

Test Report

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

Product Name : Eee PC
Model No. : Eee PC 1015PN
FCC ID : MSQ15PNNE047
IC : 3568A-15PNNE047

Applicant : ASUSTEK COMPUTER INC.

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

Date of Receipt : Jul. 22, 2010
Test Date : Jul. 23, 2010 ~ Aug. 03, 2010
Issued Date : Aug. 04, 2010
Report No. : 107S051R-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 : Aug. 04, 2010

Report No. : 107S051R-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 1015PN
FCC ID : MSQ15PNNE047
IC : 3568A-15PNNE047
EUT Voltage : 19Vdc
Trade Name : ASUS
Applicable Standard : FCC CFR Title 47 Part 15 Subpart C: 2008
ANSI C63.4: 2009
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 1015PN
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	1.26 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-700448	1.26

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)
Mode 4: Receive by 802.11n (20MHz)

Note:

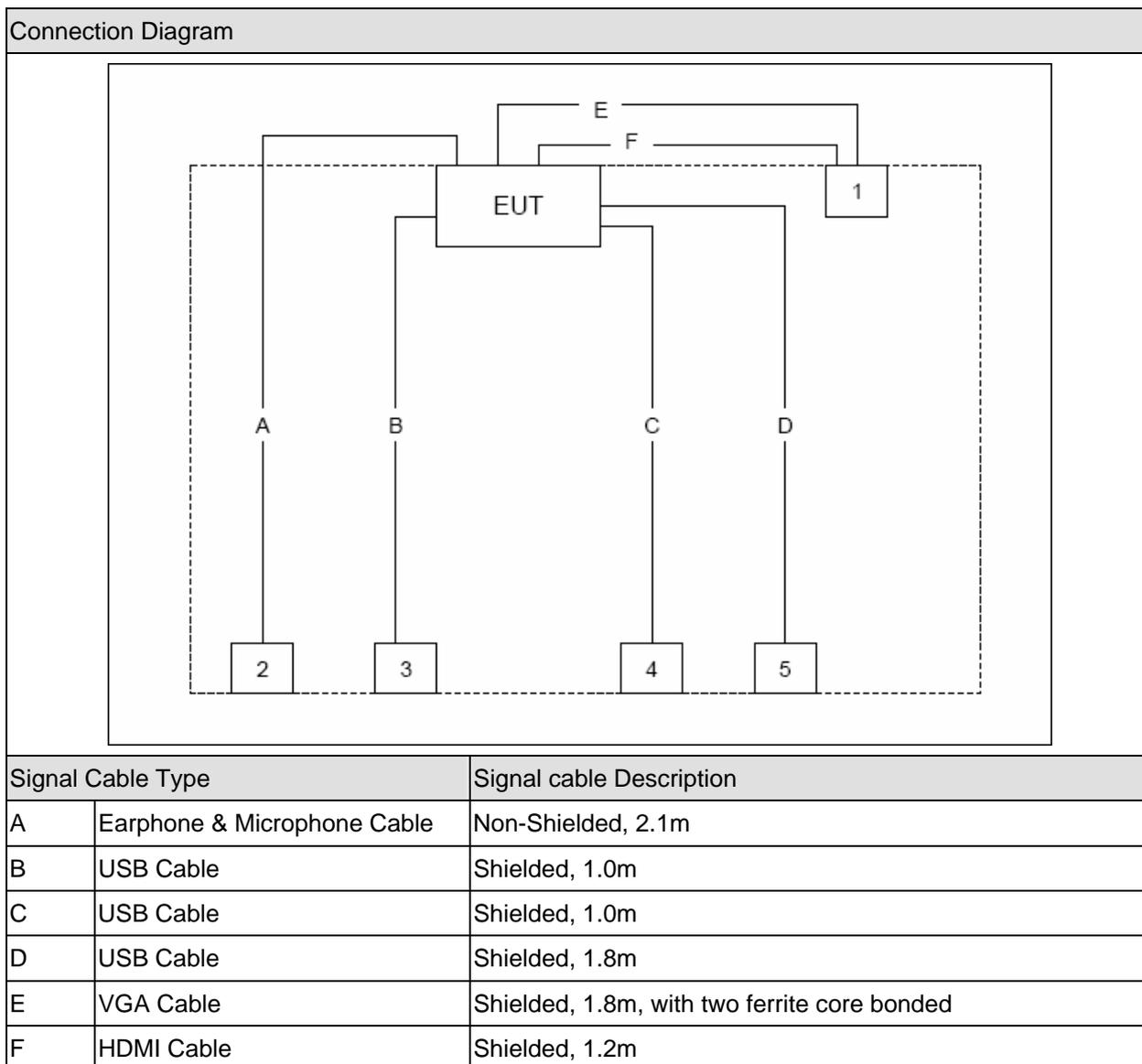
1. Regards to the frequency band operation: the lowest, middle and highest frequency of channel were selected to perform the test, then shown on this report.
2. This device is a composite device in accordance with Part 15 Subpart B regulations. The function for the receiver was measured and made a test report that the report number is 107S051R-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 Microphone & Earphone	SOMIC	CD-2688M.V	N/A	N/A
3 iPod	Apple	A1199	6U715UPHVQ5	Power by PC
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

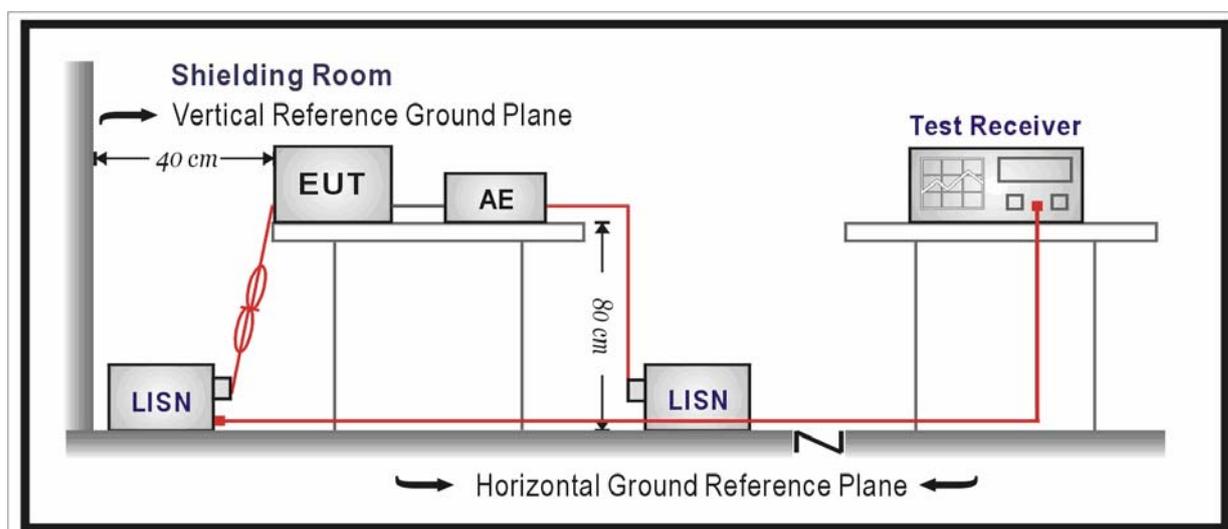
3.1. Test Equipment

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, 2009 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.

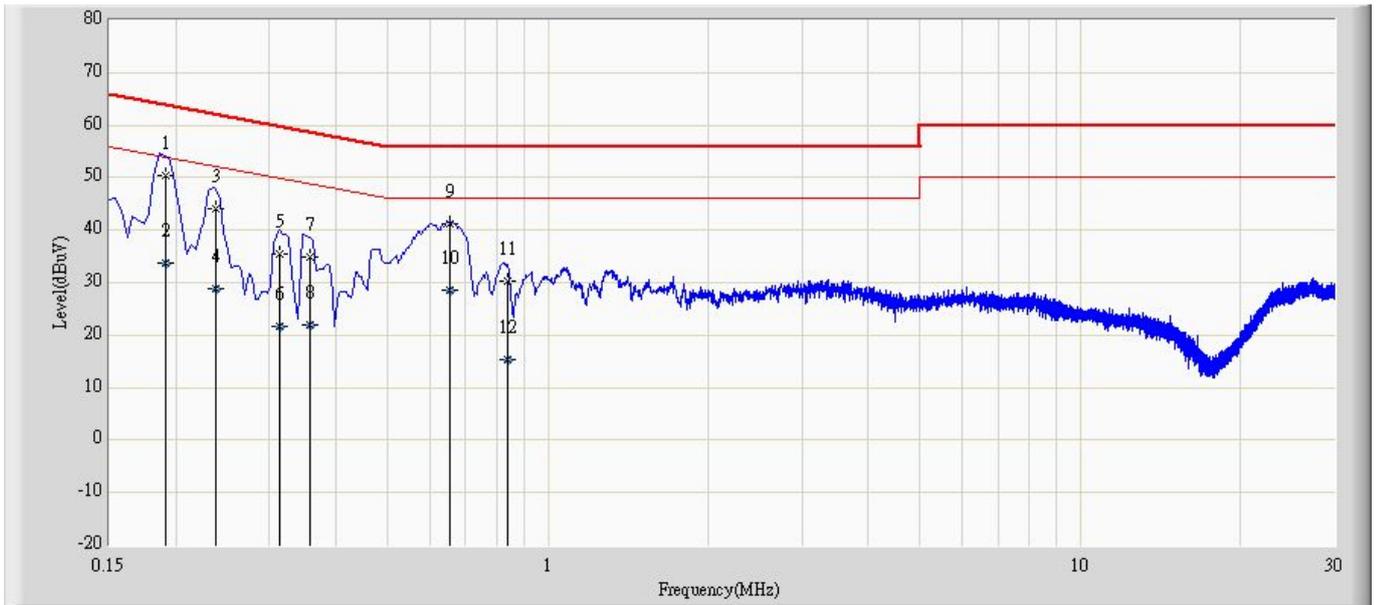
The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length. Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

3.5. Uncertainty

The measurement uncertainty is defined as ± 2.02 dB

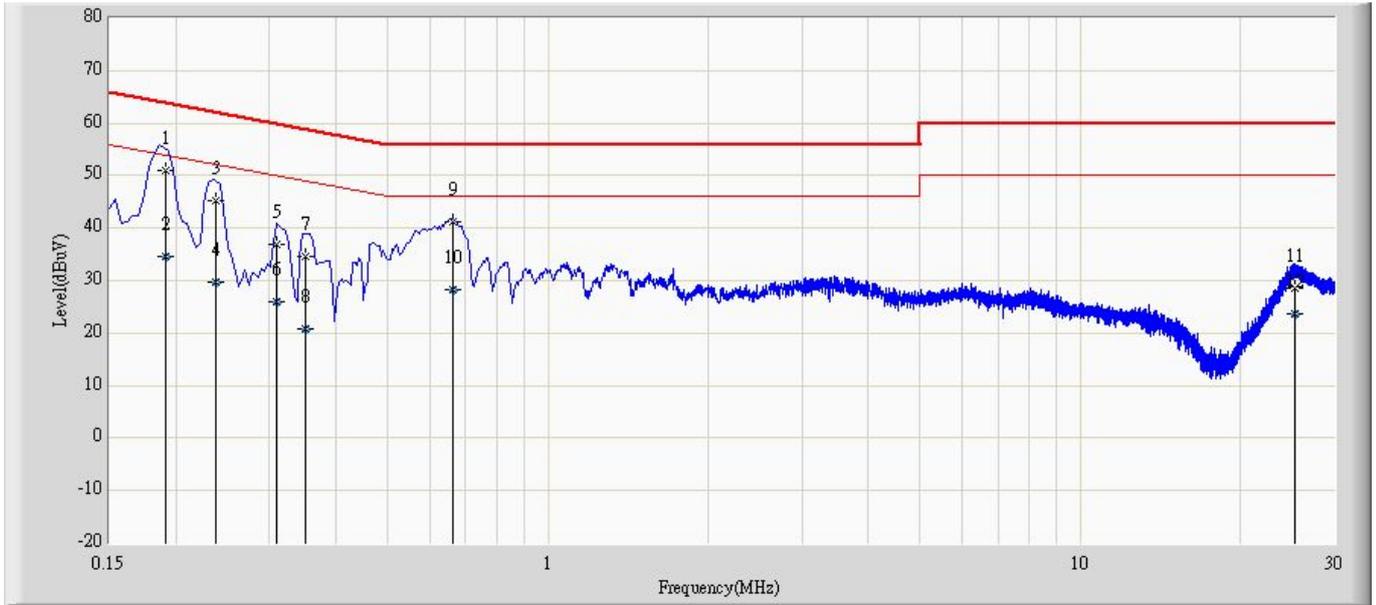
3.6. Test Result

Profile: 107S051R	Page No.: 2
Engineer: Jame	
Site: TR1	Time: 2010/07/31 - 12:41
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	*	0.191	50.260	40.605	-13.742	64.003	9.655	QP
2		0.191	33.719	24.063	-20.284	54.003	9.655	AV
3		0.238	44.187	34.507	-17.978	62.166	9.680	QP
4		0.238	28.869	19.189	-23.297	52.166	9.680	AV
5		0.314	35.382	25.702	-24.482	59.864	9.680	QP
6		0.314	21.687	12.007	-28.177	49.864	9.680	AV
7		0.358	34.783	25.103	-23.992	58.775	9.680	QP
8		0.358	21.935	12.255	-26.840	48.775	9.680	AV
9		0.654	41.171	31.481	-14.829	56.000	9.690	QP
10		0.654	28.678	18.988	-17.322	46.000	9.690	AV
11		0.842	30.272	20.592	-25.728	56.000	9.681	QP
12		0.842	15.376	5.695	-30.624	46.000	9.681	AV

Profile: 107S051R	Page No.: 1
Engineer: Jame	
Site: TR1	Time: 2010/07/31 - 12:36
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	*	0.191	51.109	41.454	-12.894	64.003	9.655	QP
2		0.191	34.696	25.041	-19.307	54.003	9.655	AV
3		0.238	45.160	35.480	-17.005	62.166	9.680	QP
4		0.238	29.675	19.995	-22.491	52.166	9.680	AV
5		0.310	36.846	27.166	-23.124	59.970	9.680	QP
6		0.310	25.884	16.204	-24.087	49.970	9.680	AV
7		0.350	34.587	24.907	-24.375	58.962	9.680	QP
8		0.350	20.876	11.196	-28.086	48.962	9.680	AV
9		0.662	41.098	31.408	-14.902	56.000	9.690	QP
10		0.662	28.216	18.526	-17.784	46.000	9.690	AV
11		25.266	28.688	18.286	-31.312	60.000	10.401	QP
12		25.266	23.786	13.385	-26.214	50.000	10.401	AV

4. Radiated Emission

4.1. Test Equipment

Radiated Emission / AC-2

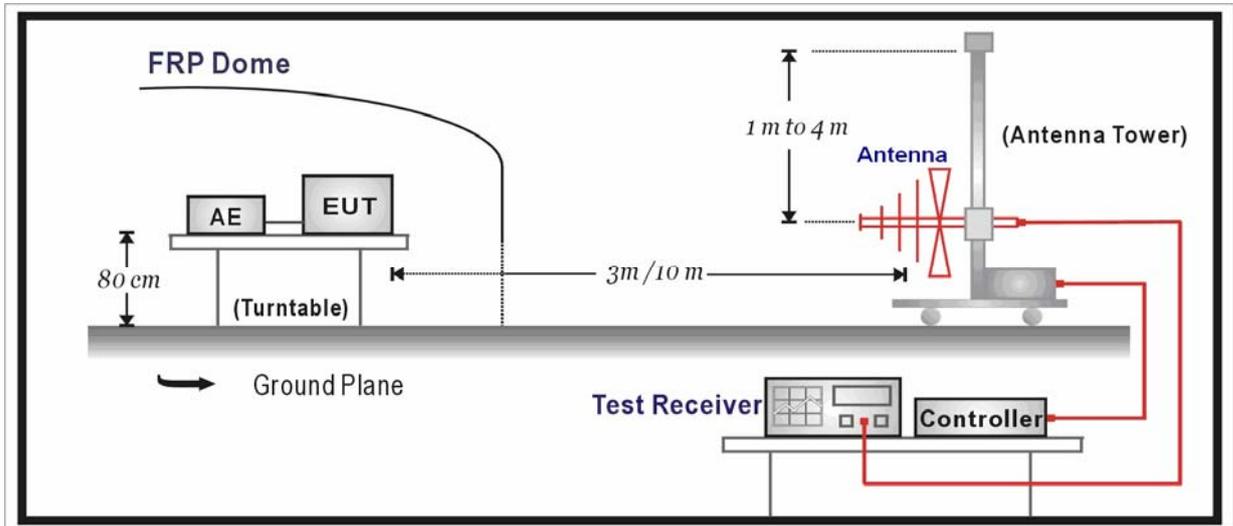
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
EMI Test Receiver	R&S	ESCI	100573	2010/04/23
Bilog Antenna	Teseq GmbH	CBL6112D	27611	2009/11/12
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC2-C	2010/05/05
Temperature/Humidity Meter	Zhicheng	ZC1-2	AC2-TH	2010/01/14

Radiated Emission / AC-5

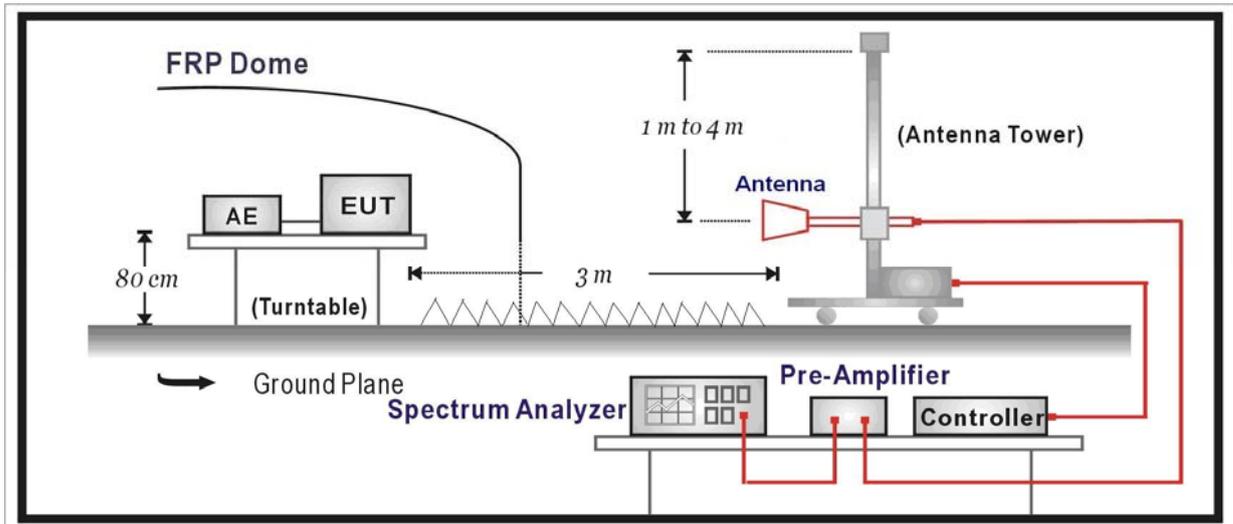
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2010.04.23
EMI Test Receiver	R&S	ESCI	100573	2010.04.23
Preamplifier	Quietek	AP-025C	CHM-0511006	2010.05.05
Preamplifier	Quietek	AP-180C	CHM-0602013	2010.05.05
Bilog Type Antenna	Schaffner	CBL6112B	2932	2009.11.21
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	499	2010.06.11
High-Pass Filter	Wainwright	WHKX2.8/18G-12SS	SN1	2010.03.03
Band Reject Filter	Wainwright	WRCG2400/2485-2375 /2510-60/11SS	SN9	2010.03.03
High-Pass Filter	Wainwright	WHKX7.0/18G-8SS	SN16	2010.03.03
Low-Pass Filter	Wainwright	WLKS4500-9SS	SN2	2010.03.03
50ohm Coaxial Switch	Anritsu	MP59B	6200464462	2010.05.05
Temperature/Humidity Meter	zhicheng	ZC1-2	AC5-TH	2010.01.14

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, 2009 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 C63.4:2009 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	2410.3	73.2	30.6	103.8	Fundamental	/	PK
	H	288.5	42.1	-8.4	33.7	46	-12.3	QP
	H	703.6	31.1	-0.6	30.5	46	-15.5	QP
	V	2997.5	59.9	-17.8	42.1	54(note)	-11.9	PK
	H	4825.0	58.0	-14.3	43.7	54(note)	-10.3	PK
	H	7236.0	52.4	-6.1	46.3	54(note)	-7.7	PK
	H	24000.0	59.1	-8.9	50.2	54(note)	-3.8	PK
6	H	2435.3	73.9	30.8	104.7	Fundamental	/	PK
	H	288.5	42.1	-8.4	33.7	46	-12.3	QP
	H	703.6	31.1	-0.6	30.5	46	-15.5	QP
	V	2997.5	59.9	-17.8	42.1	54(note)	-11.9	PK
	H	4876.0	58.9	-14.0	44.9	54(note)	-9.1	PK
	H	7311.0	52.5	-6.0	46.5	54(note)	-7.5	PK
	H	24000.0	59.1	-8.9	50.2	54(note)	-3.8	PK
11	H	2463.4	71.2	30.4	101.6	Fundamental	/	PK
	H	288.5	42.1	-8.4	33.7	46	-12.3	QP
	H	703.6	31.1	-0.6	30.5	46	-15.5	QP
	V	2997.5	59.9	-17.8	42.1	54(note)	-11.9	PK
	H	4927.0	59.2	-13.9	45.3	54(note)	-8.7	PK
	H	7386.0	47.0	-5.6	41.4	54(note)	-12.6	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	2412	73.2	30.6	103.8	Fundamental	/	PK
	H	288.5	42.1	-8.4	33.7	46	-12.3	QP
	H	703.6	31.1	-0.6	30.5	46	-15.5	QP
	V	2997.5	59.9	-17.8	42.1	54(Note)	-11.9	PK
	H	4825.0	56.4	-14.3	42.1	54(Note)	-11.9	PK
	H	7236.0	57.4	-6.1	51.3	54(Note)	-2.7	PK
	H	24000.0	59.1	-8.9	50.2	54(Note)	-3.8	PK
6	H	2435.1	74.0	30.8	104.8	Fundamental	/	PK
	H	288.5	42.1	-8.4	33.7	46	-12.3	QP
	H	703.6	31.1	-0.6	30.5	46	-15.5	QP
	V	2997.5	59.9	-17.8	42.1	54(Note)	-11.9	PK
	H	4876.0	58.6	-14.0	44.6	54(Note)	-9.4	PK
	H	7375.0	53.8	-5.8	48.0	54(Note)	-6.0	PK
	H	24000.0	59.1	-8.9	50.2	54(Note)	-3.8	PK
11	H	2462.0	76.2	30.4	106.6	Fundamental	/	PK
	H	288.5	42.1	-8.4	33.7	46	-12.3	QP
	H	703.6	31.1	-0.6	30.5	46	-15.5	QP
	V	2997.5	59.9	-17.8	42.1	54(Note)	-11.9	PK
	H	4927.0	60.5	-14.0	46.5	54(Note)	-7.5	PK
	H	7386.0	53.0	-5.6	47.4	54(Note)	-6.6	PK
	H	24000.0	59.1	-8.9	50.2	54(Note)	-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	2409.2	75.4	30.6	106	Fundamental	/	PK
	H	288.5	42.1	-8.4	33.7	46	-12.3	QP
	H	703.6	31.1	-0.6	30.5	46	-15.5	QP
	V	2997.5	59.9	-17.8	42.1	54(Note)	-11.9	PK
	H	4816.5	57.8	-14.3	43.5	54(Note)	-10.5	PK
	H	7236.0	51.7	-6.1	45.6	54(Note)	-8.4	PK
	H	24000.0	59.1	-8.9	50.2	54(Note)	-3.8	PK
6	H	2439.3	75.7	30.8	106.5	Fundamental	/	PK
	H	288.5	42.1	-8.4	33.7	46	-12.3	QP
	H	703.6	31.1	-0.6	30.5	46	-15.5	QP
	V	2997.5	59.9	-17.8	42.1	54(Note)	-11.9	PK
	H	4867.5	60.0	-14.0	46.0	54(Note)	-8.0	PK
	H	7311.0	52.7	-6.0	46.7	54(Note)	-7.3	PK
	H	24000.0	59.1	-8.9	50.2	54(Note)	-3.8	PK
11	H	2459.3	74.8	30.4	105.2	Fundamental	/	PK
	H	288.5	42.1	-8.4	33.7	46	-12.3	QP
	H	703.6	31.1	-0.6	30.5	46	-15.5	QP
	V	2997.5	59.9	-17.8	42.1	54(Note)	-11.9	PK
	H	4910.0	59.4	-13.8	45.6	54(Note)	-8.4	PK
	H	7386.0	53.2	-5.6	47.6	54(Note)	-6.4	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

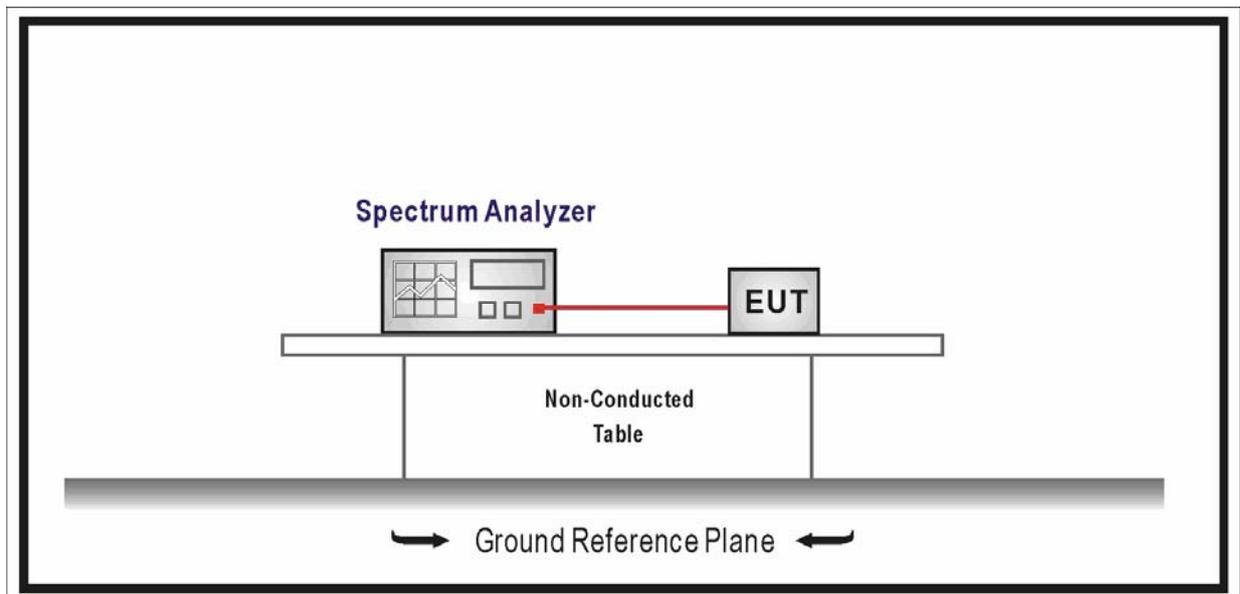
5.1. Test Equipment

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.

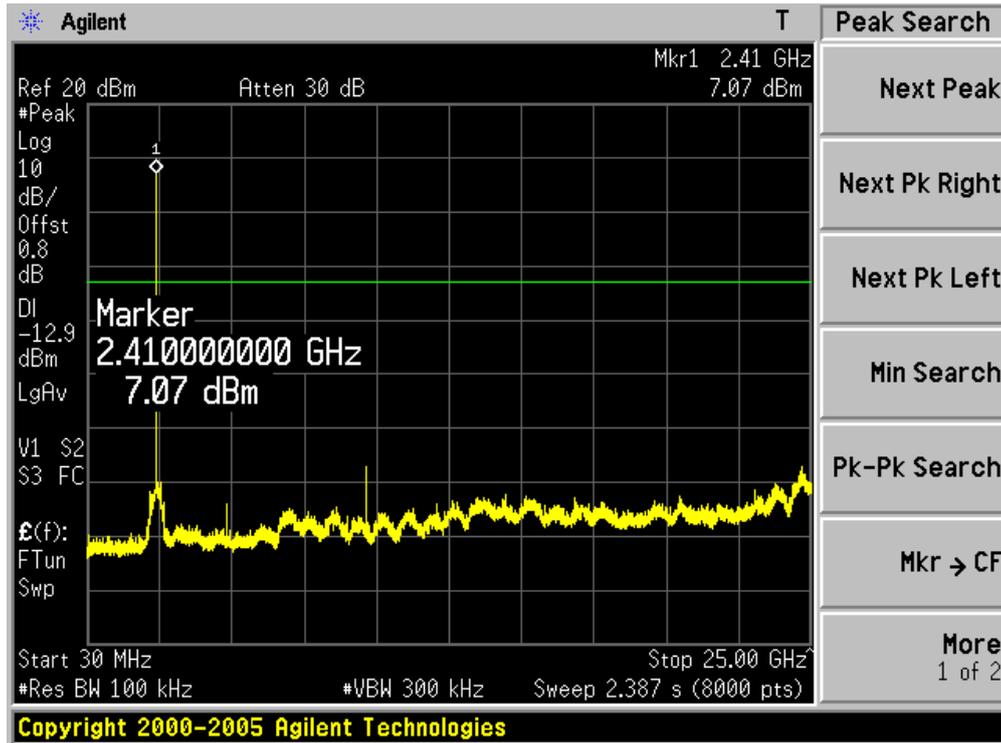
5.5. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB

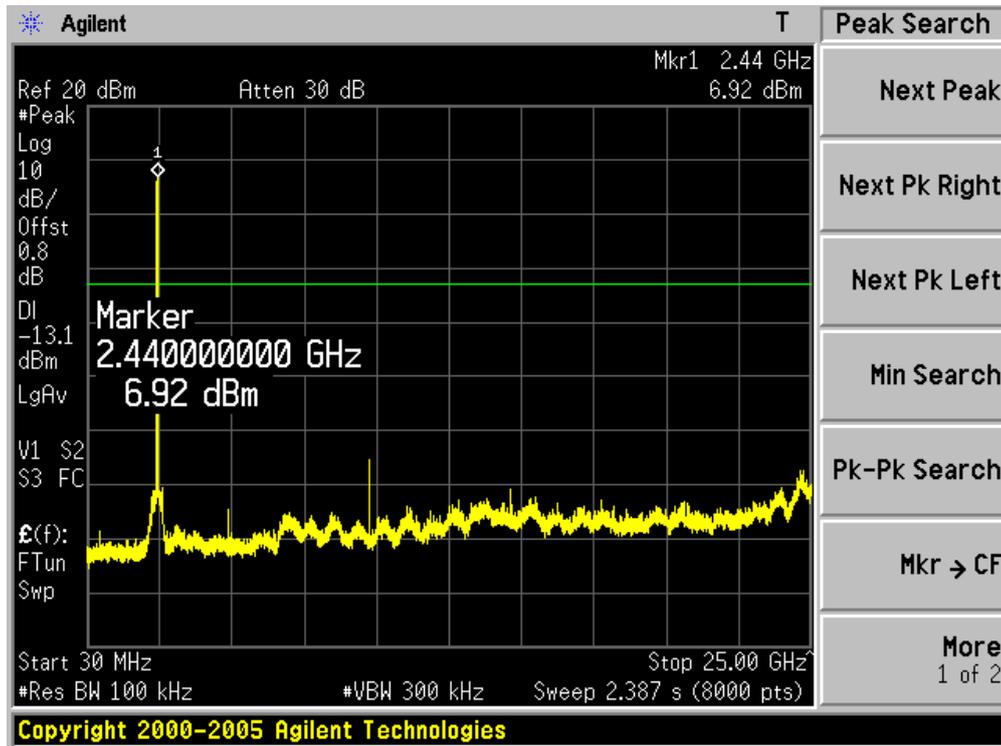
5.6. Test Result

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

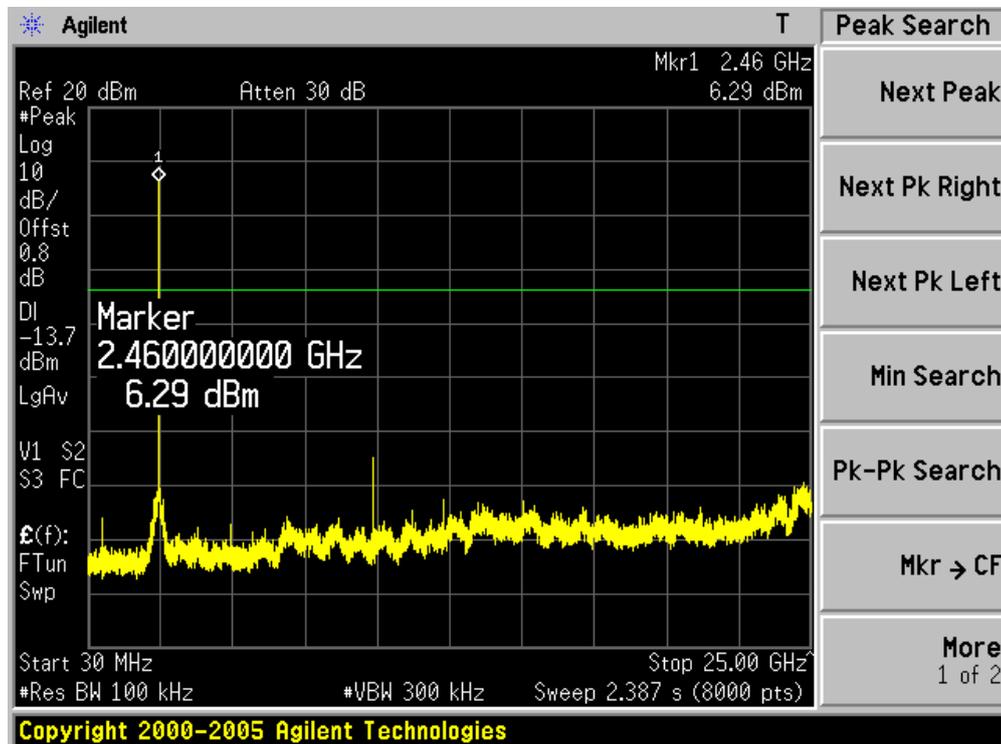
Channel 01 (2412MHz)



Channel 06 (2437MHz)

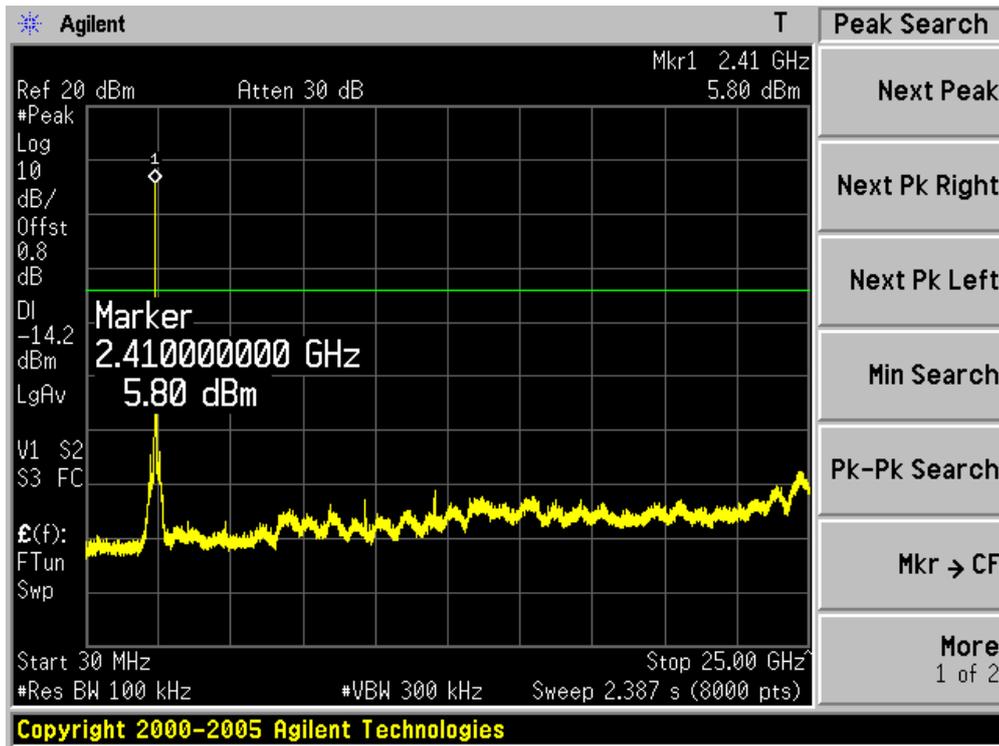


Channel 11 (2462MHz)

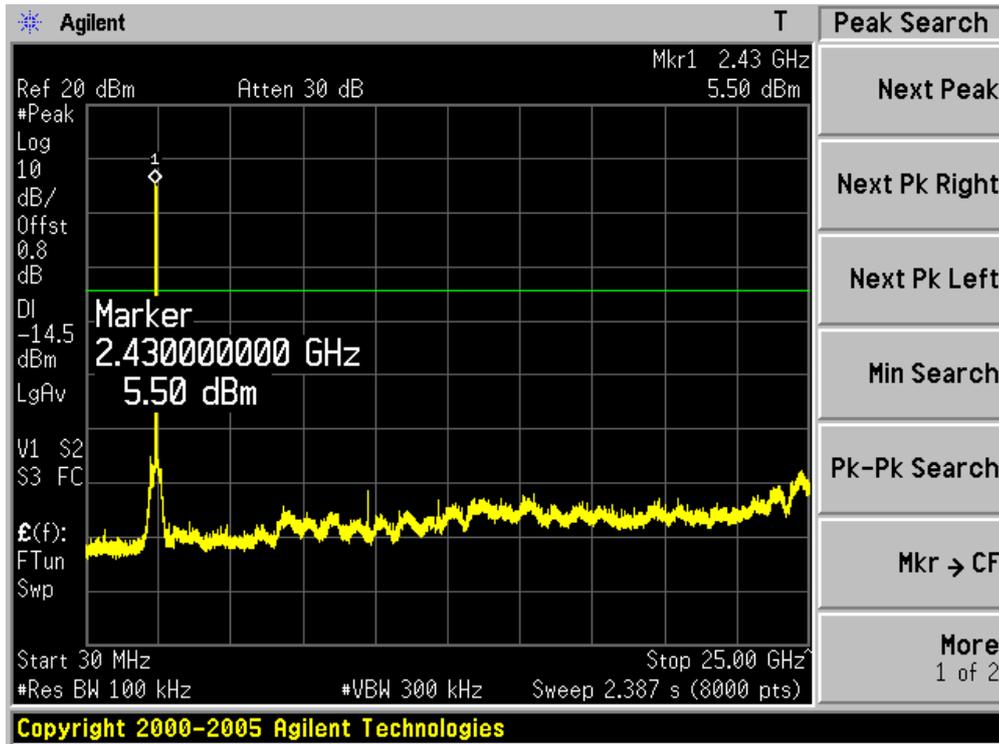


Product	:	Eee PC
Test Item	:	RF Antenna Conducted Spurious
Test Mode	:	Mode 2: Transmit by 802.11g

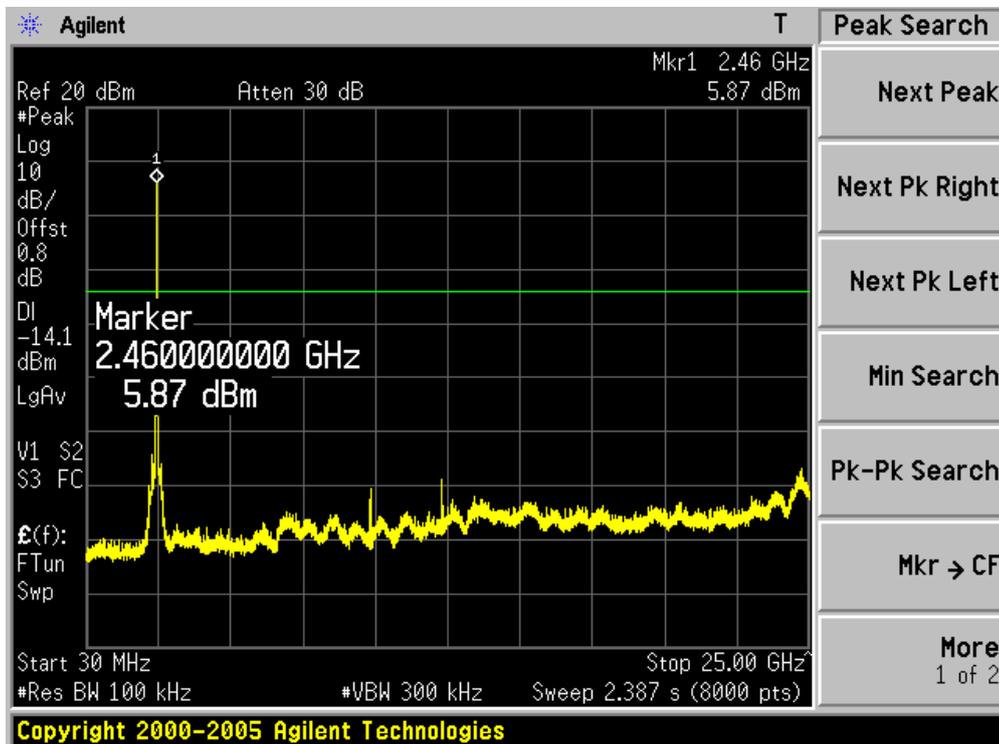
Channel 01 (2412MHz)



Channel 06 (2437MHz)

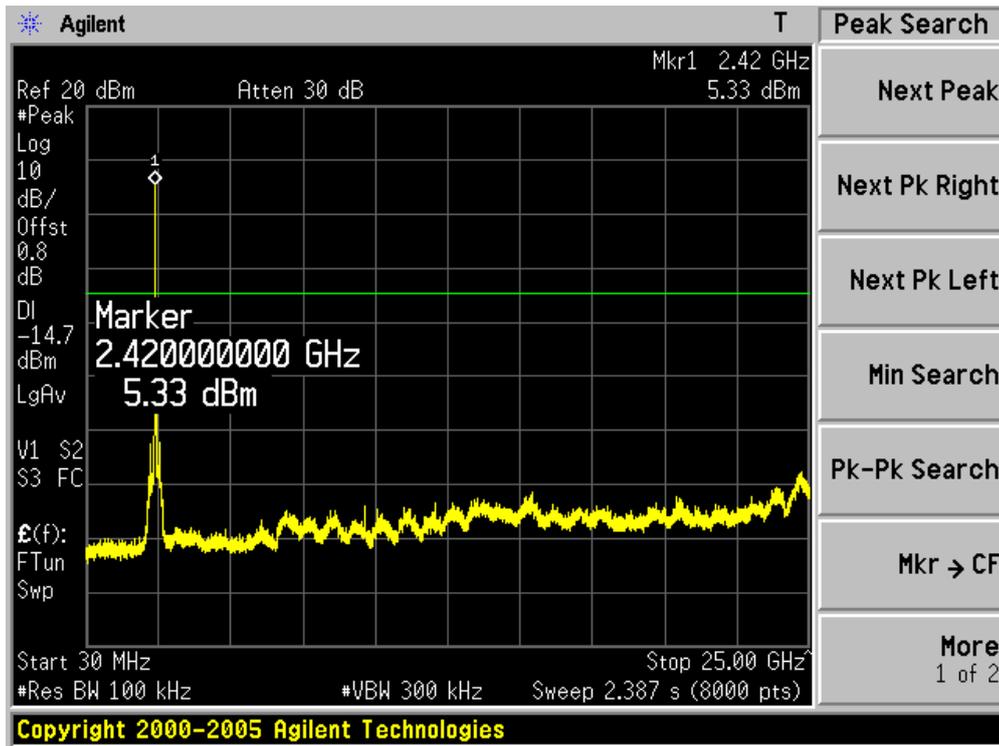


Channel 11 (2462MHz)

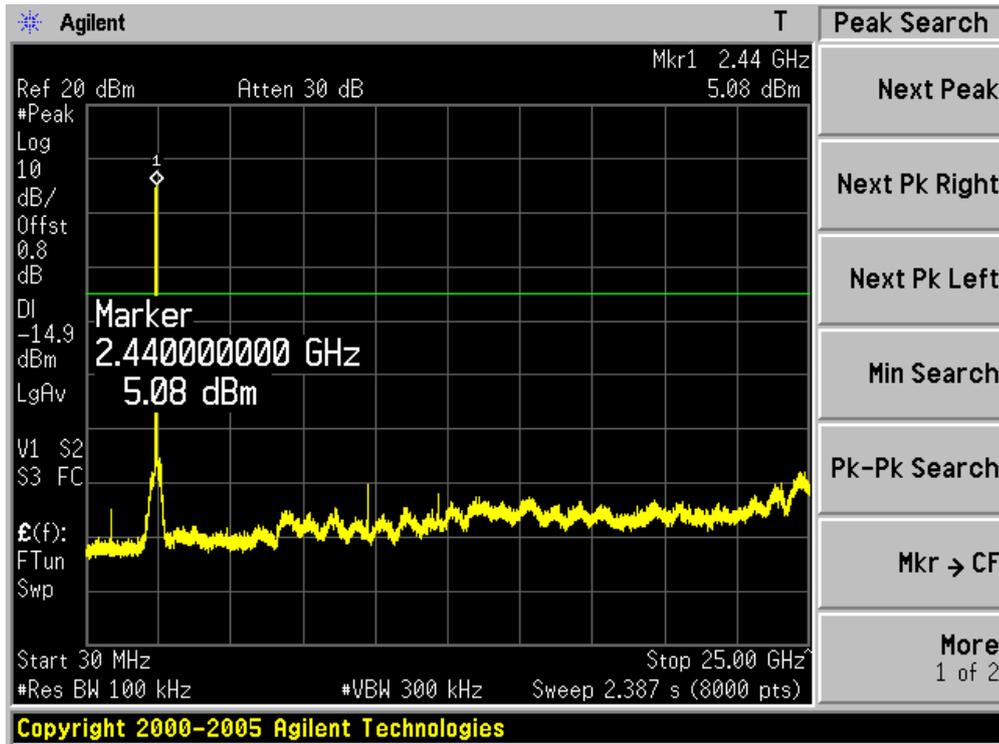


Product	:	Eee PC
Test Item	:	RF Antenna Conducted Spurious
Test Mode	:	Mode 3: Transmit by 802.11n (20MHz)

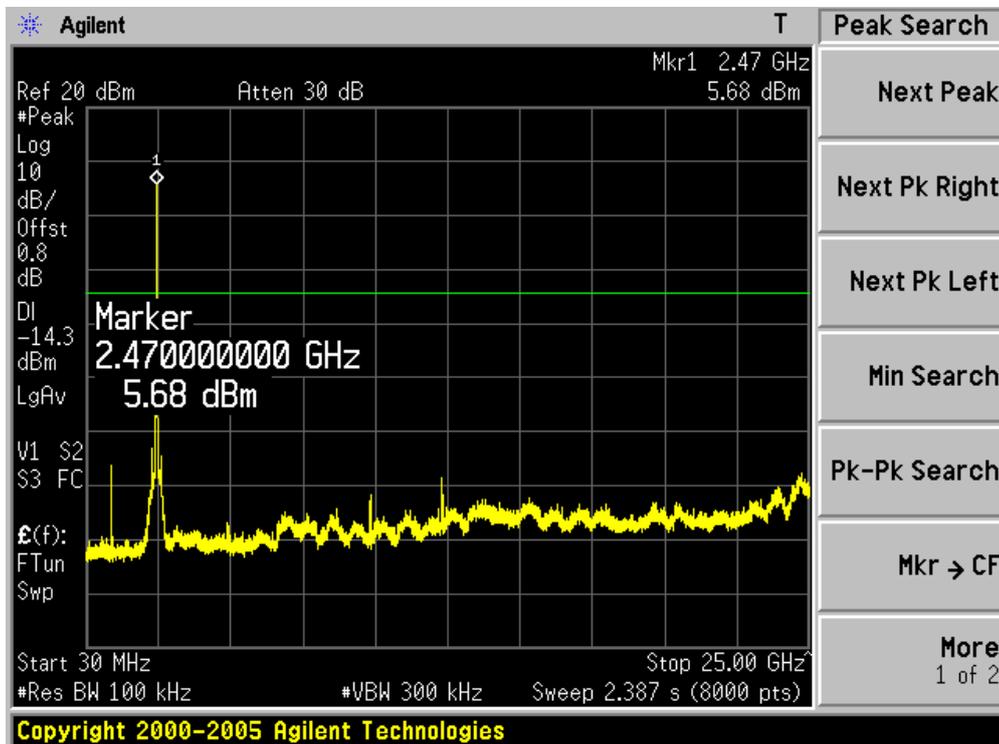
Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)



6. Radiated Emission Band Edge

6.1. Test Equipment

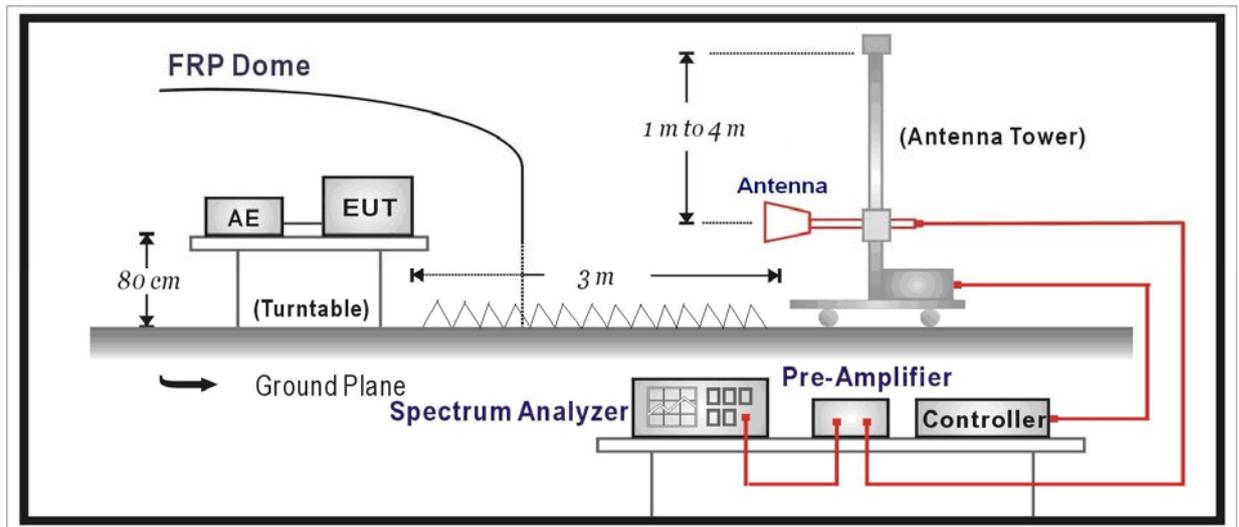
Radiated Emission / AC-5

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2010.04.23
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	499	2010.06.11
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, 2009 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 C63.4:2009 on radiated measurement.

6.5. Uncertainty

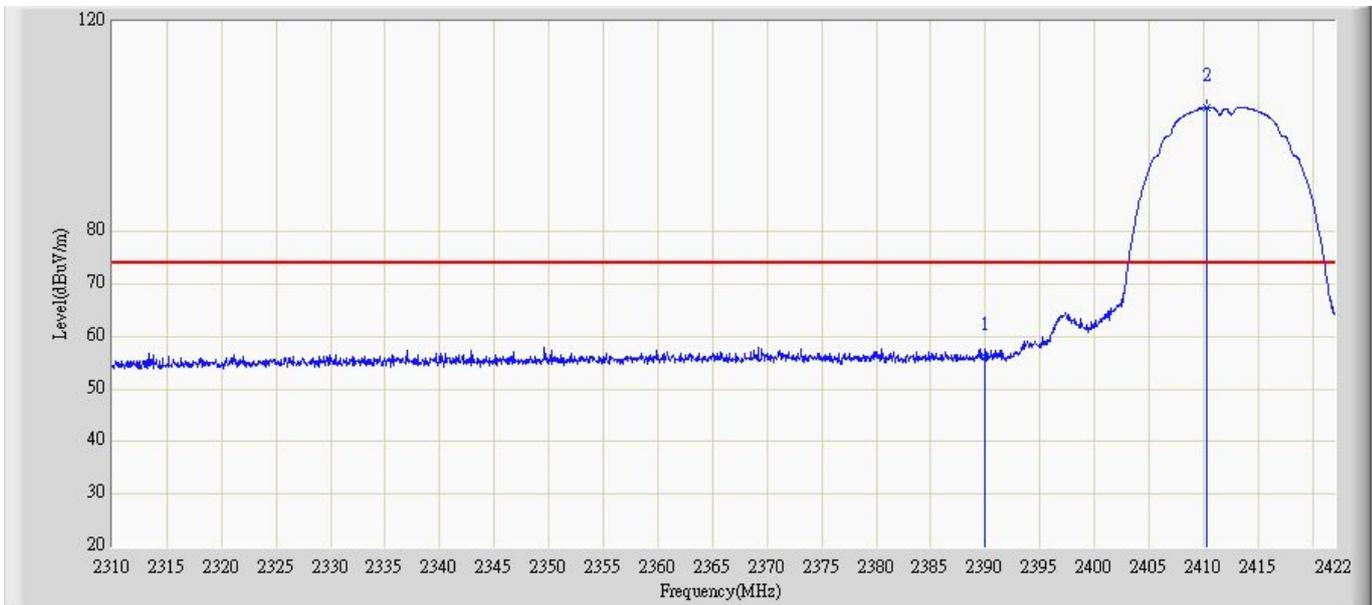
The measurement uncertainty above 1G is defined as ± 3.9 dB

6.6. Test Result

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

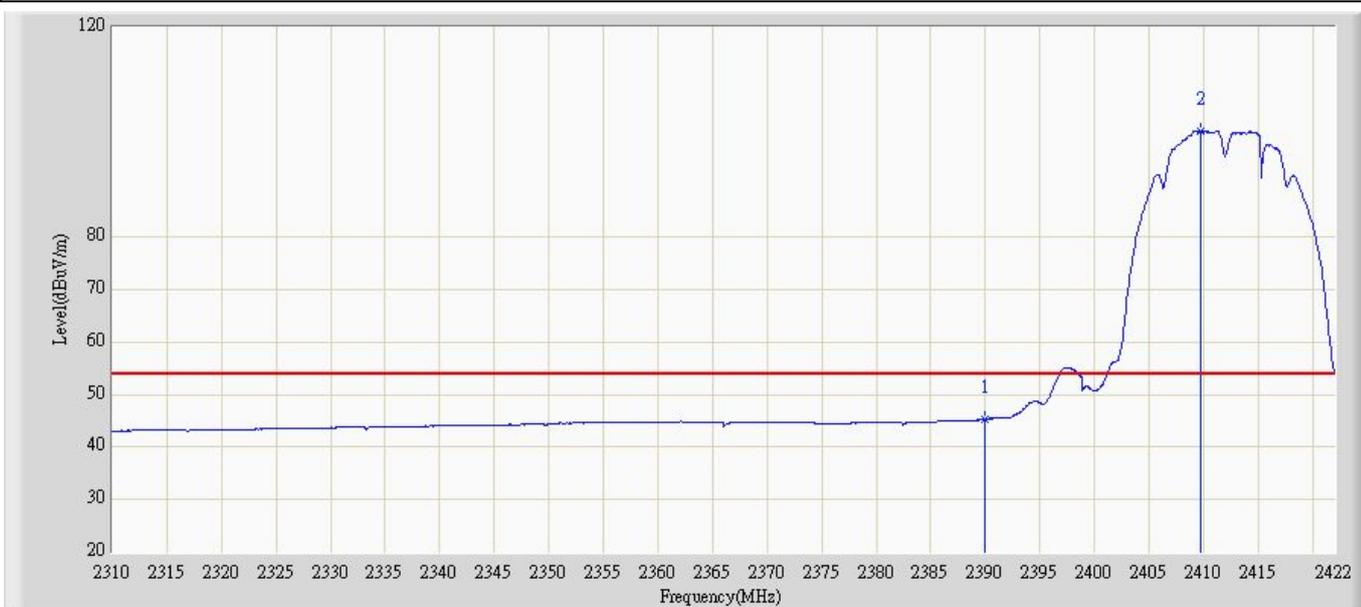
Average detector: RBW = 1MHz, VBW = 10Hz, sweep time = auto.

Profile: 107S051R	Page No.: 118
Engineer: Jame	
Site: AC5	Time: 2010/07/31 - 13:33
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 at channel 2412MHz By 802.11b	



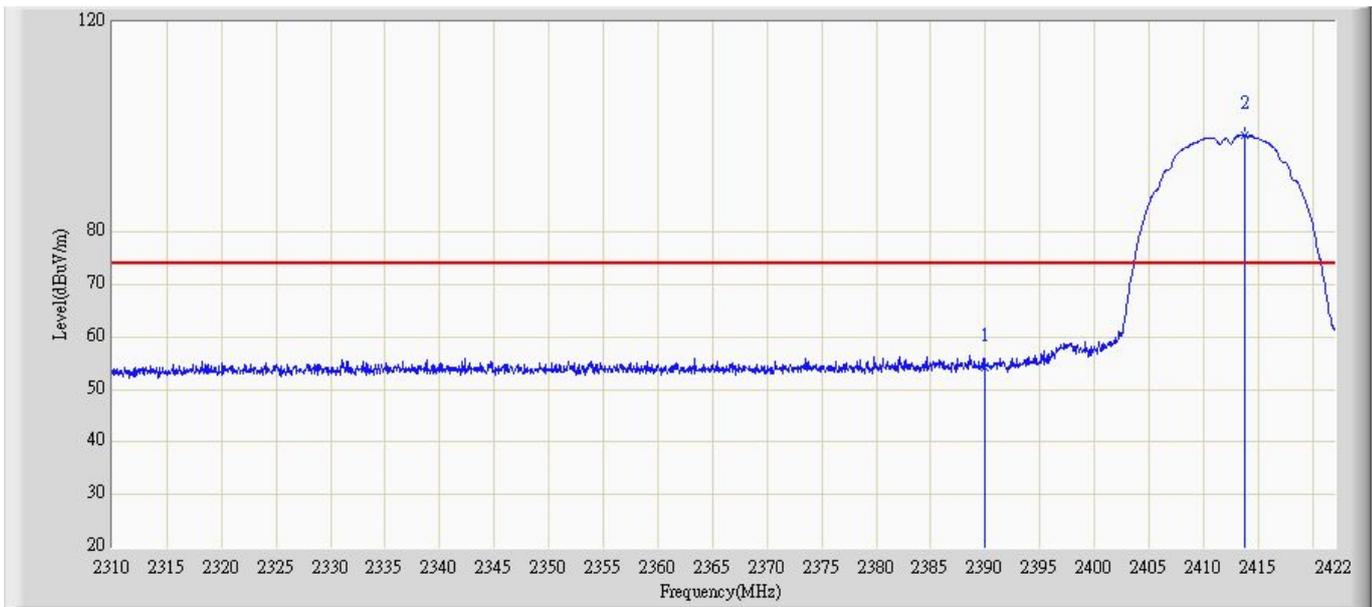
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	56.211	25.656	-17.789	74.000	30.555	PK
2	*	2410.352	103.711	73.155	N/A	N/A	30.556	PK

Profile: 107S051R	Page No.: 119
Engineer: Jame	
Site: AC5	Time: 2010/07/31 - 13:39
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 at channel 2412MHz By 802.11b	



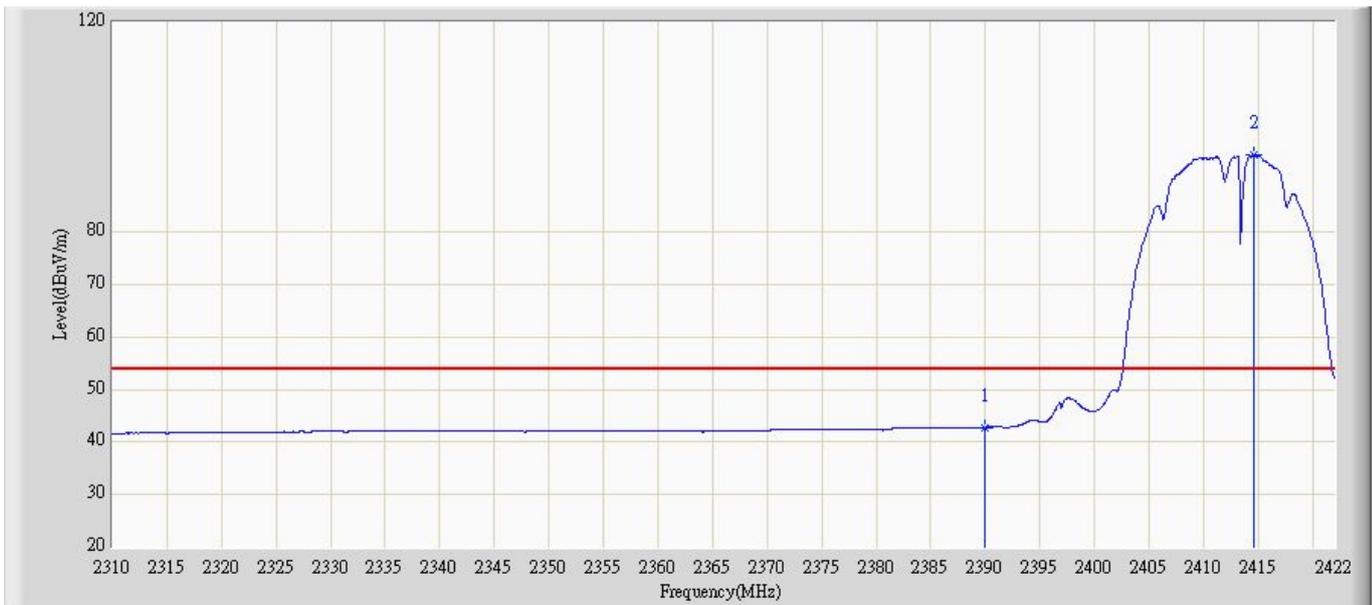
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	45.284	14.729	-8.716	54.000	30.555	AV
2	*	2409.680	100.298	69.741	N/A	N/A	30.557	AV

Profile: 107S051R	Page No.: 120
Engineer: Jame	
Site: AC5	Time: 2010/07/31 - 13:42
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 at channel 2412MHz By 802.11b	



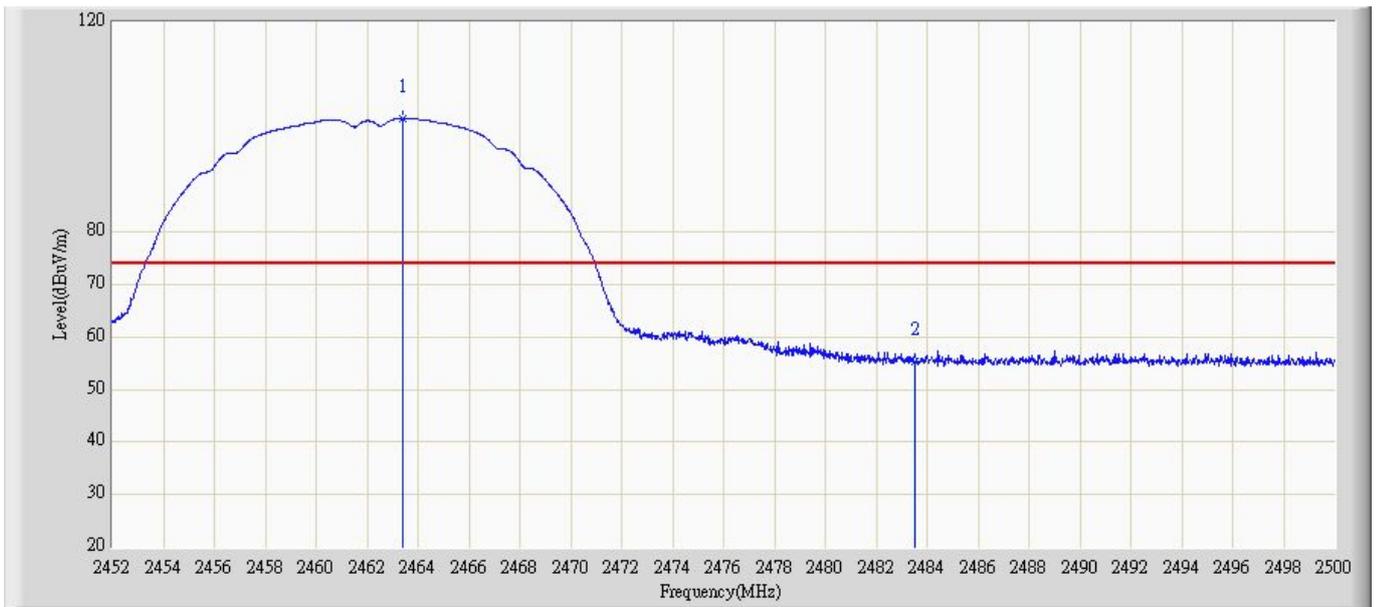
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	54.055	23.500	-19.945	74.000	30.555	PK
2	*	2413.768	98.418	67.862	N/A	N/A	30.555	PK

Profile: 107S051R	Page No.: 121
Engineer: Jame	
Site: AC5	Time: 2010/07/31 - 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 at channel 2412MHz By 802.11b	



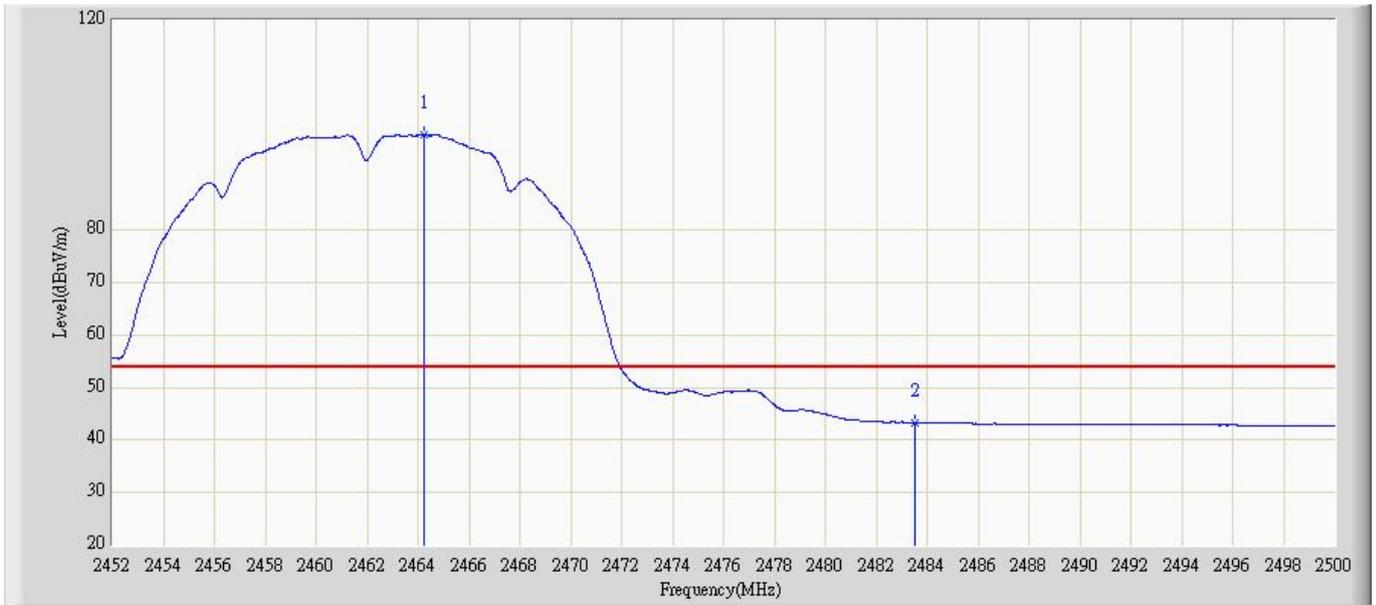
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	42.759	12.204	-11.241	54.000	30.555	AV
2	*	2414.552	94.721	64.165	N/A	N/A	30.556	AV

Profile: 107S051R	Page No.: 122
Engineer: Jame	
Site: AC5	Time: 2010/07/31 - 13:47
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 at channel 2462MHz By 802.11b	



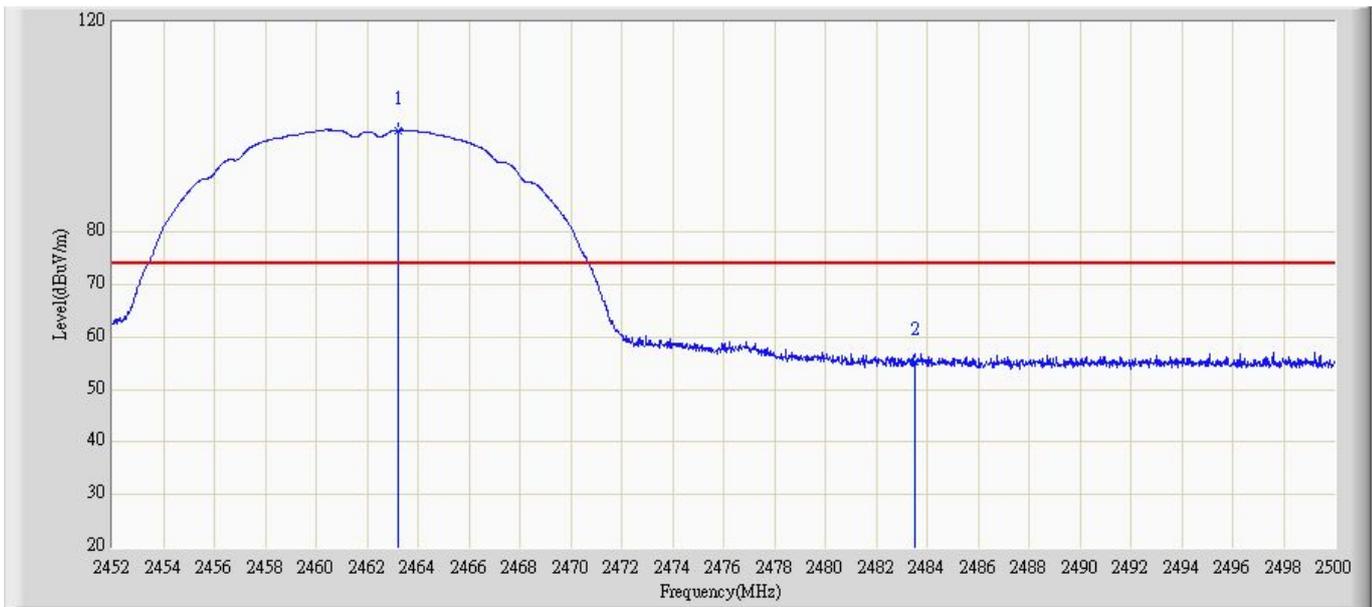
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2463.400	101.674	71.244	N/A	N/A	30.430	PK
2		2483.500	55.445	25.123	-18.555	74.000	30.321	PK

Profile: 107S051R	Page No.: 123
Engineer: Jame	
Site: AC5	Time: 2010/07/31 - 13:49
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 at channel 2462MHz By 802.11b	



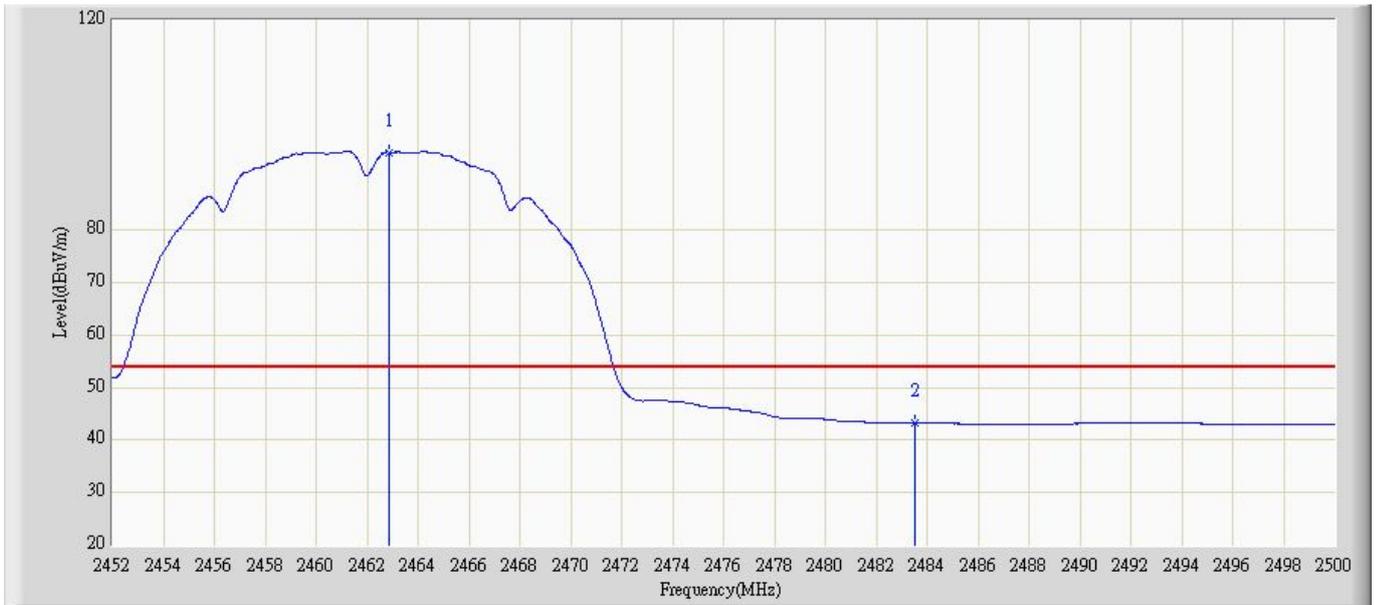
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2464.216	98.214	67.789	N/A	N/A	30.425	AV
2		2483.500	43.391	13.069	-10.609	54.000	30.321	AV

Profile: 107S051R	Page No.: 124
Engineer: Jame	
Site: AC5	Time: 2010/07/31 - 13:49
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2462MHz By 802.11b	



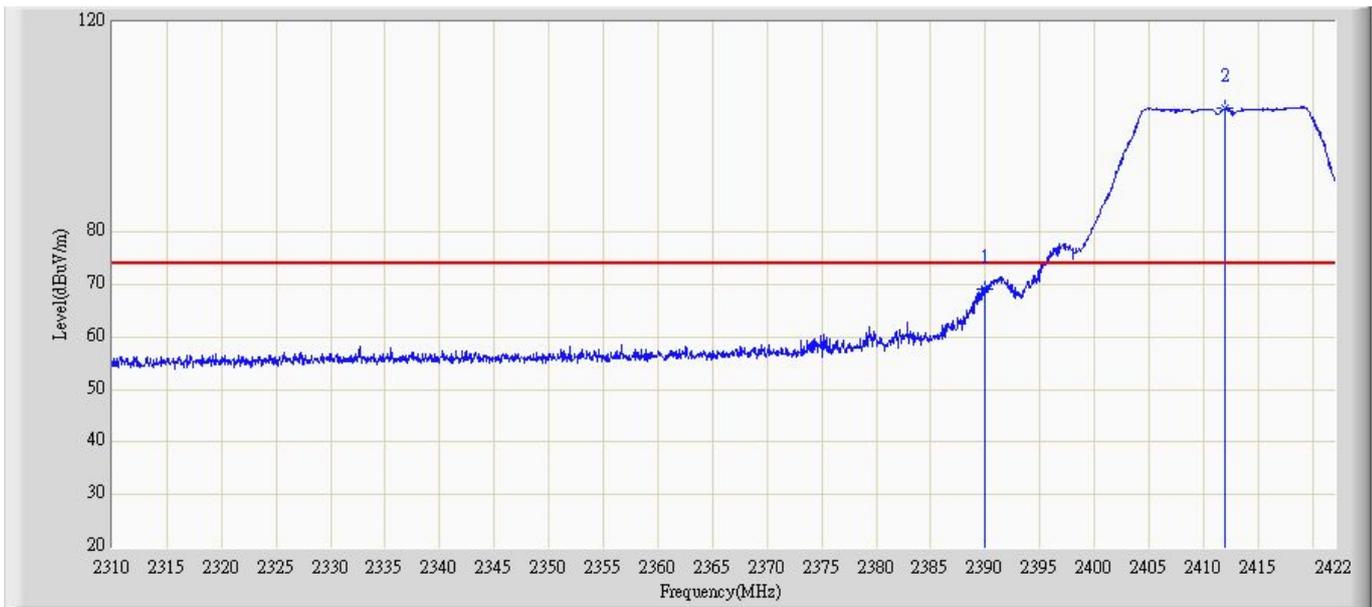
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2463.232	99.446	69.015	N/A	N/A	30.431	PK
2		2483.500	55.263	24.941	-18.737	74.000	30.321	PK

Profile: 107S051R	Page No.: 125
Engineer: Jame	
Site: AC5	Time: 2010/07/31 - 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 at channel 2462MHz By 802.11b	



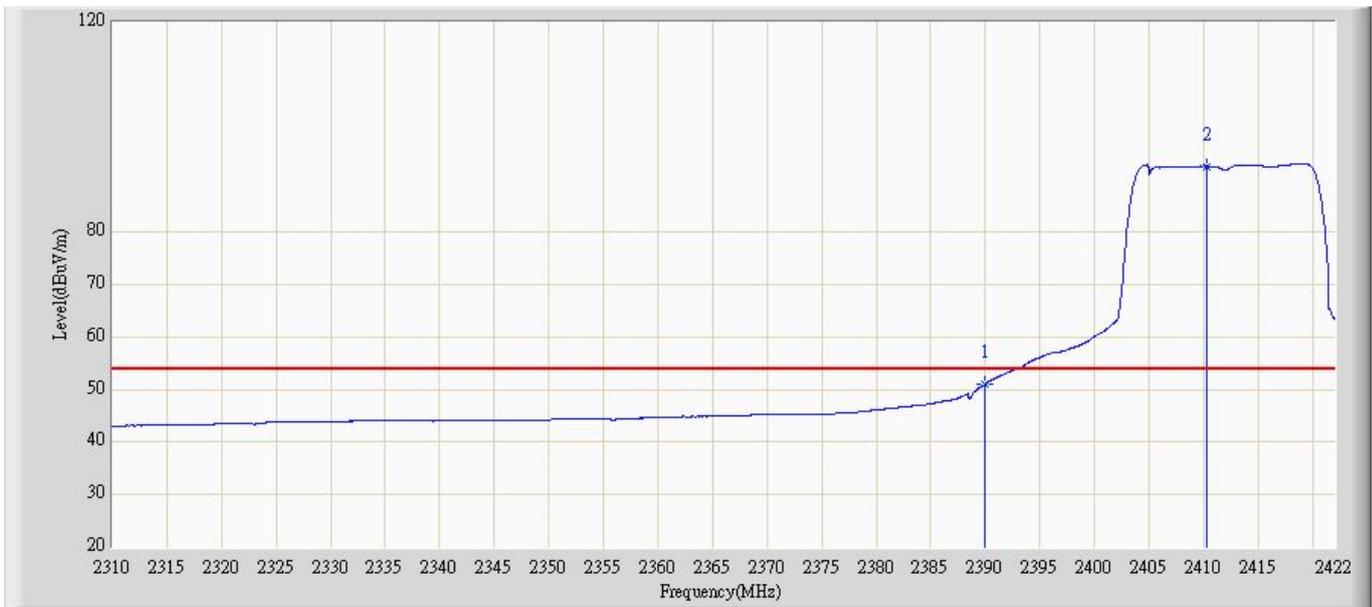
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2462.872	94.765	64.332	N/A	N/A	30.433	AV
2		2483.500	43.264	12.942	-10.736	54.000	30.321	AV

Profile: 107S051R	Page No.: 126
Engineer: Jame	
Site: AC5	Time: 2010/07/31 - 13:52
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 at channel 2412MHz By 802.11g	



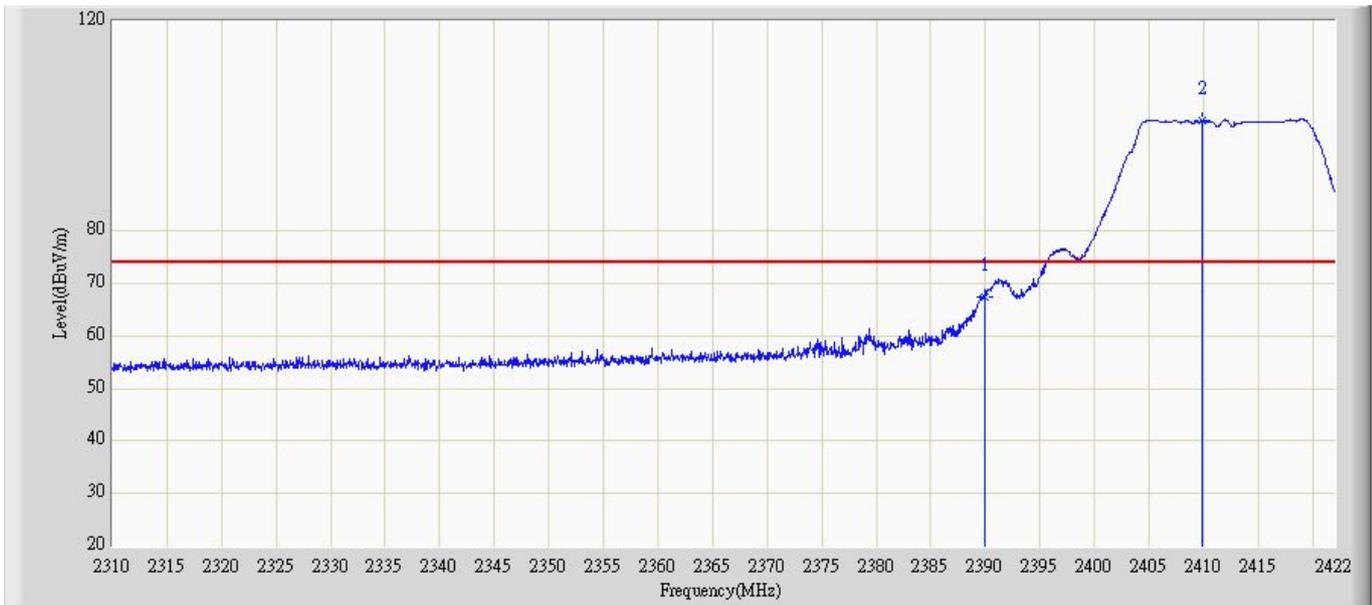
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	69.046	38.491	-4.954	74.000	30.555	PK
2	*	2411.976	103.724	73.168	N/A	N/A	30.555	PK

Profile: 107S051R	Page No.: 127
Engineer: Jame	
Site: AC5	Time: 2010/07/31 - 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 at channel 2412MHz By 802.11g	



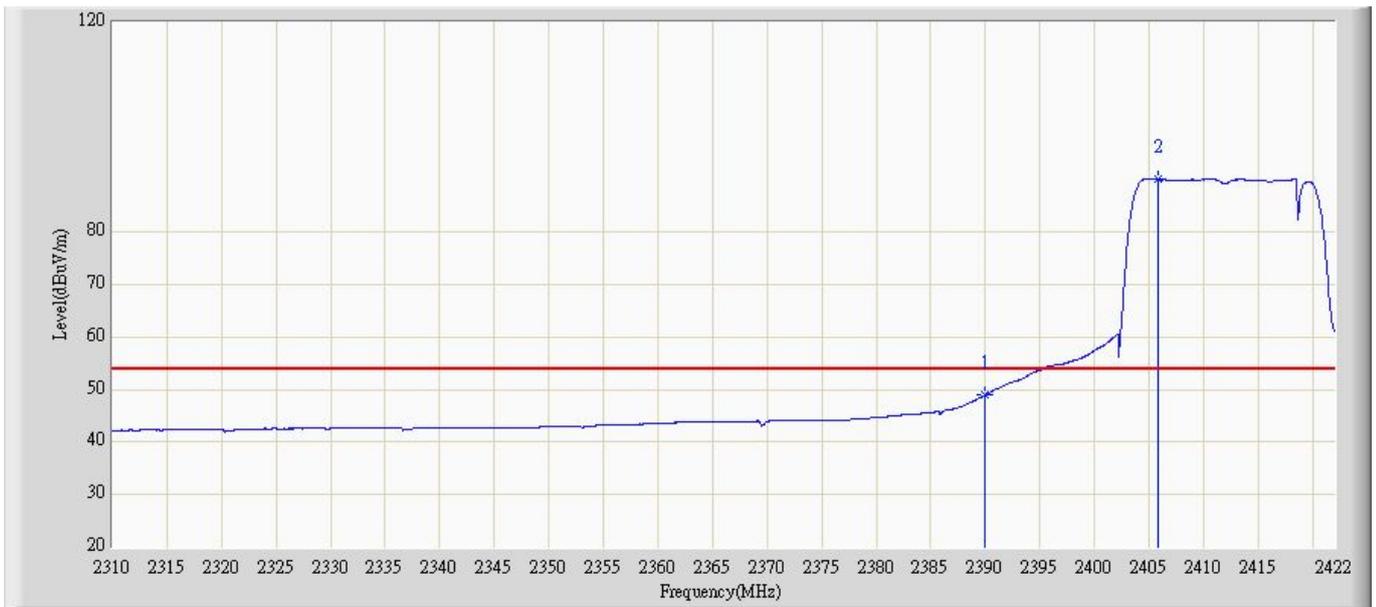
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	51.002	20.447	-2.998	54.000	30.555	AV
2	*	2410.352	92.525	61.969	N/A	N/A	30.556	AV

Profile: 107S051R	Page No.: 128
Engineer: Jame	
Site: AC5	Time: 2010/07/31 - 13:55
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 at channel 2412MHz By 802.11g	



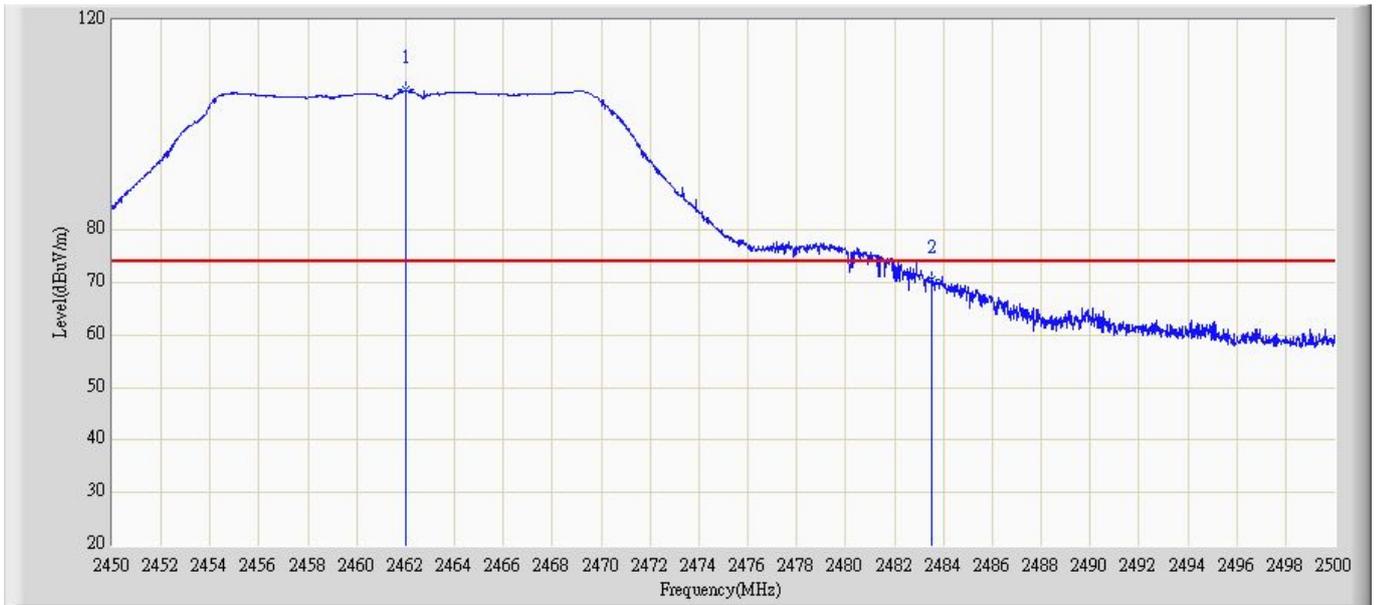
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	67.345	36.790	-6.655	74.000	30.555	PK
2	*	2409.848	100.906	70.350	N/A	N/A	30.556	PK

Profile: 107S051R	Page No.: 129
Engineer: Jame	
Site: AC5	Time: 2010/07/31 - 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 at channel 2412MHz By 802.11g	



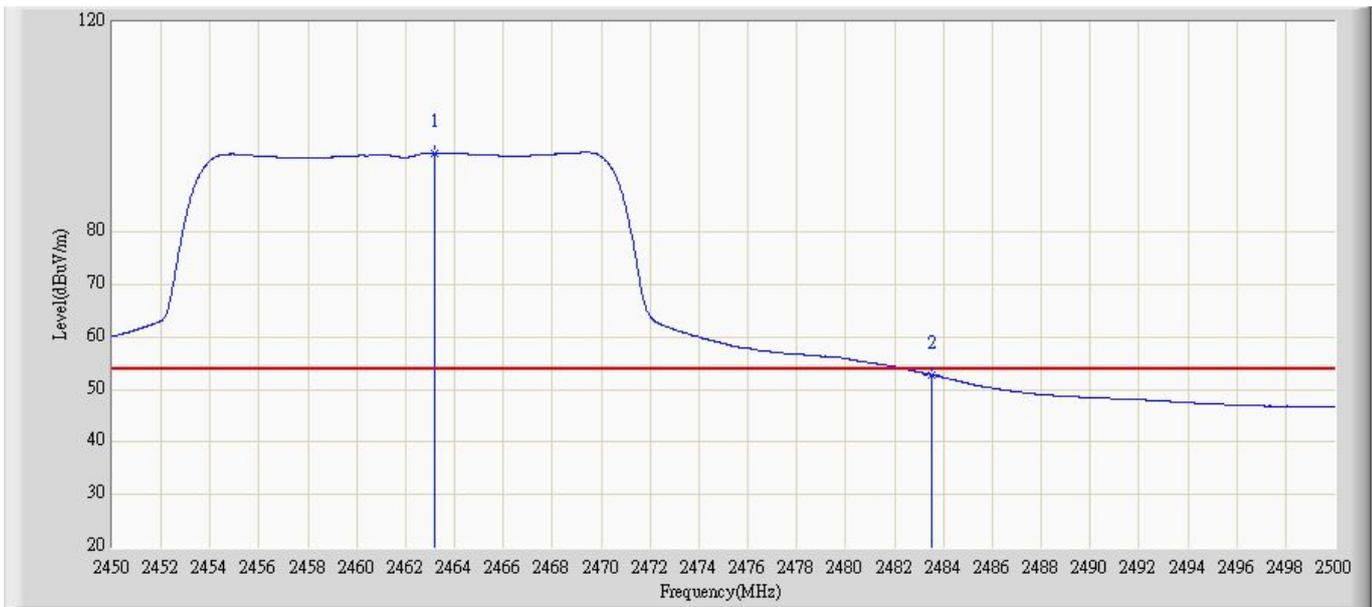
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	48.929	18.374	-5.071	54.000	30.555	AV
2	*	2405.816	90.065	59.507	N/A	N/A	30.558	AV

Profile: 107S051R	Page No.: 130
Engineer: Jame	
Site: AC5	Time: 2010/07/31 - 13:59
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 at channel 2462MHz By 802.11g	



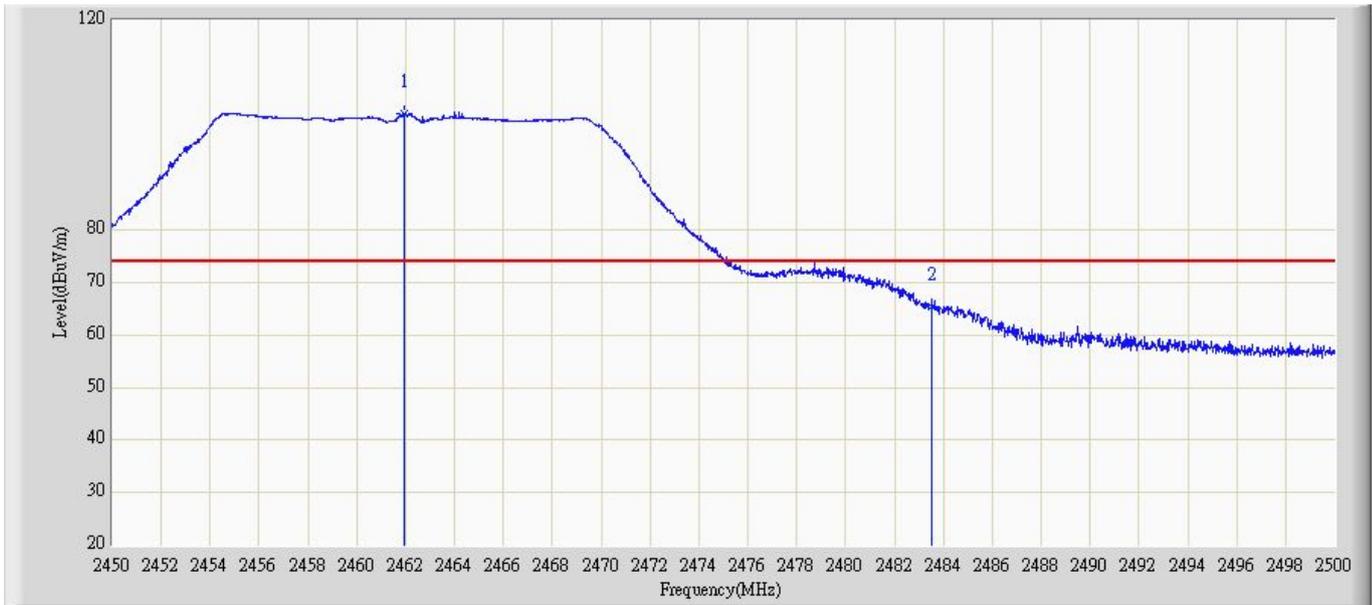
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2462.025	106.648	76.210	N/A	N/A	30.438	PK
2		2483.500	70.647	40.325	-3.353	74.000	30.321	PK

Profile: 107S051R	Page No.: 131
Engineer: Jame	
Site: AC5	Time: 2010/07/31 - 14:04
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 at channel 2462MHz By 802.11g	



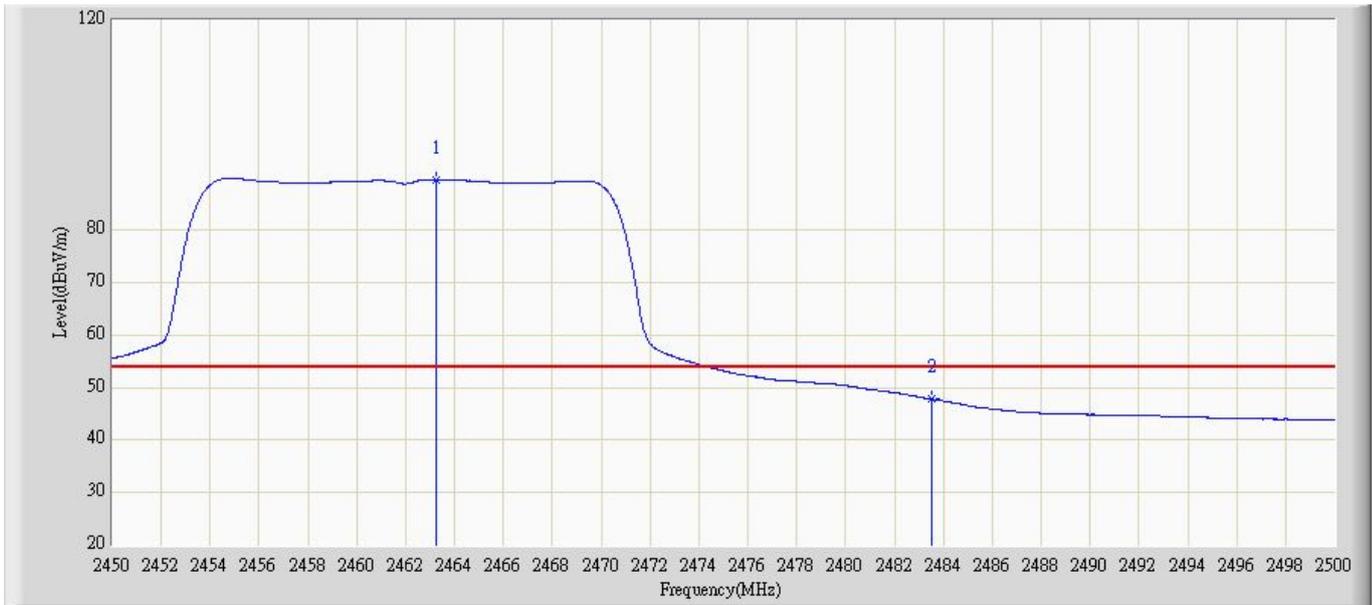
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2463.175	95.004	64.573	N/A	N/A	30.431	AV
2		2483.500	52.800	22.478	-1.200	54.000	30.321	AV

Profile: 107S051R	Page No.: 132
Engineer: Jame	
Site: AC5	Time: 2010/07/31 - 14:04
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 at channel 2462MHz By 802.11g	



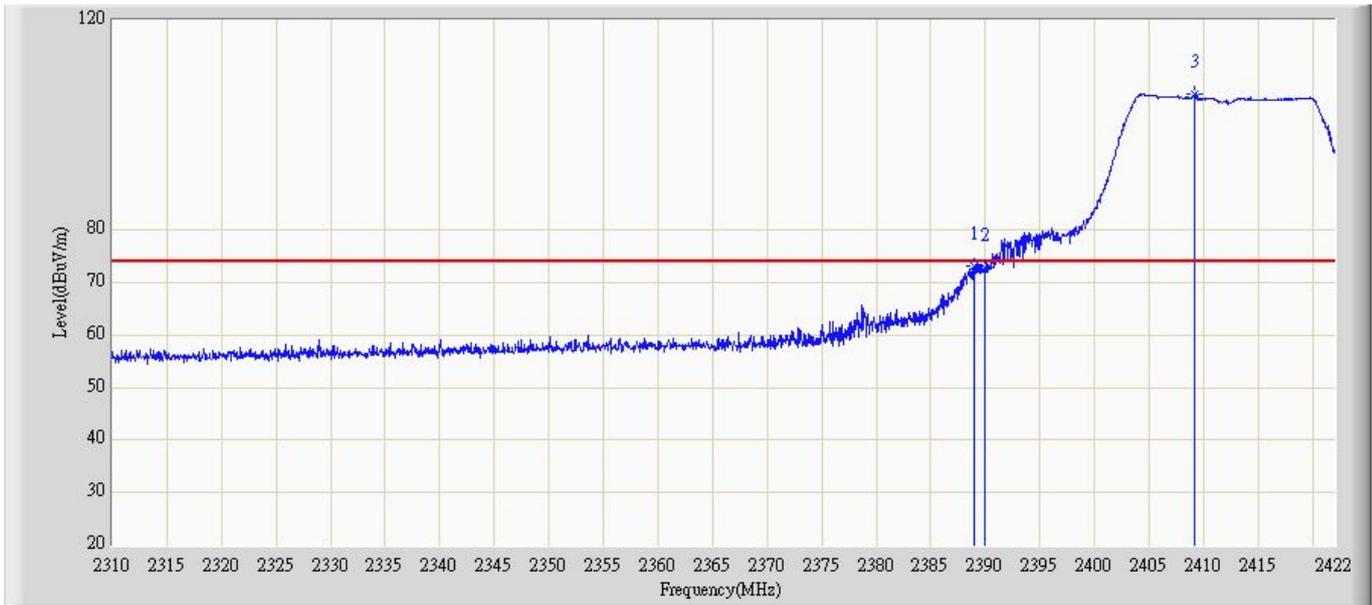
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2461.950	102.144	71.706	N/A	N/A	30.438	PK
2		2483.500	65.472	35.150	-8.528	74.000	30.321	PK

Profile: 107S051R	Page No.: 133
Engineer: Jame	
Site: AC5	Time: 2010/07/31 - 14:06
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 at channel 2462MHz By 802.11g	



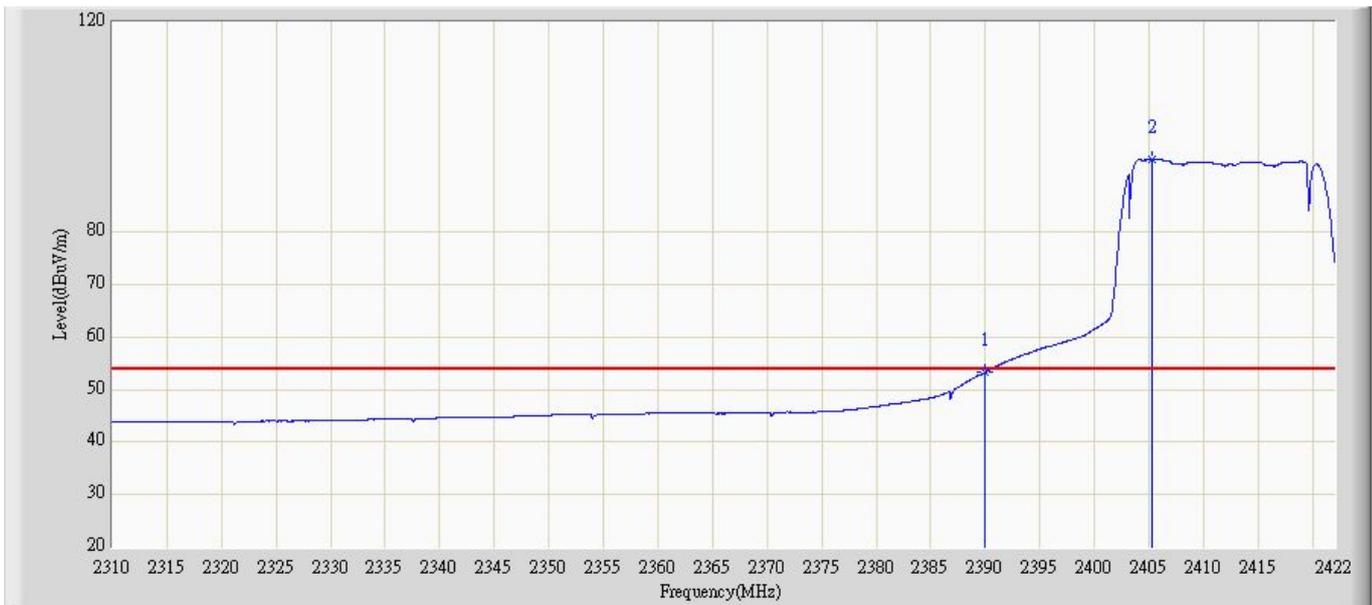
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2463.275	89.621	59.190	N/A	N/A	30.430	AV
2		2483.500	47.790	17.468	-6.210	54.000	30.321	AV

Profile: 107S051R	Page No.: 134
Engineer: Jame	
Site: AC5	Time: 2010/07/31 - 14:08
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 at channel 2412MHz By 802.11n(20MHz)	



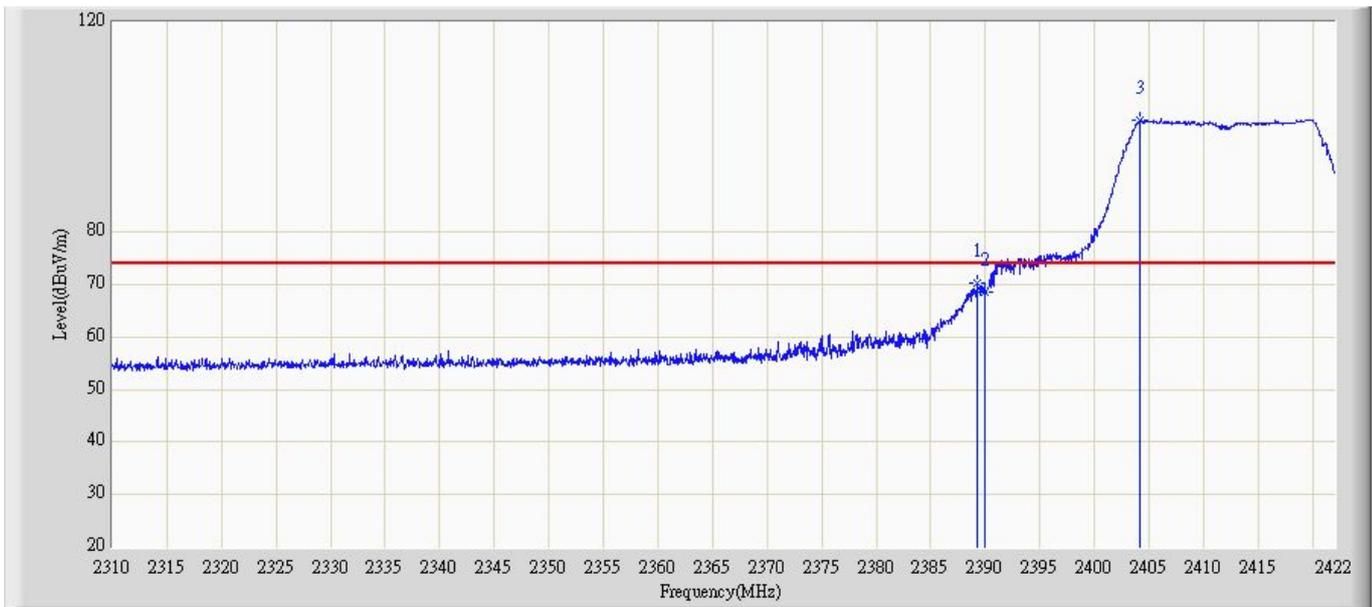
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2388.960	73.272	42.719	-0.728	74.000	30.553	PK
2		2390.000	72.799	42.244	-1.201	74.000	30.555	PK
3	*	2409.232	105.920	75.363	N/A	N/A	30.557	PK

Profile: 107S051R	Page No.: 135
Engineer: Jame	
Site: AC5	Time: 2010/07/31 - 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 at channel 2412MHz By 802.11n(20MHz)	



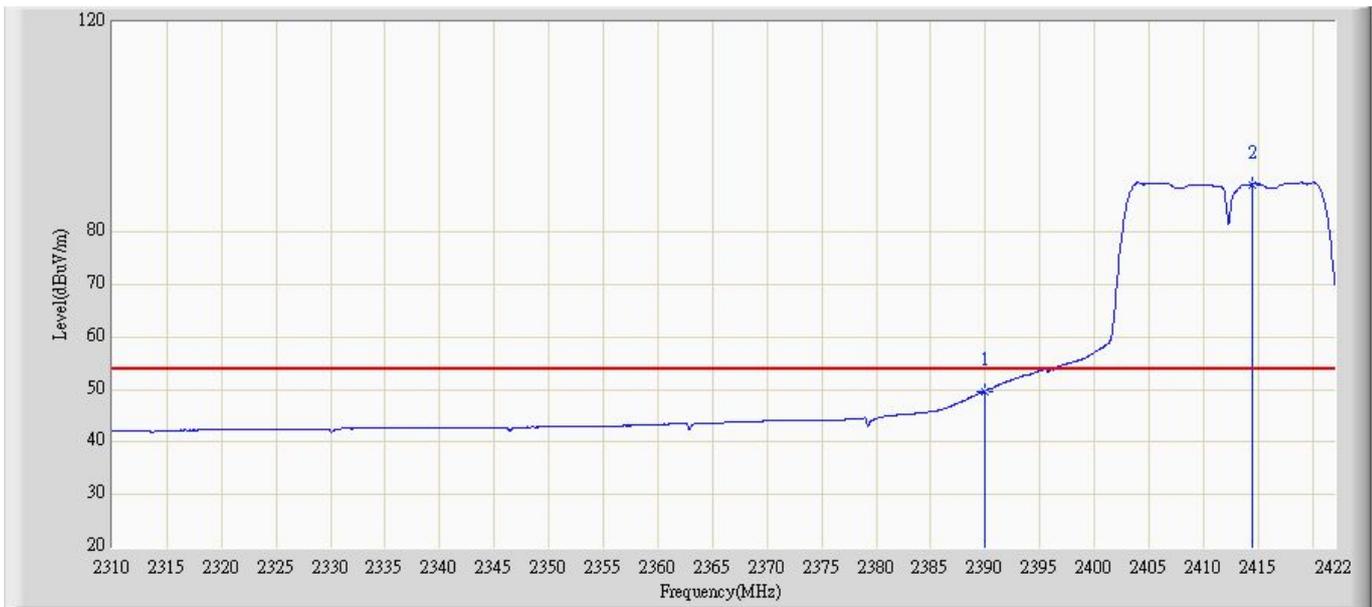
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	53.280	22.725	-0.720	54.000	30.555	AV
2	*	2405.312	93.854	63.295	N/A	N/A	30.559	AV

Profile: 107S051R	Page No.: 136
Engineer: Jame	
Site: AC5	Time: 2010/07/31 - 14:13
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 at channel 2412MHz By 802.11n(20MHz)	



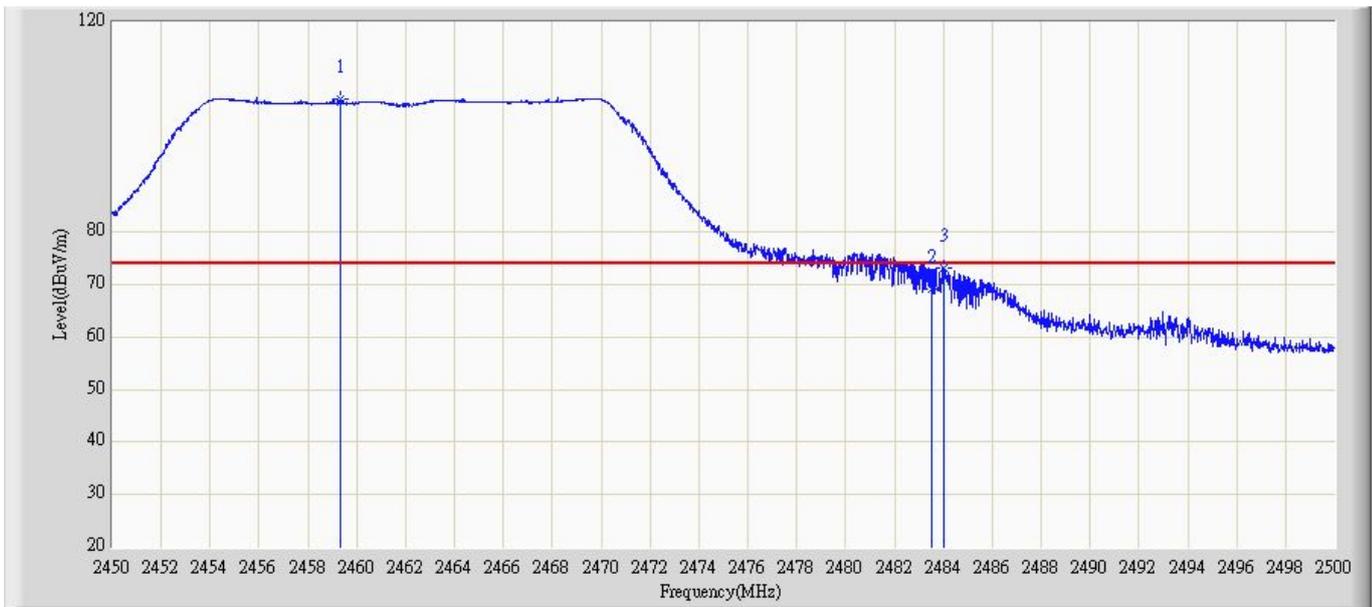
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2389.296	70.216	39.662	-3.784	74.000	30.553	PK
2		2390.000	68.669	38.114	-5.331	74.000	30.555	PK
3	*	2404.192	101.292	70.733	N/A	N/A	30.559	PK

Profile: 107S051R	Page No.: 137
Engineer: Jame	
Site: AC5	Time: 2010/07/31 - 14:20
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 at channel 2412MHz By 802.11n(20MHz)	



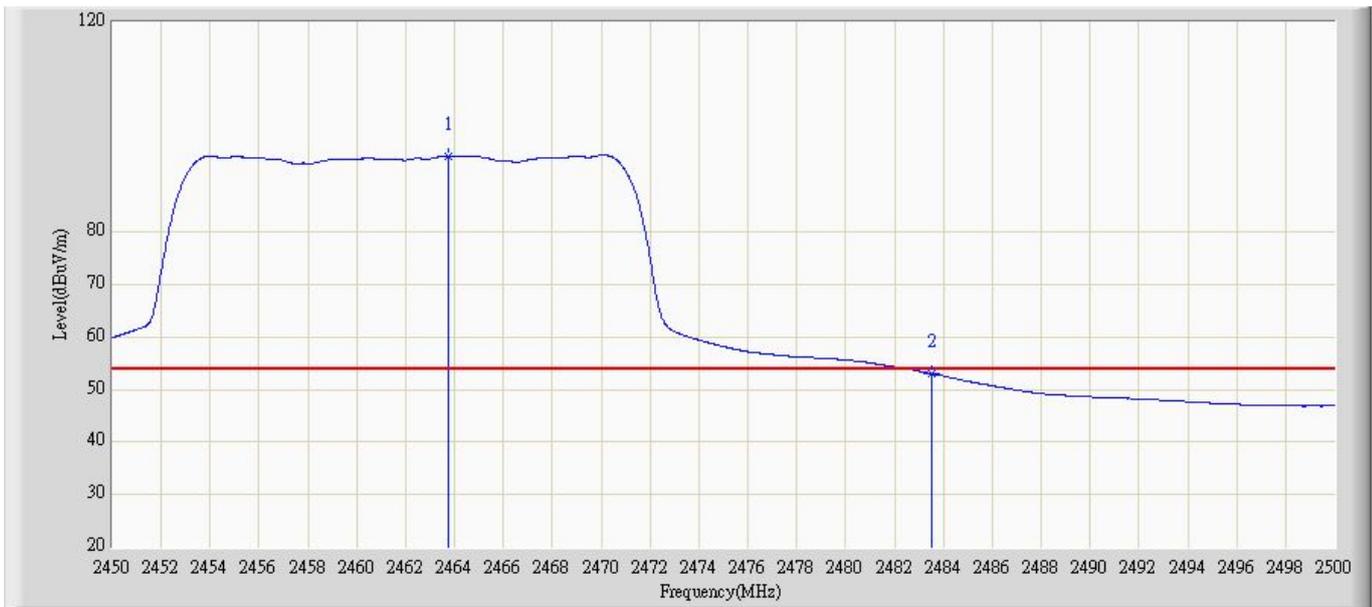
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		2390.000	49.718	19.163	-4.282	54.000	30.555	AV
2	*	2414.440	89.102	58.546	N/A	N/A	30.556	AV

Profile: 107S051R	Page No.: 138
Engineer: Jame	
Site: AC5	Time: 2010/07/31 - 14:29
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 at channel 2462MHz By 802.11n(20MHz)	



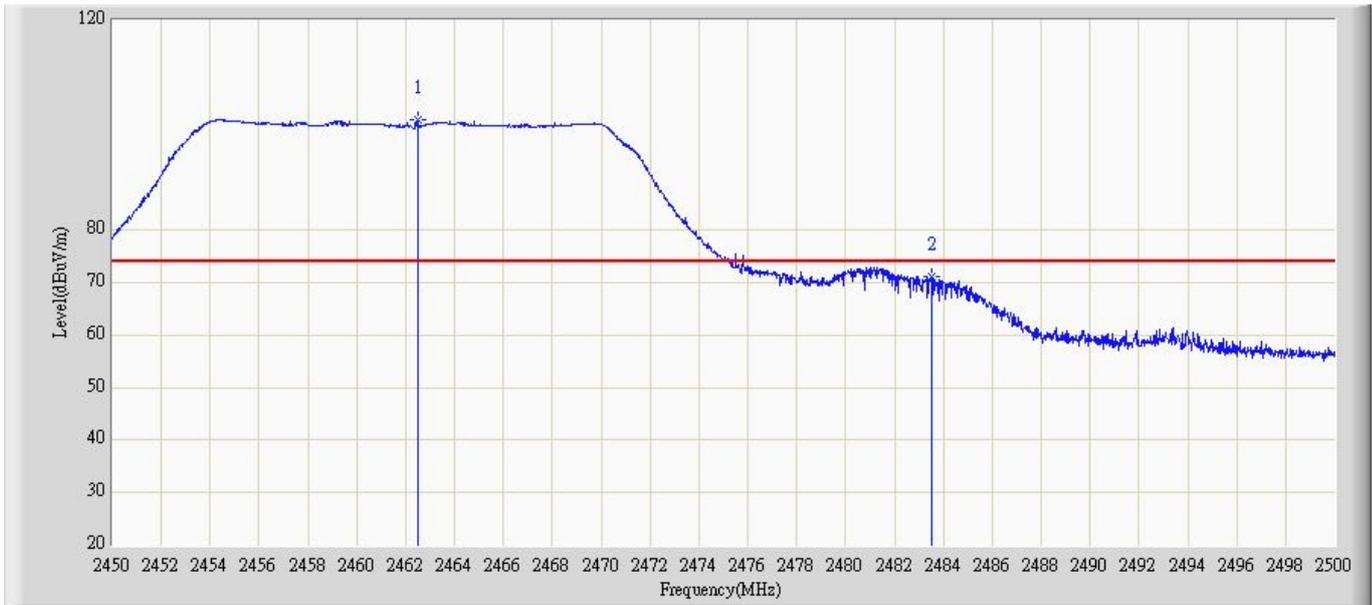
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2459.300	105.301	74.848	N/A	N/A	30.454	PK
2		2483.500	69.167	38.845	-4.833	74.000	30.321	PK
3		2484.025	73.274	42.954	-0.726	74.000	30.319	PK

Profile: 107S051R	Page No.: 139
Engineer: Jame	
Site: AC5	Time: 2010/07/31 - 14:30
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2462MHz By 802.11n(20MHz)	



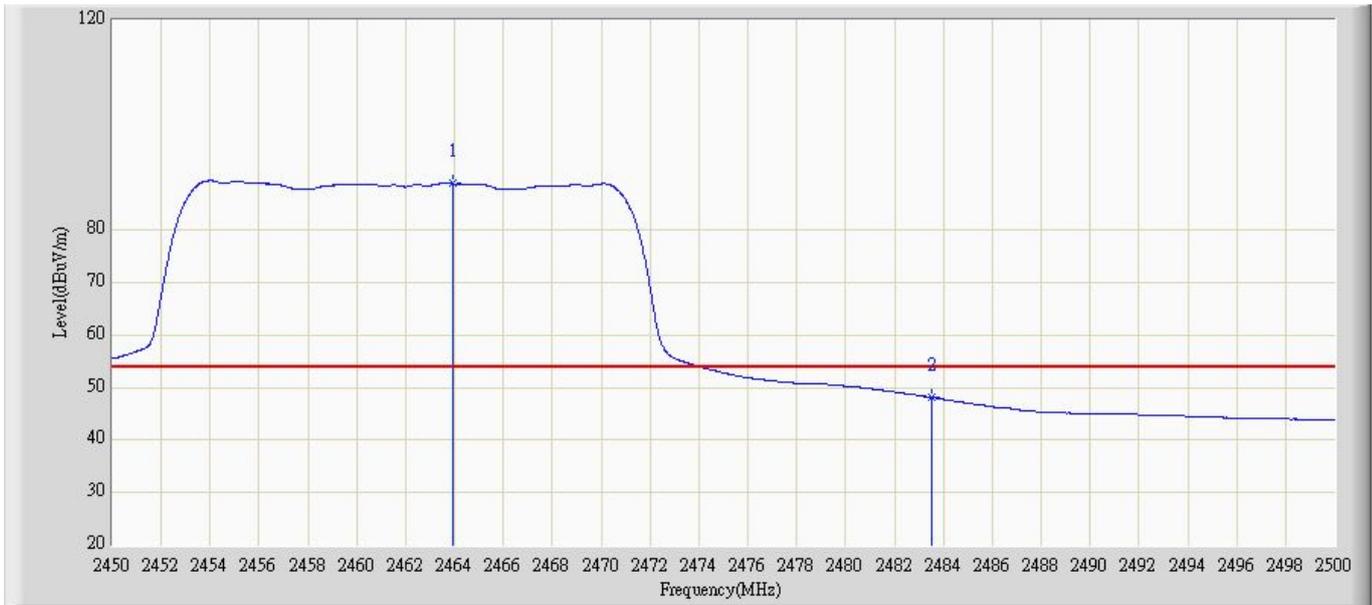
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2463.750	94.384	63.956	N/A	N/A	30.428	AV
2		2483.500	53.082	22.760	-0.918	54.000	30.321	AV

Profile: 107S051R	Page No.: 140
Engineer: Jame	
Site: AC5	Time: 2010/07/31 - 14:33
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D-499(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2462MHz By 802.11n(20MHz)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2462.475	100.923	70.488	N/A	N/A	30.435	PK
2		2483.500	71.130	40.808	-2.870	74.000	30.321	PK

Profile: 107S051R	Page No.: 141
Engineer: Jame	
Site: AC5	Time: 2010/07/31 - 14:37
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 at channel 2462MHz By 802.11n(20MHz)	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	2463.900	88.837	58.410	N/A	N/A	30.427	AV
2		2483.500	48.144	17.822	-5.856	54.000	30.321	AV

7. Operation Frequency Range of 20dB Bandwidth

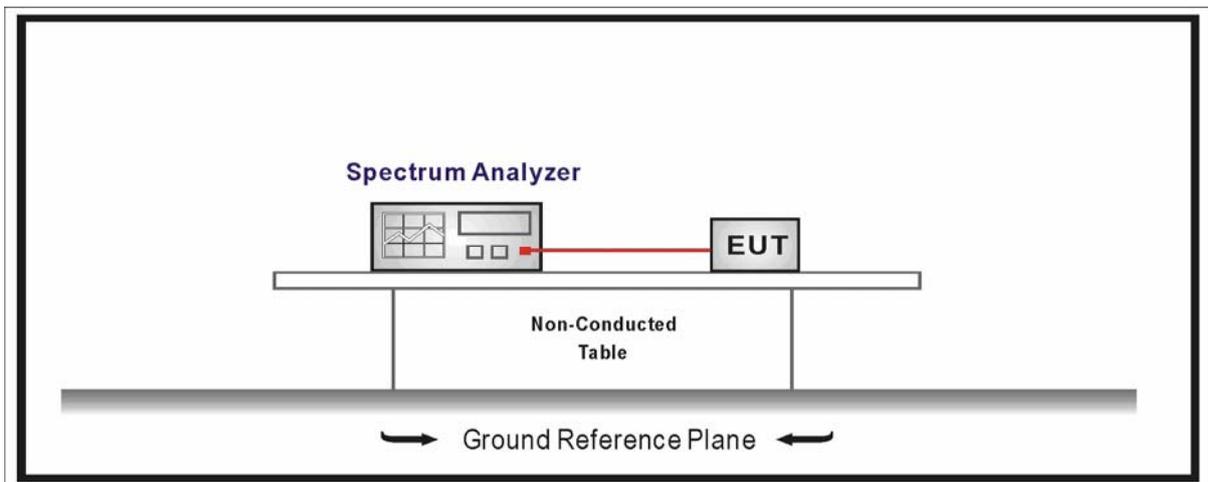
7.1. Test Equipment

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.

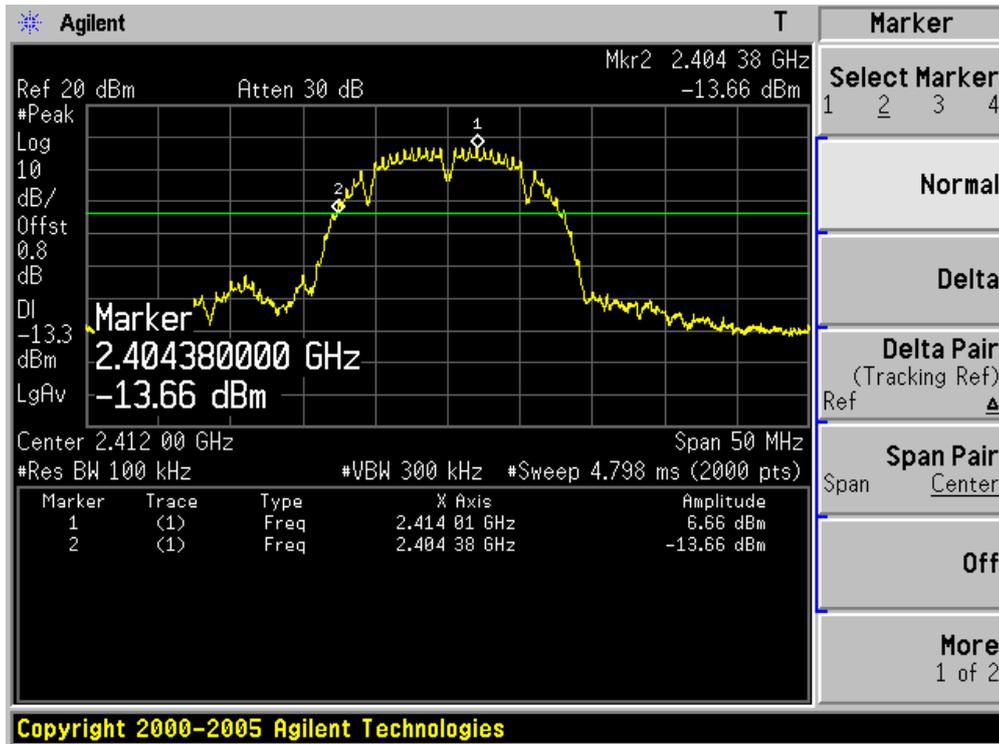
7.5. Uncertainty

The measurement uncertainty is defined as ± 1 kHz

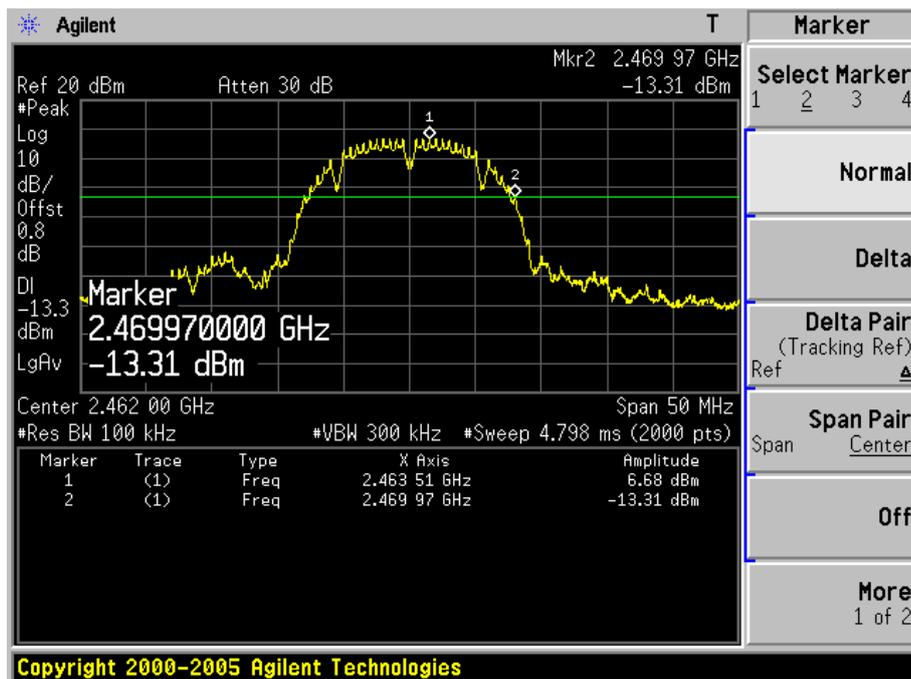
7.6. Test Result

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

Channel 01 (2412MHz)

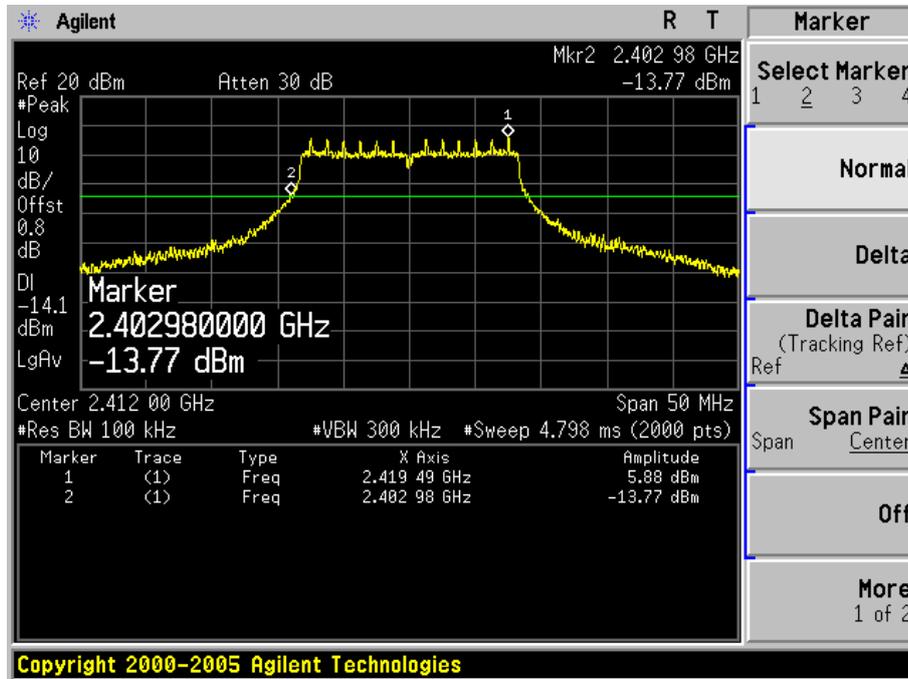


Channel 11 (2462MHz)

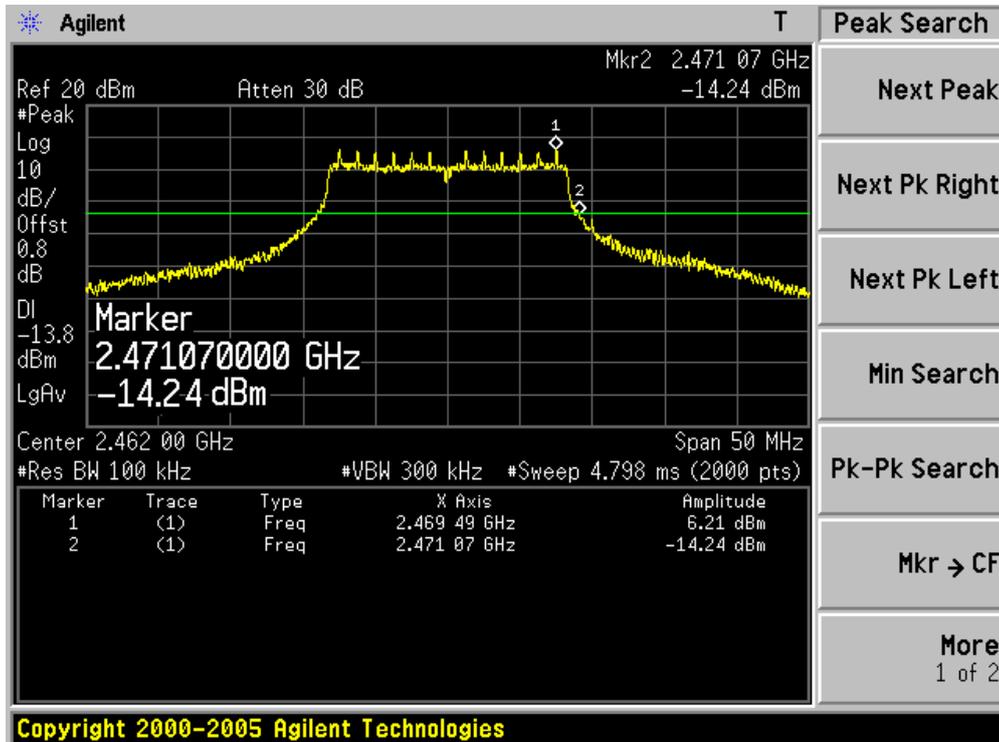


Product	:	Eee PC
Test Item	:	Operation Frequency Range of 20dB Bandwidth
Test Mode	:	Mode 2: Transmit by 802.11g

Channel 01 (2412MHz)

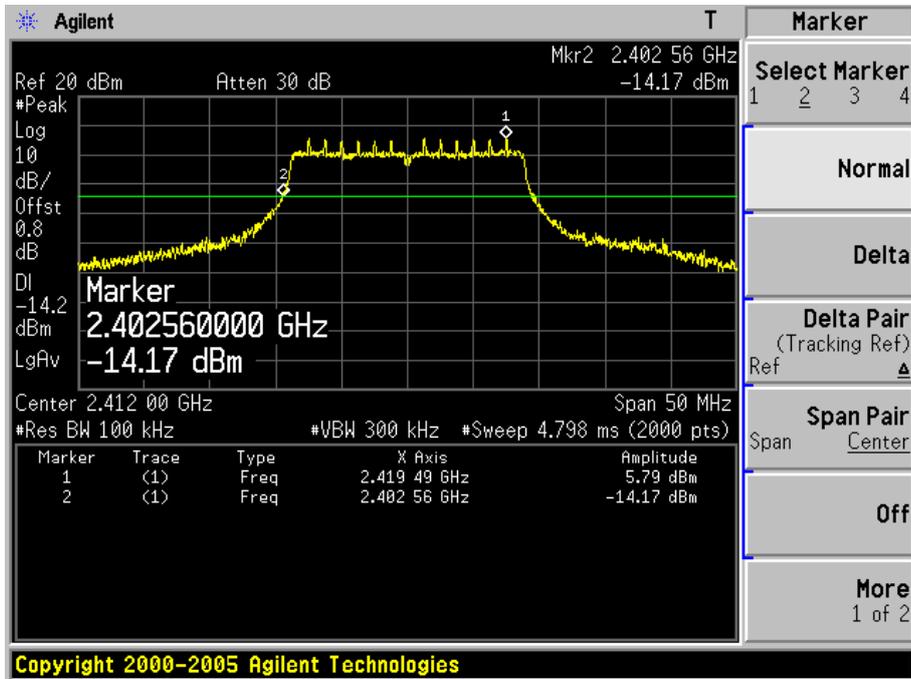


Channel 11 (2462MHz)

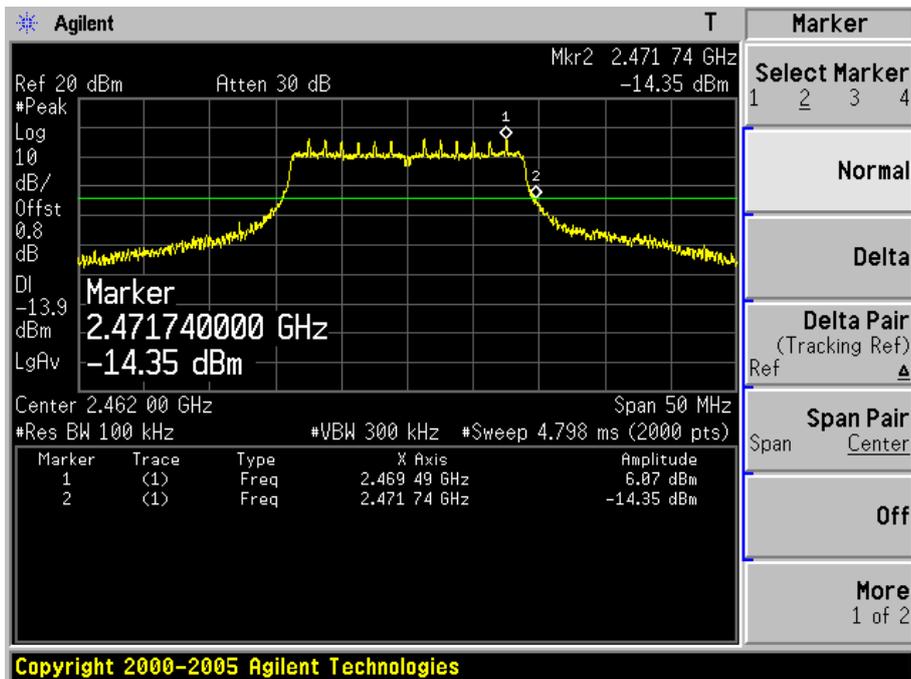


Product	:	Eee PC
Test Item	:	Operation Frequency Range of 20dB Bandwidth
Test Mode	:	Mode 3: Transmit by 802.11n (20MHz)

Channel 01 (2412MHz)



Channel 11 (2462MHz)



8. Occupied Bandwidth

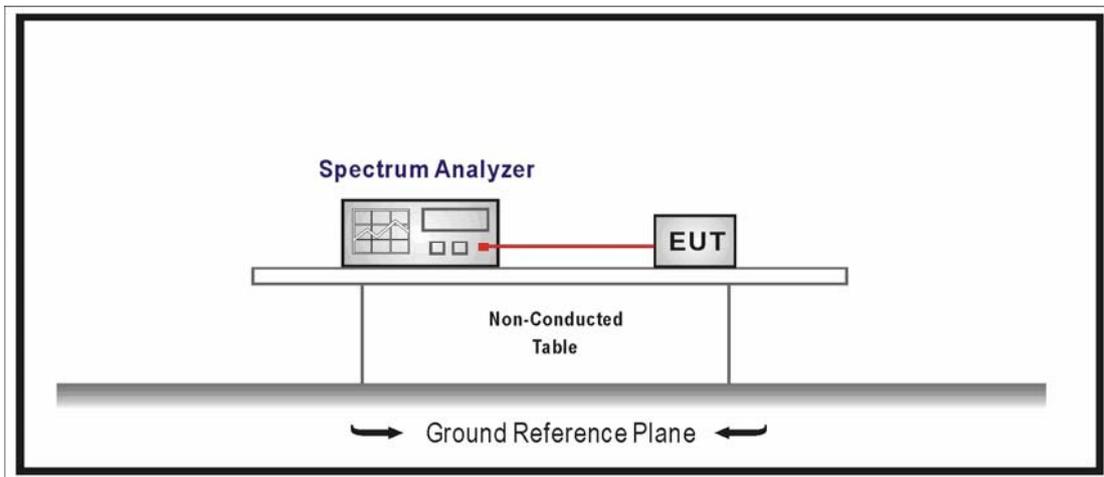
8.1. Test Equipment

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

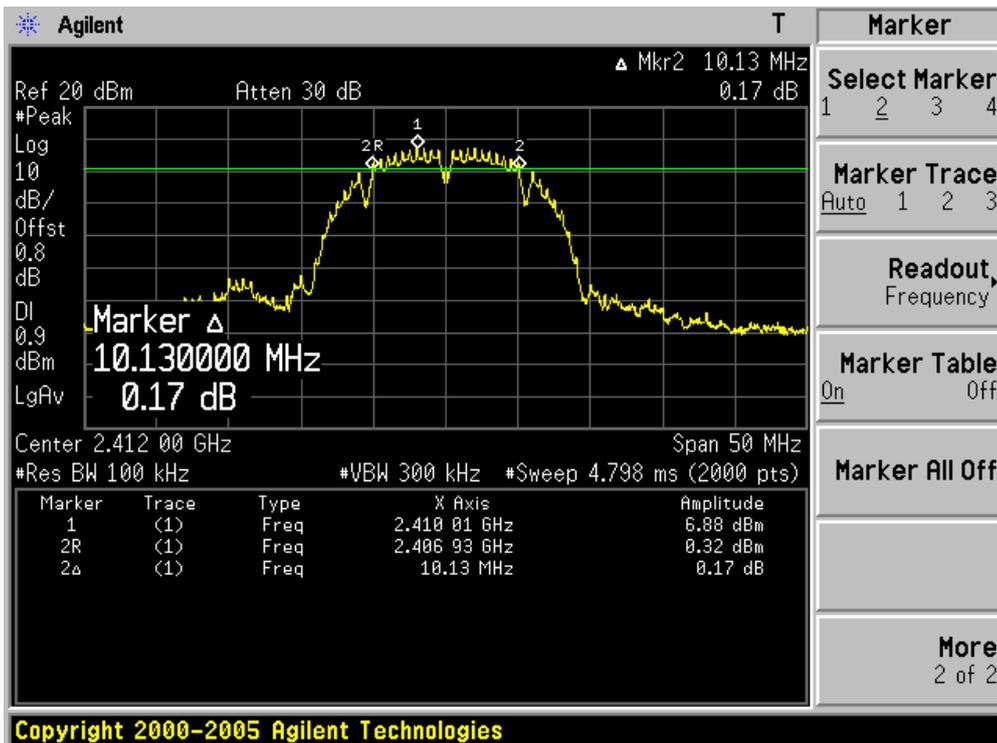
The measurement uncertainty is defined as ± 1 kHz

8.6. Test Result

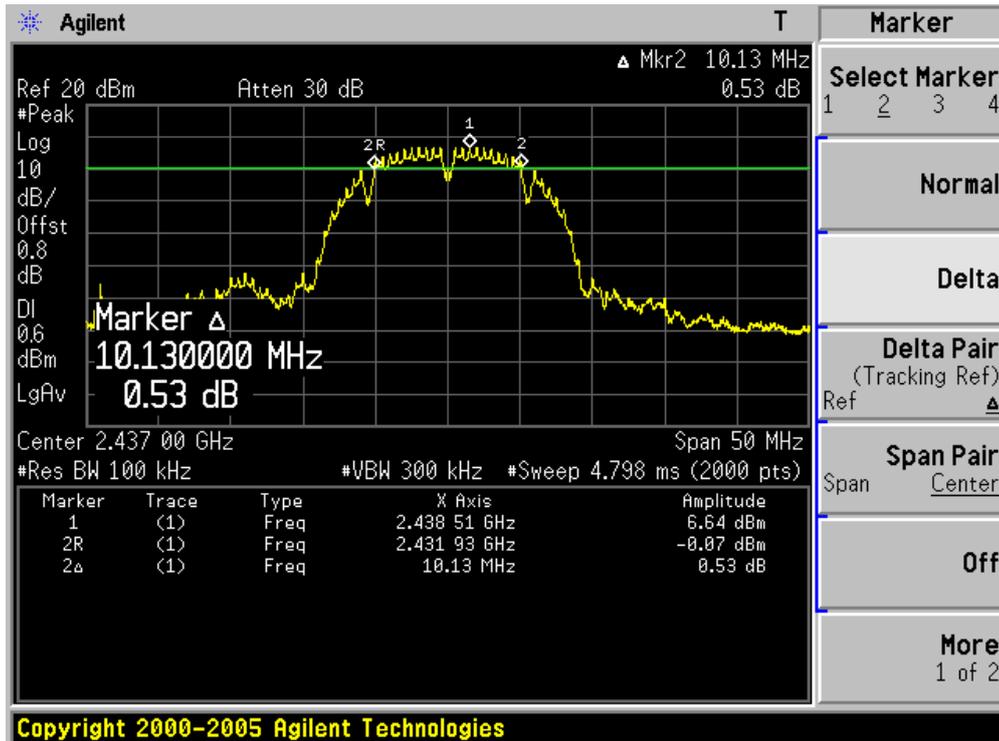
Product	:	Eee PC
Test Item	:	6dB Occupied Bandwidth
Test Mode	:	Mode 1: Transmit by 802.11b

Channel No.	Frequency (MHz)	Occupied Bandwidth (kHz)	Limit (kHz)	Result
01	2412	10130	500	Pass
06	2437	10130	500	Pass
11	2462	9850	500	Pass

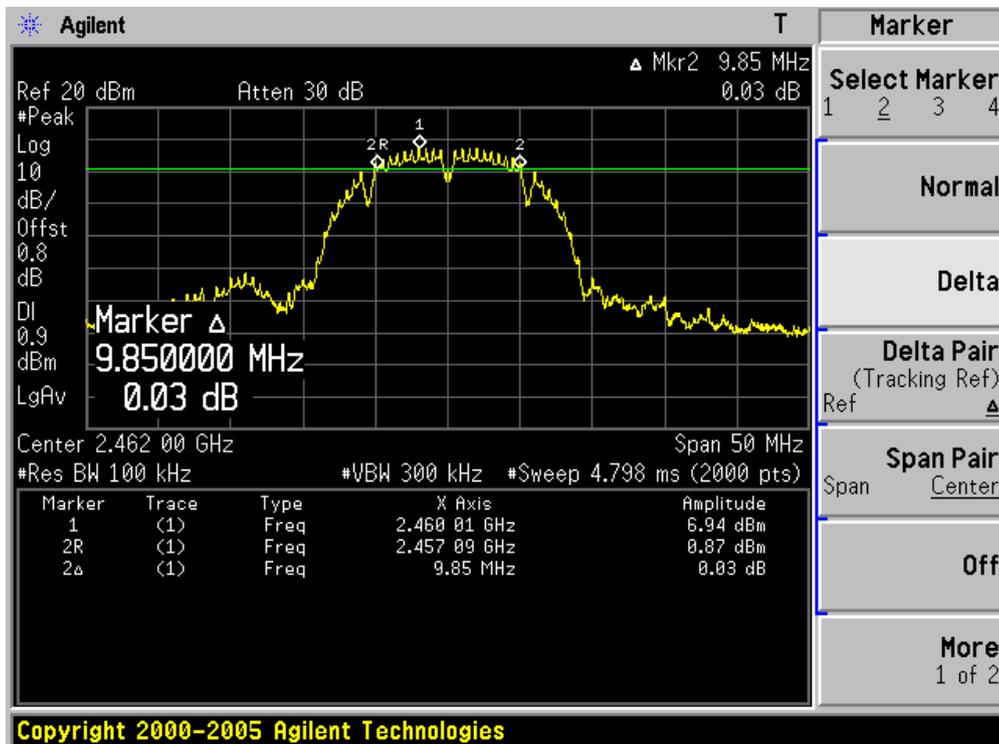
Channel 01 (2412MHz)



Channel 06 (2437MHz)



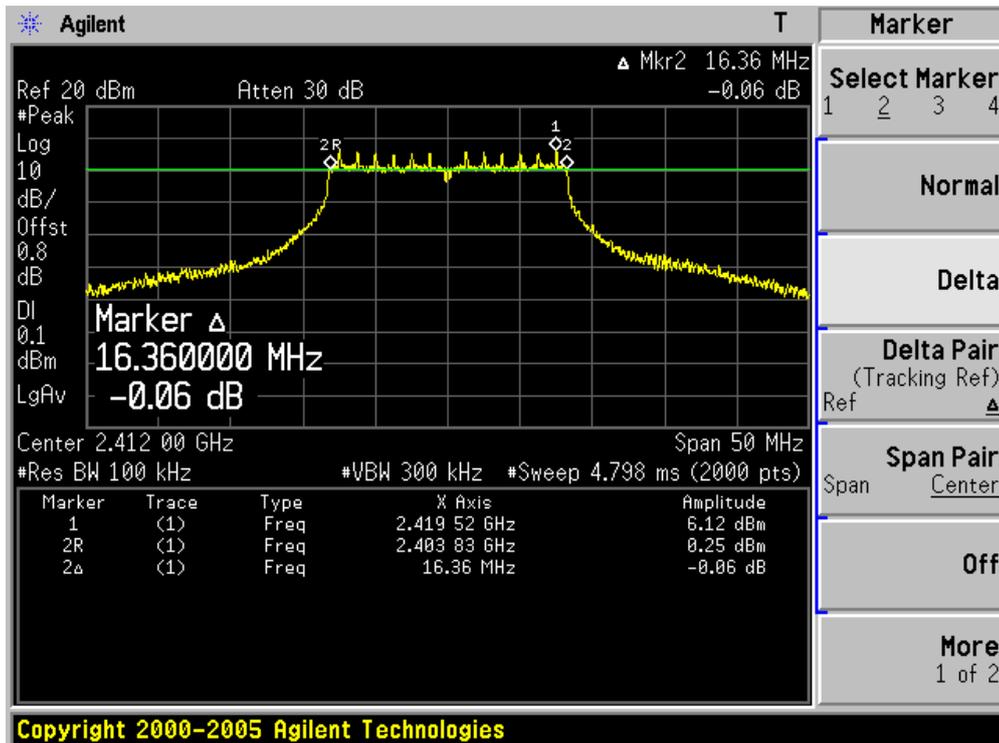
Channel 11 (2462MHz)



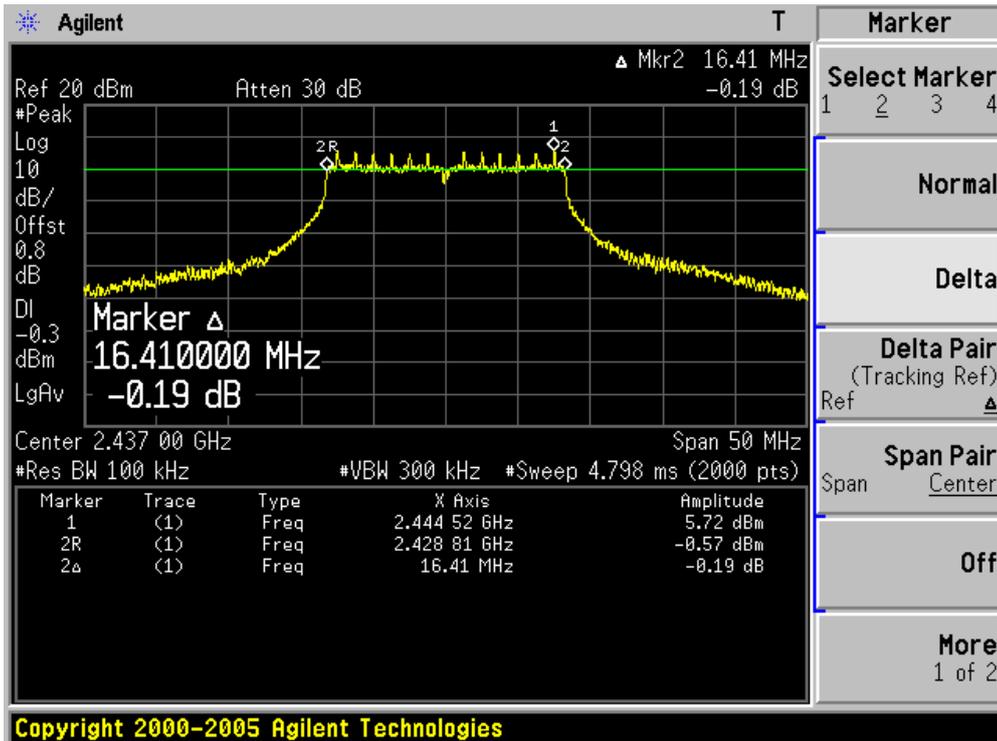
Product	:	Eee PC
Test Item	:	6dB Occupied Bandwidth
Test Mode	:	Mode 2: Transmit by 802.11g

Channel No.	Frequency (MHz)	Occupied Bandwidth (kHz)	Limit (kHz)	Result
01	2412	16360	500	Pass
06	2437	16410	500	Pass
11	2462	16530	500	Pass

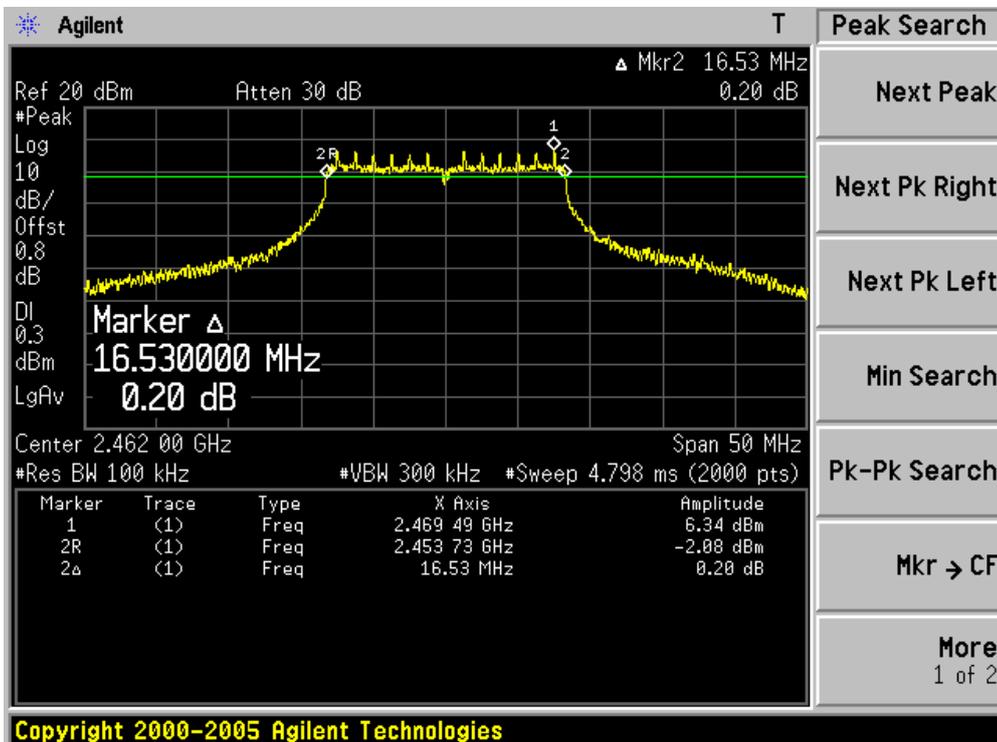
Channel 01 (2412MHz)



Channel 06 (2437MHz)



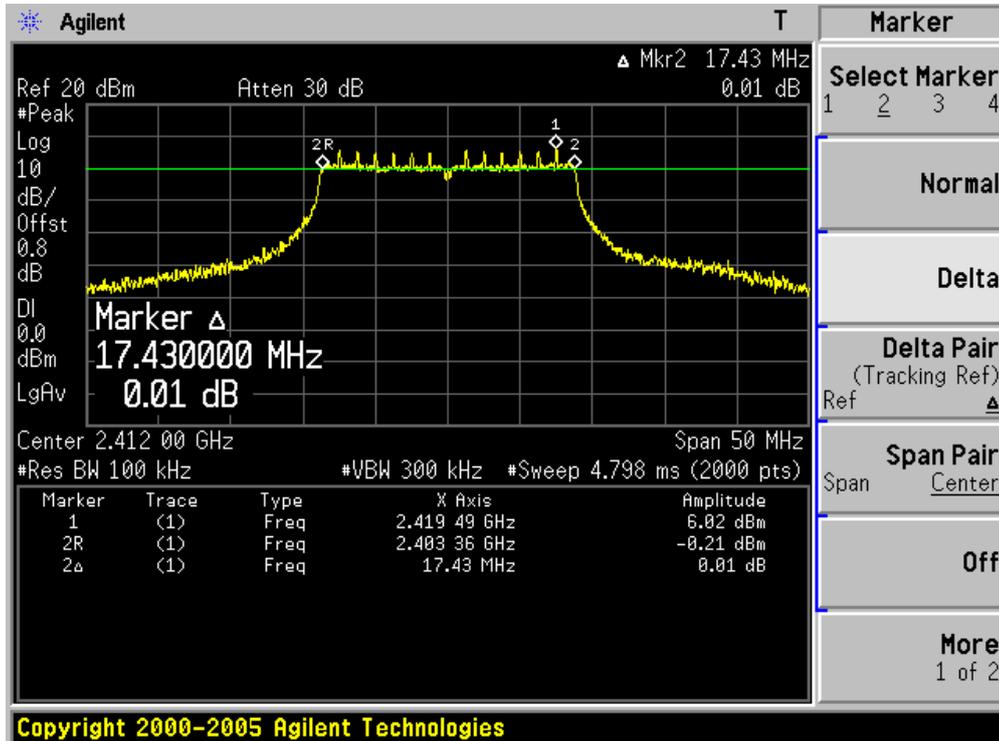
Channel 11 (2462MHz)



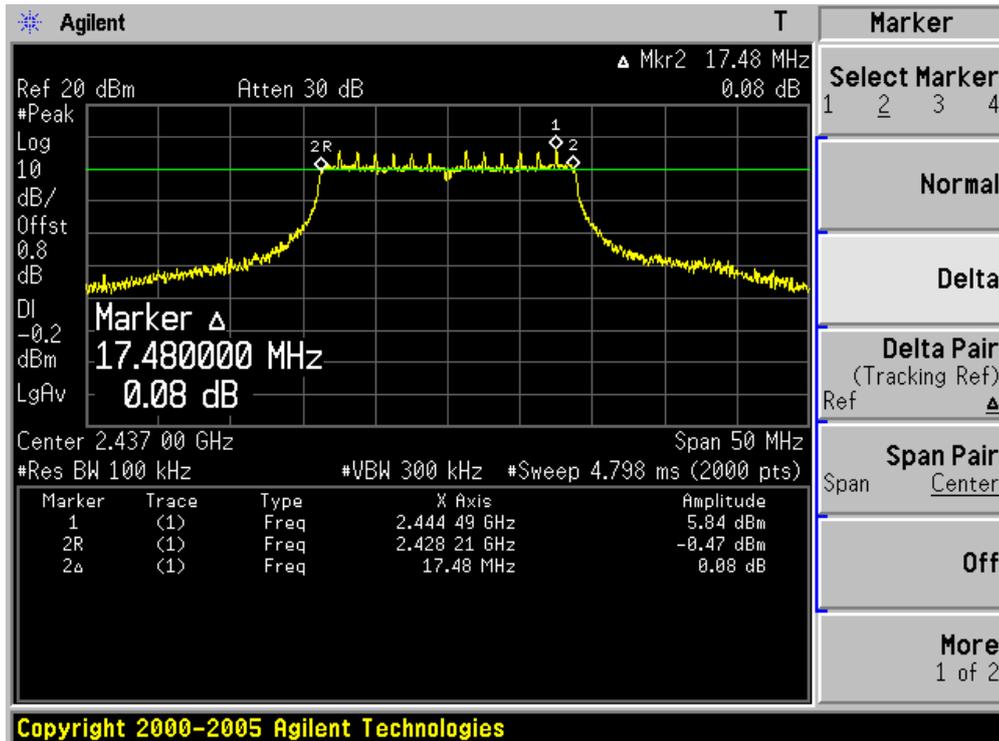
Product	:	Eee PC
Test Item	:	6dB Occupied Bandwidth
Test Mode	:	Mode 3: Transmit by 802.11n (20MHz)

Channel No.	Frequency (MHz)	Occupied Bandwidth (kHz)	Limit (kHz)	Result
01	2412	17430	500	Pass
06	2437	17480	500	Pass
11	2462	17480	500	Pass

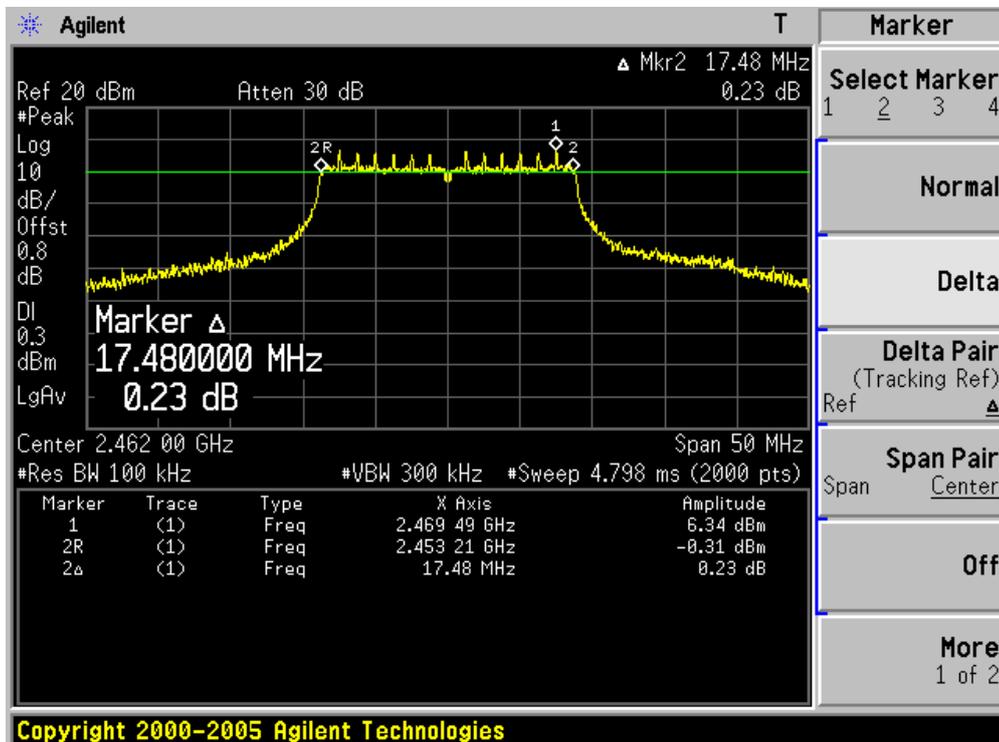
Channel 01 (2412MHz)



Channel 06 (2437MHz)



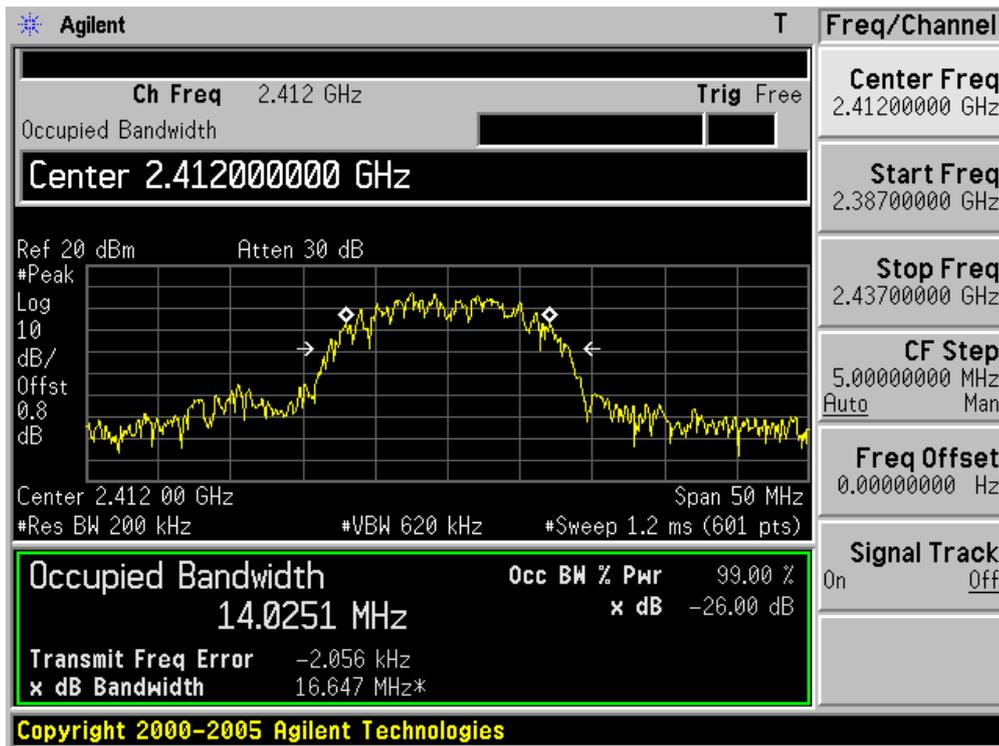
Channel 11 (2462MHz)



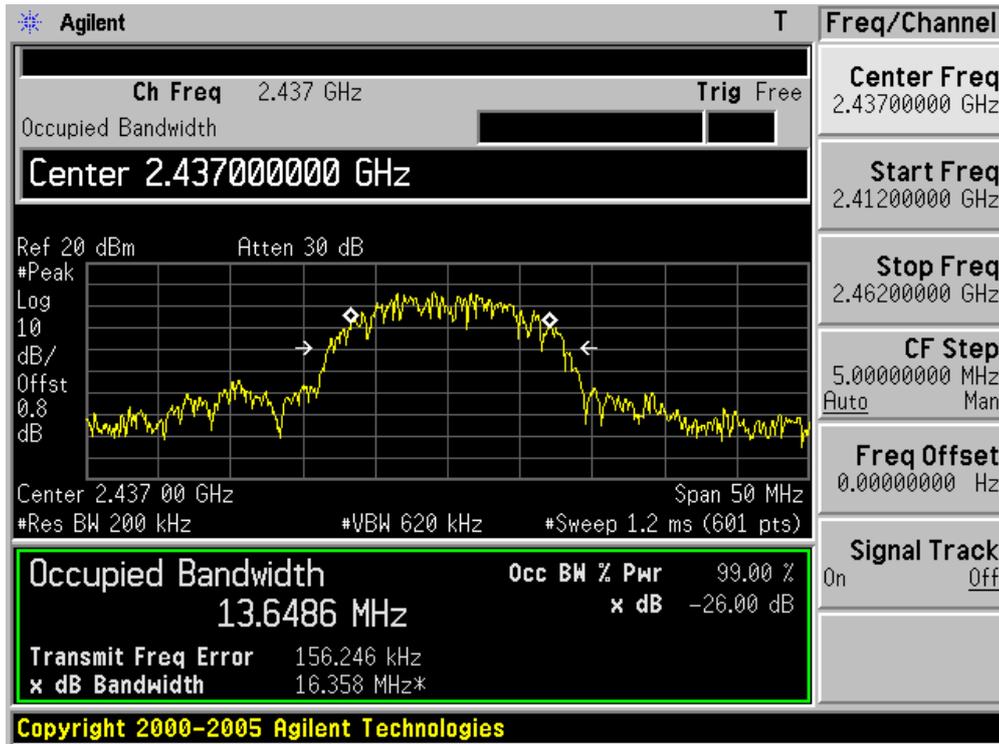
Product	:	Eee PC
Test Item	:	99% Occupied Bandwidth
Test Site	:	AC-6
Test Mode	:	Mode 1: Transmit by 802.11b

Channel No.	Frequency (MHz)	99% Occupied Bandwidth (kHz)	Result
01	2412	14025.1	Pass
06	2437	13648.6	Pass
11	2462	13910.3	Pass

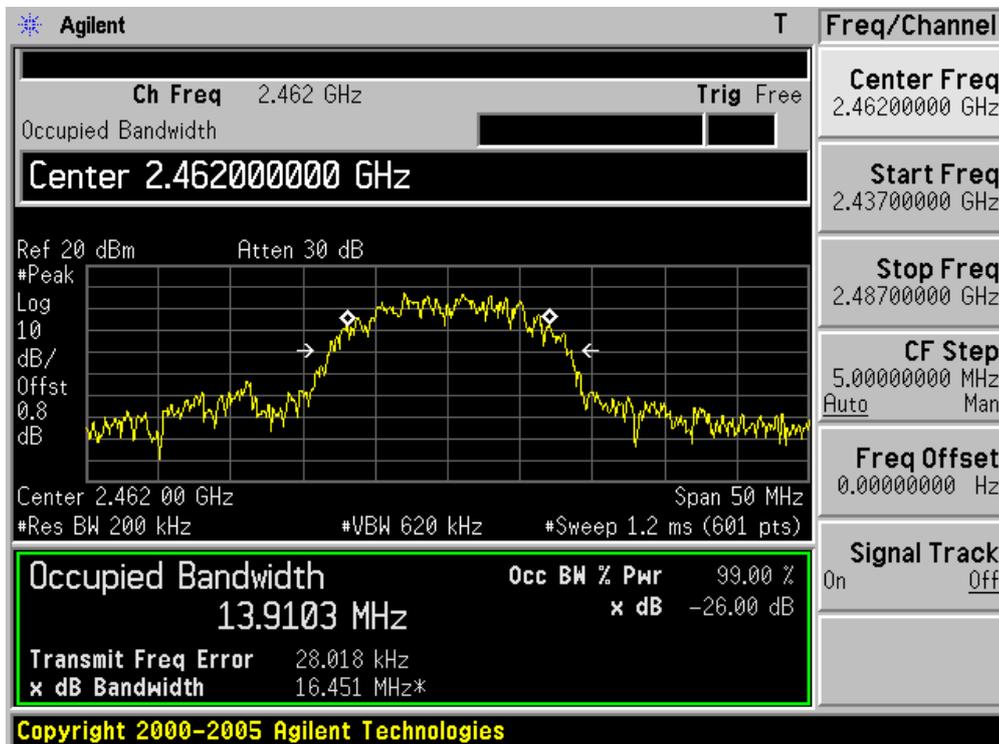
Channel 01 (2412MHz)



Channel 06 (2437MHz)



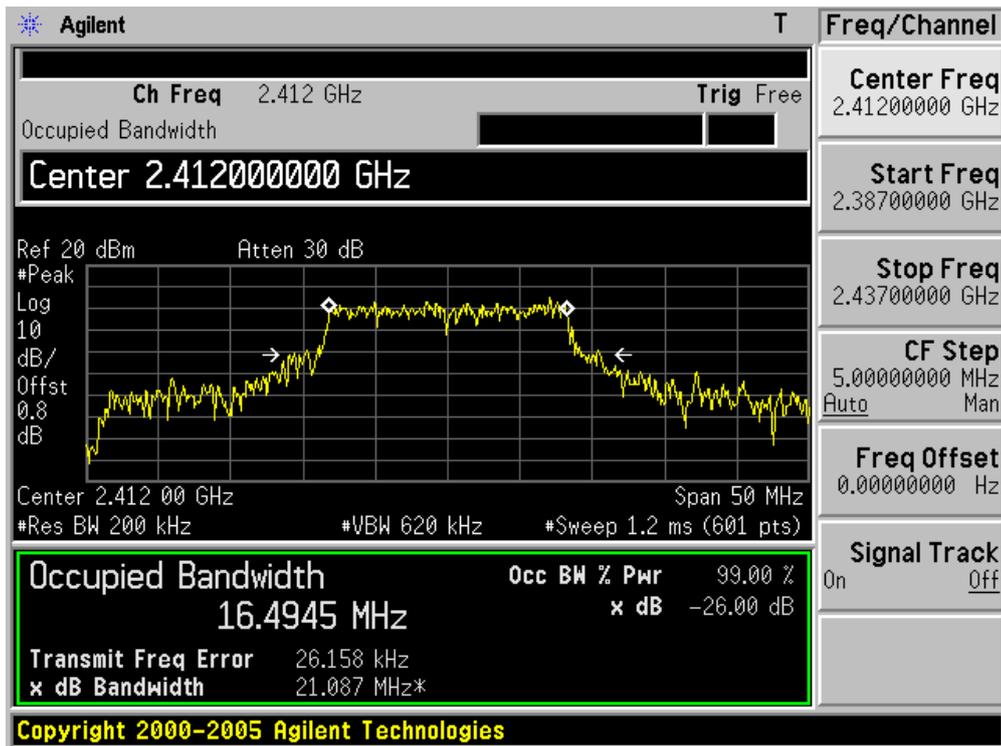
Channel 11 (2462MHz)



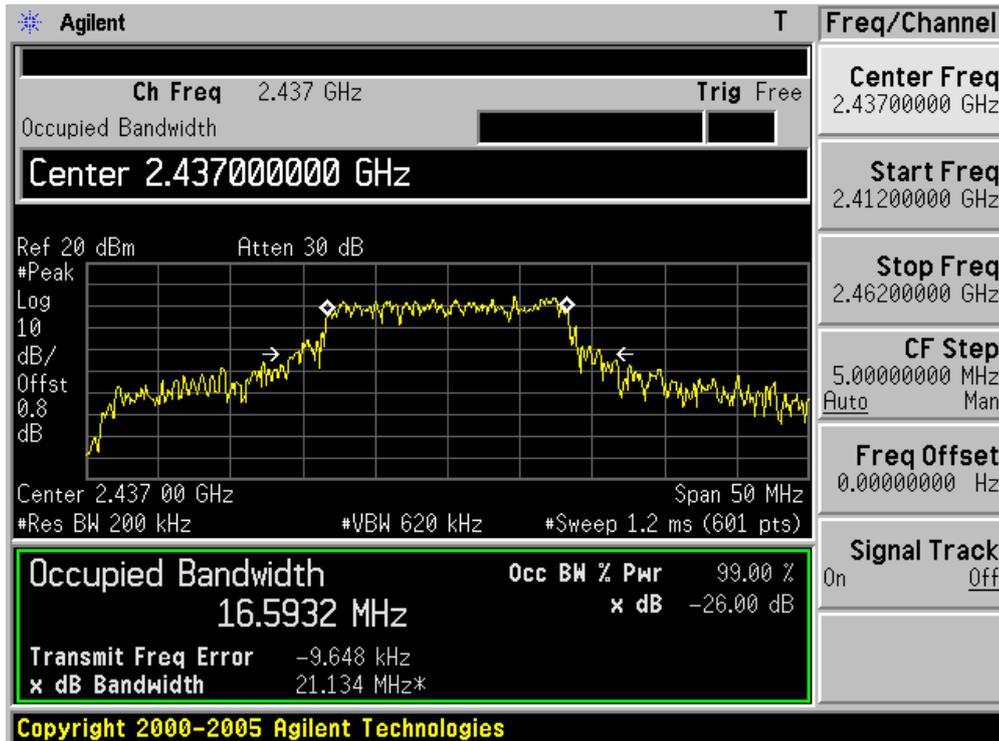
Product	:	Eee PC
Test Item	:	99% Occupied Bandwidth
Test Site	:	AC-6
Test Mode	:	Mode 2: Transmit by 802.11g

Channel No.	Frequency (MHz)	99% Occupied Bandwidth (kHz)	Result
01	2412	16494.5	Pass
06	2437	16593.2	Pass
11	2462	16695.6	Pass

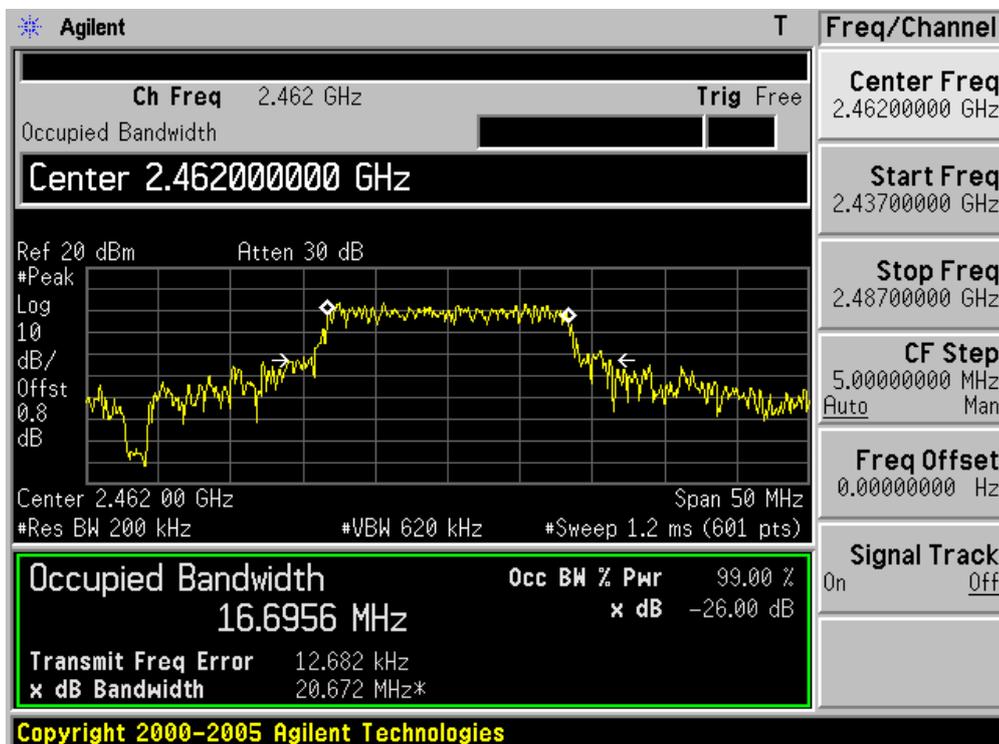
Channel 01 (2412MHz)



Channel 06 (2437MHz)



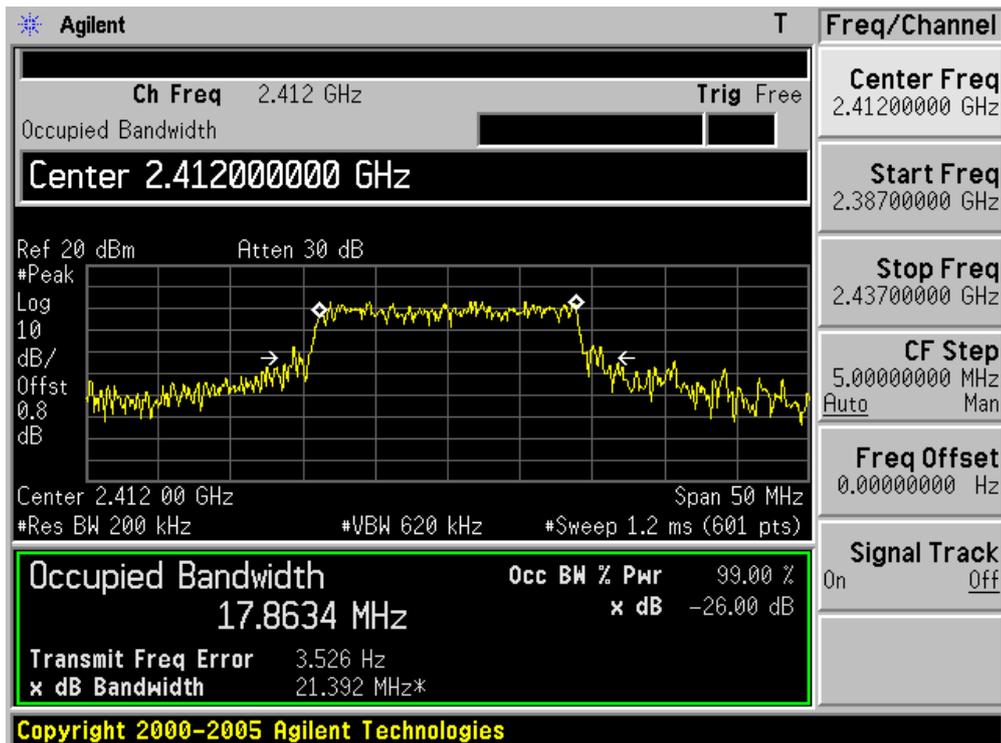
Channel 11 (2462MHz)



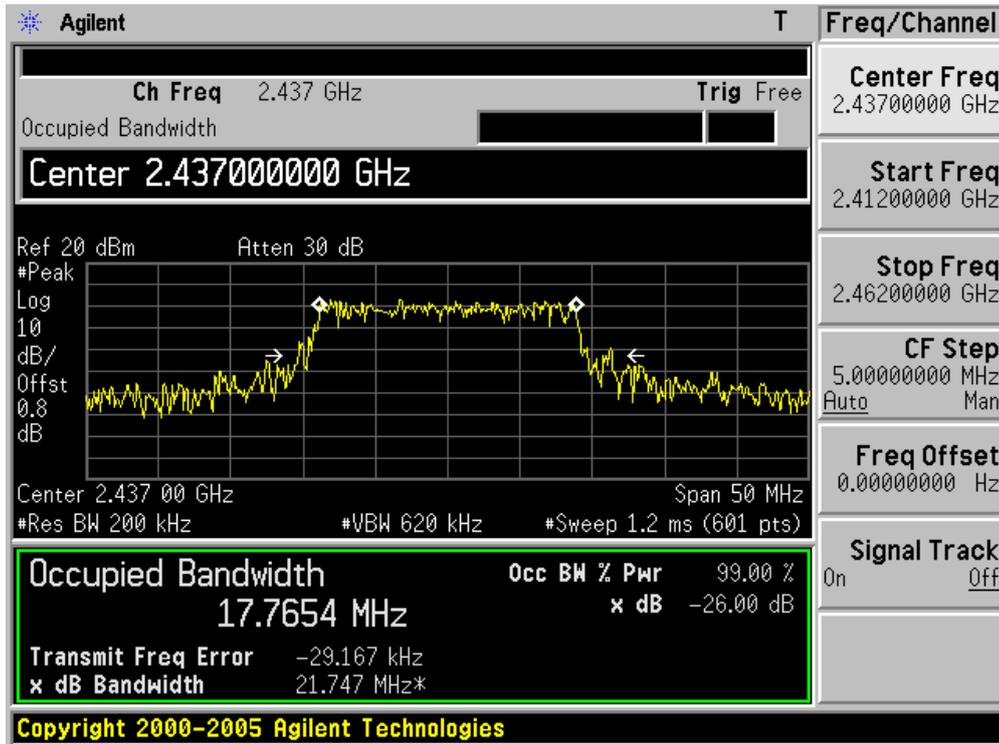
Product	:	Eee PC
Test Item	:	99% Occupied Bandwidth
Test Site	:	AC-6
Test Mode	:	Mode 3: Transmit by 802.11n (20MHz)

Channel No.	Frequency (MHz)	99% Occupied Bandwidth (kHz)	Result
01	2412	17863.4	Pass
06	2437	17765.4	Pass
11	2462	17789.0	Pass

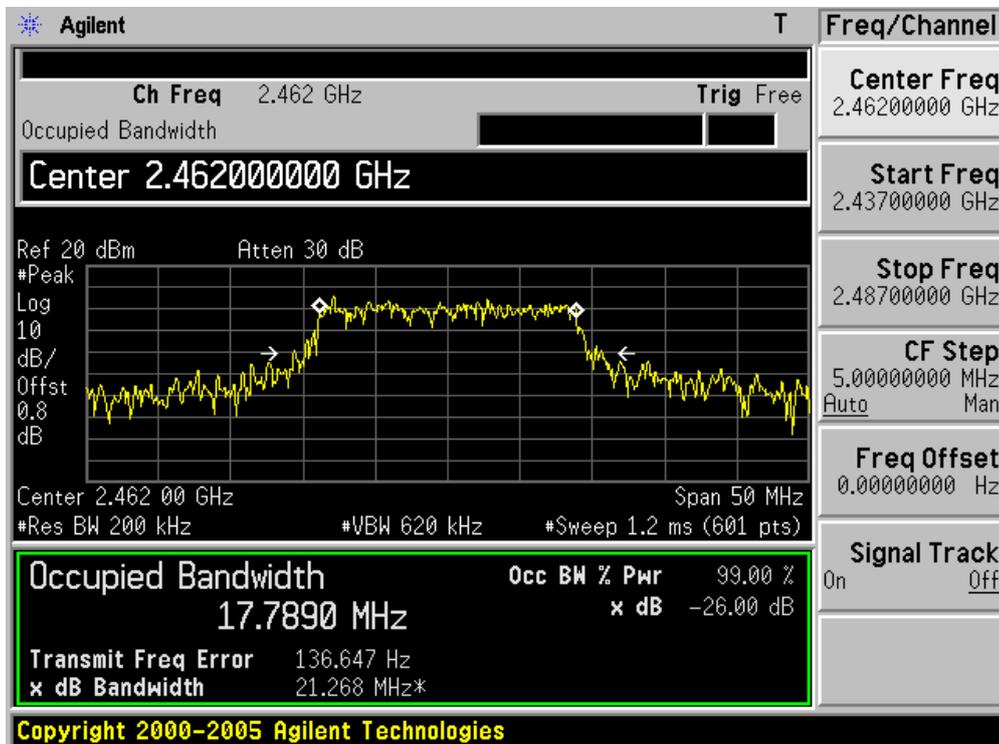
Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)



9. Power Output

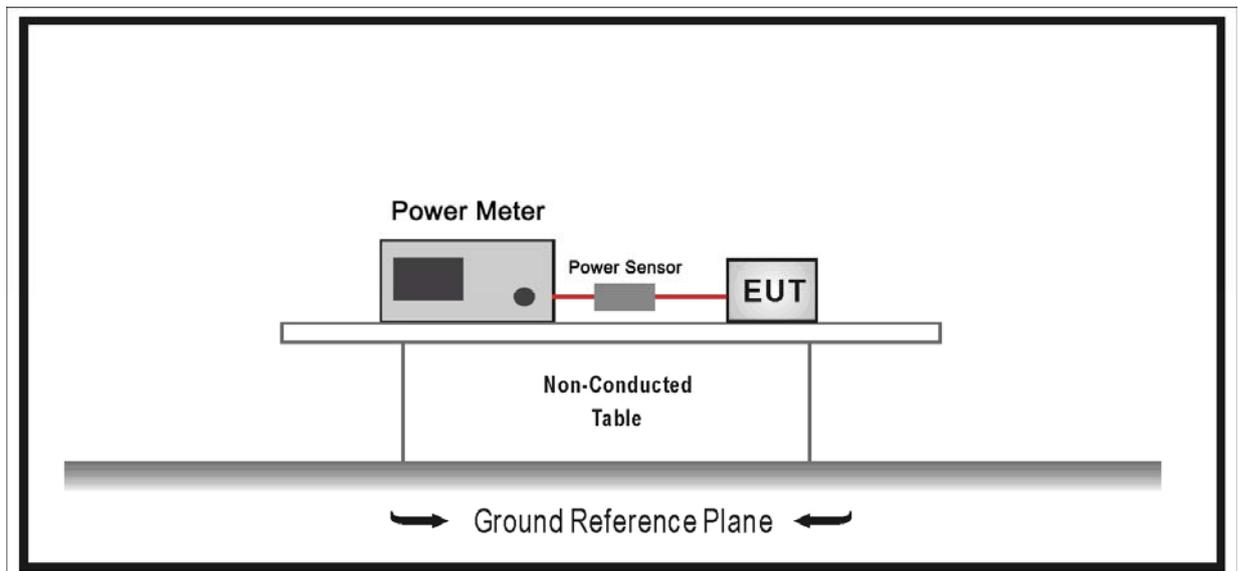
9.1. Test Equipment

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	
				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	19.58			
			2	19.52			
			5.5	19.36			
			11	19.11			
802.11g	2437	6	6	24.47			
			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	24.58
						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	19.50	30	Pass
	06	2437	19.58	30	Pass
	11	2462	19.79	30	Pass
802.11g	01	2412	24.39	30	Pass
	06	2437	24.47	30	Pass
	11	2462	24.58	30	Pass
802.11n(20M)	01	2412	24.22	30	Pass
	06	2437	24.58	30	Pass
	11	2462	24.92	30	Pass

10. Power Spectral Density

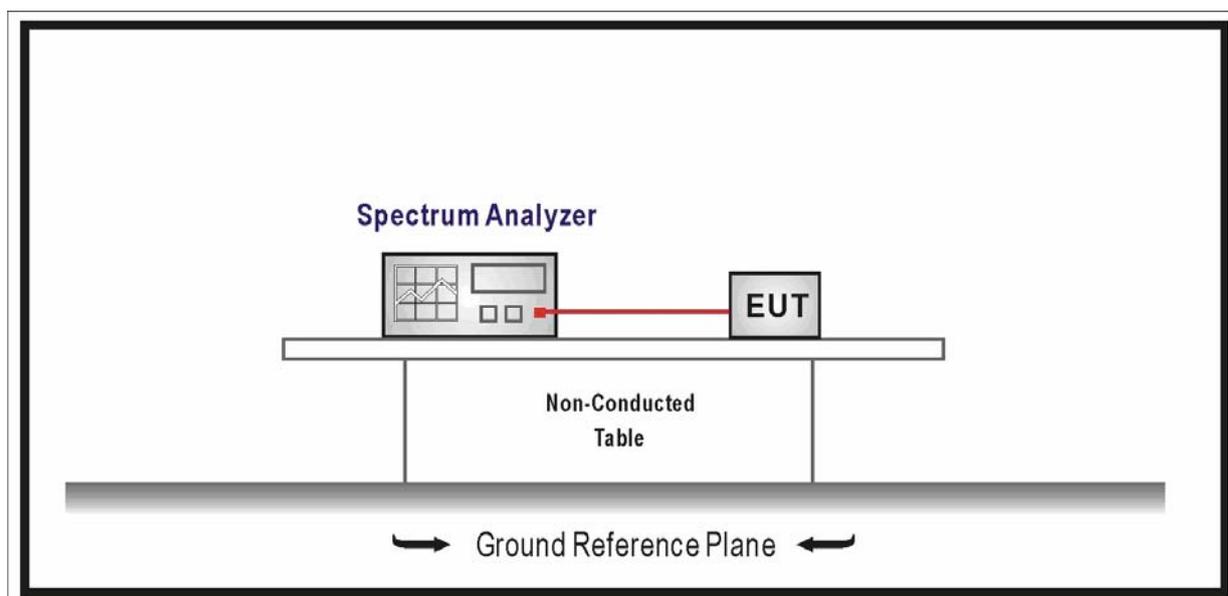
10.1. Test Equipment

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

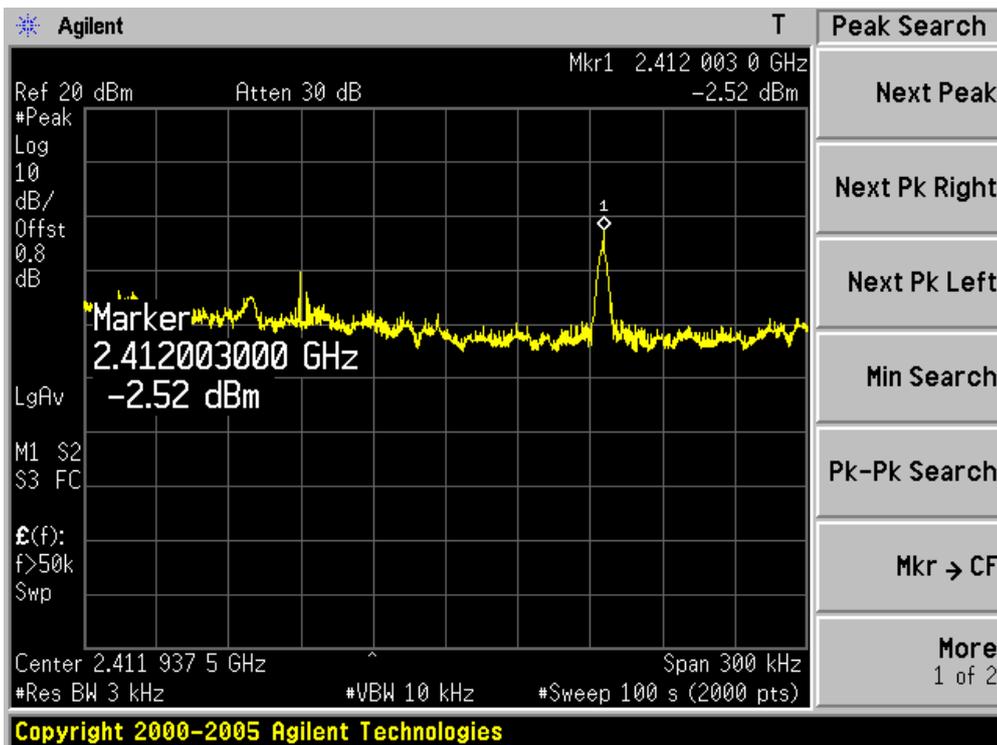
The measurement uncertainty is defined as ± 1.27 dB

10.6. Test Result

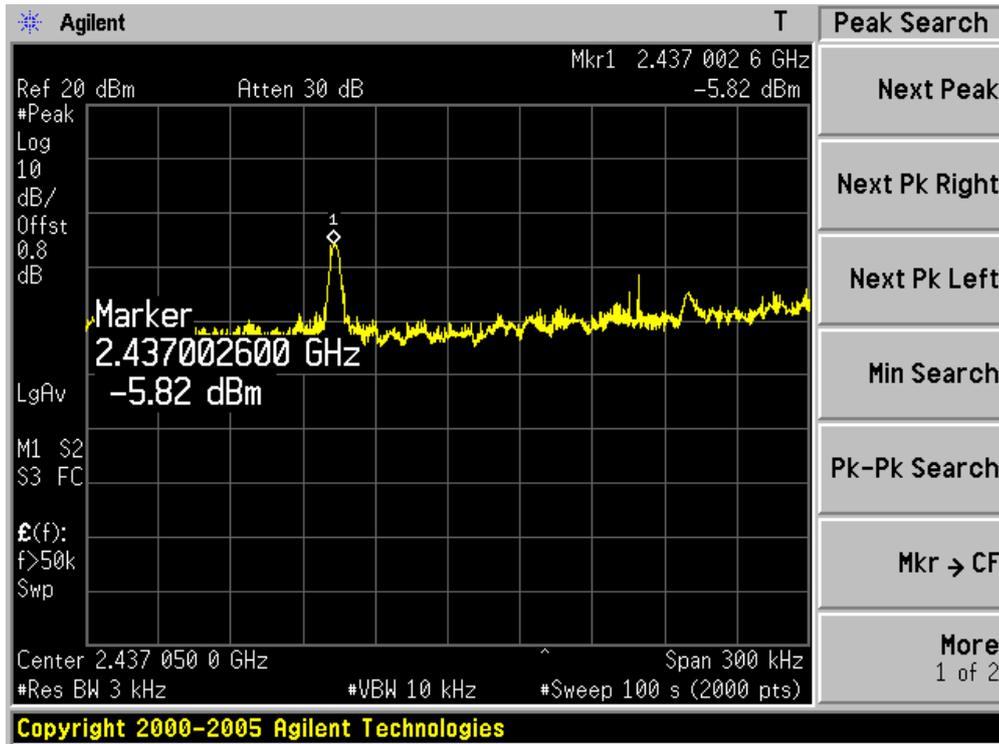
Product	:	Eee PC
Test Item	:	Power Spectral Density
Test Mode	:	Mode 1: Transmit by 802.11b

Channel No.	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm)	Result
01	2412	-2.52	8	Pass
06	2437	-5.82	8	Pass
11	2462	-1.47	8	Pass

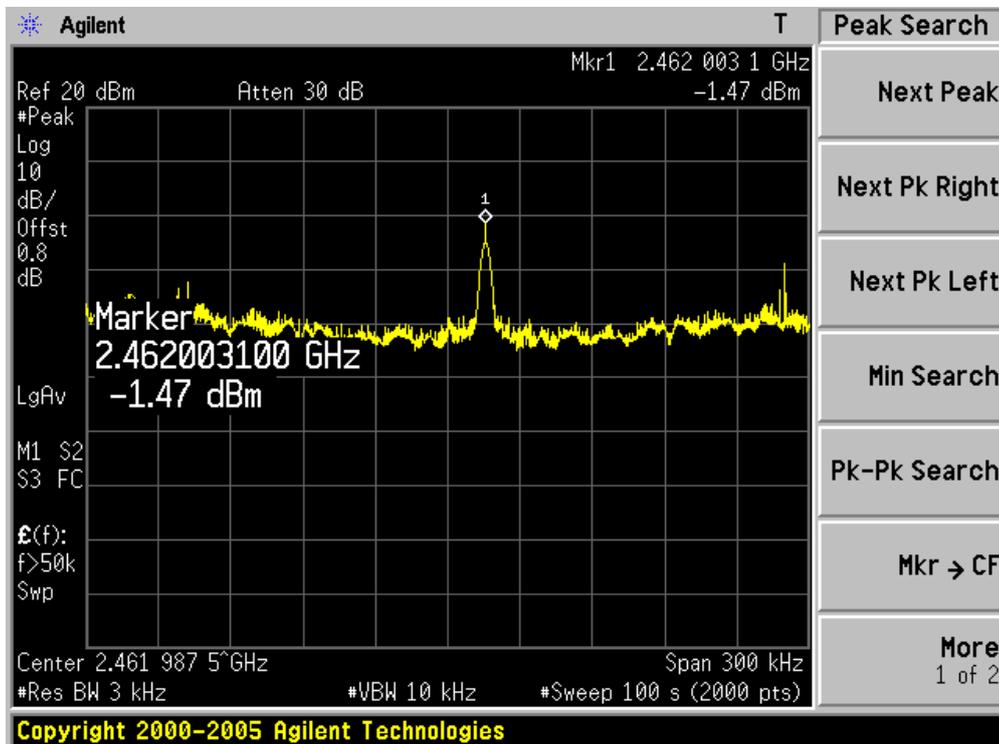
Channel 01 (2412MHz)



Channel 06 (2437MHz)



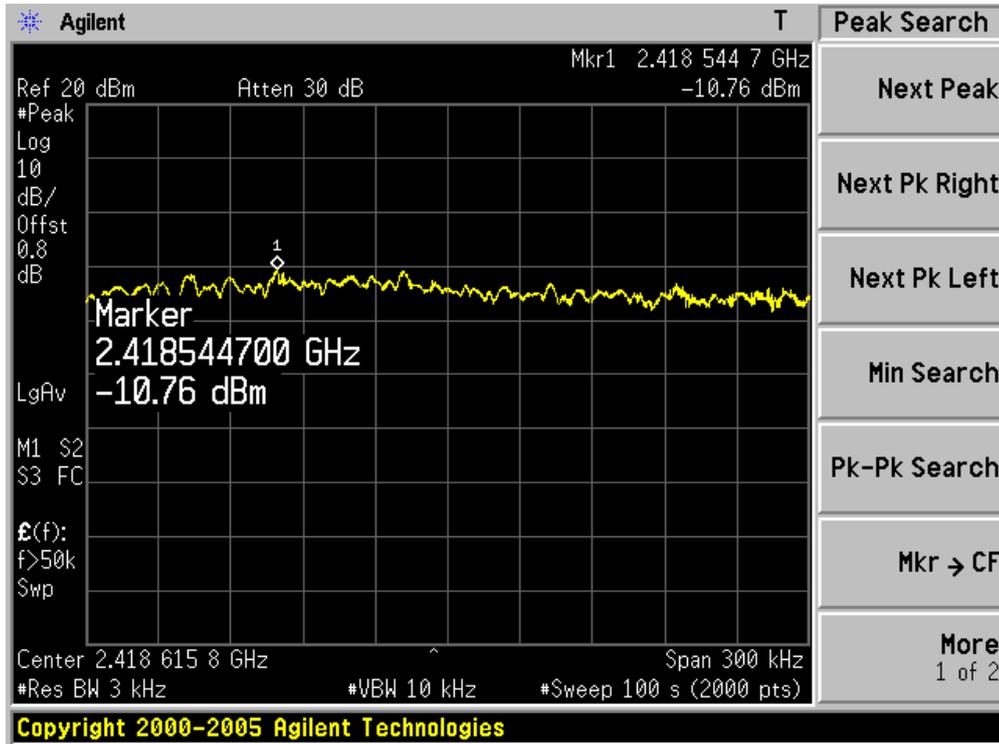
Channel 11 (2462MHz)



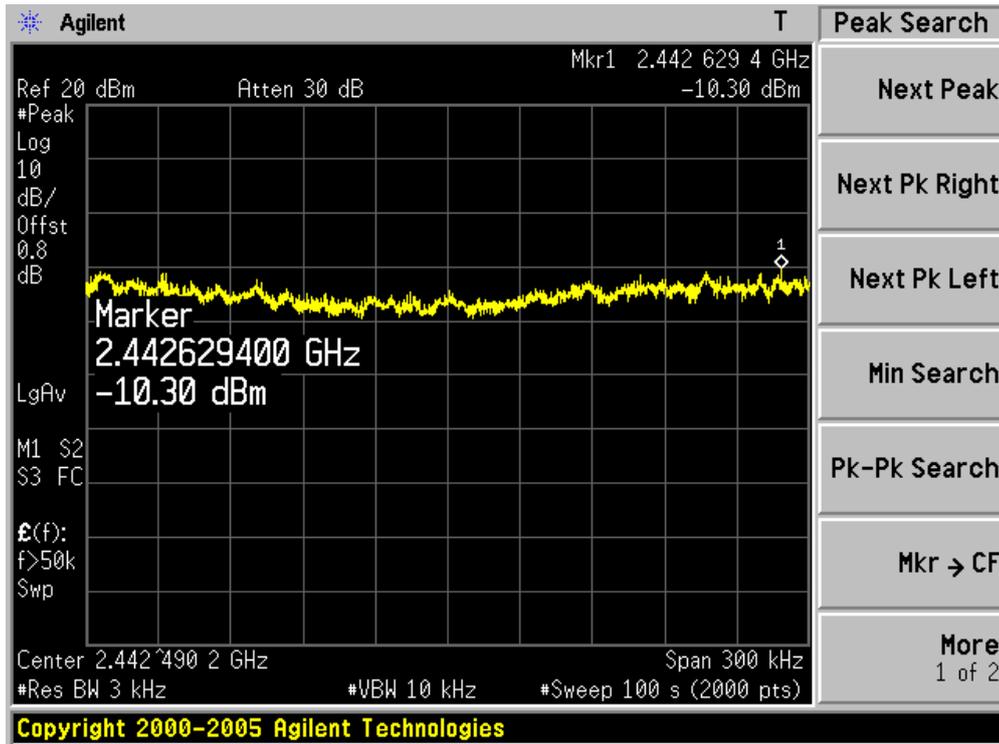
Product	:	Eee PC
Test Item	:	Power Spectral Density
Test Mode	:	Mode 2: Transmit by 802.11g

Channel No.	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm)	Result
01	2412	-10.76	8	Pass
06	2437	-10.30	8	Pass
11	2462	-9.77	8	Pass

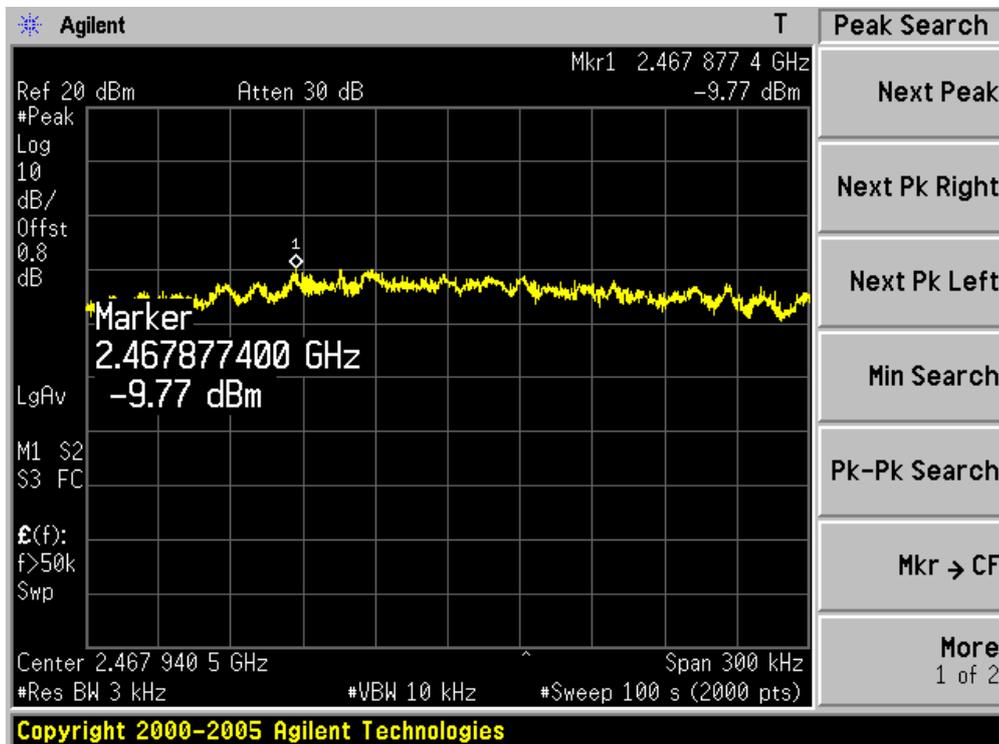
Channel 01 (2412MHz)



Channel 06 (2437MHz)



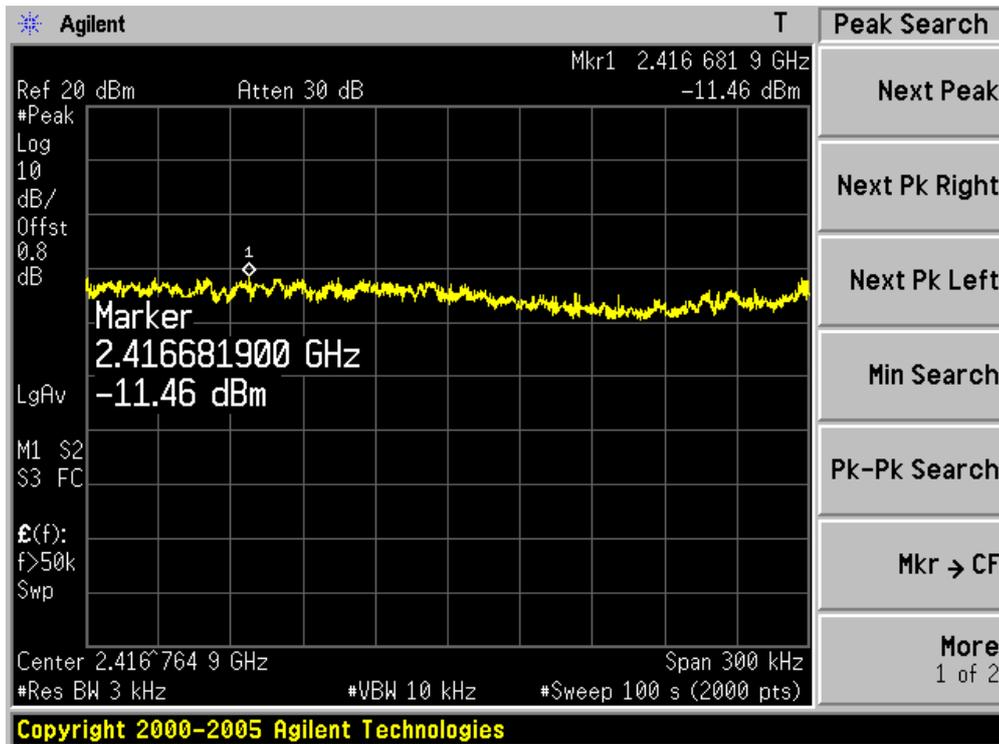
Channel 11 (2462MHz)



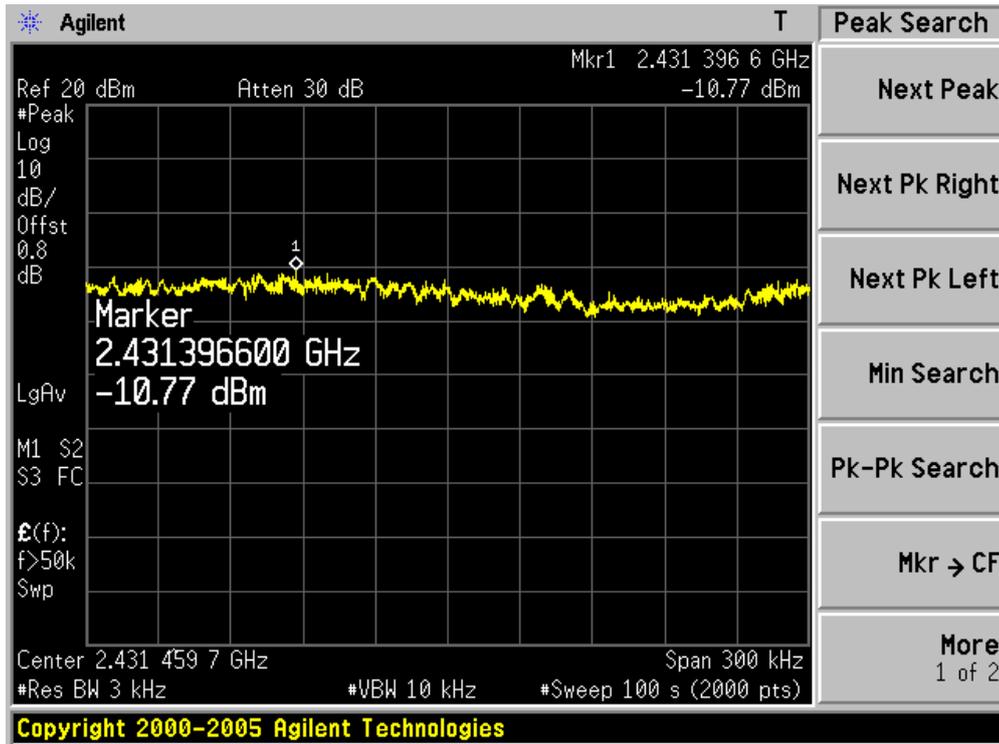
Product	:	Eee PC
Test Item	:	Power Spectral Density
Test Mode	:	Mode 3: Transmit by 802.11n (20MHz)

Channel No.	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm)	Result
01	2412	-11.46	8	Pass
06	2437	-10.77	8	Pass
11	2462	-11.19	8	Pass

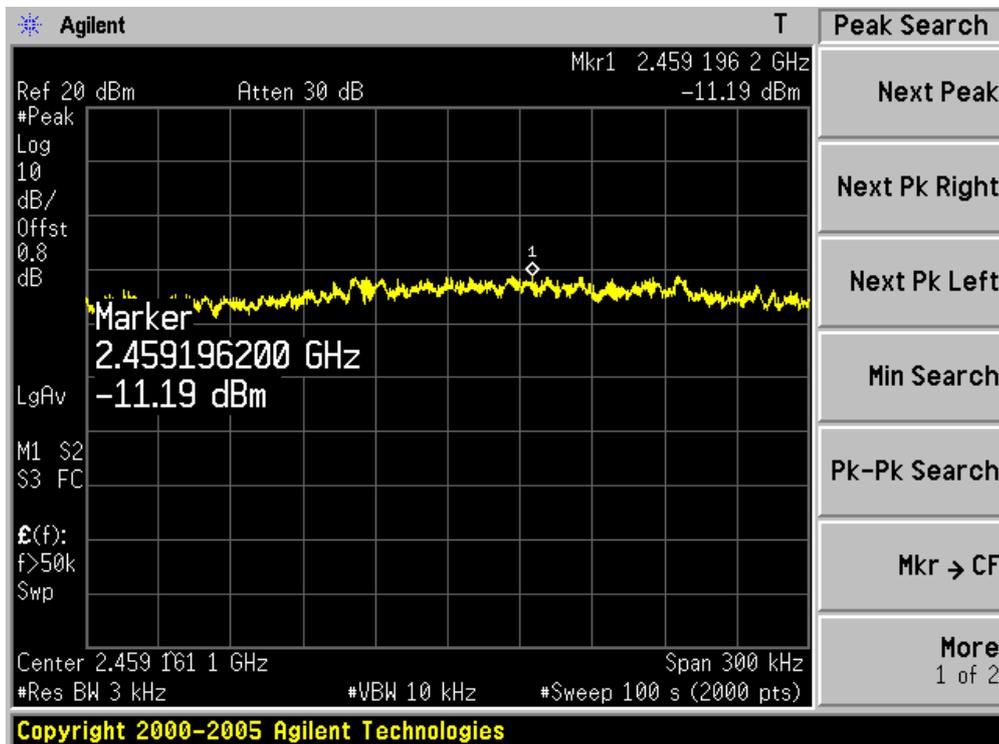
Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)



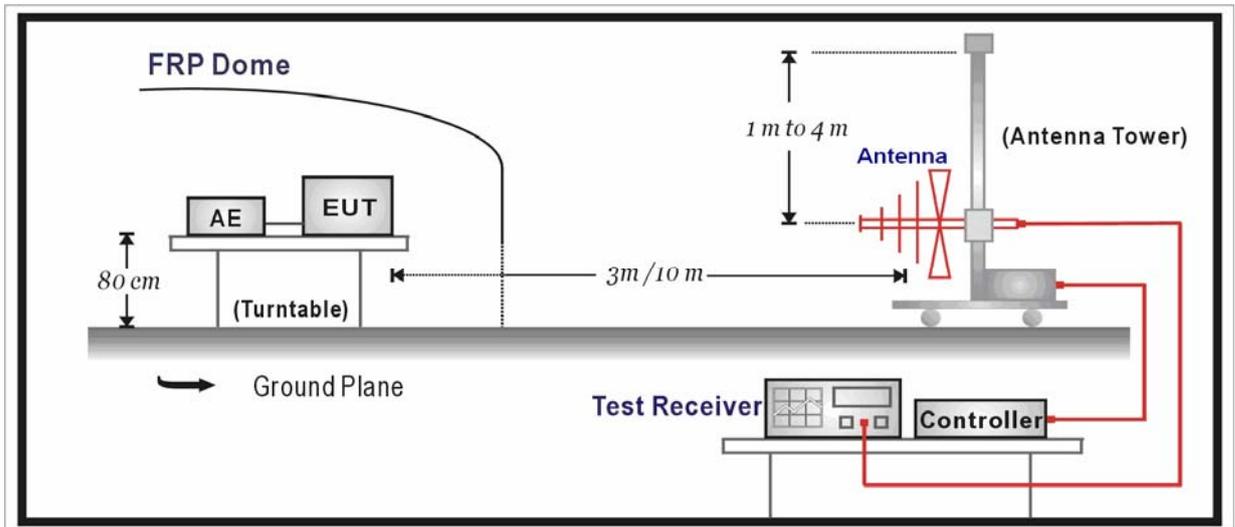
11. Receiver Spurious Emission for RSS-GEN

11.1. Test Specification

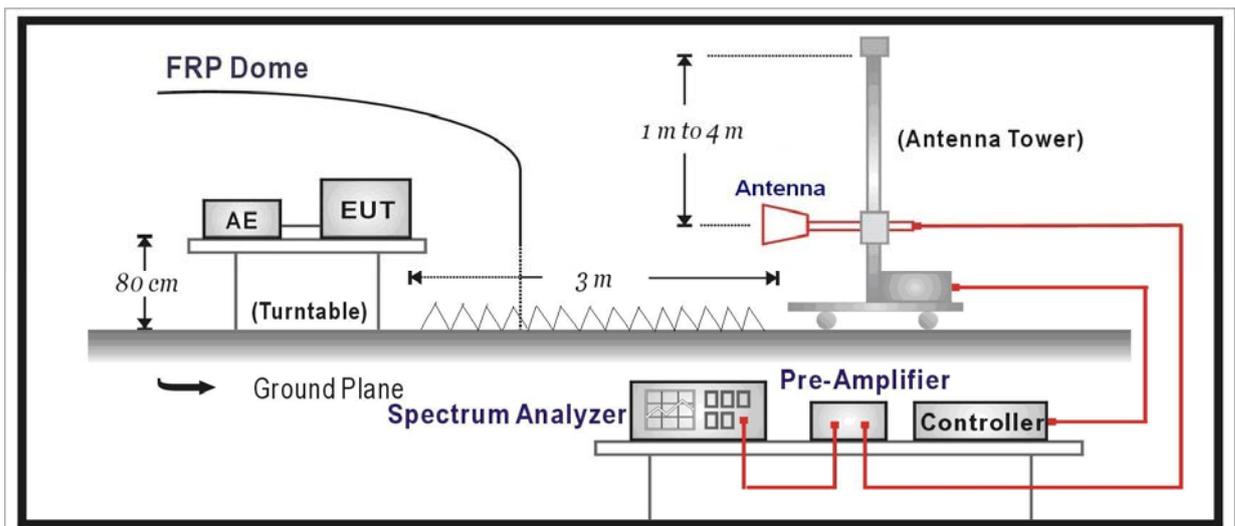
According to EMC Standard: FCC Part 15 Subpart B Class B, ANSI C63.4 or RSS-GEN

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

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated 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 3 meters for under 1GHz and above 1GHz.

For class B, the measurement distance between the EUT and antenna is 3 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	322.9	38.2	-7.4	30.8	46	-15.2	QP
	V	322.9	39.5	-7.4	32.1	46	-13.9	QP
	H	415.0	33.8	-4.5	29.3	46	-16.7	QP
	V	415.0	34.6	-4.5	30.1	46	-15.9	QP
	H	1221.5	61.7	-23.5	38.2	54(note)	-15.8	PK
	V	1221.5	59.1	-23.4	35.7	54(note)	-18.3	PK
	H	2496.0	57.9	-18.8	39.1	54(note)	-14.9	PK
	V	2496.0	59.7	-18.8	40.9	54(note)	-13.1	PK
6	H	322.9	38.2	-7.4	30.8	46	-15.2	QP
	V	322.9	39.5	-7.4	32.1	46	-13.9	QP
	H	415.0	33.8	-4.5	29.3	46	-16.7	QP
	V	415.0	34.6	-4.5	30.1	46	-15.9	QP
	H	1595.0	57.8	-22.0	35.8	54(note)	-18.2	PK
	V	1671.0	59.8	-22.0	37.8	54(note)	-16.2	PK
	H	2496.0	57.9	-18.8	39.1	54(note)	-14.9	PK
	V	2496.0	59.7	-18.8	40.9	54(note)	-13.1	PK
11	H	322.9	38.2	-7.4	30.8	46	-15.2	QP
	V	322.9	39.5	-7.4	32.1	46	-13.9	QP
	H	415.0	33.8	-4.5	29.3	46	-16.7	QP
	V	415.0	34.6	-4.5	30.1	46	-15.9	QP
	H	1221.5	61.7	-23.5	38.2	54(note)	-15.8	PK
	V	1221.5	59.1	-23.4	35.7	54(note)	-18.3	PK
	H	1595.0	57.8	-22.0	35.8	54(note)	-18.2	PK
	V	1671.0	59.8	-22.0	37.8	54(note)	-16.2	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.