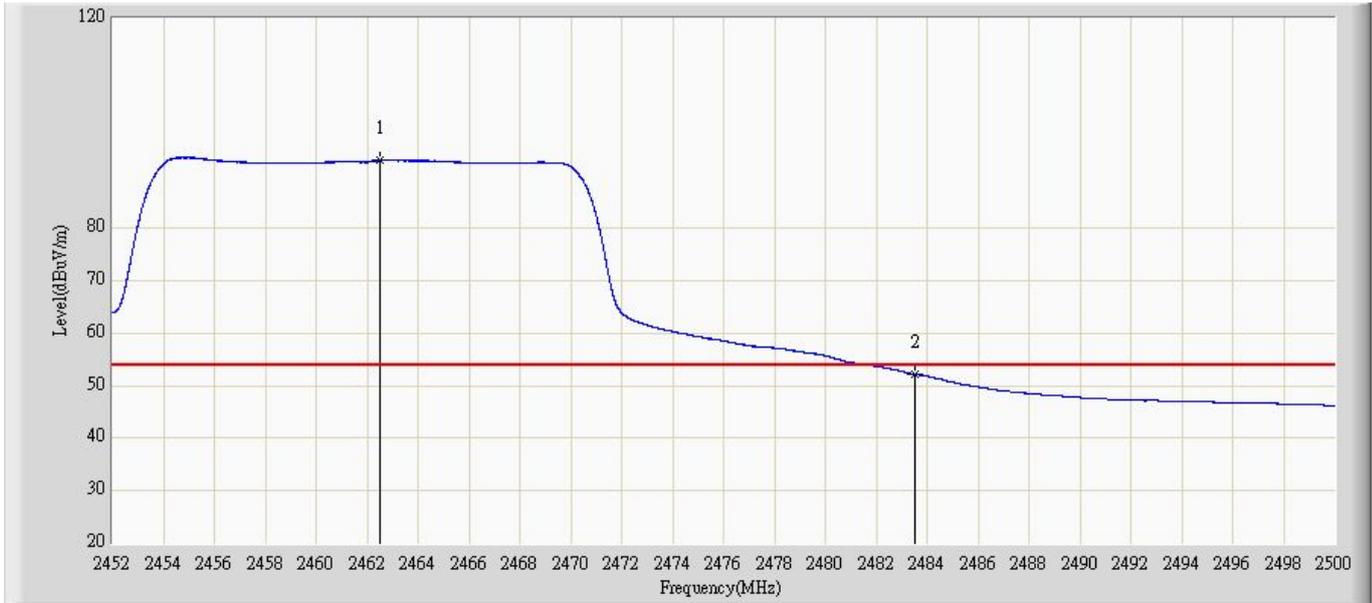
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390	52.528	21.984	-1.472	54	30.543	AV
2	X	*	2412.369	93.092	62.51	N/A	N/A	30.582	AV

Engineer: Jame	
Site: AC5	Time: 2010/04/29 - 14:05
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_499(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 2: Transmit by 802.11g at channel 2462MHz	



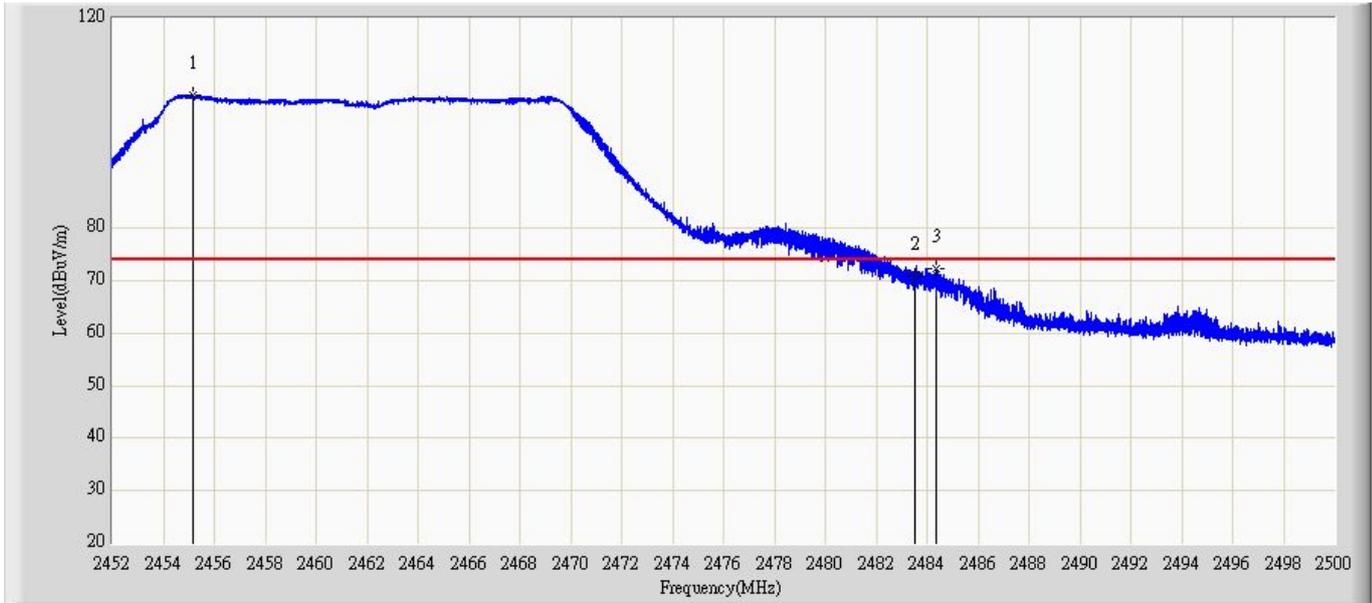
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2462.188	107.512	76.733	N/A	N/A	30.779	PK
2			2483.5	70.072	39.433	-3.928	74	30.638	PK

Engineer: Jame	
Site: AC5	Time: 2010/04/29 - 14:05
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_499(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 2: Transmit by 802.11g at channel 2462MHz	



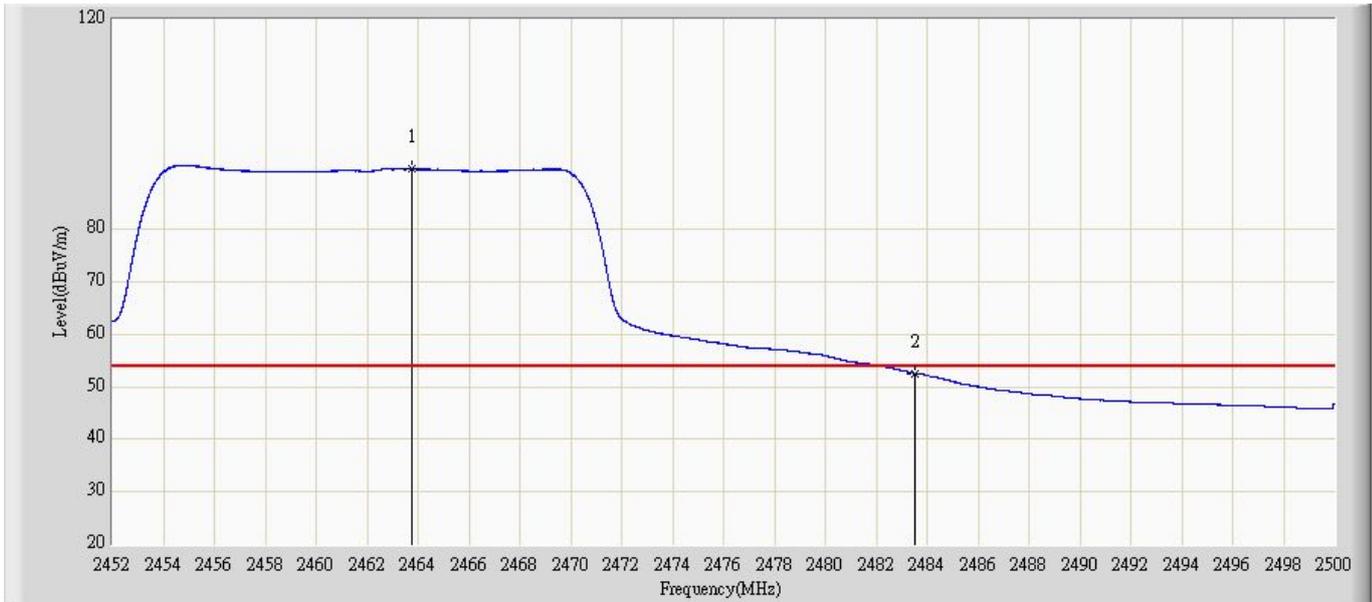
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2462.524	92.955	62.179	N/A	N/A	30.776	AV
2			2483.5	52.225	21.586	-1.775	54	30.638	AV

Engineer: Jame	
Site: AC5	Time: 2010/04/29 - 14:10
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	



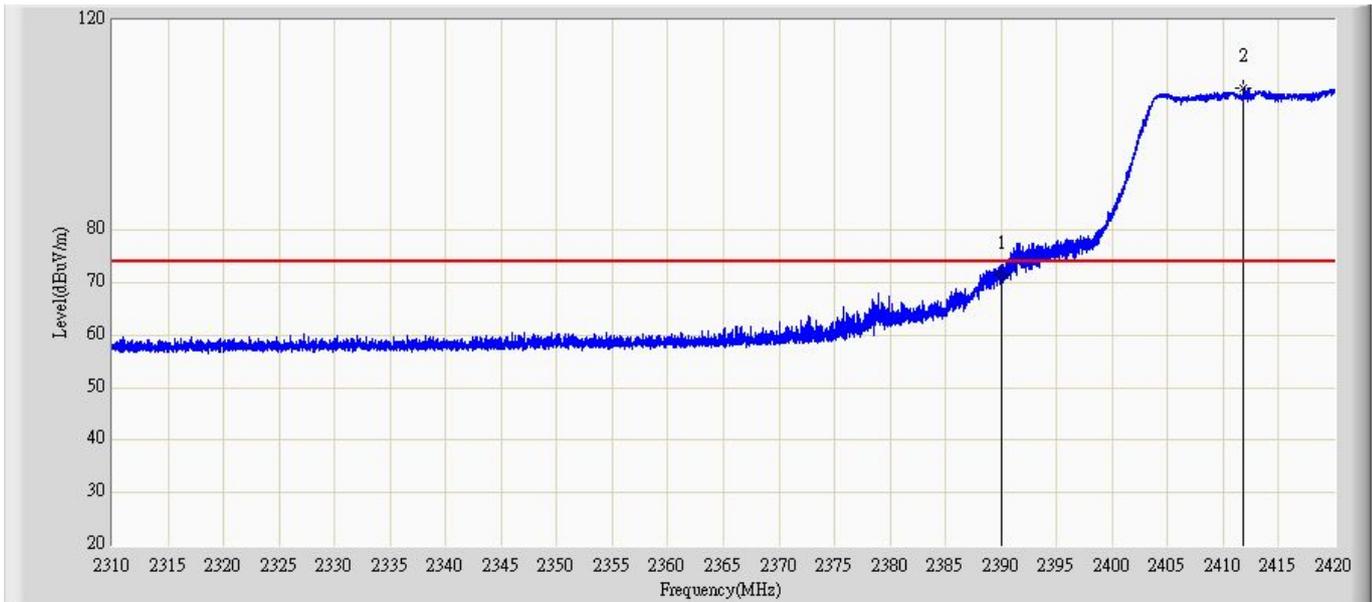
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2455.15	105.476	74.668	N/A	N/A	30.808	PK
2			2483.5	70.923	40.284	-3.077	74	30.638	PK
3			2484.37	72.357	41.722	-1.643	74	30.635	PK

Engineer: Jame	
Site: AC5	Time: 2010/05/04 - 17:11
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	



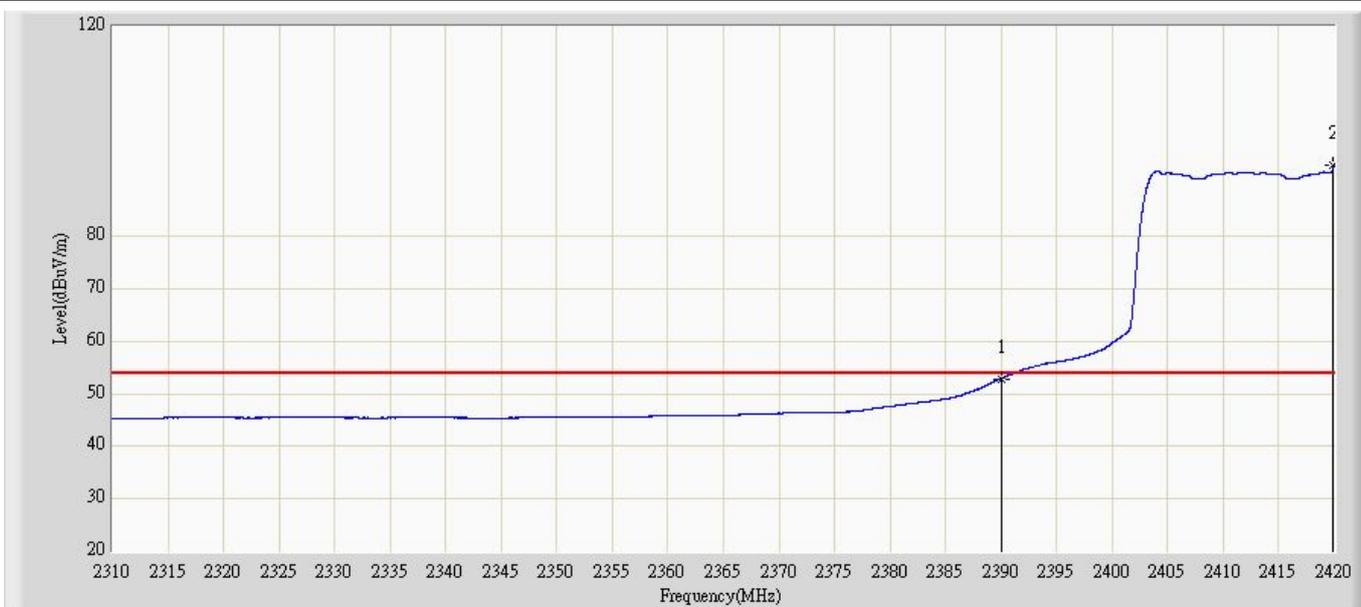
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	2463.760	91.513	60.745	N/A	N/A	30.768	AV
2			2483.500	52.604	21.965	-1.396	54.000	30.638	AV

Engineer: Jame	
Site: AC5	Time: 2010/04/29 - 14:11
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(20MHz) at channel 2412MHz	



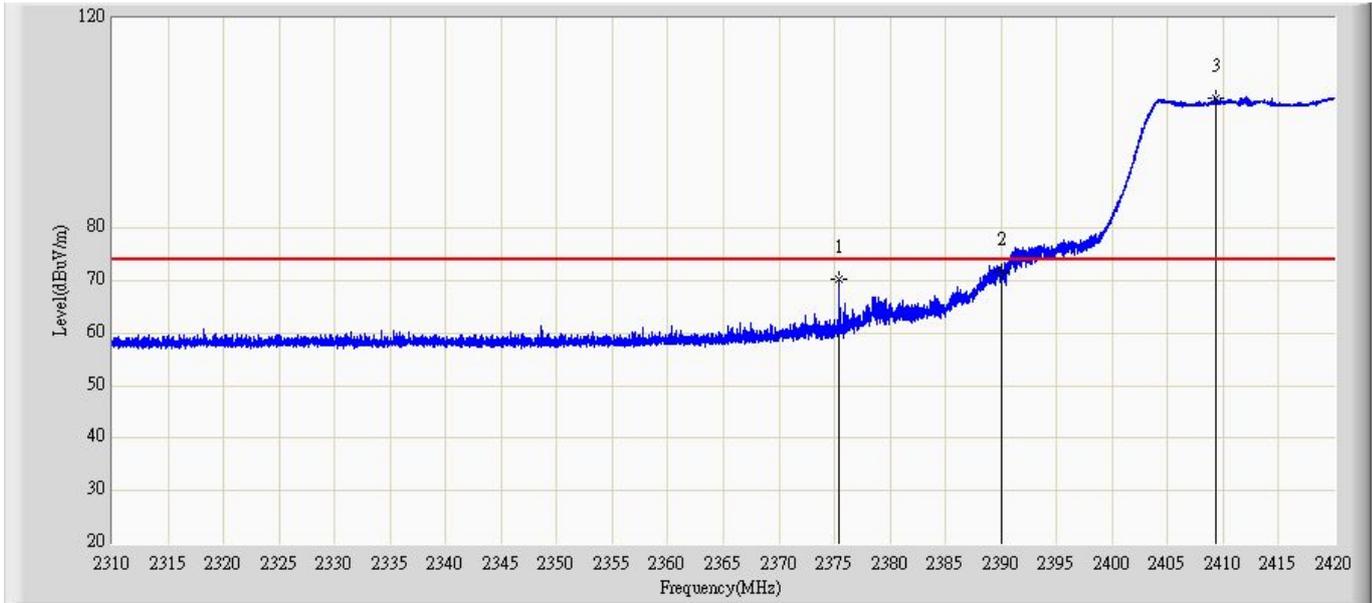
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390	71.304	40.76	-2.696	74	30.543	PK
2	X	*	2411.833	106.974	76.397	N/A	N/A	30.578	PK

Engineer: Jame	
Site: AC5	Time: 2010/04/29 - 14:55
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(20MHz) at channel 2412MHz	



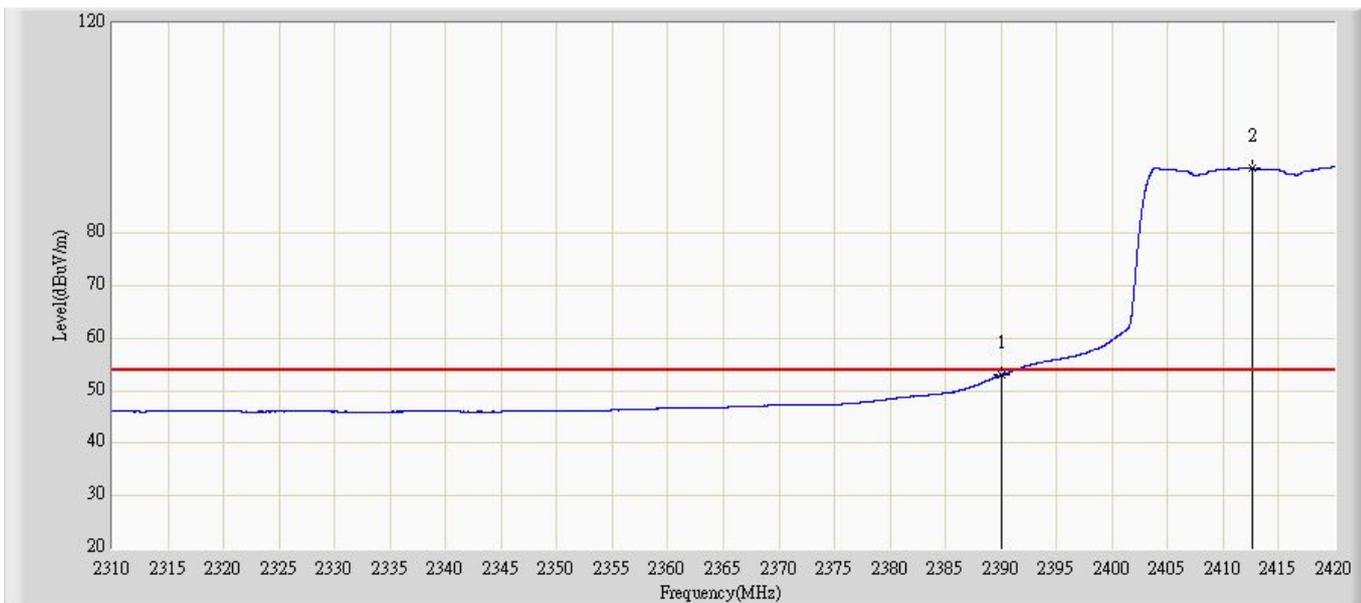
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390	52.897	22.353	-1.103	54	30.543	AV
2	X	*	2419.917	93.574	62.925	N/A	N/A	30.649	AV

Engineer: Jame	
Site: AC5	Time: 2010/04/29 - 14:14
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(20MHz) at channel 2412MHz	



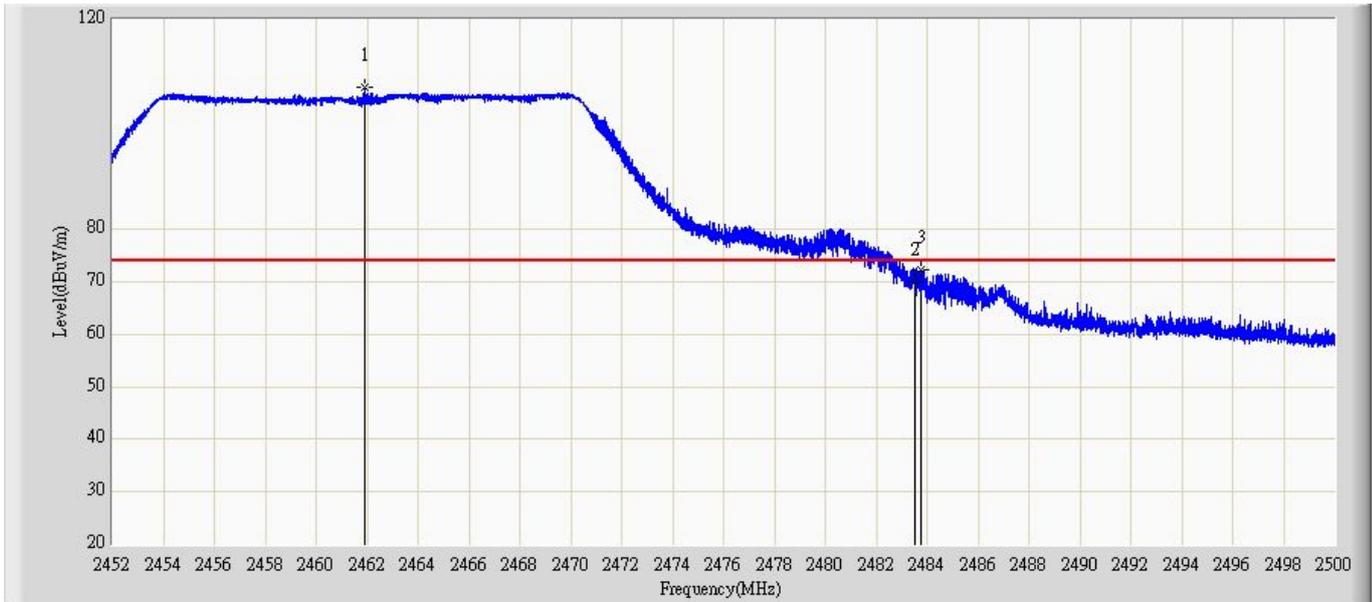
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2375.464	70.242	39.614	-3.758	74	30.628	PK
2			2390	71.742	41.198	-2.258	74	30.543	PK
3	X	*	2409.344	104.809	74.244	N/A	N/A	30.565	PK

Engineer: Jame	
Site: AC5	Time: 2010/04/29 - 14:16
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_499(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 3: Transmit by 802.11n(20MHz) at channel 2462MHz	



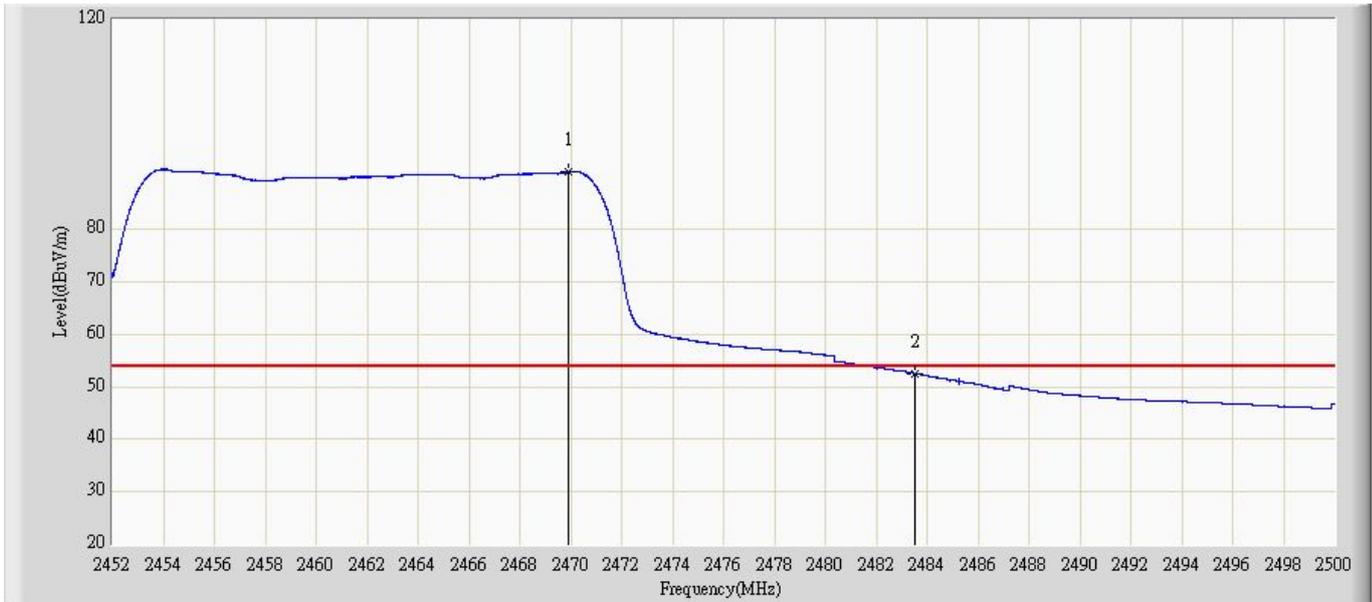
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390	52.995	22.451	-1.005	54	30.543	AV
2	X	*	2412.548	92.432	61.848	N/A	N/A	30.584	AV

Engineer: Jame	
Site: AC5	Time: 2010/04/29 - 14:51
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(20MHz) at channel 2462MHz	



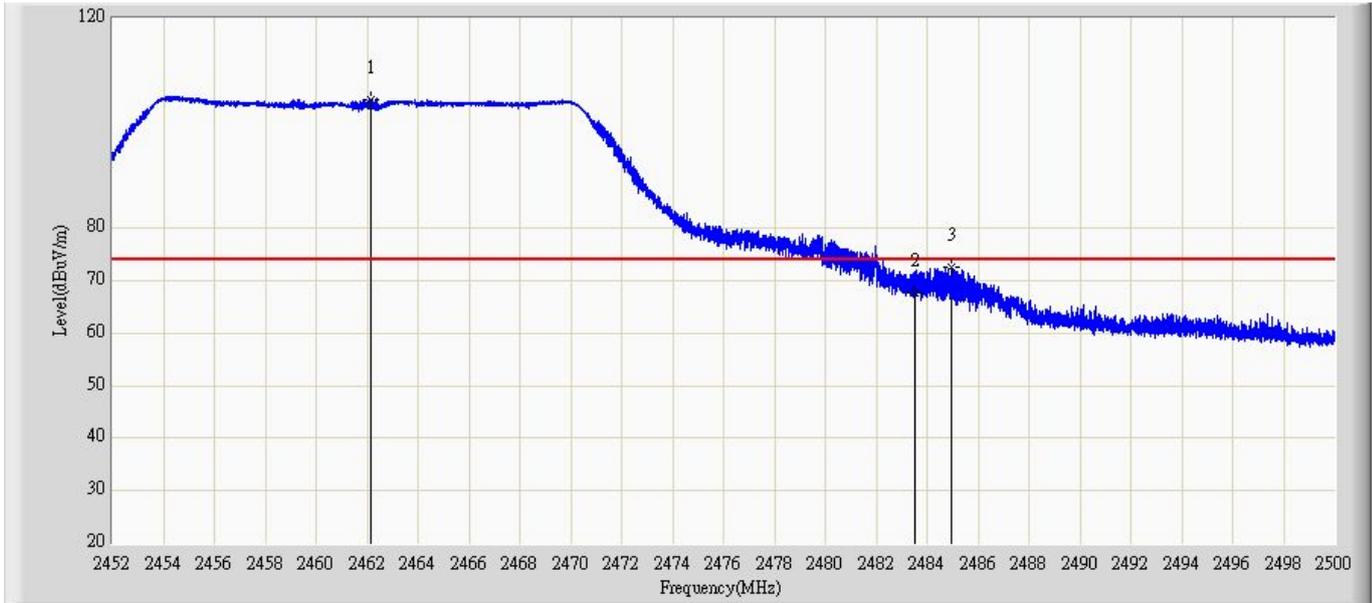
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2461.93	106.95	76.17	N/A	N/A	30.78	PK
2			2483.5	69.997	39.358	-4.003	74	30.638	PK
3			2483.776	72.395	41.757	-1.605	74	30.637	PK

Engineer: Jame	
Site: AC5	Time: 2010/05/04 - 20:20
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(20MHz) at channel 2462MHz	



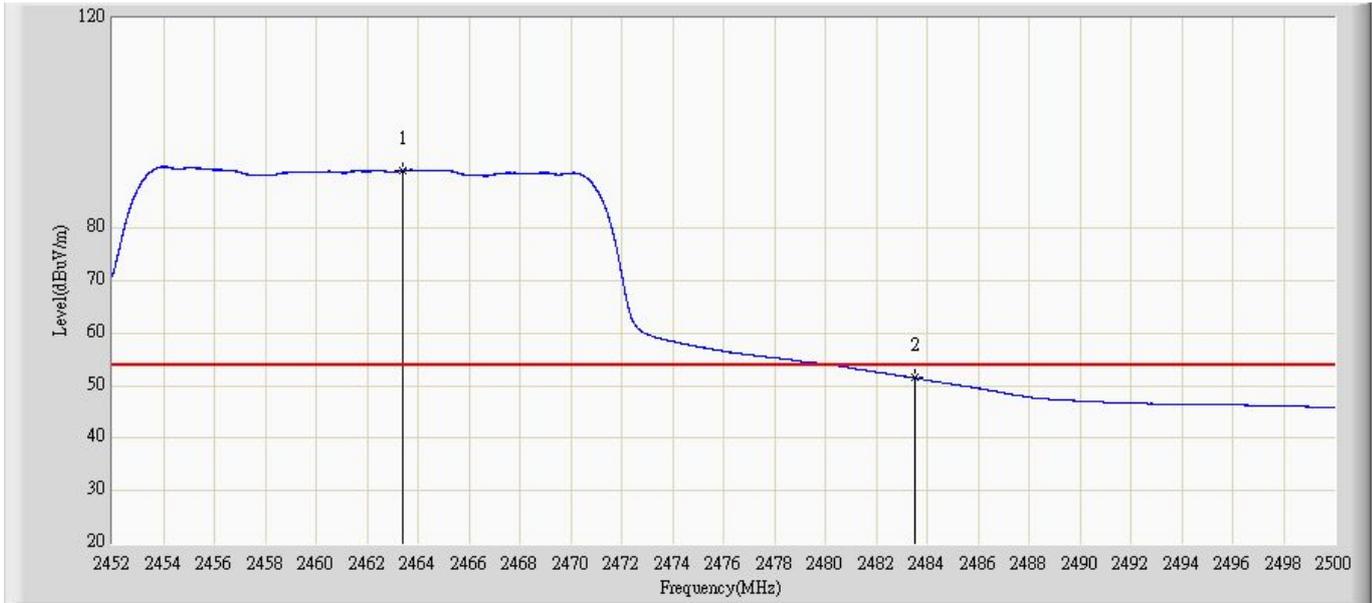
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	2469.922	90.970	60.246	N/A	N/A	30.724	AV
2			2483.500	52.599	21.960	-1.401	54.000	30.638	AV

Engineer: Jame	
Site: AC5	Time: 2010/04/29 - 14:48
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(20MHz) at channel 2462MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2462.17	104.525	73.746	N/A	N/A	30.779	PK
2			2483.5	67.817	37.178	-6.183	74	30.638	PK
3			2484.952	72.483	41.851	-1.517	74	30.631	PK

Engineer: Jame	
Site: AC5	Time: 2010/04/29 - 14:49
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(20MHz) at channel 2462MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2463.418	91.079	60.309	N/A	N/A	30.77	AV
2			2483.5	51.545	20.906	-2.455	54	30.638	AV

7. Operation Frequency Range of 20dB Bandwidth

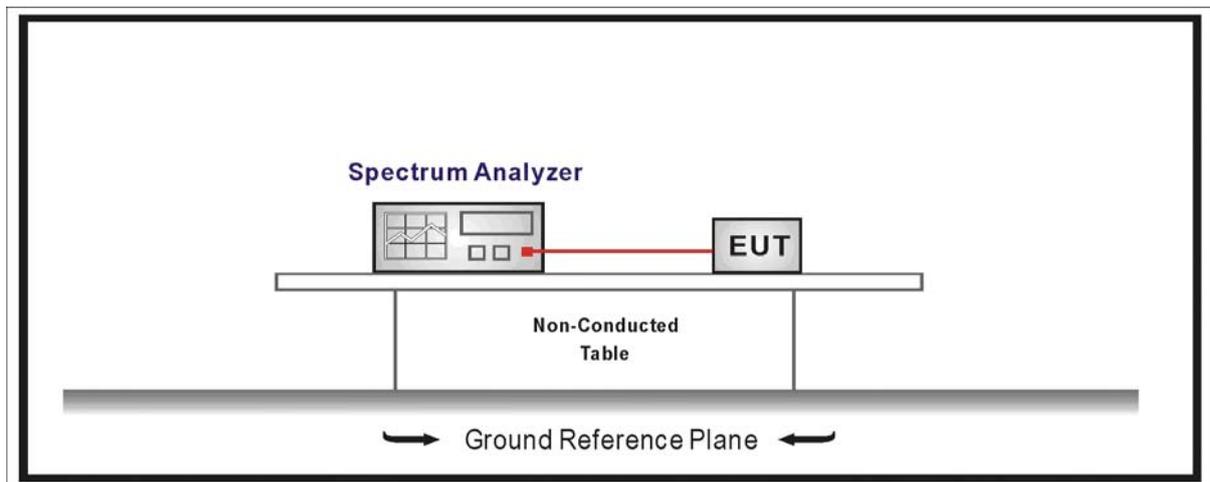
7.1. Test Equipment

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.

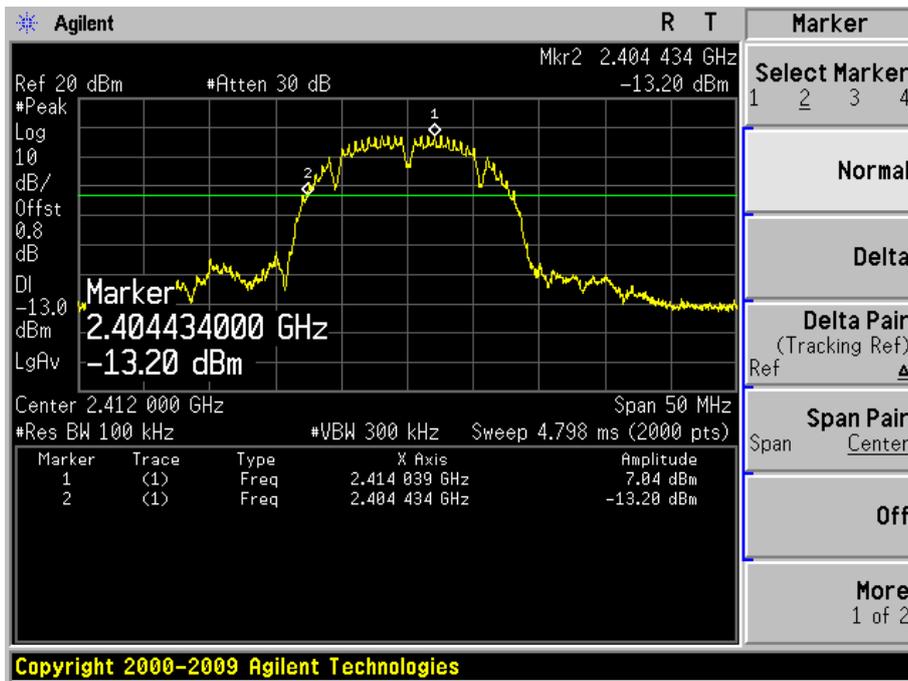
7.5. Uncertainty

The measurement uncertainty is defined as ± 1 kHz

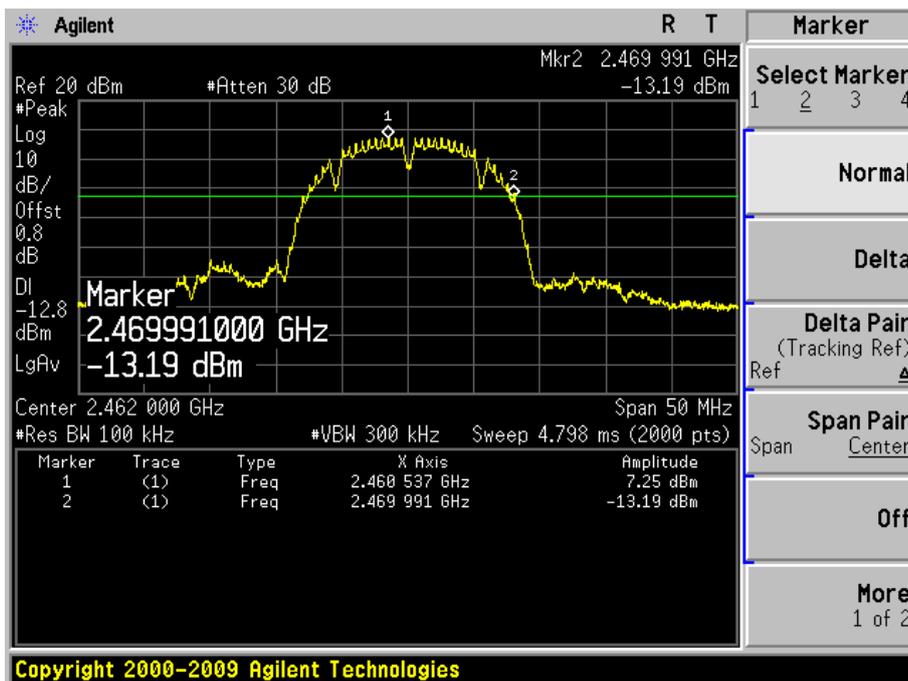
7.6. Test Result

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

Channel 01 (2412MHz)

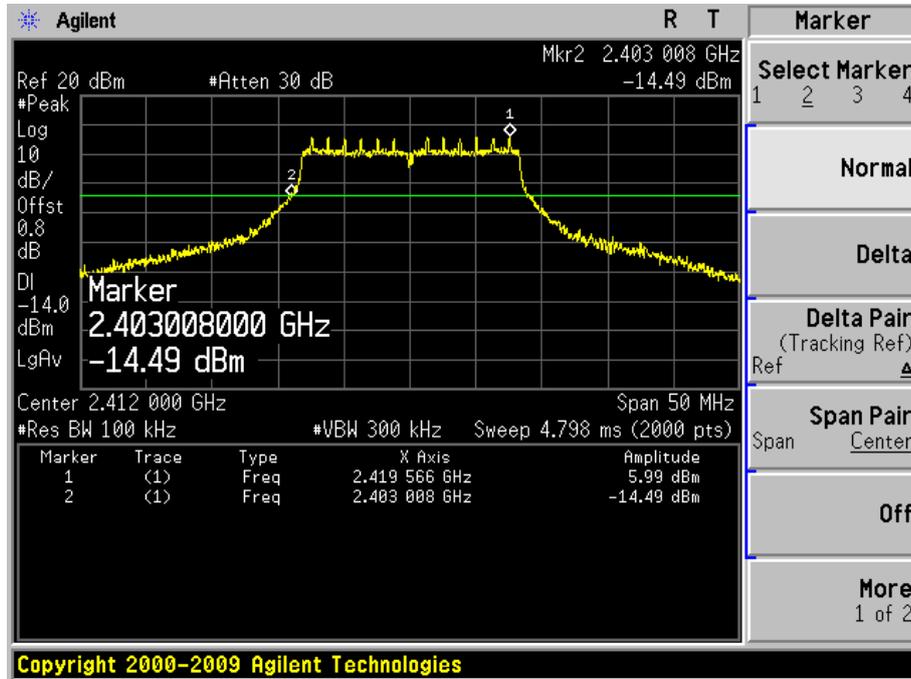


Channel 11 (2462MHz)

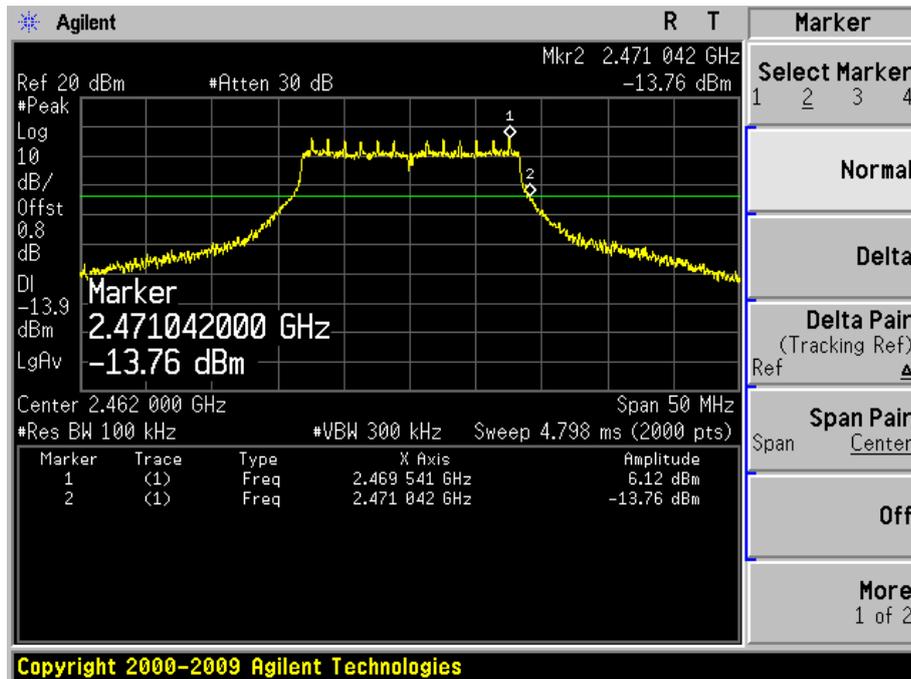


Product	:	Eee PC
Test Item	:	Operation Frequency Range of 20dB Bandwidth
Test Mode	:	Mode 2: Transmit by 802.11g

Channel 01 (2412MHz)

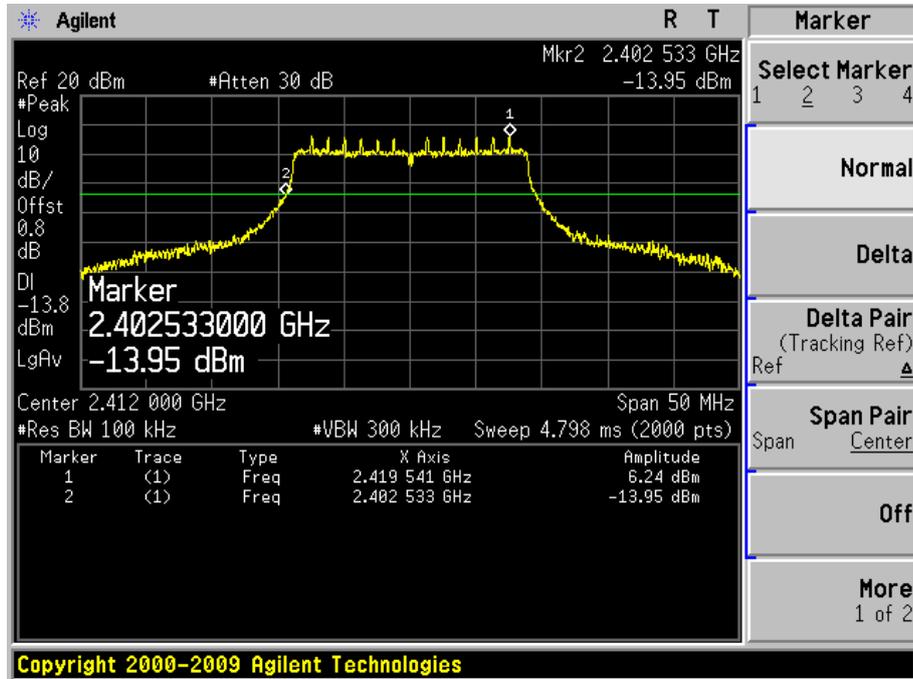


Channel 11 (2462MHz)

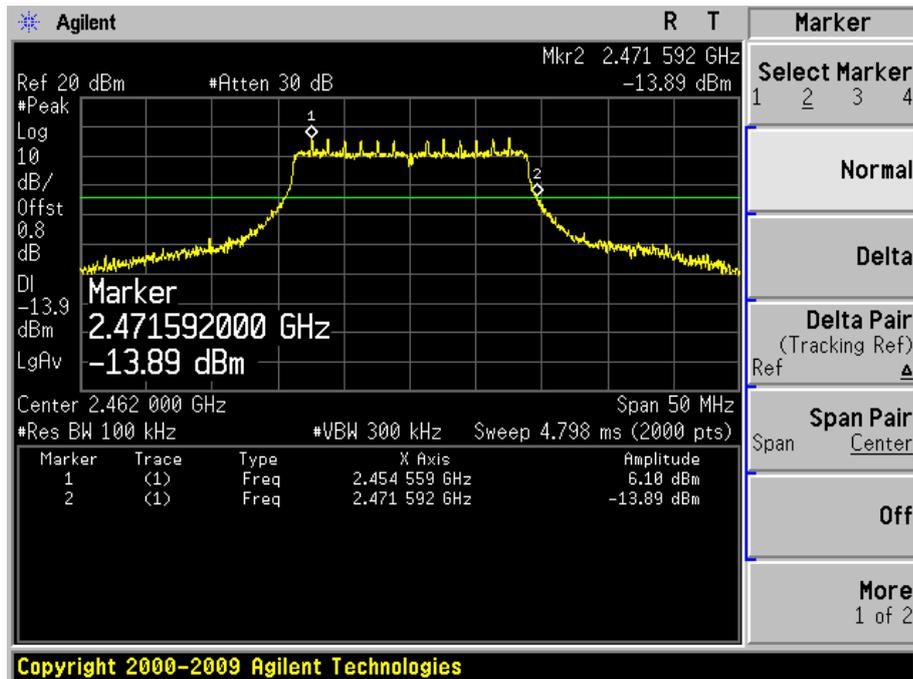


Product	:	Eee PC
Test Item	:	Operation Frequency Range of 20dB Bandwidth
Test Mode	:	Mode 3: Transmit by 802.11n (20MHz)

Channel 01 (2412MHz)



Channel 11 (2462MHz)



8. Occupied Bandwidth

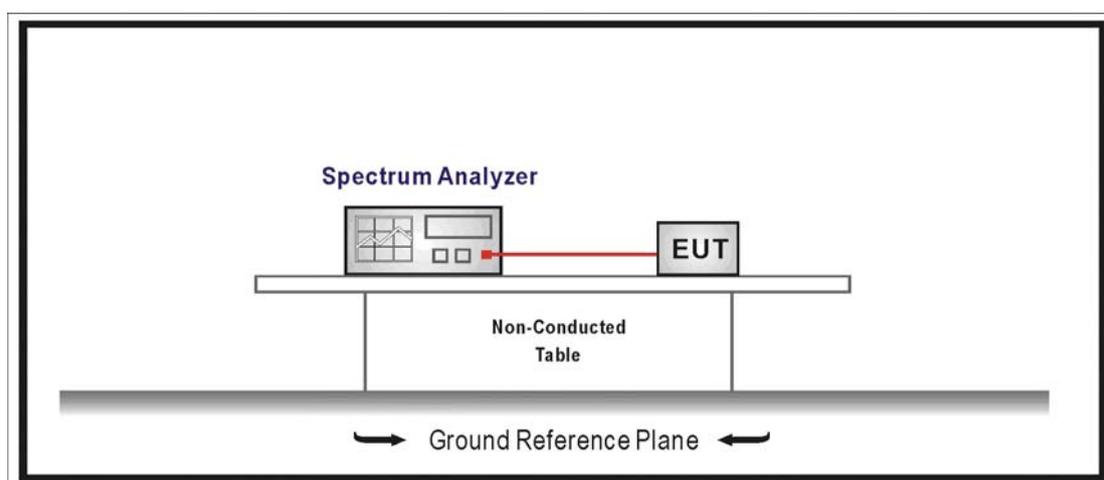
8.1. Test Equipment

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

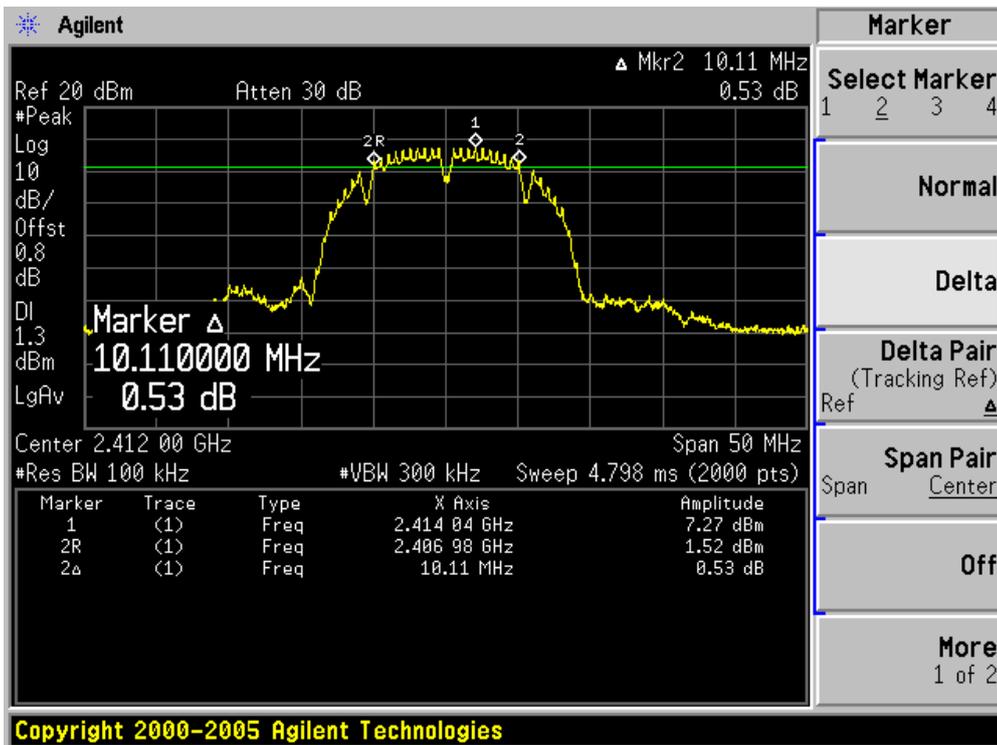
The measurement uncertainty is defined as ± 1 kHz

8.6. Test Result

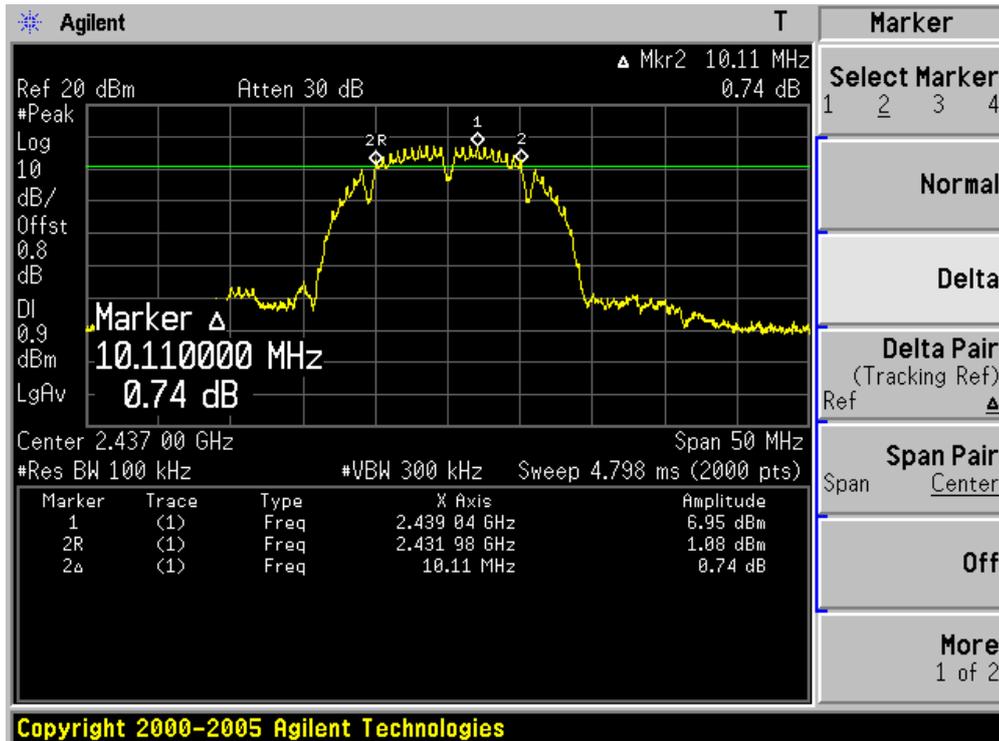
Product	:	Eee PC
Test Item	:	6dB Occupied Bandwidth
Test Mode	:	Mode 1: Transmit by 802.11b

Channel No.	Frequency (MHz)	Occupied Bandwidth (kHz)	Limit (kHz)	Result
01	2412	10110	500	Pass
06	2437	10110	500	Pass
11	2462	10010	500	Pass

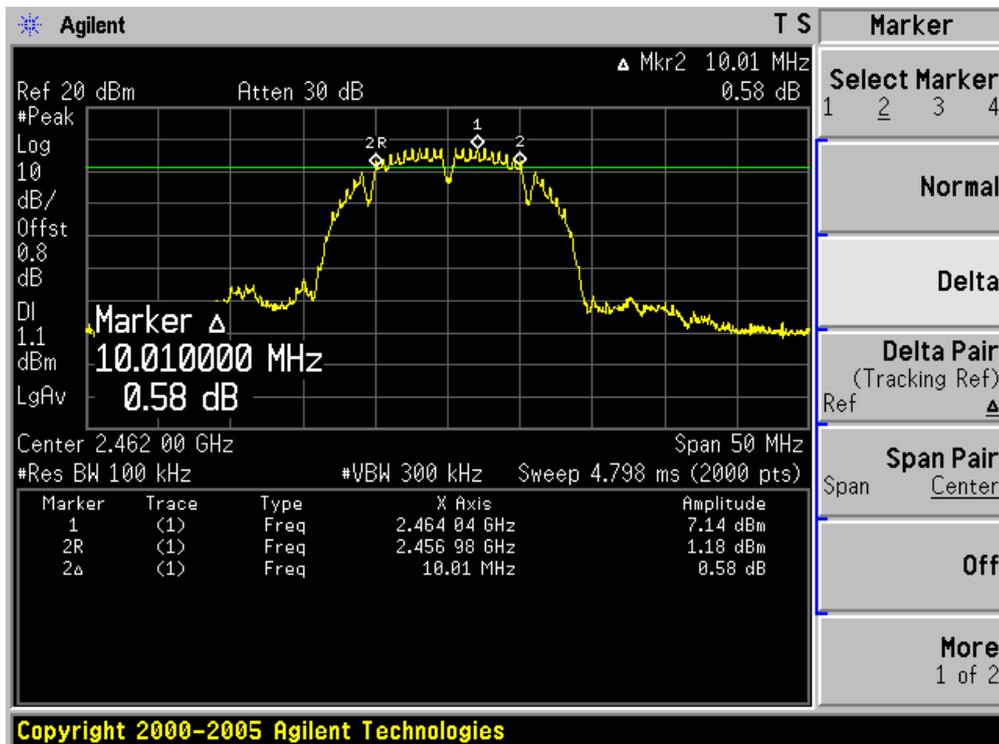
Channel 01 (2412MHz)



Channel 06 (2437MHz)



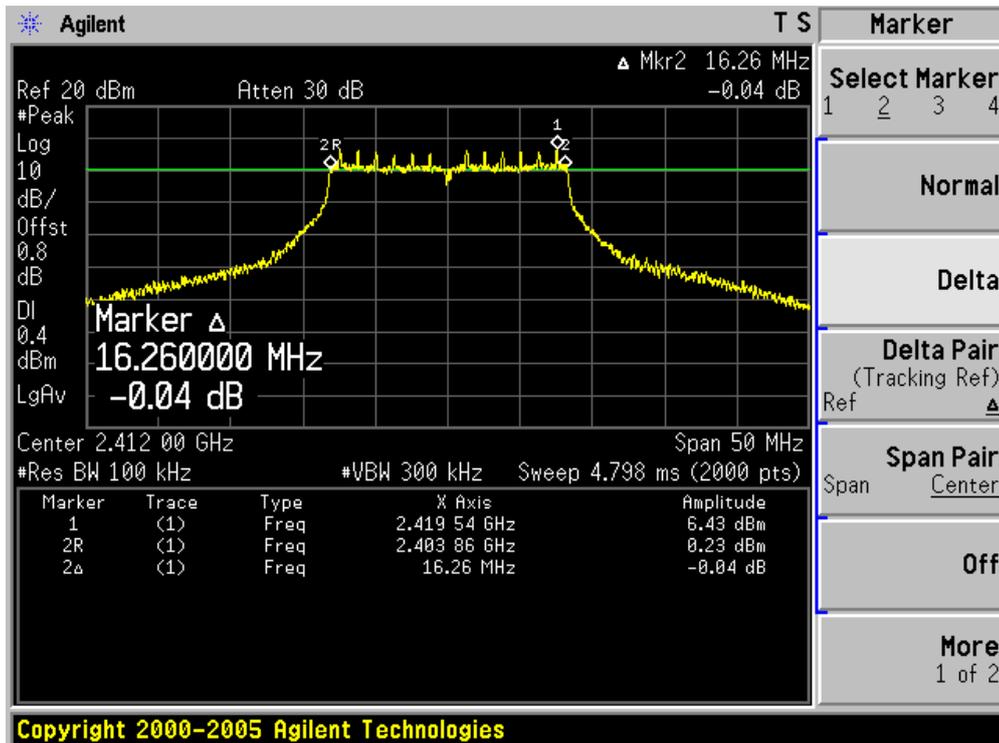
Channel 11 (2462MHz)



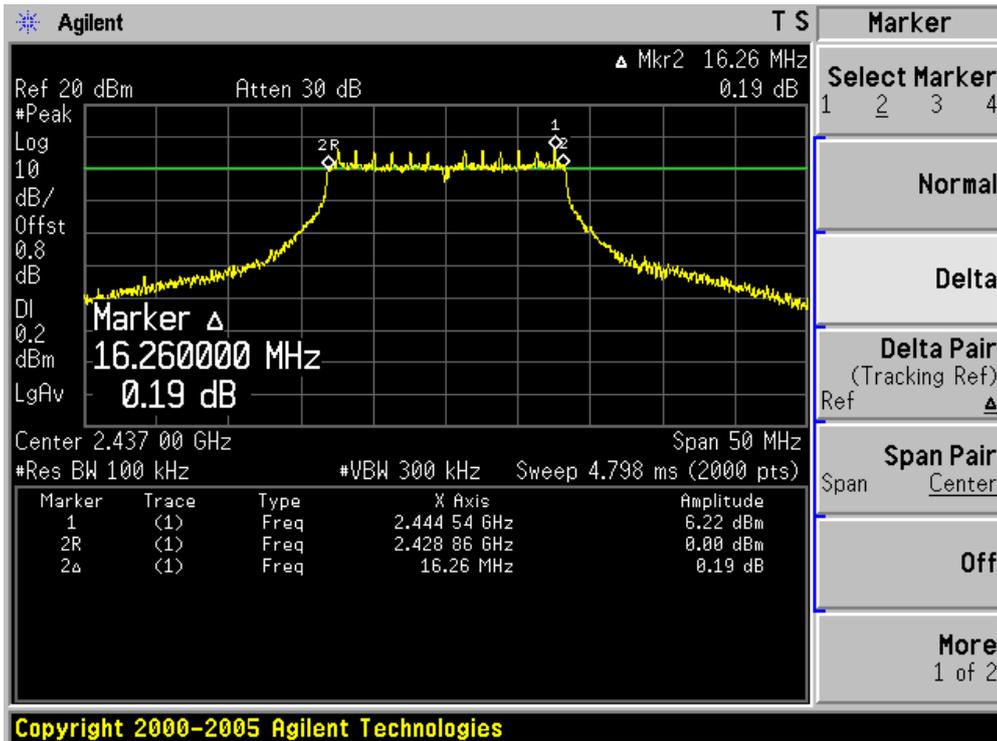
Product	:	Eee PC
Test Item	:	6dB Occupied Bandwidth
Test Mode	:	Mode 2: Transmit by 802.11g

Channel No.	Frequency (MHz)	Occupied Bandwidth (kHz)	Limit (kHz)	Result
01	2412	16260	500	Pass
06	2437	16260	500	Pass
11	2462	16030	500	Pass

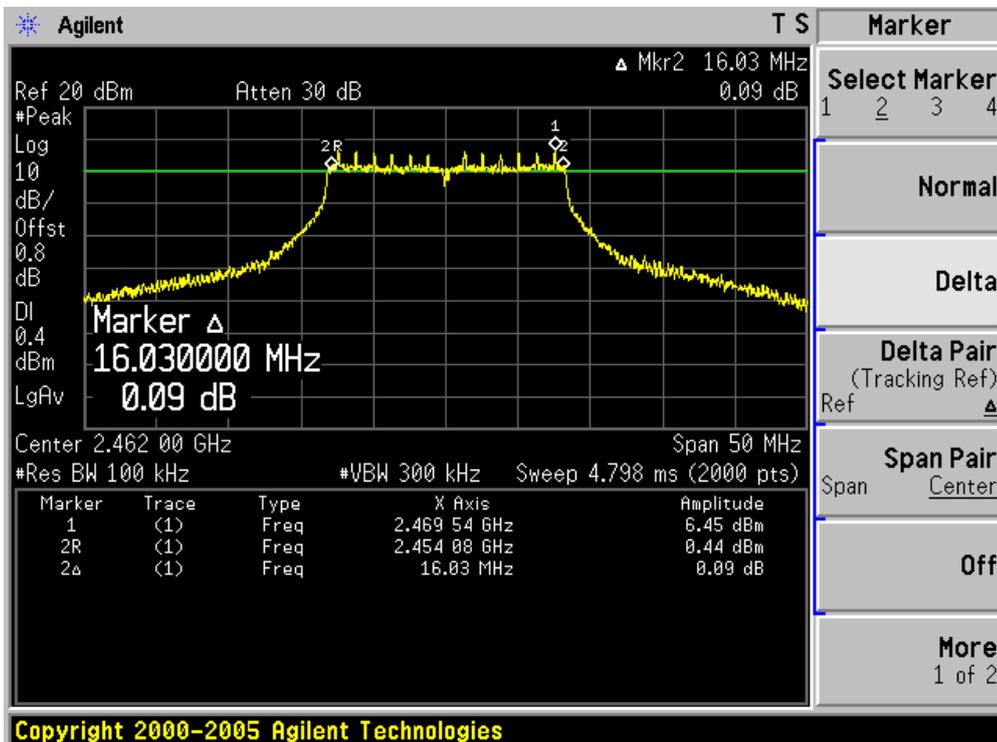
Channel 01 (2412MHz)



Channel 06 (2437MHz)



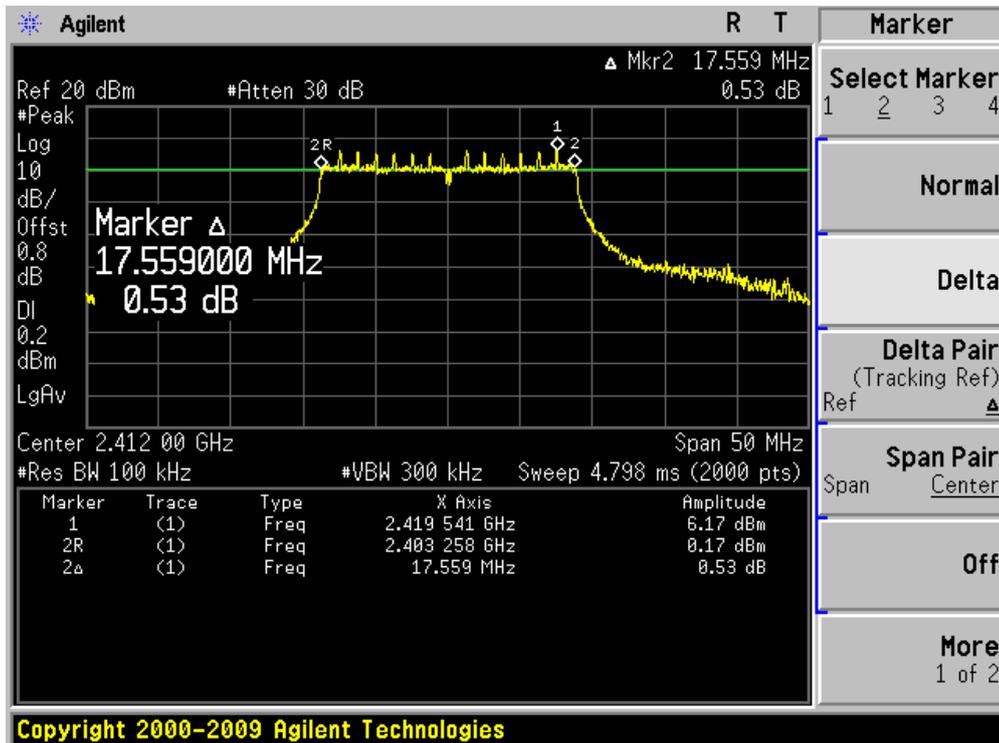
Channel 11 (2462MHz)



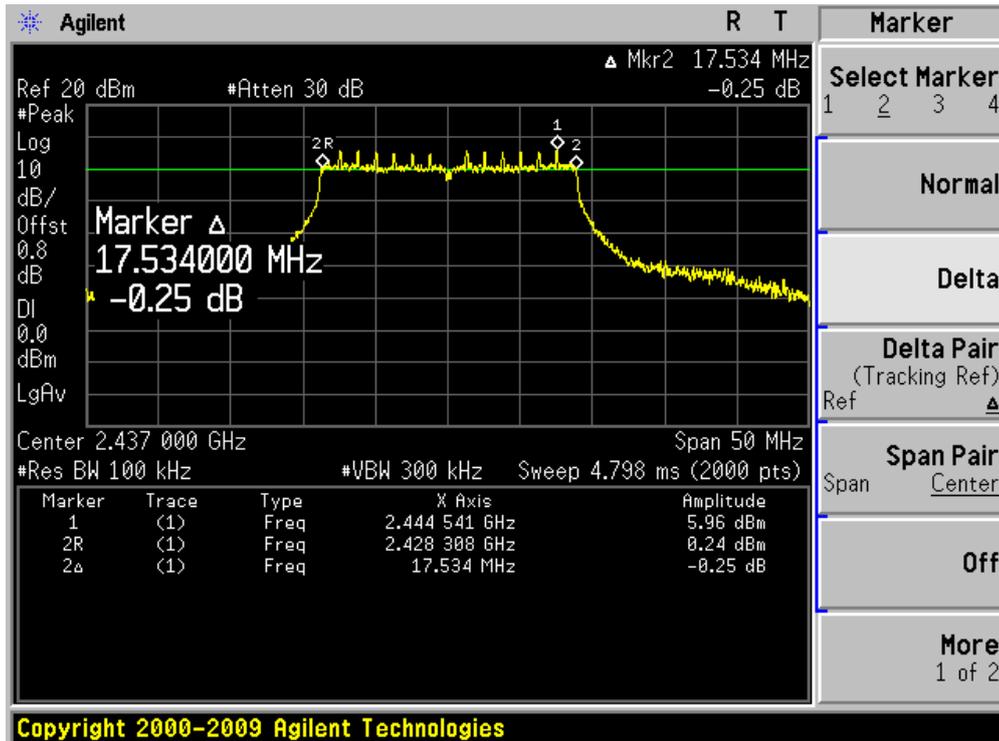
Product	:	Eee PC
Test Item	:	6dB Occupied Bandwidth
Test Mode	:	Mode 3: Transmit by 802.11n (20MHz)

Channel No.	Frequency (MHz)	Occupied Bandwidth (kHz)	Limit (kHz)	Result
01	2412	17599	500	Pass
06	2437	17534	500	Pass
11	2462	17534	500	Pass

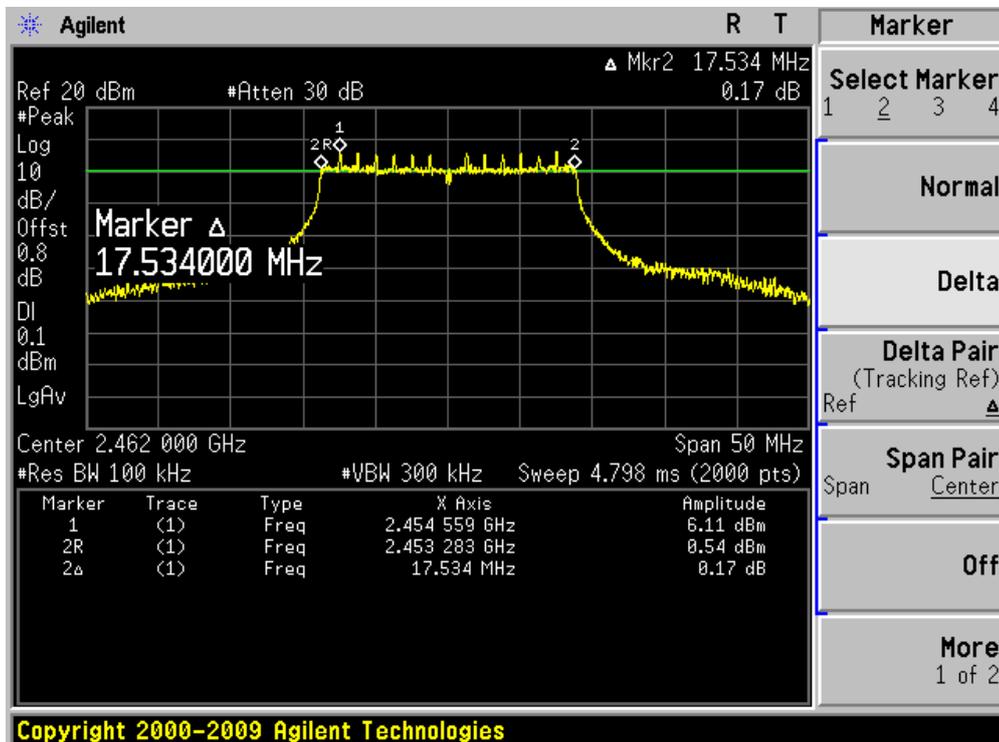
Channel 01 (2412MHz)



Channel 06 (2437MHz)



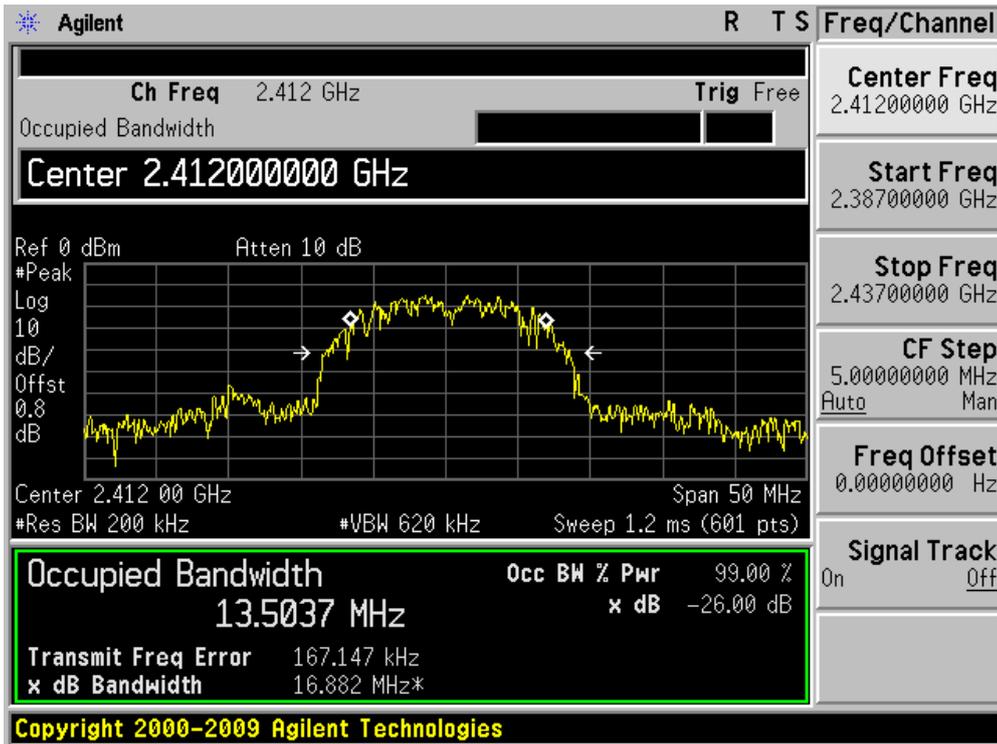
Channel 11 (2462MHz)



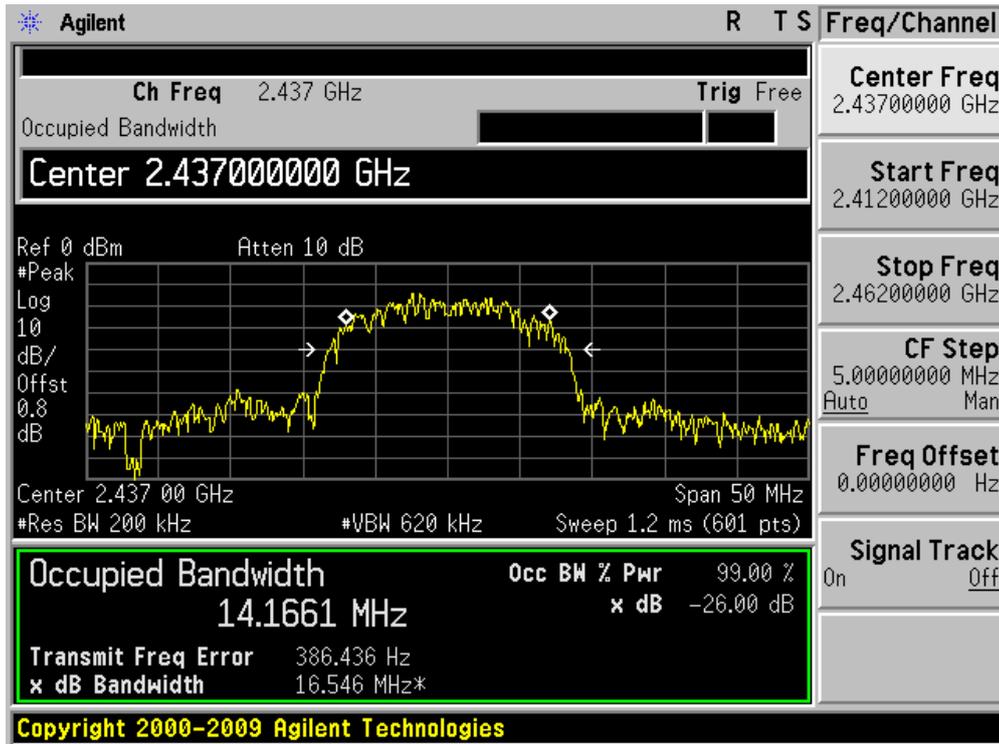
Product	:	Eee PC
Test Item	:	99% Occupied Bandwidth
Test Site	:	AC-6
Test Mode	:	Mode 1: Transmit by 802.11b

Channel No.	Frequency (MHz)	Occupied Bandwidth (kHz)	Result
01	2412	13503.7	Pass
06	2437	14166.1	Pass
11	2462	13530.5	Pass

Channel 01 (2412MHz)



Channel 06 (2437MHz)



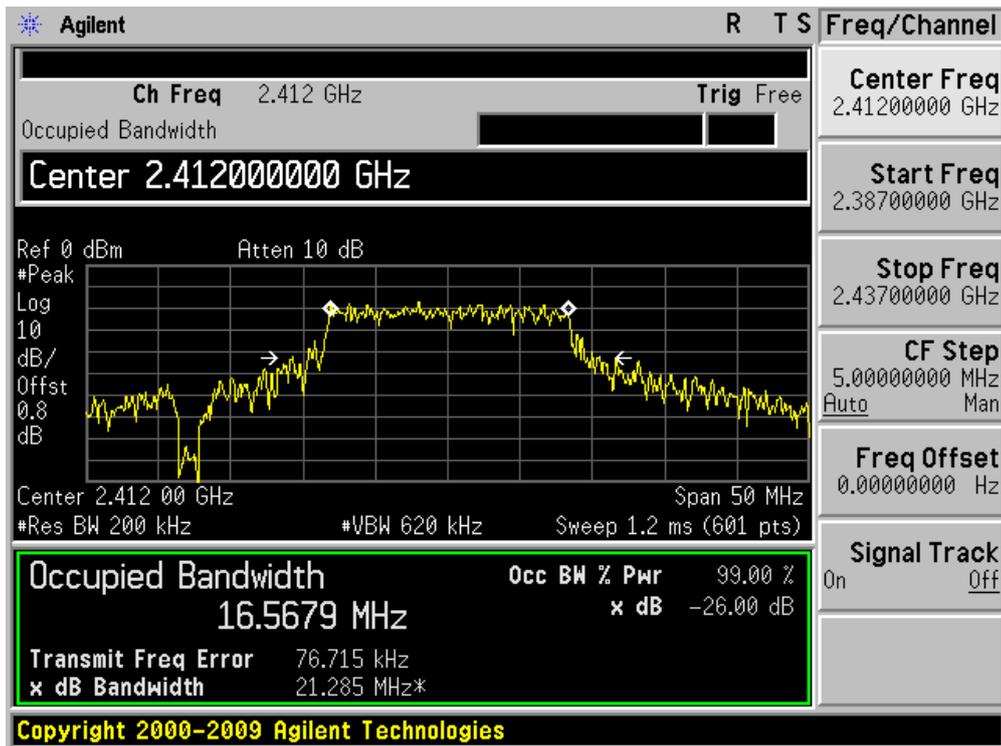
Channel 11 (2462MHz)



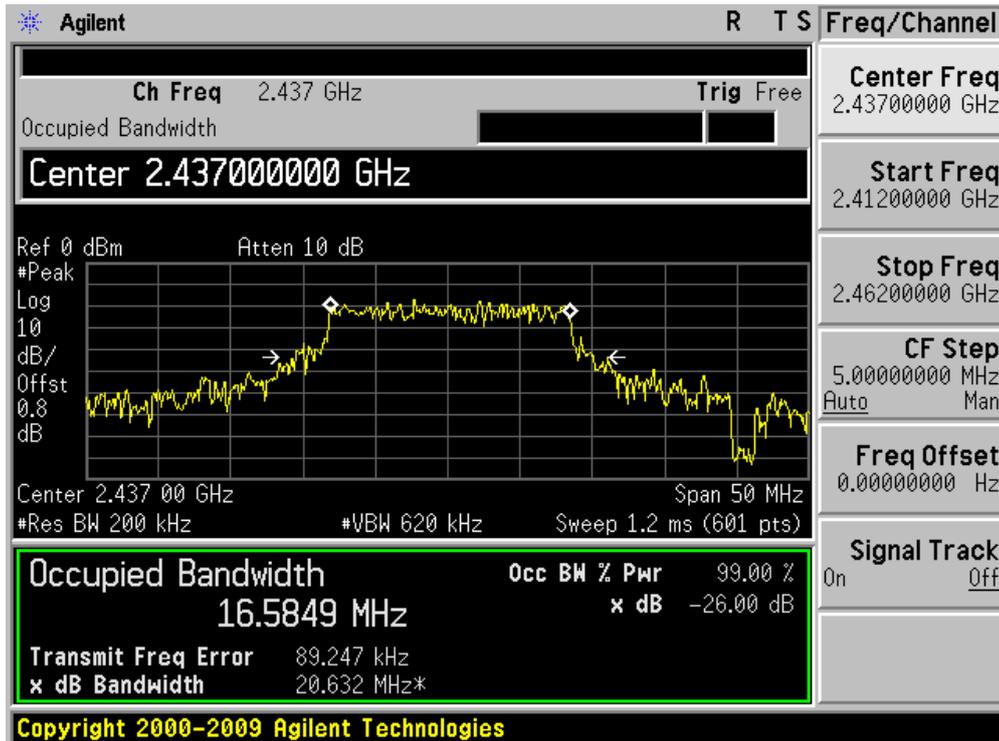
Product	:	Eee PC
Test Item	:	99% Occupied Bandwidth
Test Site	:	AC-6
Test Mode	:	Mode 2: Transmit by 802.11g

Channel No.	Frequency (MHz)	Occupied Bandwidth (kHz)	Result
01	2412	16567.9	Pass
06	2437	16584.9	Pass
11	2462	16692.6	Pass

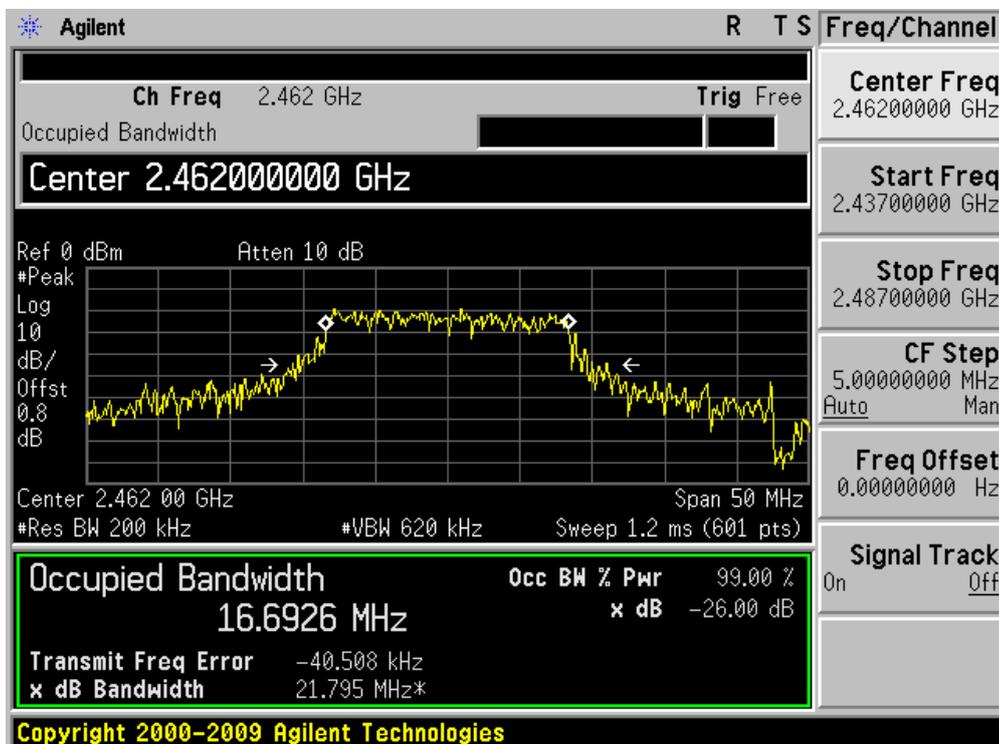
Channel 01 (2412MHz)



Channel 06 (2437MHz)



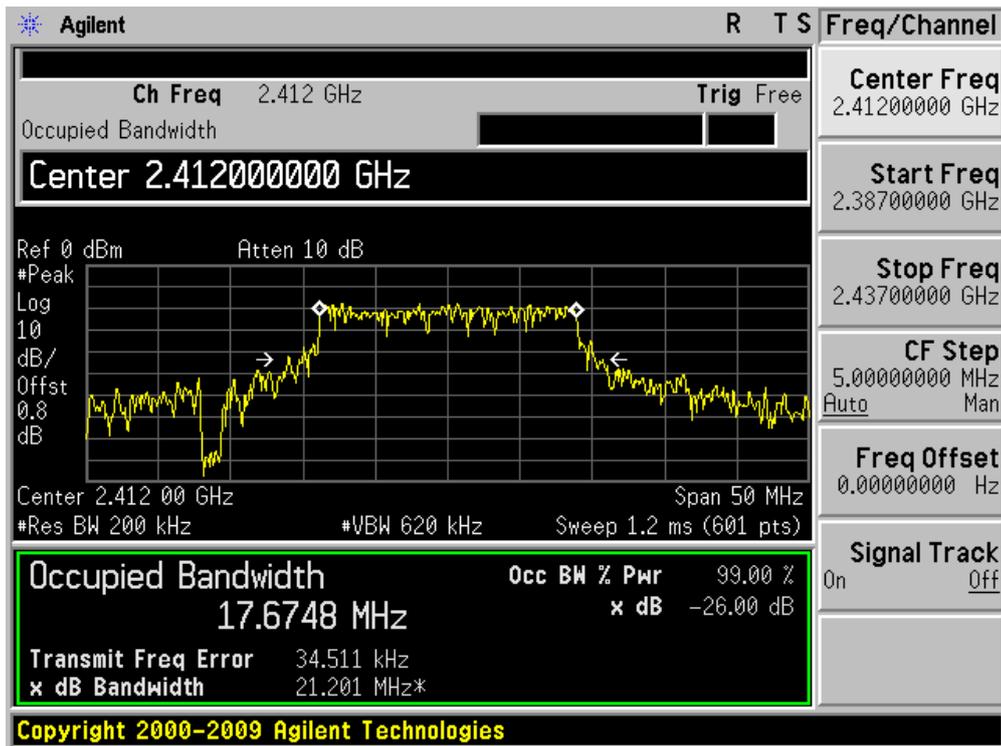
Channel 11 (2462MHz)



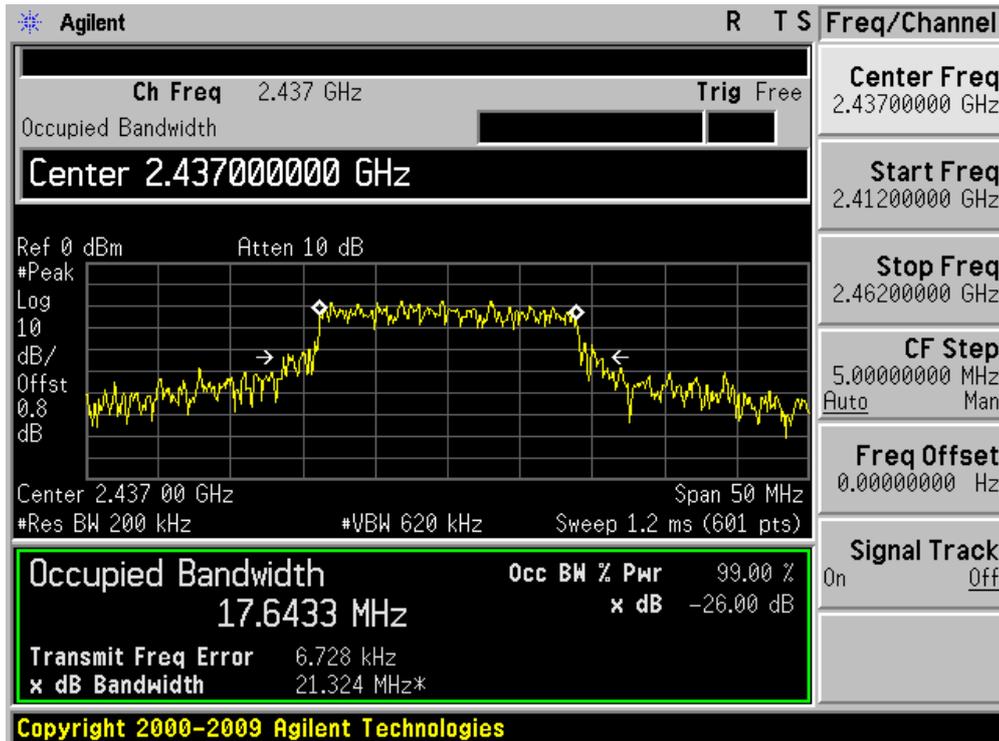
Product	:	Eee PC
Test Item	:	99% Occupied Bandwidth
Test Site	:	AC-6
Test Mode	:	Mode 3: Transmit by 802.11n (20MHz)

Channel No.	Frequency (MHz)	Occupied Bandwidth (kHz)	Result
01	2412	17674.8	Pass
06	2437	17643.3	Pass
11	2462	17633.4	Pass

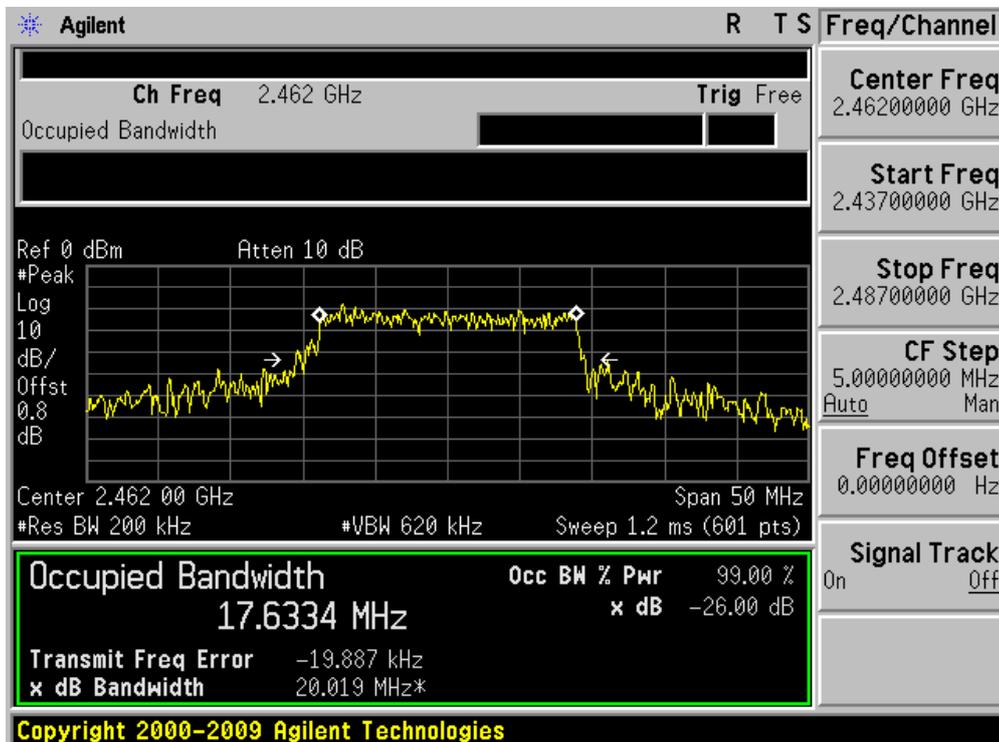
Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)



9. Power Output

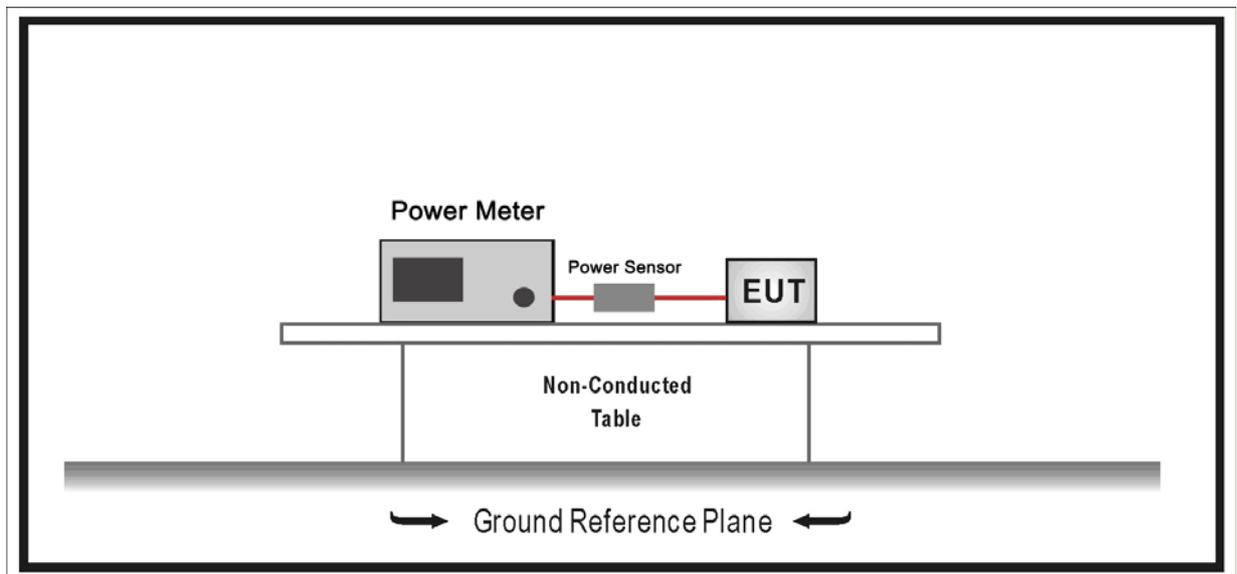
9.1. Test Equipment

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 ± 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		40MHz Bandwidth	
				800ns GI	400ns GI	800ns GI	400ns GI
0	1	1	6	6.5	7.2	13.5	15.0
1	1	2	9	13.0	14.4	27.0	30.0
2	1	5.5	12	19.5	21.7	40.5	45.0
3	1	11	18	26.0	28.9	54.0	60.0
4	1	---	24	39.0	43.3	81.0	90.0
5	1	---	36	52.0	57.8	108.0	120.0
6	1	---	48	58.5	65.0	121.5	135.0
7	1	---	54	65.0	72.2	135.0	150.0

Power output at various data rates:

Test Mode	Frequency (MHz)	Channel	Data Rate	Peak Power (dBm)
802.11b	2437	6	1	19.65
			2	19.42
			5.5	19.34
			11	19.15
802.11g	2437	6	6	24.66
			9	24.46
			12	24.32
			18	24.18
			24	24.05
			36	24.02
			48	23.78
			54	23.64
802.11n (20M)	2437	6	6.5	24.81
			13.0	24.62
			19.5	24.48
			26.0	24.21
			39.0	24.07
			52.0	24.01
			58.5	23.92
			65.0	23.76

Product	:	Eee PC
Test Item	:	Power Output

Test Mode	Channel No.	Frequency (MHz)	Conducted Power (dBm)	Limit (dBm)	Result
802.11b	01	2412	19.70	30	Pass
	06	2437	19.65	30	Pass
	11	2462	19.84	30	Pass
802.11g	01	2412	24.63	30	Pass
	06	2437	24.66	30	Pass
	11	2462	24.78	30	Pass
802.11n(20M)	01	2412	24.76	30	Pass
	06	2437	24.81	30	Pass
	11	2462	25.00	30	Pass

10. Power Spectral Density

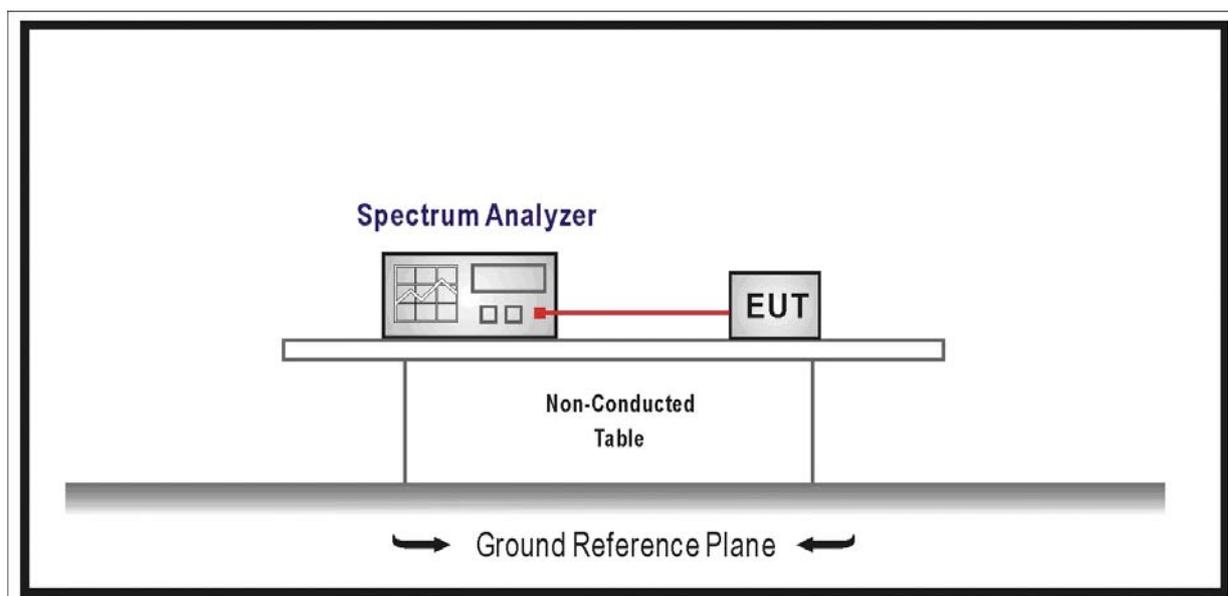
10.1. Test Equipment

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

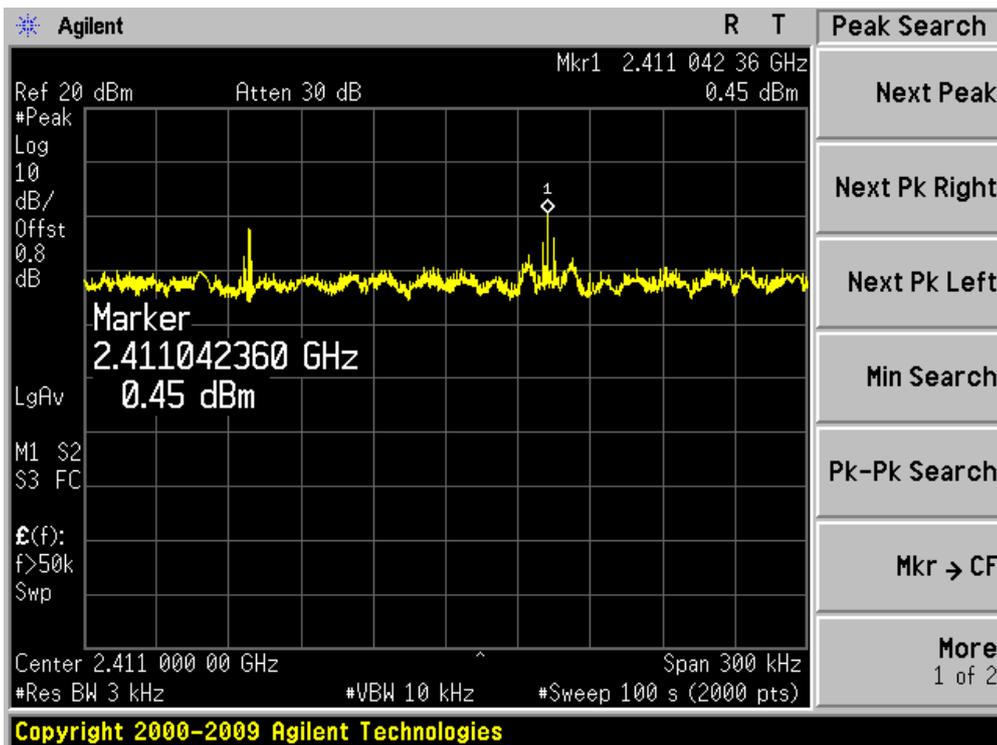
The measurement uncertainty is defined as ± 1.27 dB

10.6. Test Result

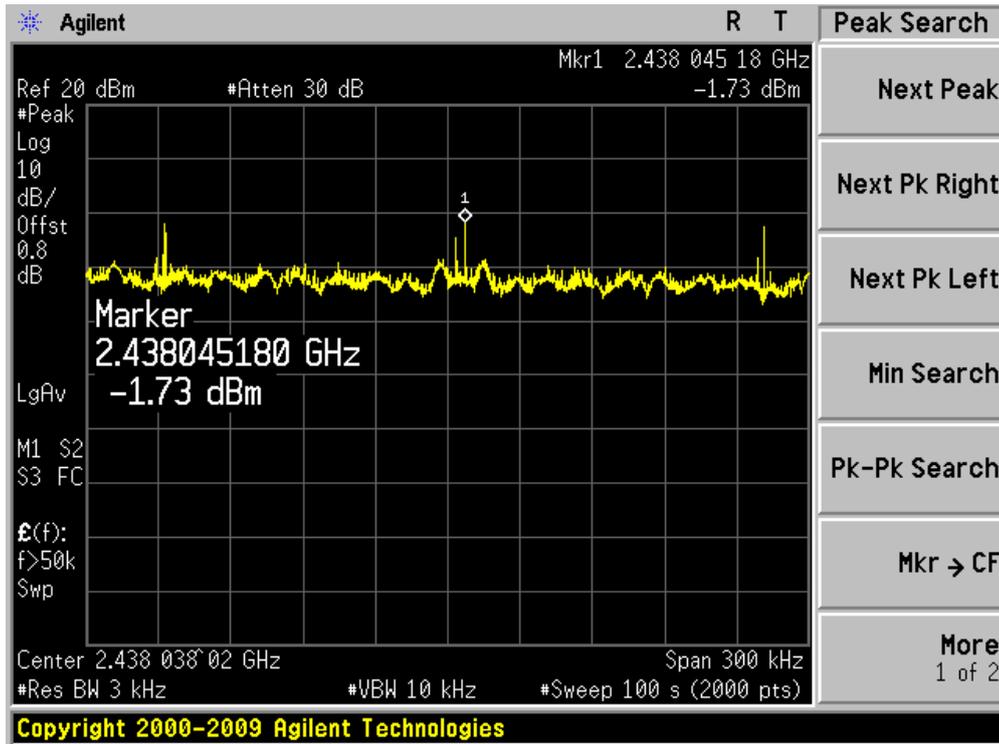
Product	:	Eee PC
Test Item	:	Power Spectral Density
Test Mode	:	Mode 1: Transmit by 802.11b

Channel No.	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm)	Result
01	2412	0.45	8	Pass
06	2437	-1.73	8	Pass
11	2462	0.74	8	Pass

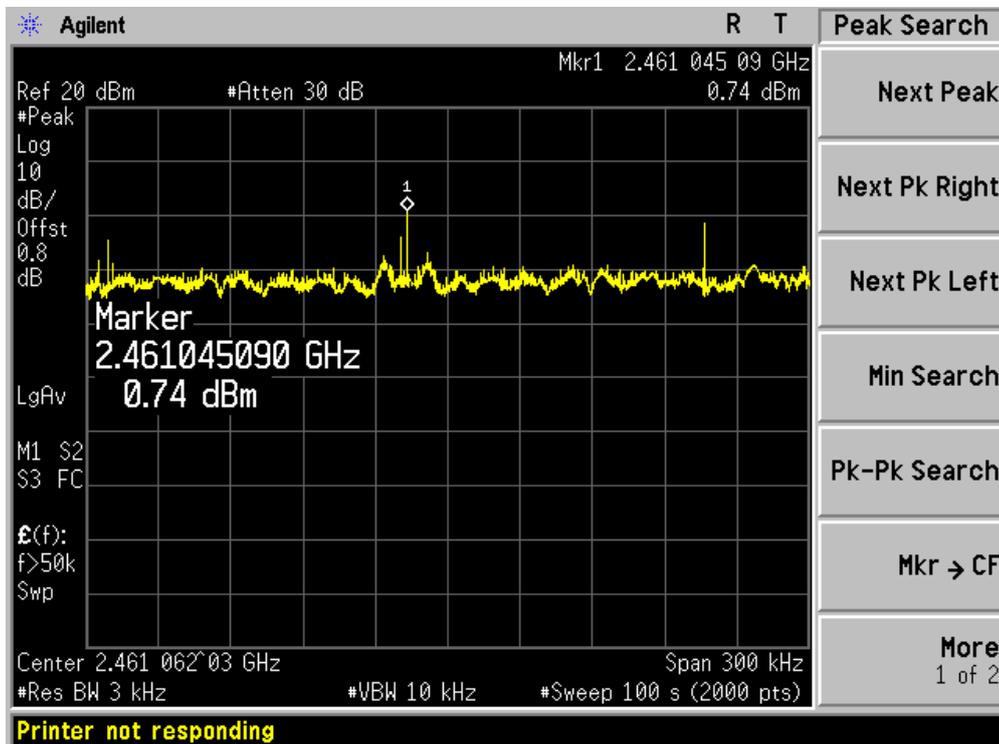
Channel 01 (2412MHz)



Channel 06 (2437MHz)



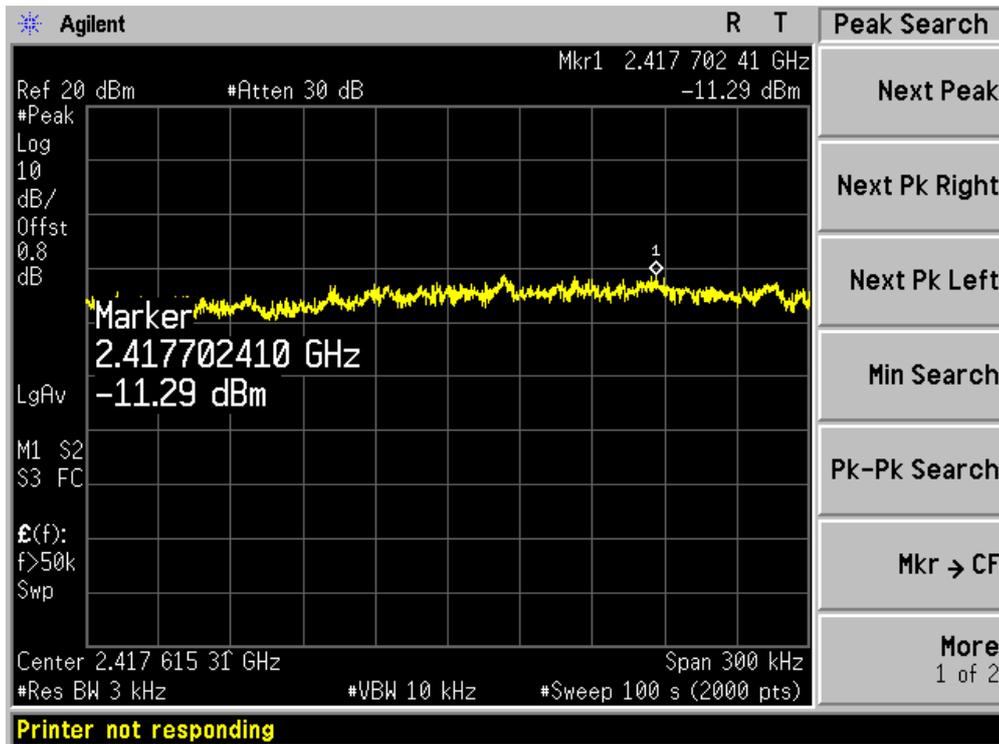
Channel 11 (2462MHz)



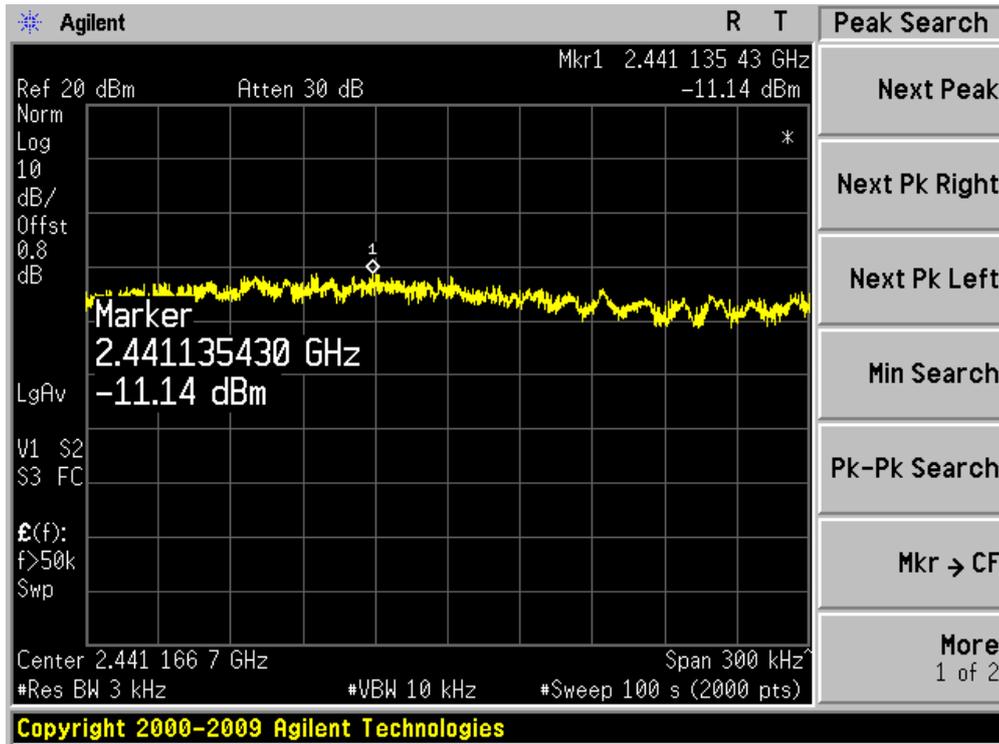
Product	:	Eee PC
Test Item	:	Power Spectral Density
Test Mode	:	Mode 2: Transmit by 802.11g

Channel No.	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm)	Result
01	2412	-11.29	8	Pass
06	2437	-11.14	8	Pass
11	2462	-10.14	8	Pass

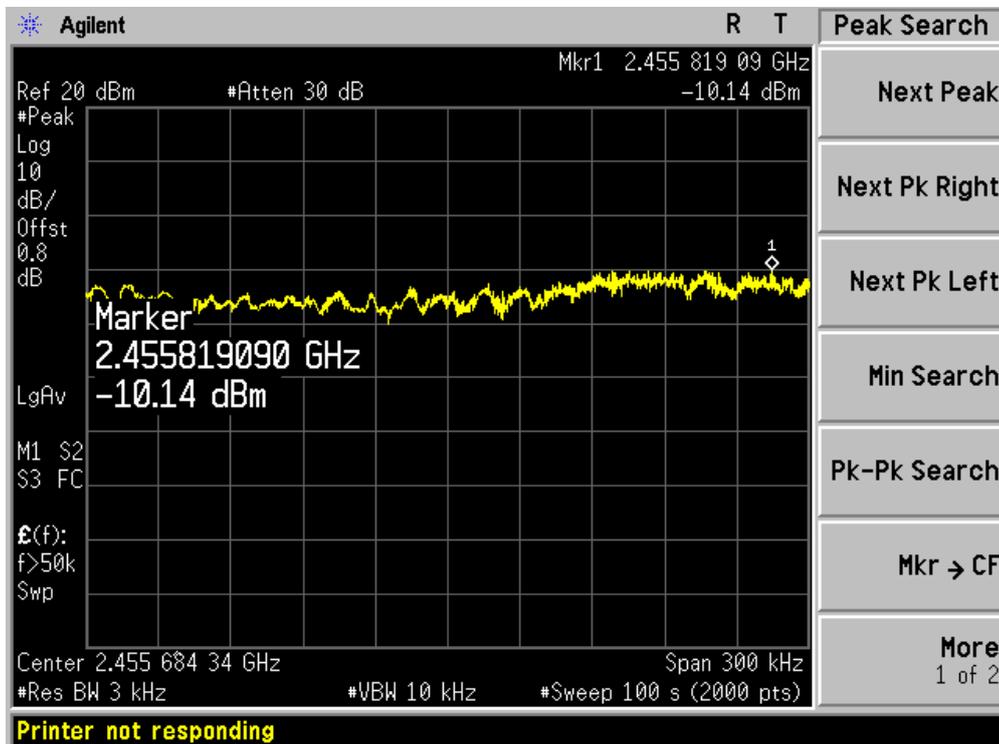
Channel 01 (2412MHz)



Channel 06 (2437MHz)



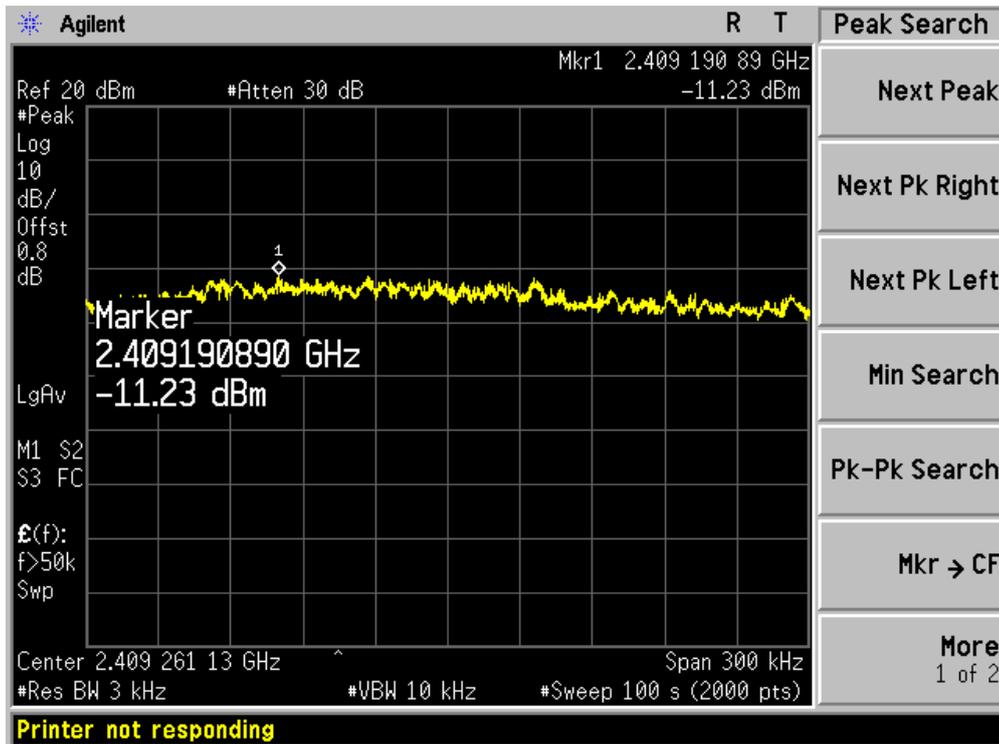
Channel 11 (2462MHz)



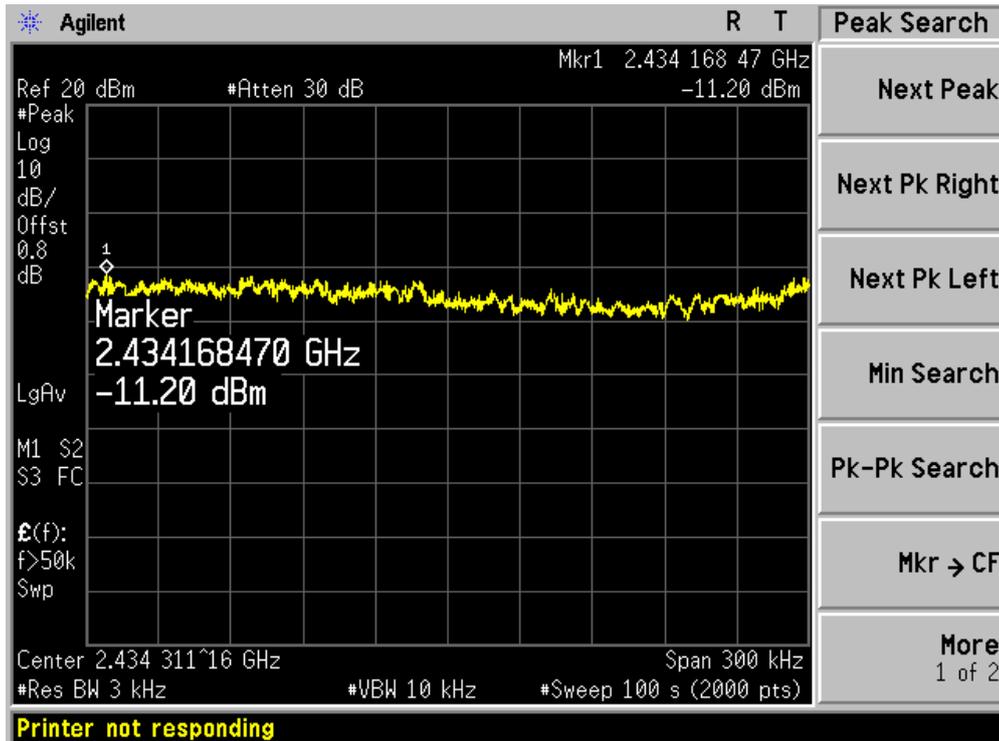
Product	:	Eee PC
Test Item	:	Power Spectral Density
Test Mode	:	Mode 3: Transmit by 802.11n (20MHz)

Channel No.	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm)	Result
01	2412	-11.23	8	Pass
06	2437	-11.20	8	Pass
11	2462	-11.35	8	Pass

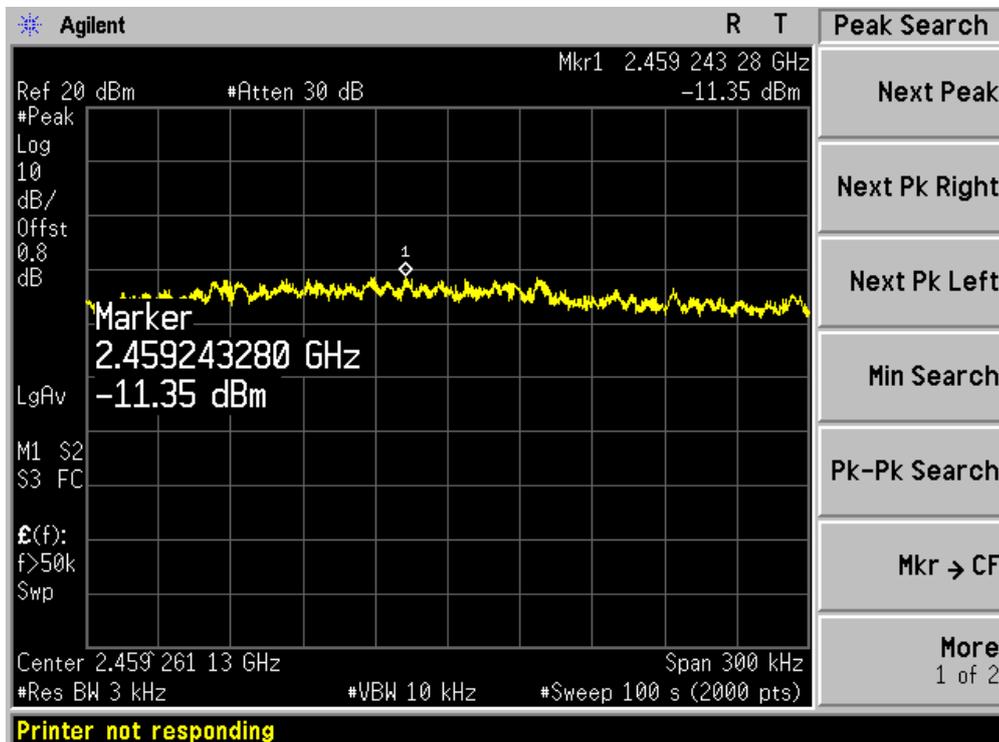
Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)



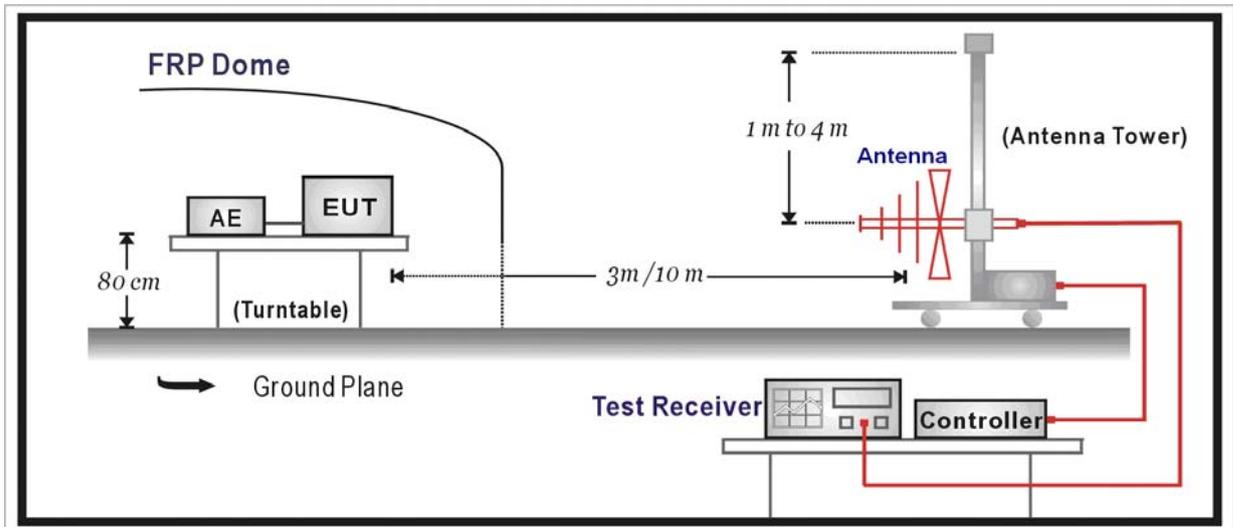
11. Receiver Spurious Emission for RSS-GEN

11.1. Test Specification

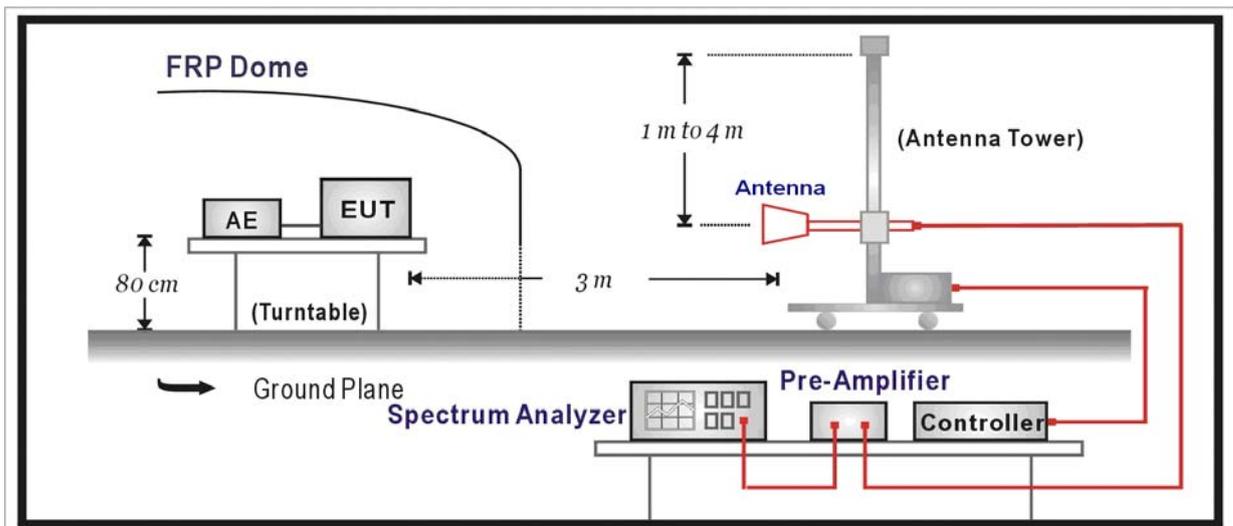
According to EMC Standard: FCC Part 15 Subpart B Class B, ANSI C63.4 or RSS-GEN

11.2. Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



11.3. Limit

FCC Part 15 Subpart B Paragraph 15.109 & RSS-GEN		
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)

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:

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
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)

Channel	Frequency Range (MHz)	Measure Level (dBuV/m)	Detector Type	Limit (dBuV/m)
1	30~88	≤21	QP	40
	88~216	≤18	QP	43.5
	216~960	≤31	QP	46
	960~1000	≤32	QP	54
	1000~25000	≤49	PK	54 (Note 1)
6	30~88	≤21	QP	40
	88~216	≤18	QP	43.5
	216~960	≤31	QP	46
	960~1000	≤32	QP	54
	1000~25000	≤49	PK	54 (Note 1)
11	30~88	≤21	QP	40
	88~216	≤18	QP	43.5
	216~960	≤31	QP	46
	960~1000	≤32	QP	54
	1000~25000	≤49	PK	54 (Note 1)

Note 1: 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.