FCC Part15 Subpart C Test Report

Product Name	:	Eee PC
Model No.	:	Eee PC 900AX
FCC ID	:	MSQE09NE762

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

Date of Receipt	:	Mar. 23, 2010
Test Date	:	Mar. 23, 2010 ~ Mar. 29, 2010
Issued Date	:	Mar. 29, 2010
Report No.	:	103S075R-RF-US-P05V01
Report Version	:	V1.0

Test Report Certification

Issued Date : Mar. 29, 2010
Report No. : 103S075R-RF-US-P05V01

QuieTek

Product Name	:	Eee PC
Applicant	:	ASUSTEK COMPUTER INC.
Address	:	NO.150, Li-Te Rd., Peitou, Taipei, Taiwan, R. O. C
Manufacturer	:	PROTEK (Shanghai) Limited
Address	:	NO.3768 Xiu Yan Rd.Kang Qiao Town, PuDong Dist, Shang Hai
Model No.	:	Eee PC 900AX
FCC ID	:	MSQE09NE762
EUT Voltage	:	9.5Vdc
Trade Name	:	ASUS
Applicable Standard	:	FCC CFR Title 47 Part 15 Subpart C: 2008 ANSI C63.4: 2003
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

NVLAP Lab Code : 200347-0

Testing Laboratory 1313

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

NVLAP Lab Code: 200533-0

Testing Laboratory 0914

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

NVLAP Lab Code : 200743-0

Testing Laboratory 1596

TABLE OF CONTENTS

Description Page

1. General Information

1.1. EUT Description

Product Name	Eee PC
Trade Name	ASUS
Model No.	Eee PC 900AX
9.5Vdc	9.5Vdc
Frequency Range	802.11b/g/n(20MHz): 2412~2462MHz 802.11n(40MHz): 2422~2452MHz
Channel Number	802.11b/g/n(20MHz): 11 802.11n(40MHz): 7
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 + 1*Rx
Antenna Type	PIFA Antenna for WLAN 802.11a/b/g application
Antenna Gain	2.37dBi for 2.4GHz band
AC Adapter	Manufacturer: PI ELECTRONICS (China Plant) M/N: AD59930 Input: 100-240V~50/60Hz 680mA Output: 9.5Vdc, 2.5A

For 2.4GHz Band

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
802.11n(40MHz) Working Frequency of Each Channel:							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
03	2422 MHz	04	2427 MHz	05	2432 MHz	06	2437 MHz
07	2442 MHz	08	2447 MHz	09	2452 MHz	N/A	N/A

For 802.11b/g/n Antenna List

Antenna	Manufacturer	Model No.	Antenna Gain(dBi)
PIFA Antenna	ACON	APP6P-700190	2.37dBi for 2.4GHz Band
PIFA Antenna	INPAQ	14G15B007000	1.05dBi for 2.4GHz Band

Note: ACON antenna was used for testing.

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: Transmit by 802.11n (40MHz)

Note:

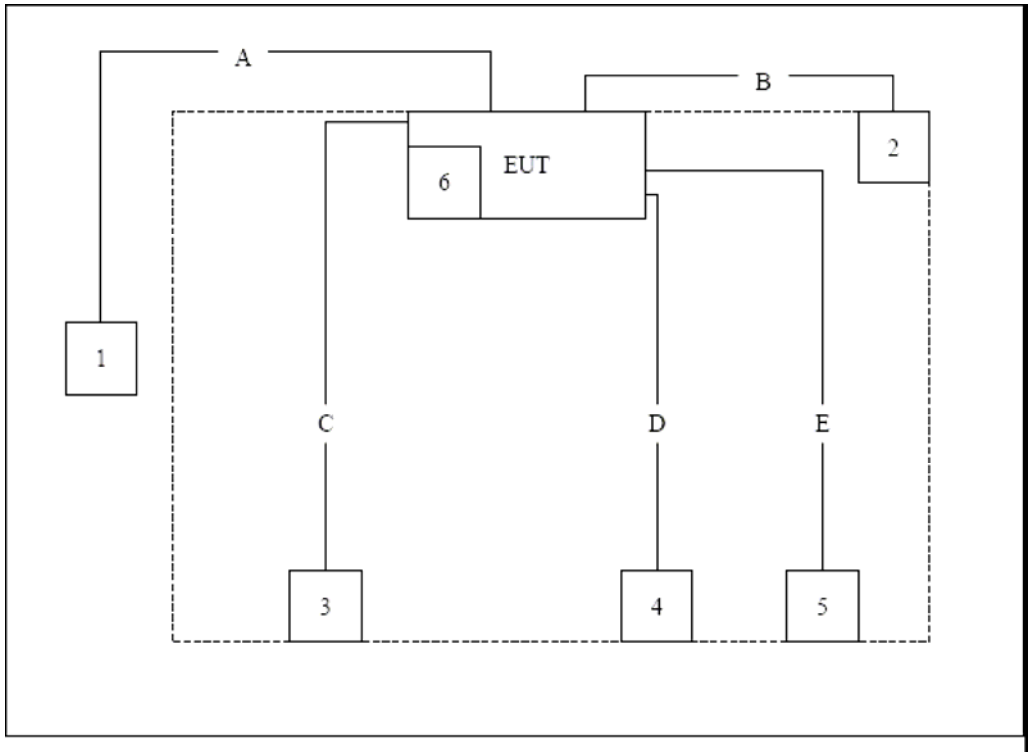
1. Regards to the frequency band operation: the lowest、middle and highest frequency of channel were selected to perform the test, then shown on this report.
2. This device is a composite device in accordance with Part 15 Subpart B regulations. The function for the receiver was measured and made a test report that the report number is 103S075R-RF-US-P02V01.

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	Notebook	DELL	PP19L	JH097 A01	Power by adapter
2	LCD Monitor	Lenovo	L2240pwD	9M0337992301042	Non-Shielded, 1.8m
3	USB Mouse	DELL	MO56UOA	GOQ024HJ	Power by PC
4	iPod	Apple	A1199	6U715UY9VQ5	Power by PC
5	Microphone & Earphone	SOMIC	SM-510	N/A	N/A
6	SD Card	Kingston	1GB	N/A	N/A

1.4. Configuration of Tested System

Connection Diagram


Signal Cable Type		Signal cable Description
A	LAN Cable	Non-Shielded, >10m
B	VGA Cable	Shielded, 1.8m, with two ferrite core bonded
C	Dell USB Mouse Cable	Shielded, 1.8m
D	Ipod Cable	Shielded, 1.0m
E	Earphone & Microphone Cable	Non-Shielded, 2.4m

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 “RauI” 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

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

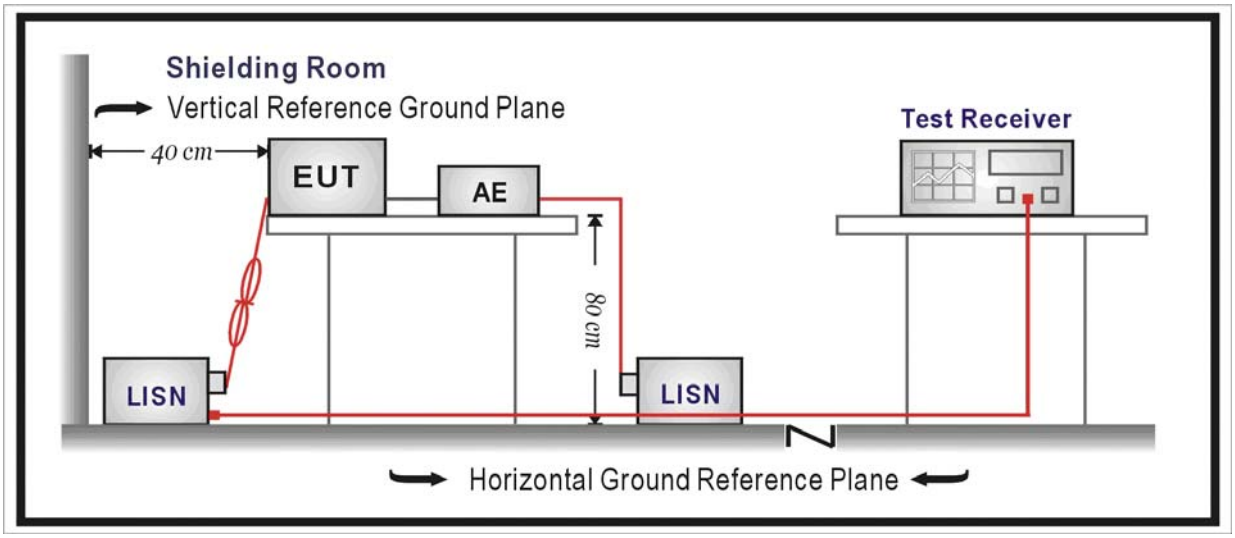
3.1. Test Equipment

Conducted Emission / SR-1

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
EMI Test Receiver	R&S	ESCI	100726	2009/04/23
Two-Line V-Network	R&S	ENV216	100013	2009/06/11
Two-Line V-Network	R&S	ENV216	100014	2009/04/23
50ohm Coaxial Switch	Anritsu	MP59B	6200464462	2009/05/25
50ohm Termination	SHX	TF2	07081401	2009/09/29
Temperature/Humidity Meter	zhicheng	ZC1-2	SR1-TH	2010/01/14

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

3.2. Test Setup



3.3. Limit

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

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

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

3.4. Test Procedure

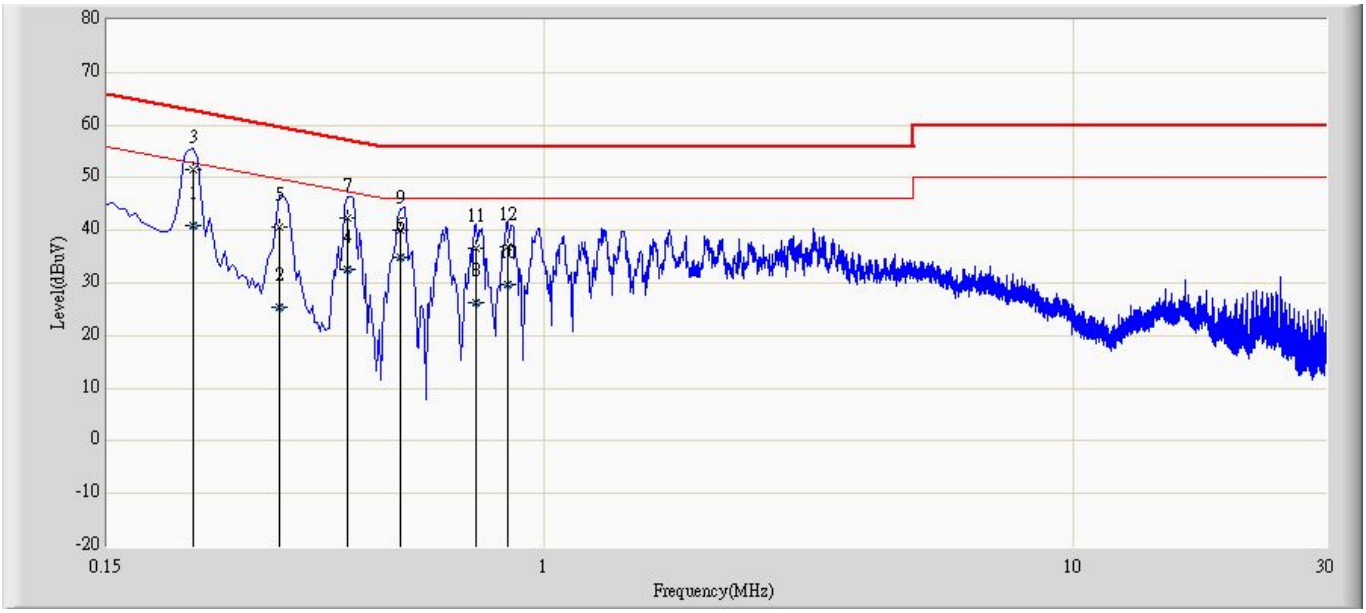
The EUT was setup according to ANSI C63.4, 2003 and tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.
The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)
Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.
The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.
Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

3.5. Uncertainty

The measurement uncertainty is defined as ± 2.02 dB

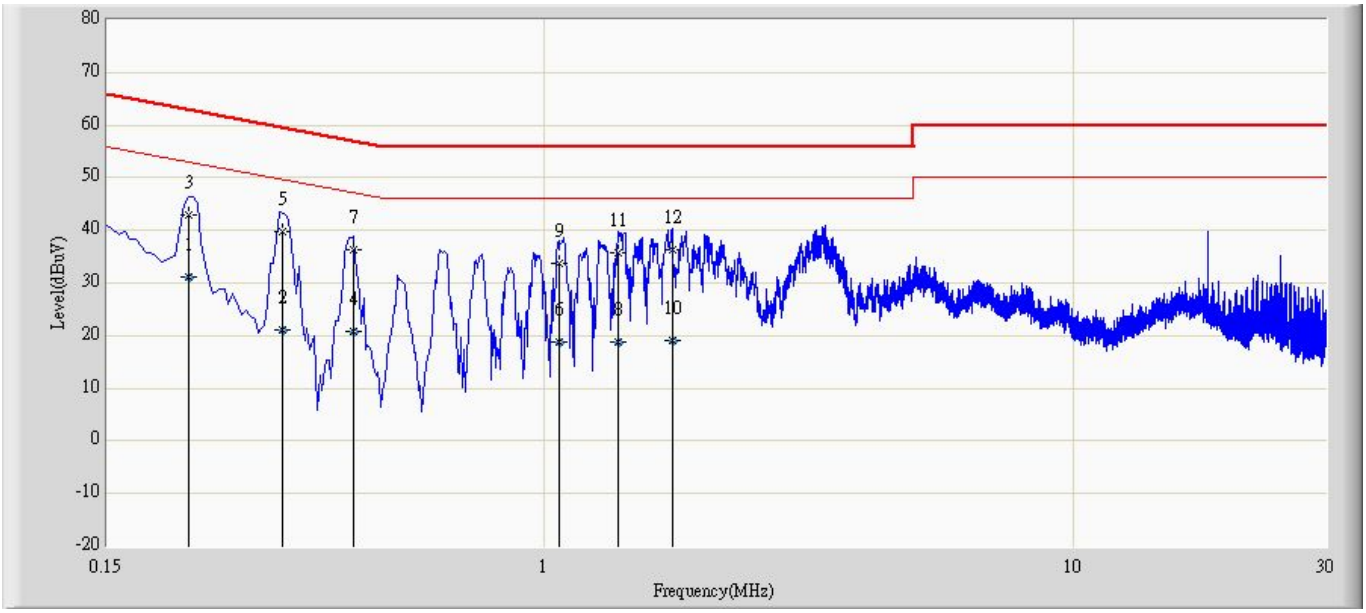
3.6. Test Result

Profile: 103S075R	Page No.: 1
Engineer: Ken	
Site: SR1	Time: 2010/03/26 - 06:12
Limit: FCC_Part15.107_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	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor	Type
1	0.218	40.878	31.198	-12.017	53	9.679	AV
2	0.318	25.429	15.749	-24.33	10	9.680	AV
3	0.218	51.460	41.781	-11.435	63	9.679	QP
4	0.426	32.694	23.004	-14.636	10	9.690	AV
5	0.318	40.726	31.046	-19.033	60	9.680	QP
6	0.538	34.858	25.168	-11.142	46	9.690	AV
7	0.426	42.451	32.761	-14.879	57	9.690	QP
8	0.746	26.255	16.568	-19.745	46	9.687	AV
9	0.538	40.106	30.416	-15.894	10	9.690	QP
10	0.858	29.699	20.019	-16.301	46	9.679	AV
11	0.746	36.538	26.851	-19.462	10	9.687	QP
12	0.858	36.946	27.267	-19.054	10	9.679	QP

Profile: 103S075R	Page No.: 2
Engineer: Ken	
Site: SR1	Time: 2010/03/26 - 06:20
Limit: FCC_Part15.107_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	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor	Type
1	0.214	31.146	21.491	-21.911	53	9.655	AV
2	0.322	21.173	11.519	-28.482	50	9.654	AV
3	0.214	42.872	33.217	-20.185	63	9.655	QP
4	0.438	20.935	11.268	-26.164	47	9.668	AV
5	0.322	39.790	30.136	-19.865	60	9.654	QP
6	1.074	18.899	9.180	-27.101	46	9.719	AV
7	0.438	36.231	26.563	-20.869	57	9.668	QP
8	1.382	18.788	9.062	-27.212	46	9.726	AV
9	1.074	33.668	23.949	-22.332	56	9.719	QP
10	1.754	19.043	9.320	-26.957	46	9.722	AV
11	1.382	35.721	25.995	-20.279	56	9.726	QP
12	1.754	36.266	26.543	-19.734	56	9.722	QP

4. Radiated Emission

4.1. Test Equipment

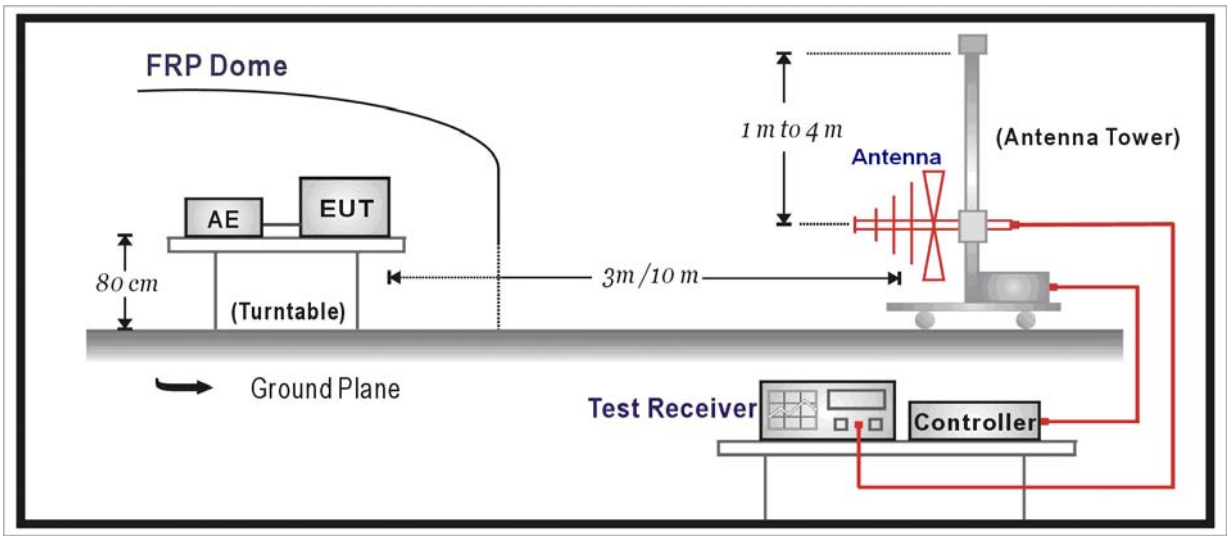
☒Radiated Emission / AC-2

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
EMI Test Receiver	R&S	ESCI	100573	2009/04/23
Spectrum Analyzer	Agilent	N9010A	MY48030494	2009/04/23
Preamplifier	QuieTek	AP-180C	CHM-0602013	2009/05/25
Preamplifier	QuieTek	AP-040G	CHM-0906001	2009/06/18
Bilog Type Antenna	Teseq GmbH	CBL6112D	27611	2009/11/12
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	737	2009/11/24
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2009/11/24
Temperature/Humidity Meter	zhicheng	ZC1-2	AC2-TH	2010/01/14

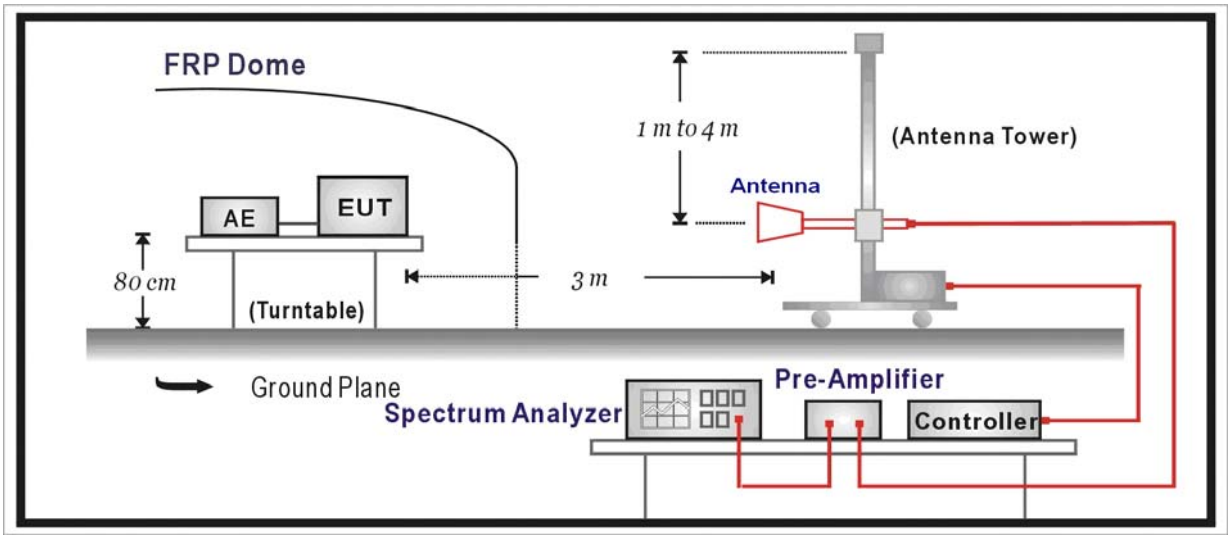
Note 1: All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

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.

802.11b

CH	Antenna	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	V	2413.1	77.1	31.1	108.2	Fundamental	/	PK
	V	193.4	20.2	15.6	35.2	43.5	-8.3	QP
	H	356.2	24.7	16.7	40.9	46	-5.1	QP
	V	3065.0	41.8	-4.5	37.4	54	-16.6	PK
	V	4825.0	40.9	-1.7	40.4	54	-13.6	PK
	H	11120.0	39.1	12.7	51.8	54	-2.2	PK
	V	24000.0	58.1	-8.9	49.2	54	-4.8	PK
6	V	2437.3	76.3	31.2	107.5	Fundamental	/	PK
	V	193.4	23.2	15.6	38.2	43.5	-5.3	QP
	H	356.2	25.8	16.7	42.4	46	-3.6	QP
	V	3065.0	48.2	-4.5	43.8	54	-10.2	PK
	V	4878.0	45.3	-1.9	43.4	54	-9.6	PK
	H	11120.0	40.2	12.7	52.9	54	-1.1	PK
	V	24000.0	59.1	-8.9	50.2	54	-3.8	PK
11	V	2463.2	75.0	31.2	106.2	Fundamental	/	PK
	V	193.4	22.2	15.6	37.2	43.5	-6.3	QP
	H	356.2	23.5	16.7	40.1	46	-5.9	QP
	V	3065.0	48.8	-4.5	44.4	54	-9.6	PK
	V	4929.0	43.9	-1.7	42.6	54	-11.4	PK
	H	11120.0	38.6	12.7	51.3	54	-2.7	PK
	V	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	V	2413.1	76.2	31.1	107.3	Fundamental	/	PK
	V	193.4	25.4	15.6	41	43.5	-2.5	QP
	H	356.2	26.2	16.7	42.9	46	-3.1	QP
	V	3065.0	49.3	-4.5	44.8	54	-9.2	PK
	V	4825.0	45.2	-1.7	43.5	54	-10.5	PK
	H	11120.0	40.2	12.7	52.9	54	-1.1	PK
	V	24000.0	59.1	-8.9	50.2	54	-3.8	PK
6	V	2436.6	80.6	31.1	111.7	Fundamental	/	PK
	V	193.4	23.6	15.6	39.2	43.5	-4.3	QP
	H	356.2	25.8	16.7	42.5	46	-3.5	QP
	V	3065.0	50.1	-4.5	45.6	54	-8.4	PK
	V	4878.0	44.9	-1.9	43.0	54	-11.0	PK
	H	11120.0	40.2	12.7	52.9	54	-1.1	PK
	V	24000.0	59.1	-8.9	50.2	54	-3.8	PK
11	V	2465.2	77.6	30.2	107.8	Fundamental	/	PK
	V	193.4	23.6	15.6	39.2	43.5	-4.3	QP
	H	356.2	25.8	16.7	42.5	46	-3.5	QP
	V	3065.0	50.1	-4.5	45.6	54	-8.4	PK
	V	4929.0	44.9	-1.7	43.2	54	-10.8	PK
	H	11120.0	40.2	12.7	52.9	54	-1.1	PK
	V	24000.0	59.1	-8.9	50.2	54	-3.8	PK

802.11n(20MHz)

CH	Antenna	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	V	2413.5	79.2	31.1	110.3	Fundamental	/	PK
	V	193.4	23.6	15.6	39.2	43.5	-4.3	QP
	H	356.2	25.8	16.7	42.5	46	-3.5	QP
	V	3065.0	50.1	-4.5	45.6	54	-8.4	PK
	V	4825.0	44.9	-1.7	43.2	54	-10.8	PK
	H	11120.0	40.2	12.7	52.9	54	-1.1	PK
	V	24000.0	59.1	-8.9	50.2	54	-3.8	PK
6	V	2442.3	81.4	31.2	112.6	Fundamental	/	PK
	V	193.4	23.6	15.6	39.2	43.5	-4.3	QP
	H	356.2	25.8	16.7	42.5	46	-3.5	QP
	V	3065.0	50.1	-4.5	45.6	54	-8.4	PK
	V	4878.0	44.9	-1.7	43.2	54	-10.8	PK
	H	11120.0	40.2	12.7	52.9	54	-1.1	PK
	V	24000.0	59.1	-8.9	50.2	54	-3.8	PK
11	V	2461.2	77.1	31.2	108.3	Fundamental	/	PK
	V	193.4	23.6	15.6	39.2	43.5	-4.3	QP
	H	356.2	25.8	16.7	42.5	46	-3.5	QP
	V	3065.0	50.1	-4.5	45.6	54	-8.4	PK
	V	4929.0	44.9	-1.7	43.2	54	-10.8	PK
	H	11120.0	40.2	12.7	52.9	54	-1.1	PK
	V	24000.0	59.1	-8.9	50.2	54	-3.8	PK

802.11n(40MHz)

CH	Antenna	Frequency (MHz)	Reading Level (dBuV/m)	Factor (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
3	V	2416.2	71.1	31.2	102.3	Fundamental	/	PK
	V	193.4	24.0	15.6	39.6	43.5	-3.9	QP
	H	356.2	25.8	16.7	42.5	46	-3.5	QP
	V	3065.0	50.1	-4.5	45.6	54	-8.4	PK
	V	4847.0	44.9	-1.7	43.2	54	-10.8	PK
	H	11120.0	40.2	12.7	52.9	54	-1.1	PK
	V	24000.0	59.1	-8.9	50.2	54	-3.8	PK
6	V	2434.1	76.3	31.2	107.5	Fundamental	/	PK
	V	193.4	23.6	15.6	39.2	43.5	-4.3	QP
	H	356.2	25.8	16.7	42.5	46	-3.5	QP
	V	3065.0	50.1	-4.5	45.6	54	-8.4	PK
	V	4878.0	44.9	-1.7	43.2	54	-10.8	PK
	H	11120.0	40.2	12.7	52.9	54	-1.1	PK
	V	24000.0	59.1	-8.9	50.2	54	-3.8	PK
9	V	2449.9	73.5	31.2	104.7	Fundamental	/	PK
	V	193.4	23.6	15.6	39.2	43.5	-4.3	QP
	H	356.2	25.8	16.7	42.5	46	-3.5	QP
	V	3065.0	50.1	-4.5	45.6	54	-8.4	PK
	V	4910.0	44.9	-1.7	43.2	54	-10.8	PK
	H	11120.0	40.2	12.7	52.9	54	-1.1	PK
	V	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

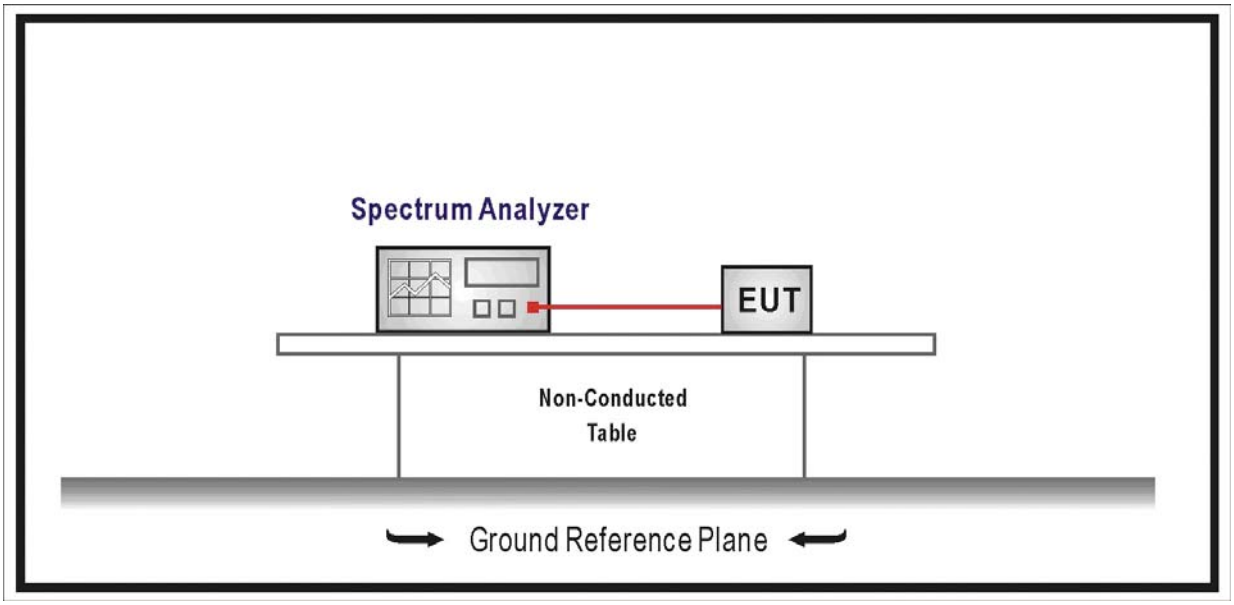
5.1. Test Equipment

RF Antenna Conducted Spurious / AC-6

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2009/06/11
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.

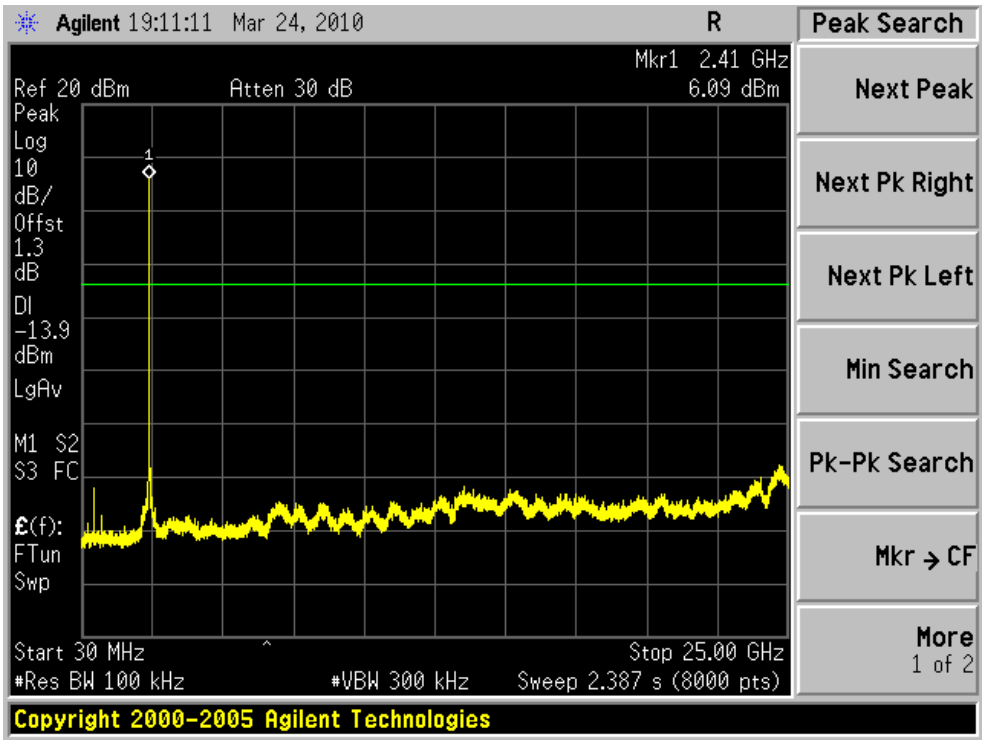
5.5. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB

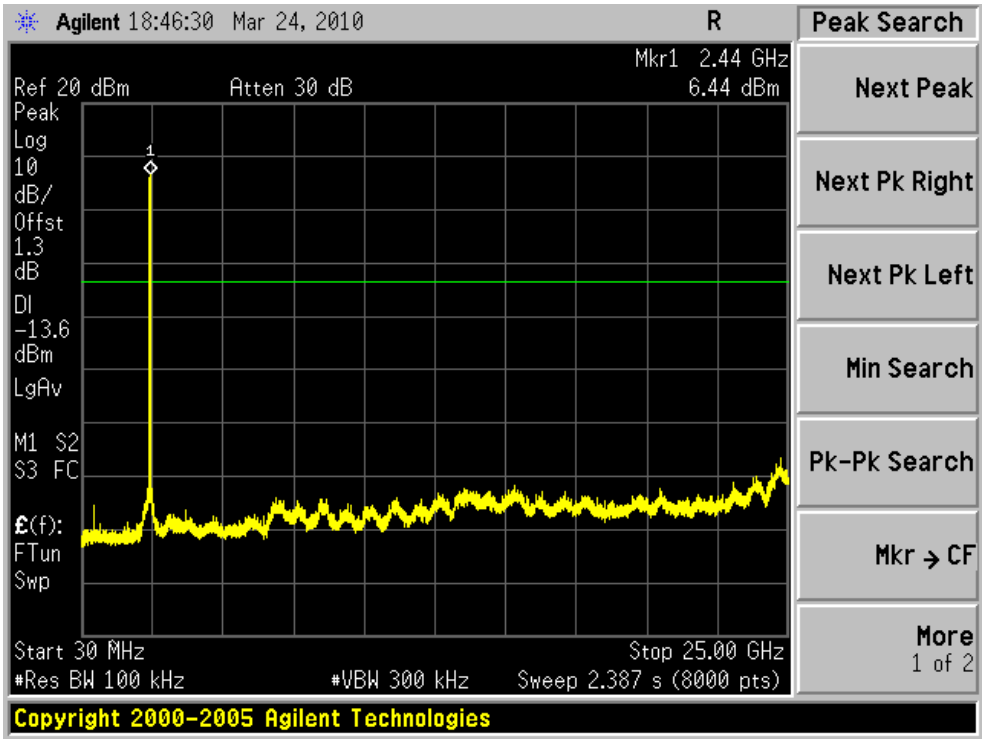
5.6. Test Result

Product	:	Eee PC
Test Item	:	RF Antenna Conducted Spurious
Test Site	:	AC-6
Test Mode	:	Mode 1: Transmit by 802.11b

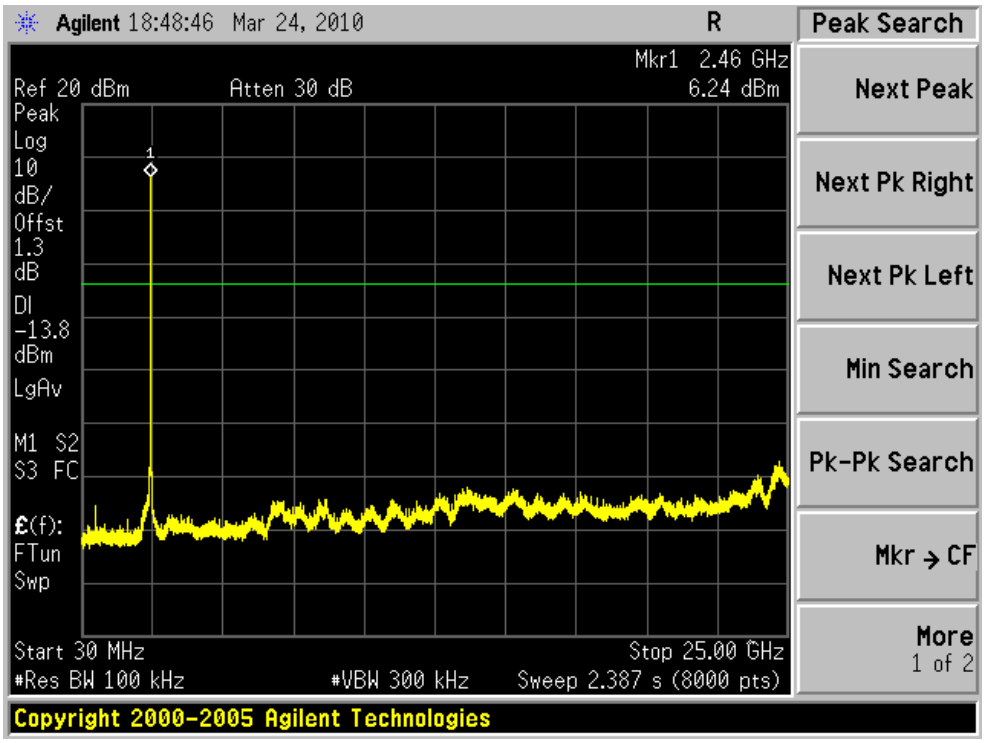
Channel 01 (2412MHz)



Channel 06 (2437MHz)

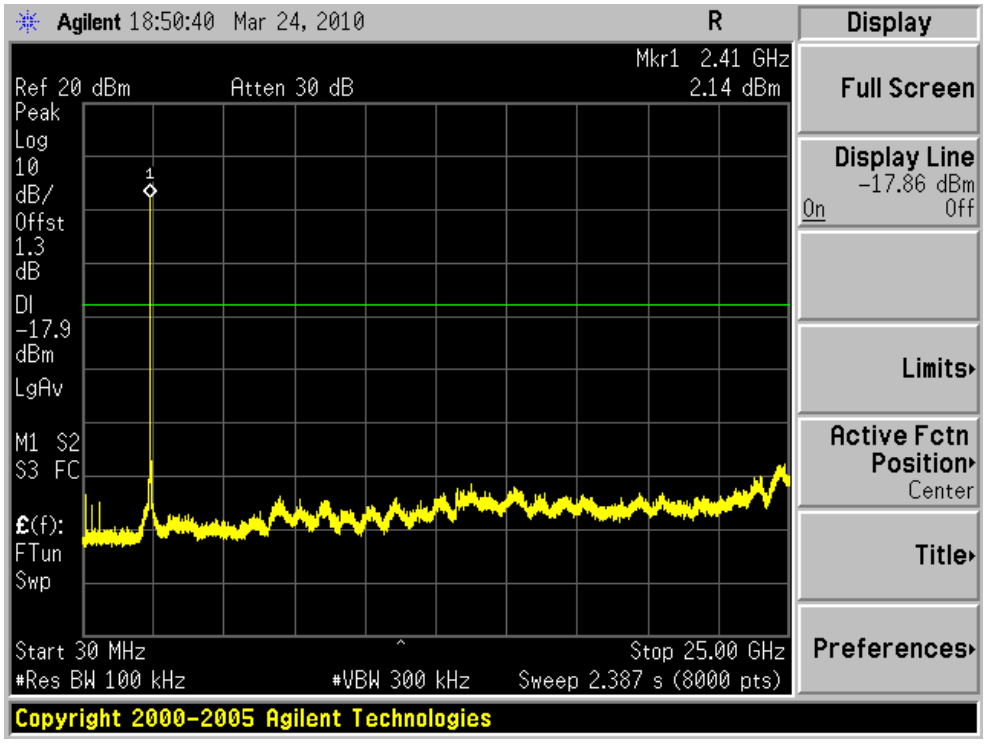


Channel 11 (2462MHz)

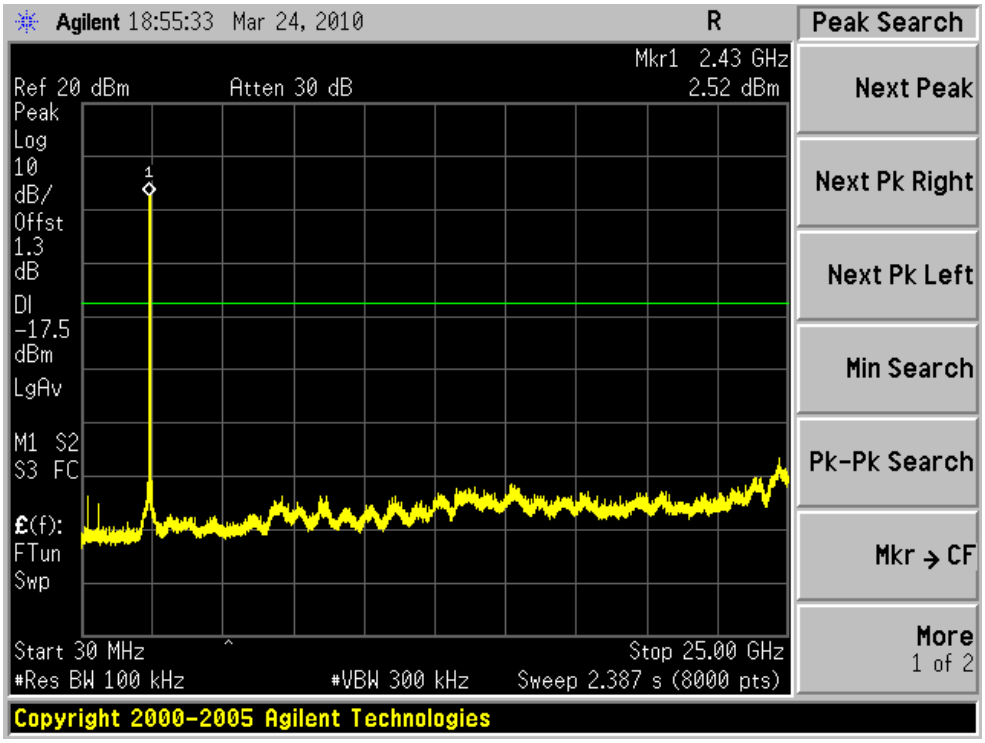


Product	:	Eee PC
Test Item	:	RF Antenna Conducted Spurious
Test Site	:	AC-6
Test Mode	:	Mode 2: Transmit by 802.11g

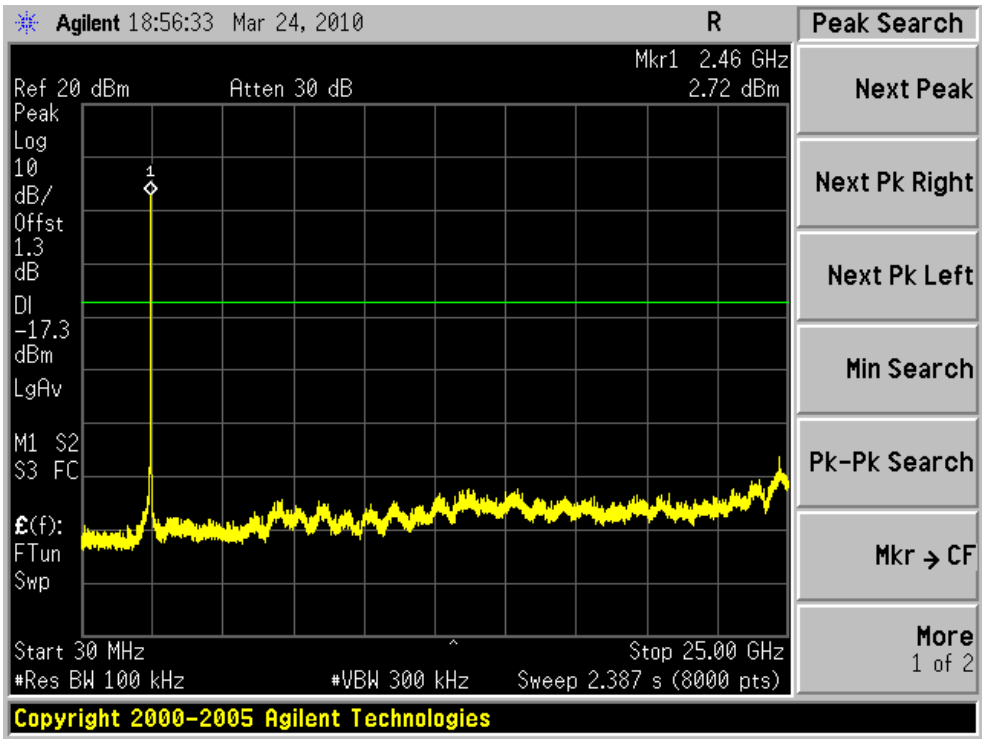
Channel 01 (2412MHz)



Channel 06 (2437MHz)

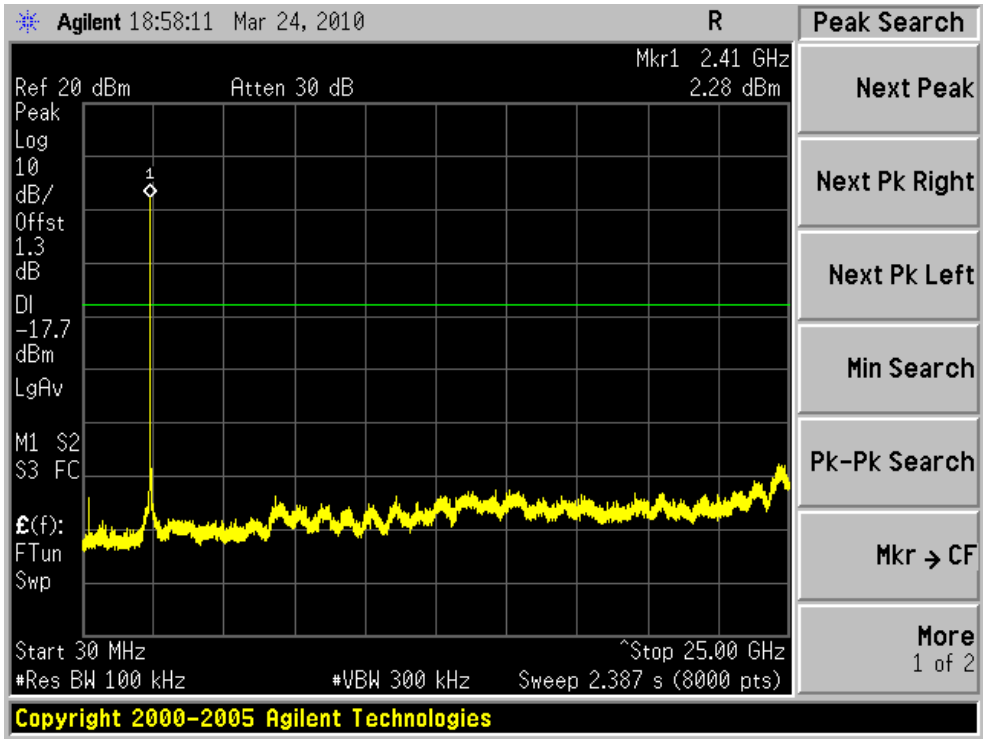


Channel 11 (2462MHz)

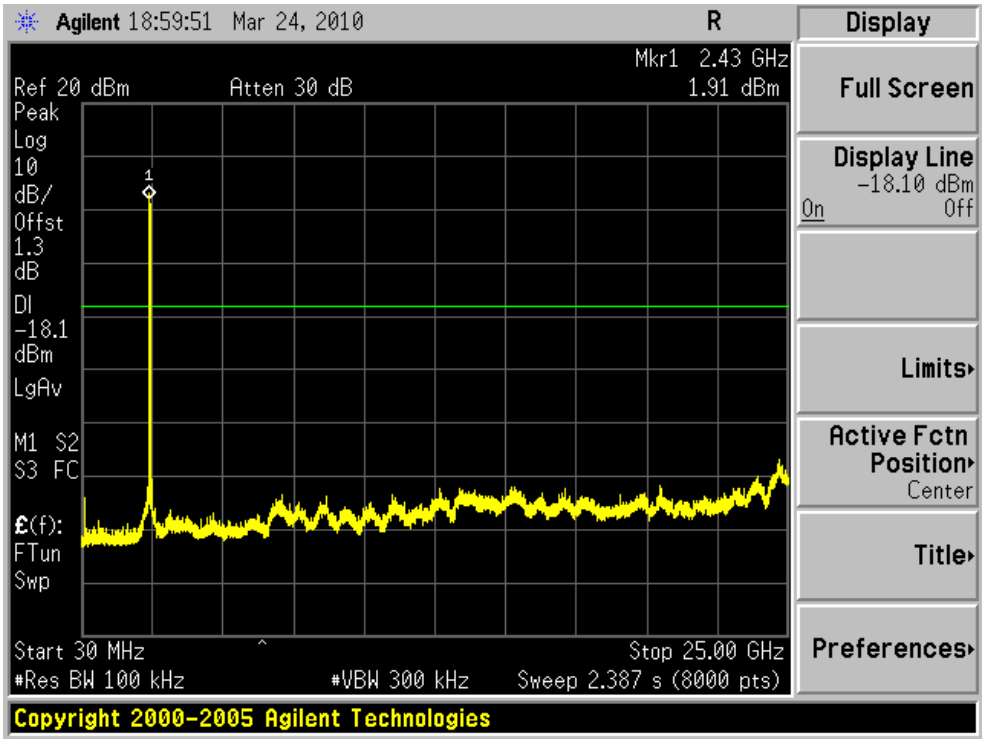


Product	:	Eee PC
Test Item	:	RF Antenna Conducted Spurious
Test Site	:	AC-6
Test Mode	:	Mode 3: Transmit by 802.11n(20MHZ)

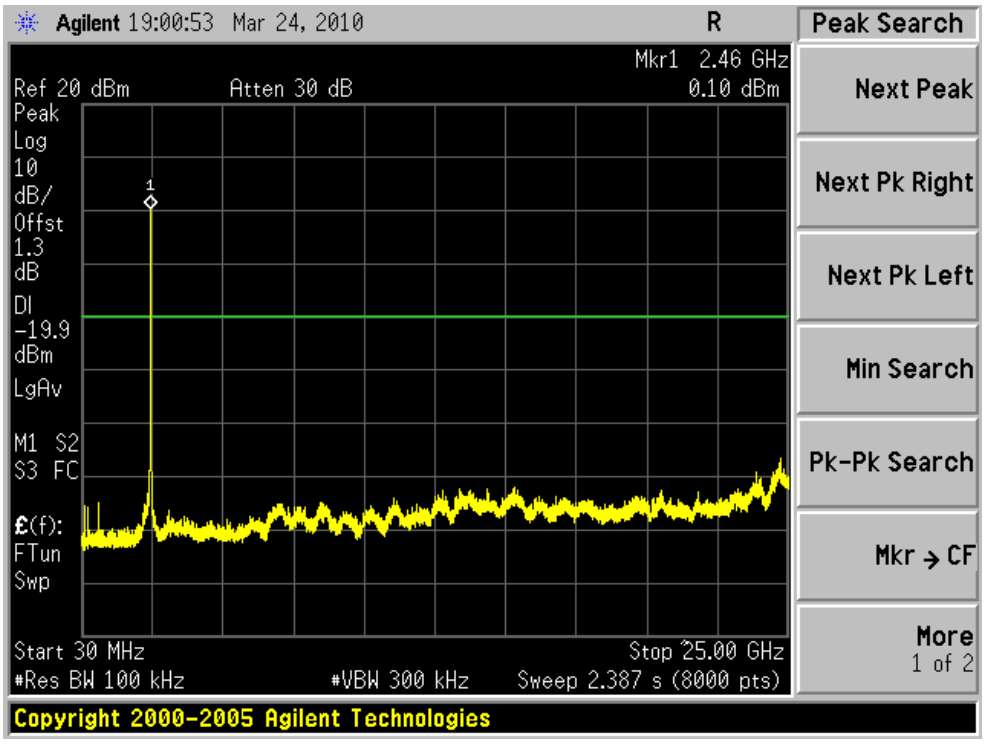
Channel 01 (2412MHz)



Channel 06 (2437MHz)

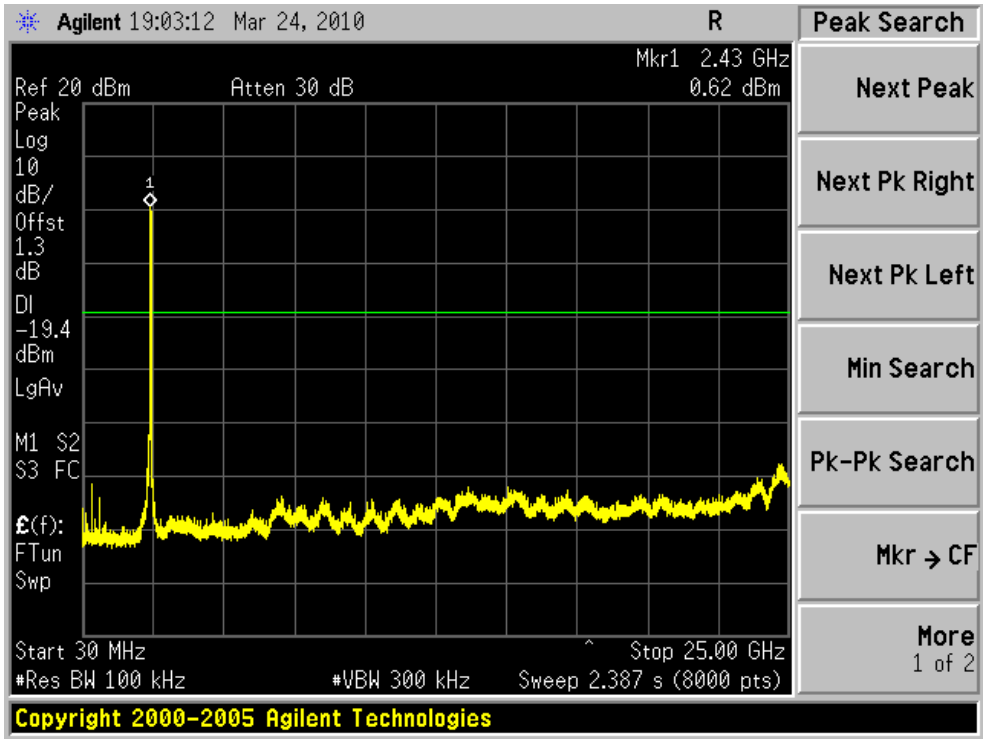


Channel 11 (2462MHz)

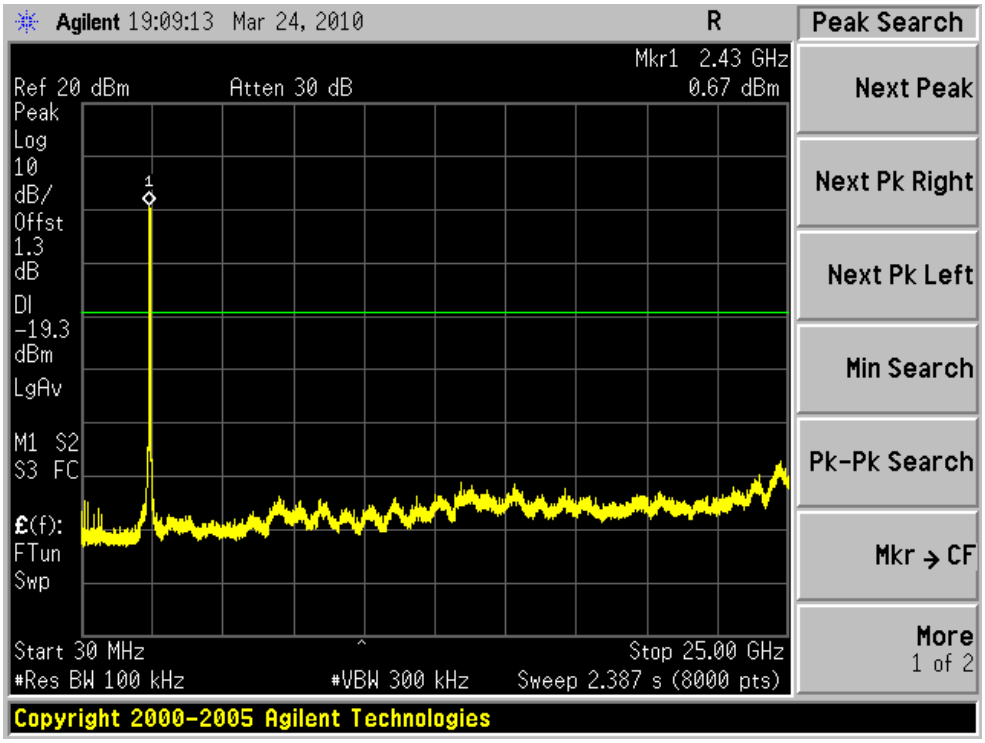


Product	:	Eee PC
Test Item	:	RF Antenna Conducted Spurious
Test Site	:	AC-6
Test Mode	:	Mode 4: Transmit by 802.11n (40MHz)

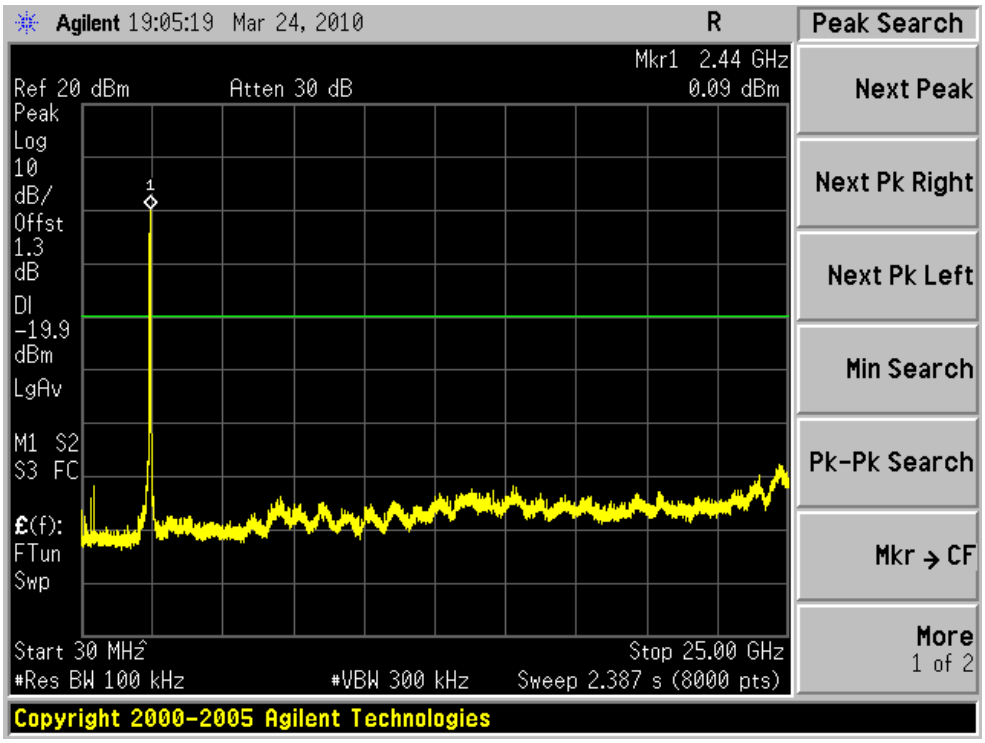
Channel 03 (2422MHz)



Channel 06 (2437MHz)



Channel 09 (2452MHz)



6. Radiated Emission Band Edge

6.1. Test Equipment

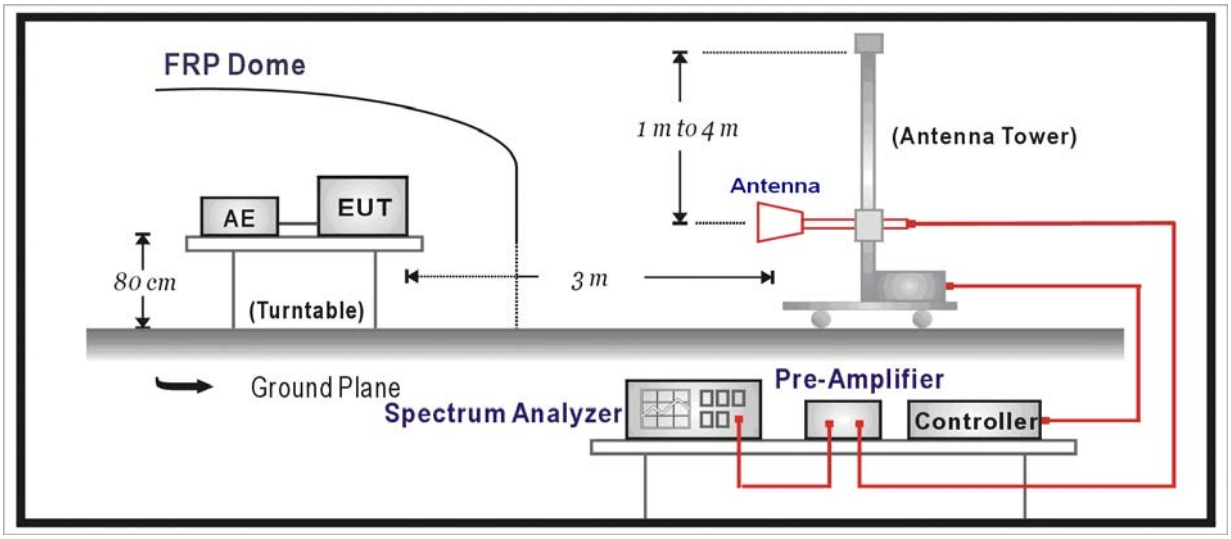
☒Radiated Emission / AC-2

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2009/06/11
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	499	2009/06/11
Temperature/Humidity Meter	zhicheng	ZC1-2	AC2-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.

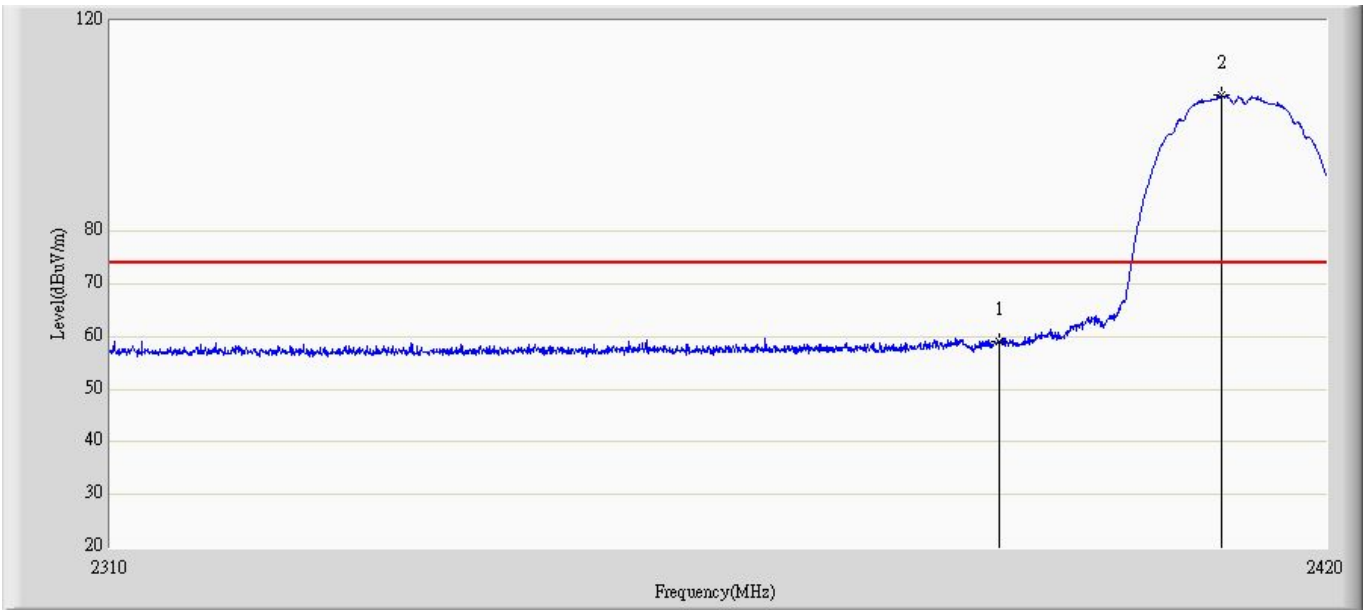
6.5. Uncertainty

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

6.6. Test Result

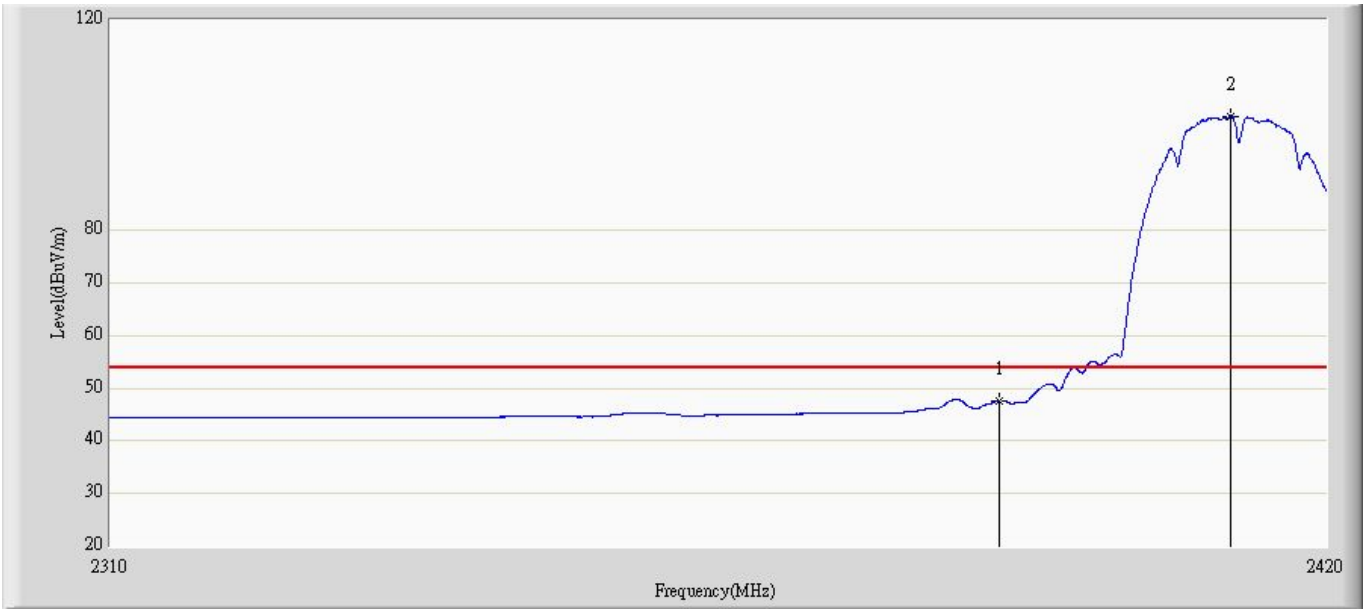
Peak detector: RBW = 1MHz, VBW = 3MHz, sweep time = 200ms;
Average detector: RBW = 1MHz, VBW = 10Hz, sweep time = auto.

Profile: 103S075R	Page No.: 1
Engineer: Ken	
Site: AC2	Time: 2010/03/23 - 15:56
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2412MHz by 802.11b	



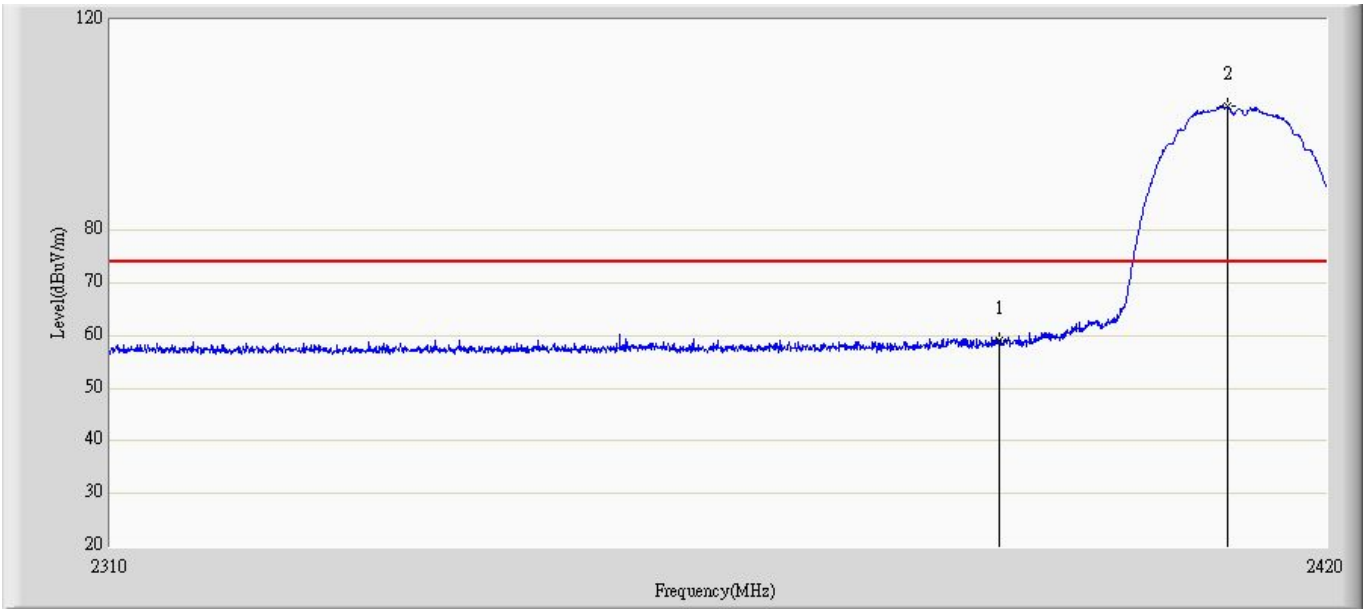
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.0	59.075	28.531	-14.925	74	30.543	PK
2	X	*	2410.32	105.978	75.41	NA	NA	30.568	PK

Profile: 103S075R	Page No.: 2
Engineer: Ken	
Site: AC2	Time: 2010/03/23 - 16:05
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2412MHz by 802.11b	



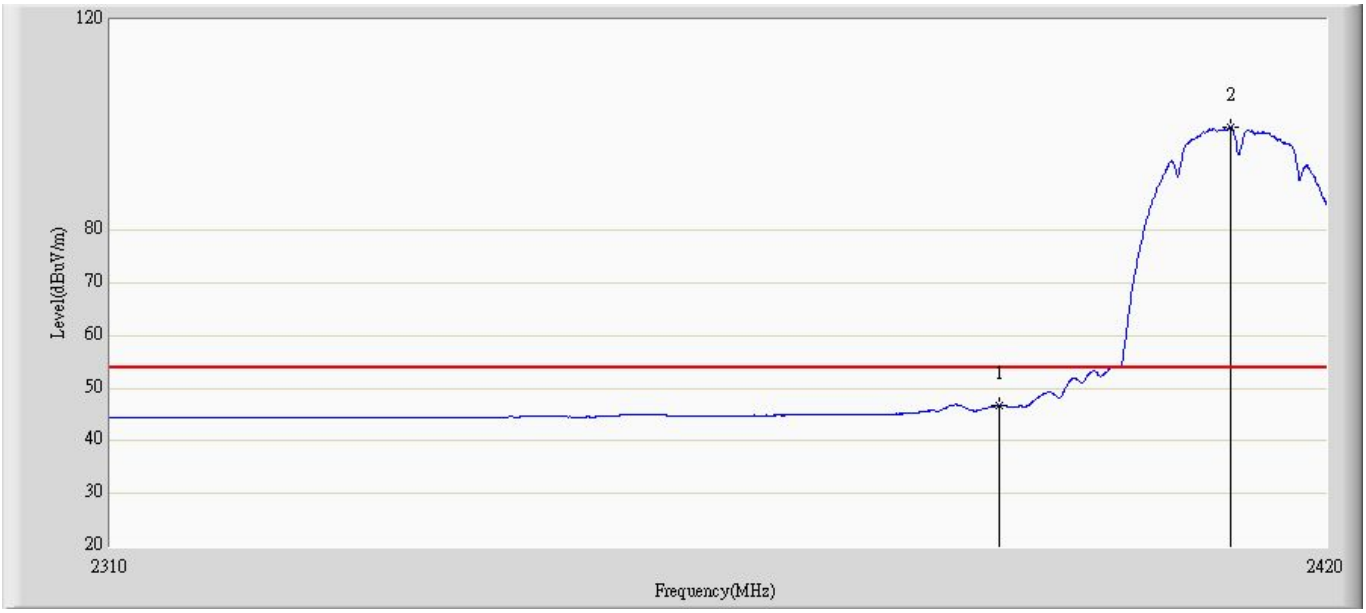
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.0	47.726	17.182	-6.274	54	30.543	AV
2	X	*	2411.2	101.735	71.164	NA	NA	30.572	AV

Profile: 103S075R	Page No.: 3
Engineer: Ken	
Site: AC2	Time: 2010/03/23 - 16:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2412MHz by 802.11b	



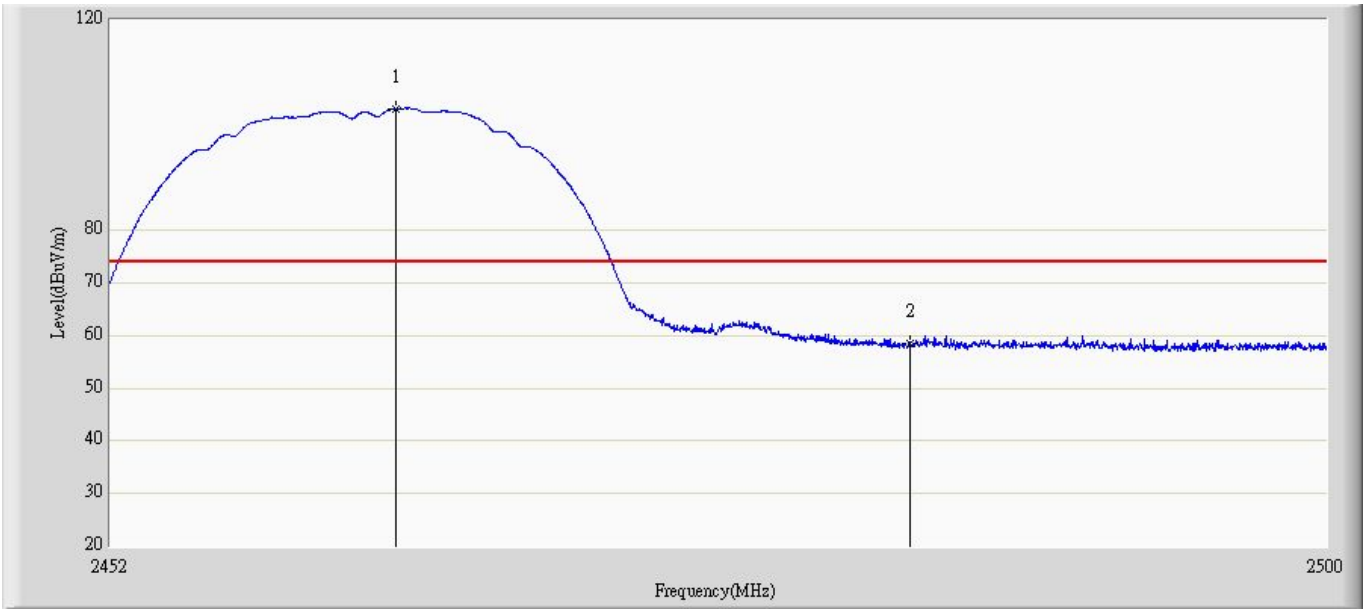
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.0	59.135	28.591	-14.865	74	30.543	PK
2	X	*	2411.0	103.586	73.016	NA	NA	30.57	PK

Profile: 103S075R	Page No.: 4
Engineer:	
Site: AC2	Time: 2010/03/23 - 16:27
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2412MHz by 802.11b	



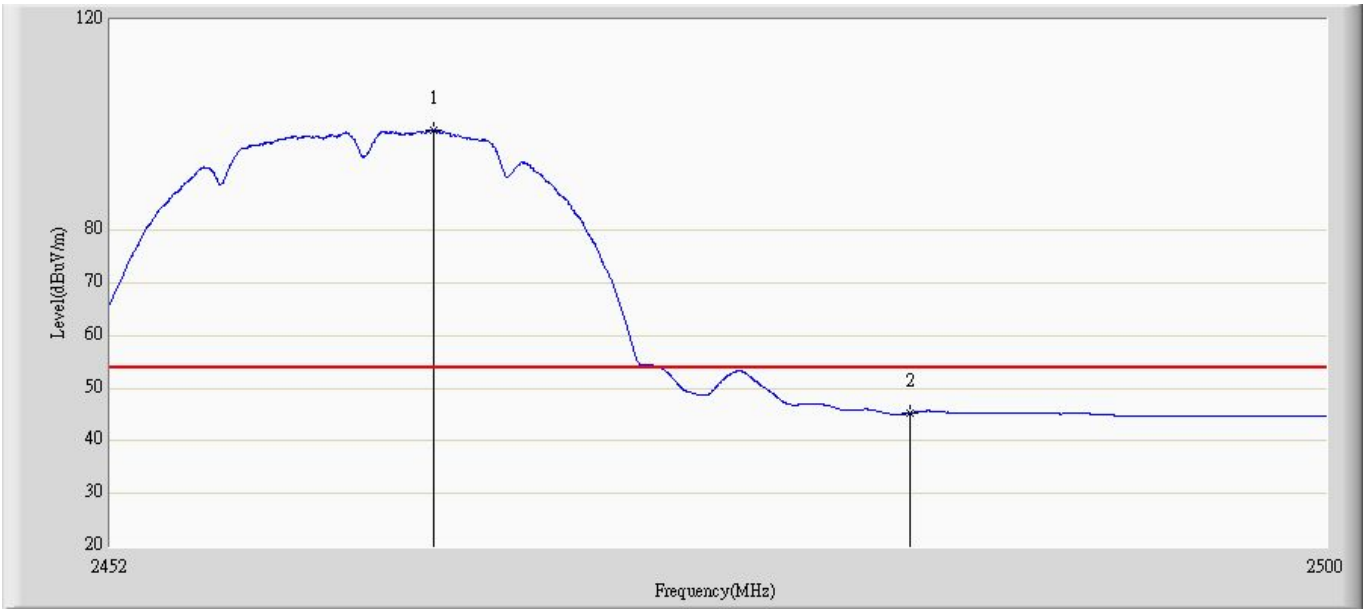
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.0	46.801	16.257	-7.199	54	30.543	AV
2	X	*	2411.2	99.655	69.084	NA	NA	30.572	AV

Profile: 103S075R	Page No.: 7
Engineer: Ken	
Site: AC2	Time: 2010/03/24 - 15:01
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2462MHz by 802.11b	



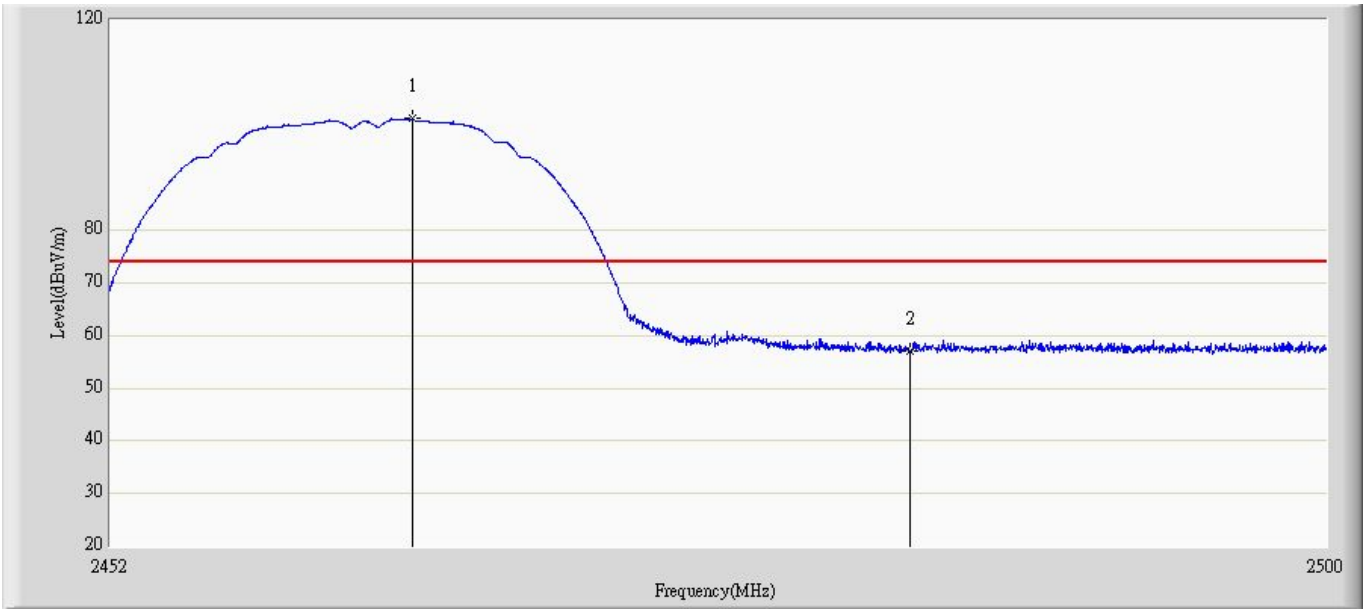
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2463.2	103.114	72.343	NA	NA	30.772	PK
2			2483.5	58.636	27.997	-15.364	74	30.638	PK

Profile: 103S075R	Page No.: 8
Engineer: Ken	
Site: AC2	Time: 2010/03/24 - 15:02
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2462MHz by 802.11b	



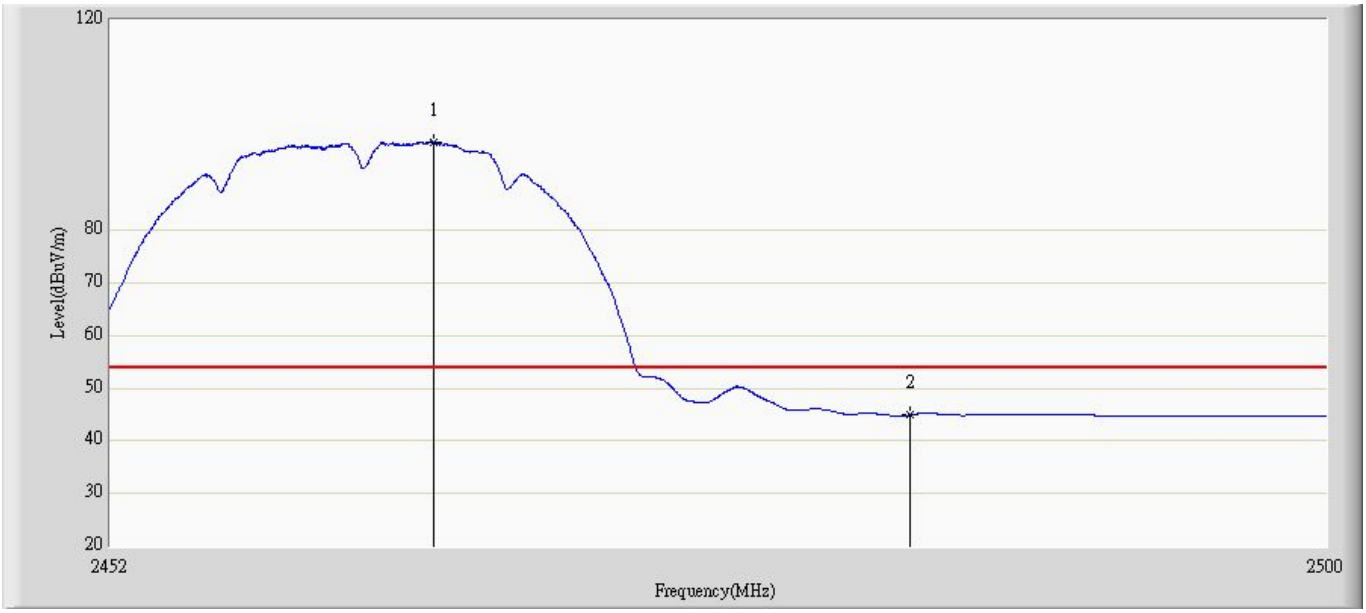
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2464.7	99.106	68.345	NA	NA	30.761	AV
2			2483.5	45.297	14.658	-8.703	54	30.638	AV

Profile: 103S075R	Page No.: 5
Engineer: Ken	
Site: AC2	Time: 2010/03/23 - 16:37
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2462MHz by 802.11b	



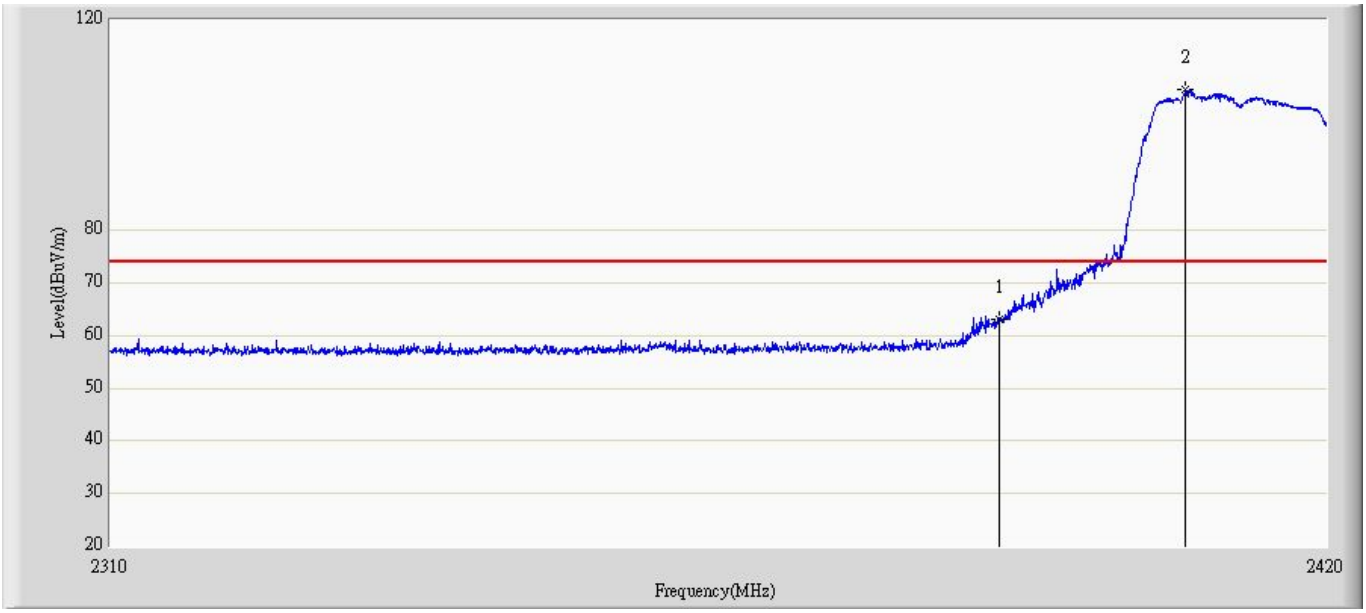
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2463.8	101.449	70.682	NA	NA	30.767	PK
2			2483.5	57.089	26.450	-16.911	74	30.638	PK

Profile: 103S075R	Page No.: 6
Engineer: Ken	
Site: AC2	Time: 2010/03/23 - 17:08
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2462MHz by 802.11b	



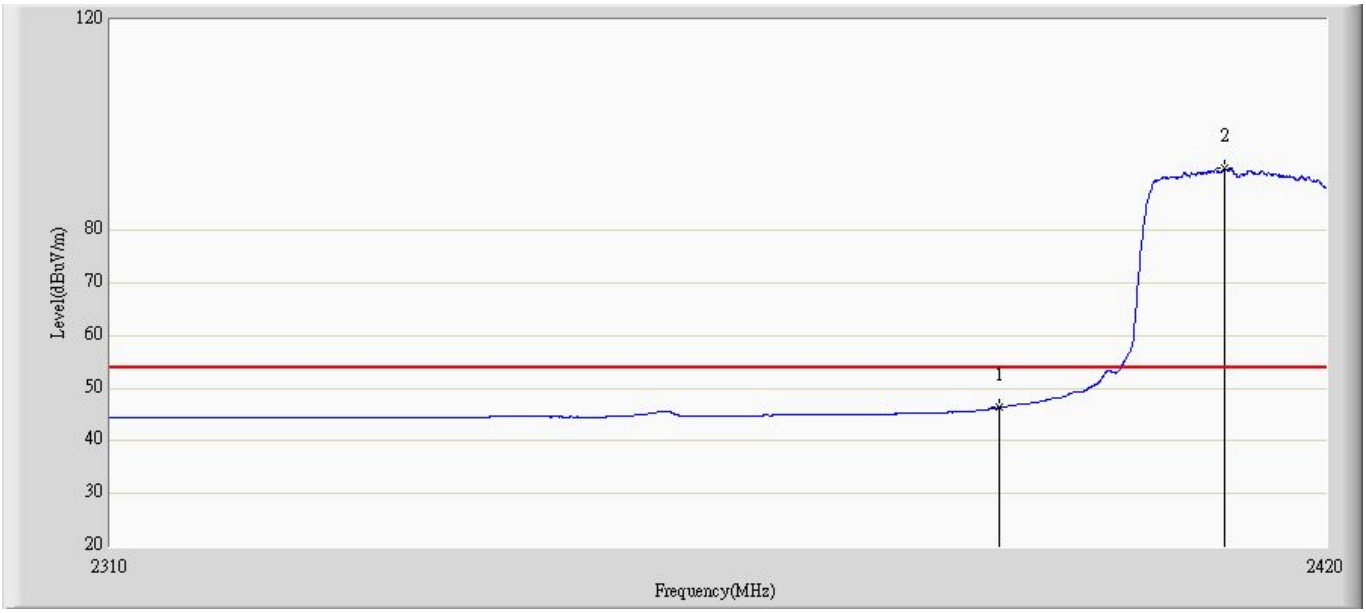
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2464.7	96.768	66.007	NA	NA	30.761	AV
2			2483.5	44.936	14.297	-9.064	54	30.638	AV

Profile: 103S075R	Page No.: 9
Engineer: Ken	
Site: AC2	Time: 2010/03/24 - 15:05
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2412MHz by 802.11g	



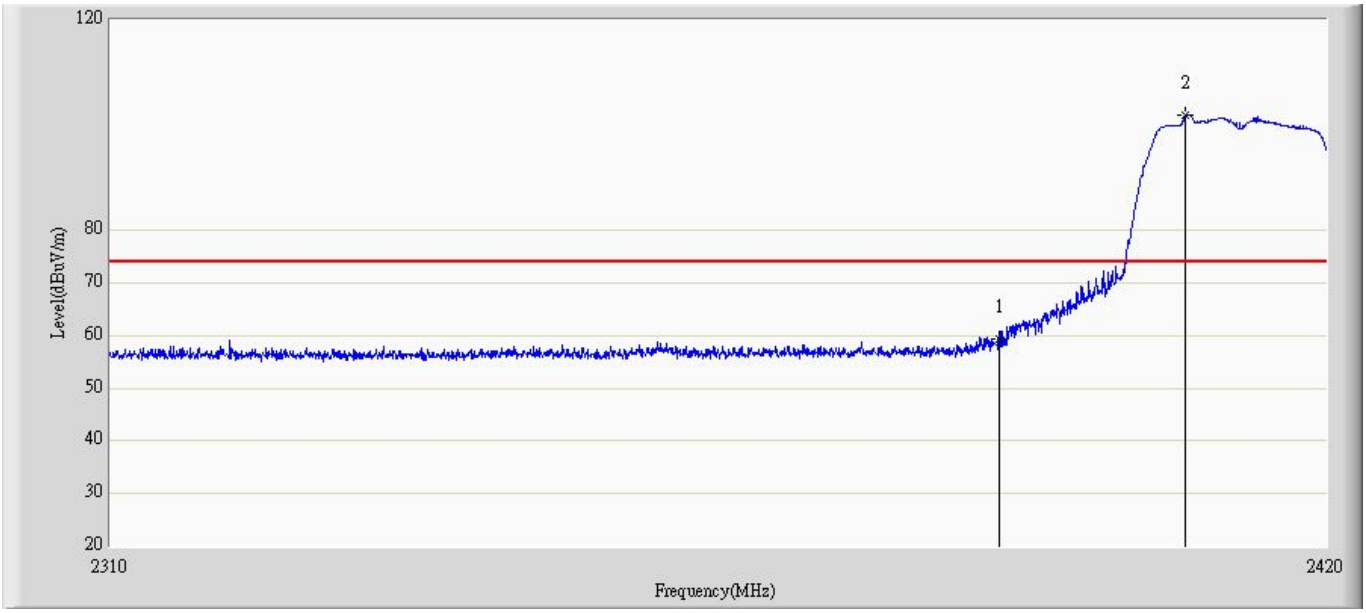
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.0	63.097	32.553	-10.903	74	30.543	PK
2	X	*	2407.1	106.793	76.235	NA	NA	30.559	PK

Profile: 103S075R	Page No.: 10
Engineer: Ken	
Site: AC2	Time: 2010/03/24 - 15:11
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2412MHz by 802.11g	



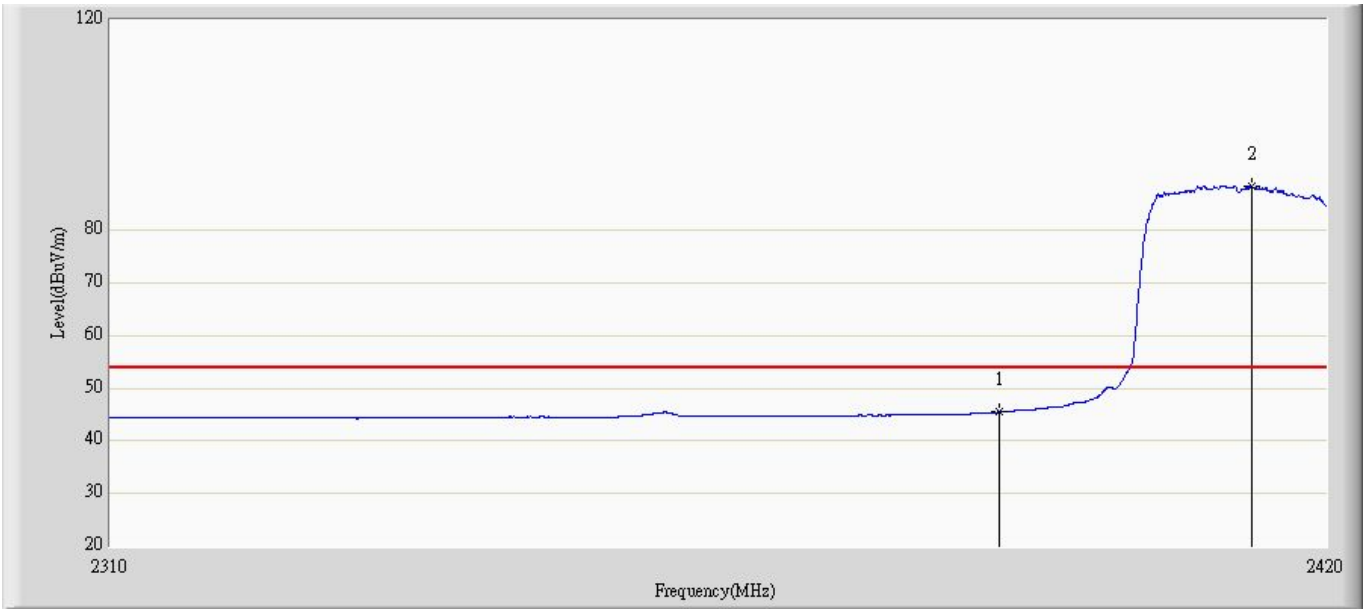
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.0	46.345	15.801	-7.655	54	30.543	AV
2	X	*	2410.6	91.808	61.239	NA	NA	30.568	AV

Profile: 103S075R	Page No.: 11
Engineer: Ken	
Site: AC2	Time: 2010/03/24 - 15:19
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2412MHz by 802.11g	



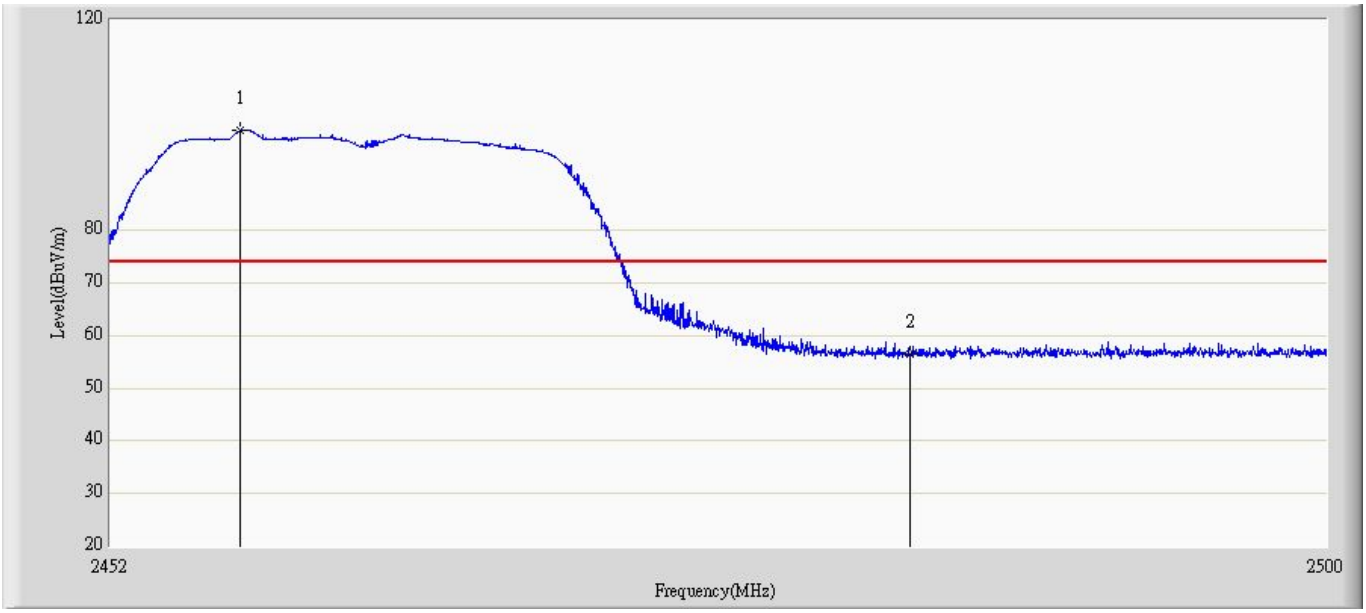
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.0	59.485	28.941	-14.515	74	30.543	PK
2	X	*	2407.075	101.803	71.245	NA	NA	30.559	PK

Profile: 103S075R	Page No.: 12
Engineer: Ken	
Site: AC2	Time: 2010/03/24 - 15:20
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2412MHz by 802.11g	



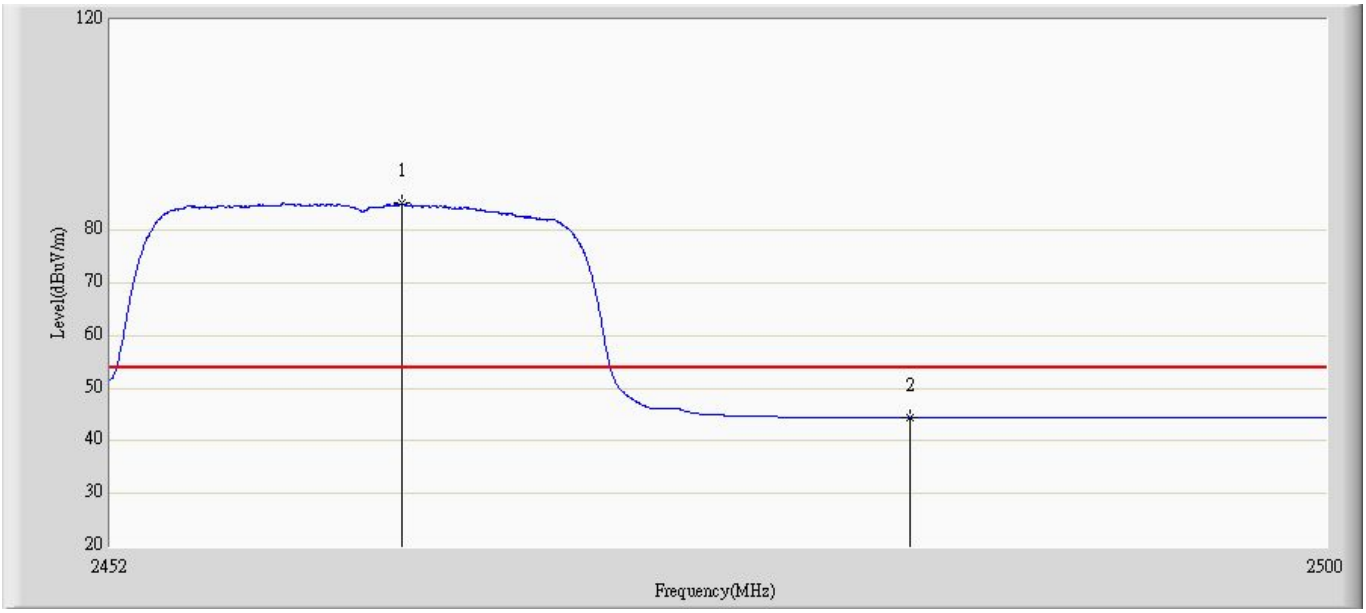
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.0	45.489	14.945	-8.511	54	30.543	AV
2	X	*	2413.1	88.361	57.772	NA	NA	30.589	AV

Profile: 103S075R	Page No.: 15
Engineer: Ken	
Site: AC2	Time: 2010/03/24 - 15:36
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2462MHz by 802.11g	



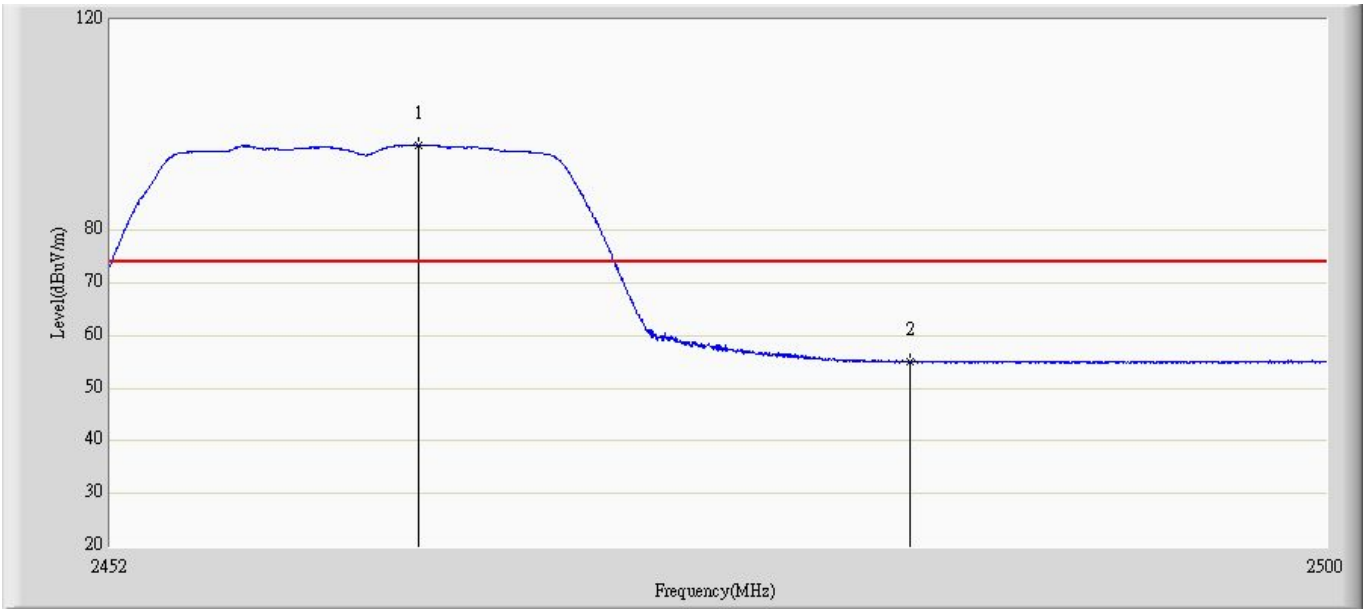
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2457.1	98.901	68.101	NA	NA	30.8	PK
2			2483.5	56.548	25.909	-17.452	74	30.638	PK

Profile: 103S075R	Page No.: 16
Engineer: Ken	
Site: AC2	Time: 2010/03/24 - 15:39
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2462MHz by 802.11g	



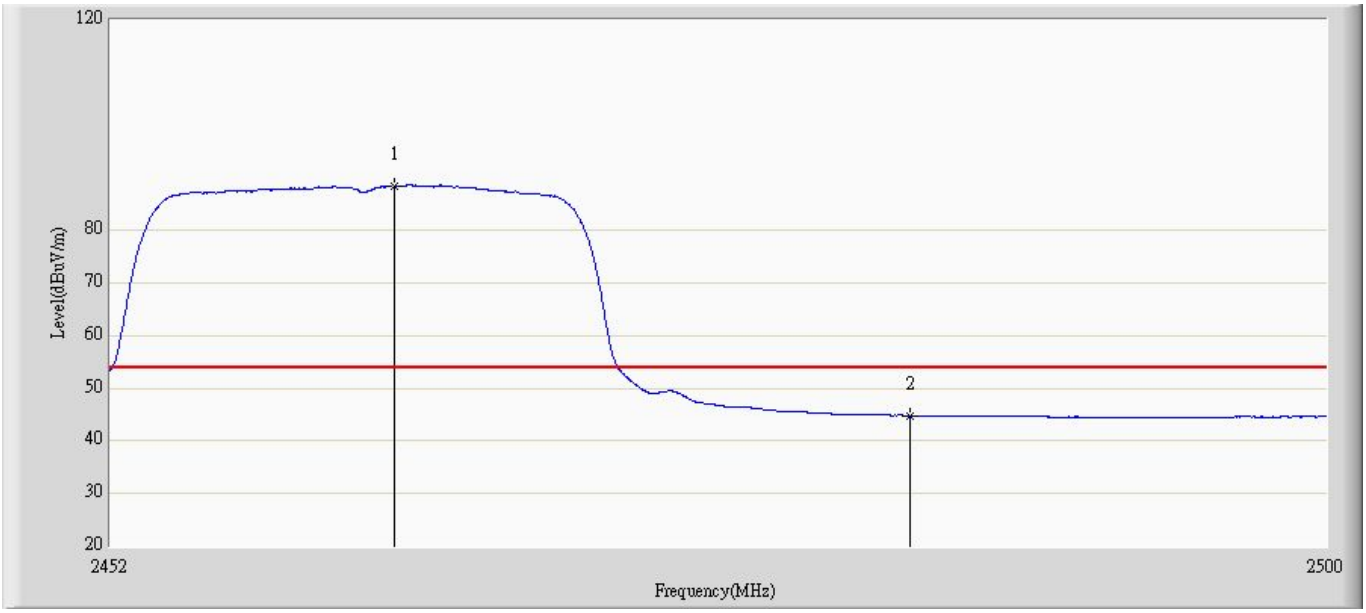
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2463.4	85.091	54.321	NA	NA	30.769	AV
2			2483.5	44.334	13.695	-9.666	54	30.638	AV

Profile: 103S075R	Page No.: 13
Engineer: Ken	
Site: AC2	Time: 2010/03/24 - 15:28
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2462MHz by 802.11g	



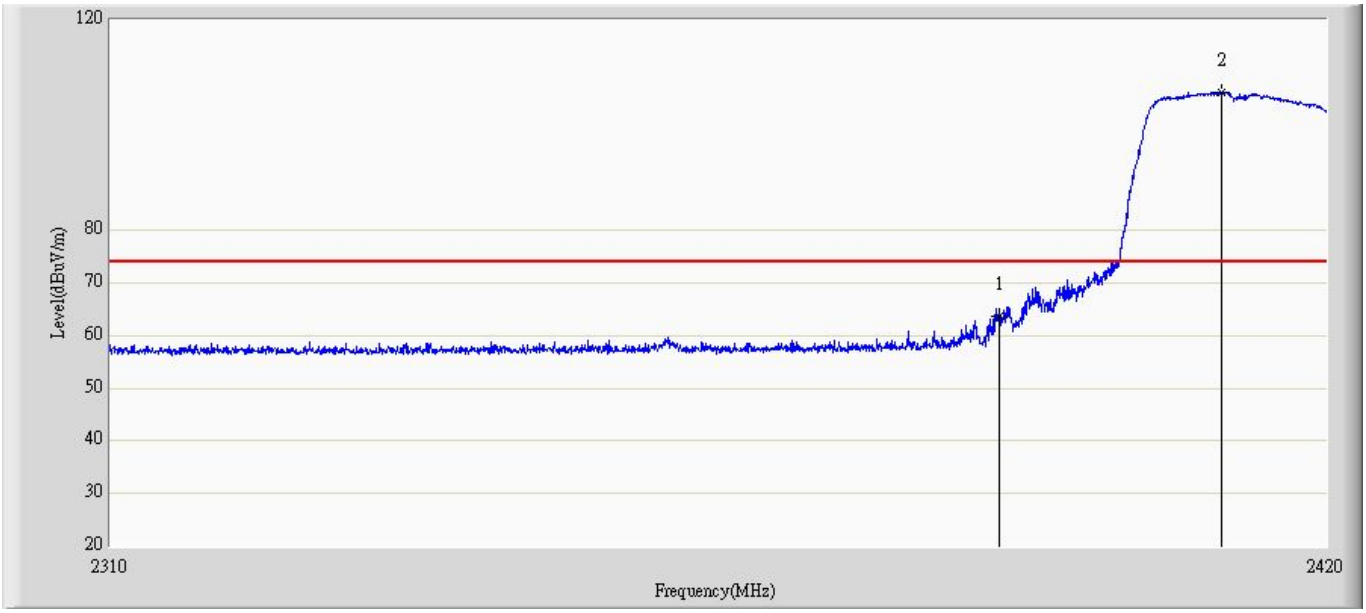
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2464.1	96.145	65.380	NA	NA	30.766	PK
2			2483.5	55.055	24.416	-18.945	74	30.638	PK

Profile: 103S075R	Page No.: 14
Engineer: Ken	
Site: AC2	Time: 2010/03/24 - 15:33
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2462MHz by 802.11g	



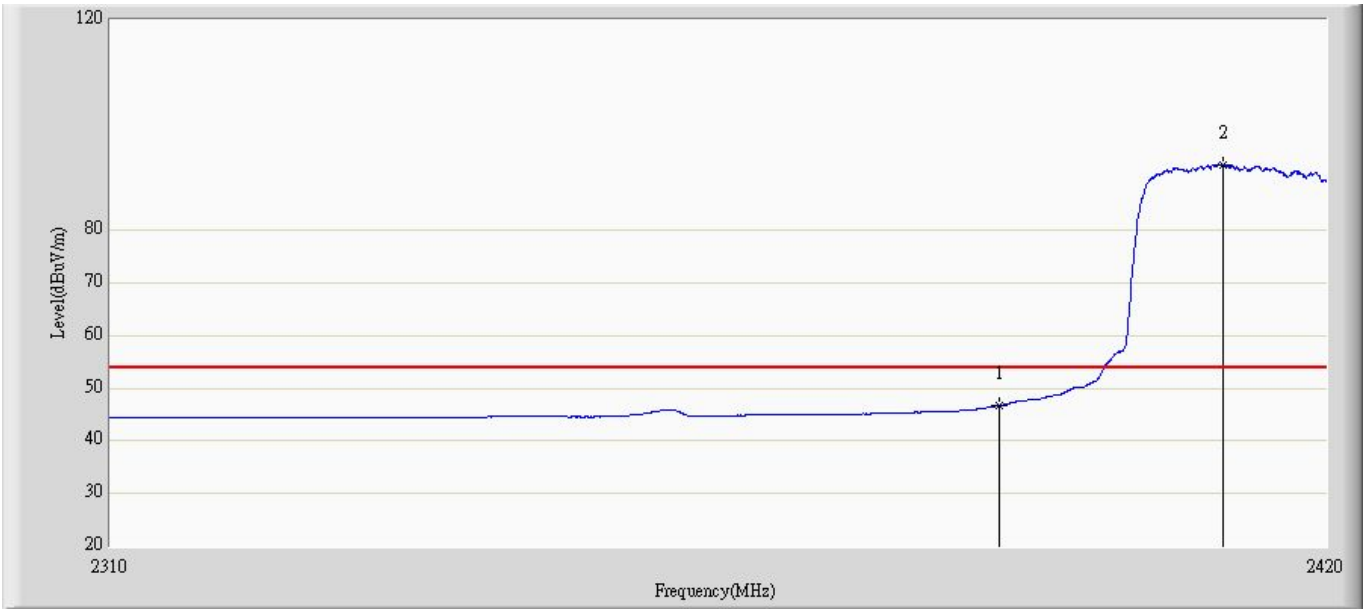
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2463.1	88.488	57.716	NA	NA	30.772	AV
2			2483.5	44.797	14.158	-9.203	54	30.638	AV

Profile: 103S075R	Page No.: 17
Engineer: Ken	
Site: AC2	Time: 2010/03/24 - 15:41
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2412MHz by 802.11n(20MHz)	



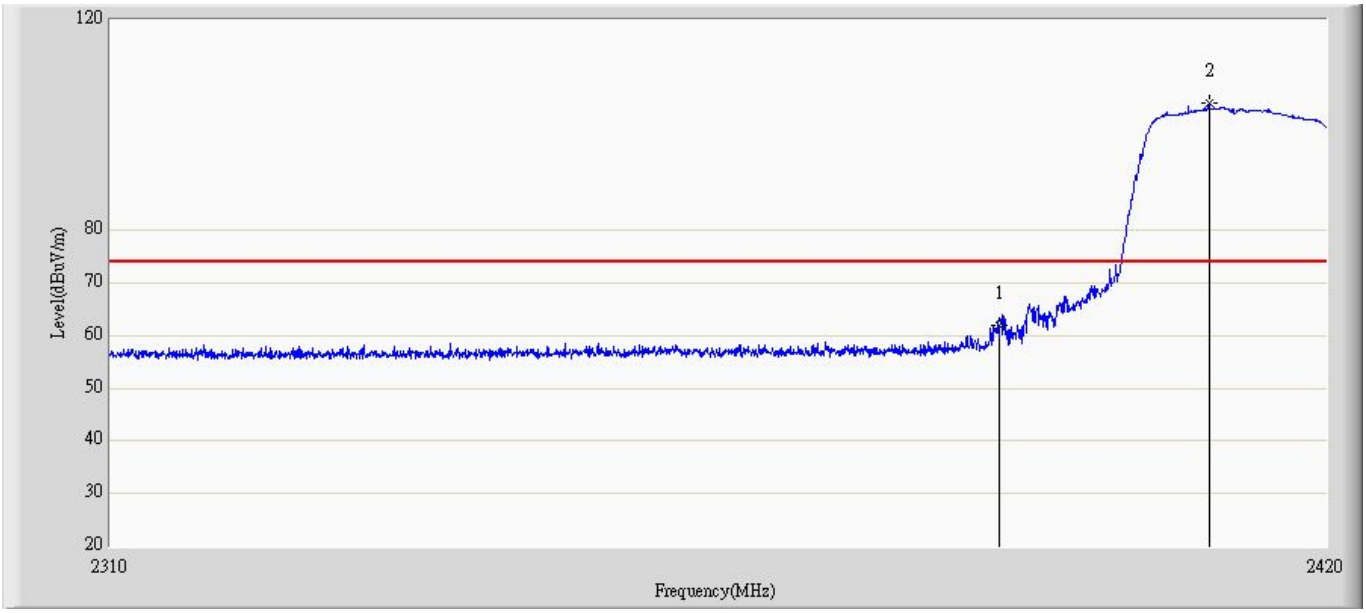
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.0	63.724	33.18	-10.276	74	30.543	PK
2	X	*	2410.3	106.158	75.59	NA	NA	30.568	PK

Profile: 103S075R	Page No.: 18
Engineer: Ken	
Site: AC2	Time: 2010/03/24 - 15:47
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2412MHz by 802.11n(20MHz)	



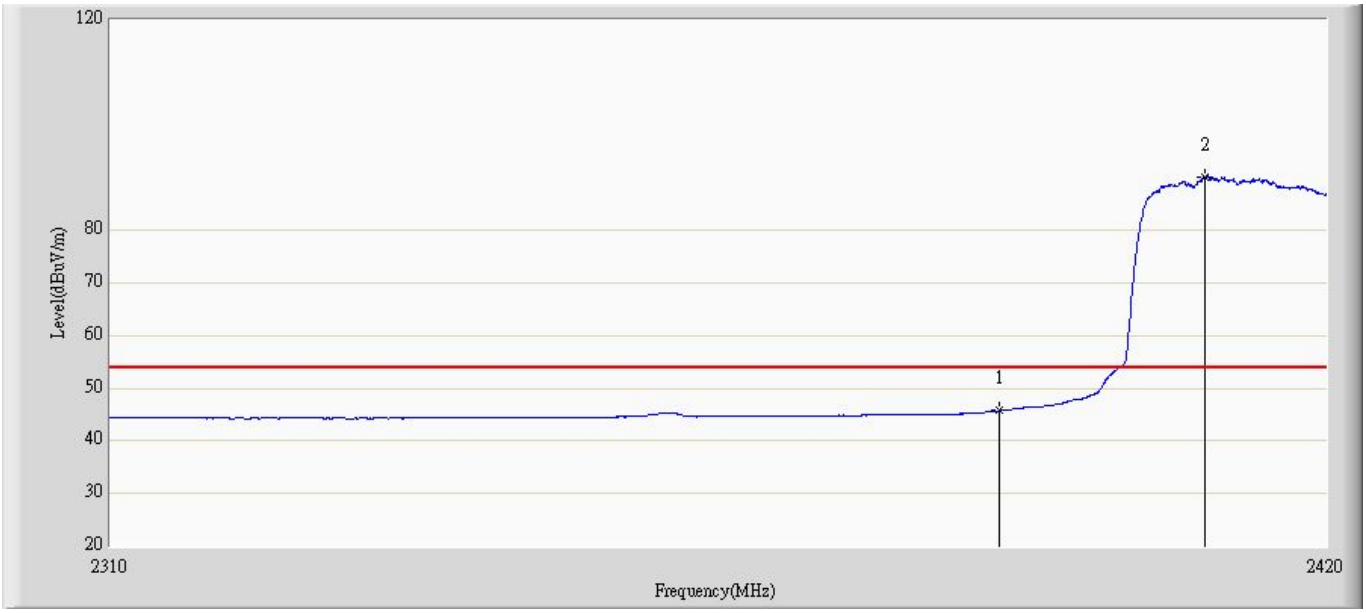
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.0	46.705	16.161	-7.295	54	30.543	AV
2	X	*	2410.4	92.447	61.879	NA	NA	30.569	AV

Profile: 103S075R	Page No.: 19
Engineer: Ken	
Site: AC2	Time: 2010/03/24 - 15:49
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2412MHz by 802.11n(20MHz)	



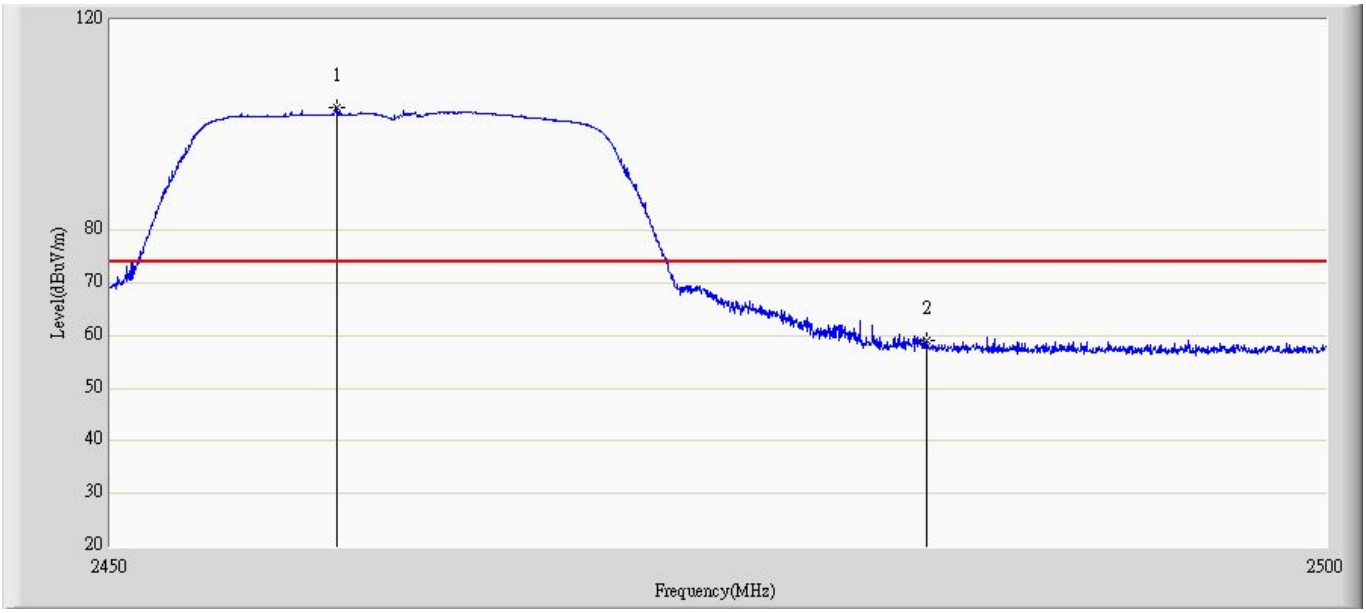
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.0	62.014	31.47	-11.986	74	30.543	PK
2	X	*	2409.2	104.252	73.687	NA	NA	30.565	PK

Profile: 103S075R	Page No.: 20
Engineer: Ken	
Site: AC2	Time: 2010/03/24 - 15:52
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2412MHz by 802.11n(20MHz)	



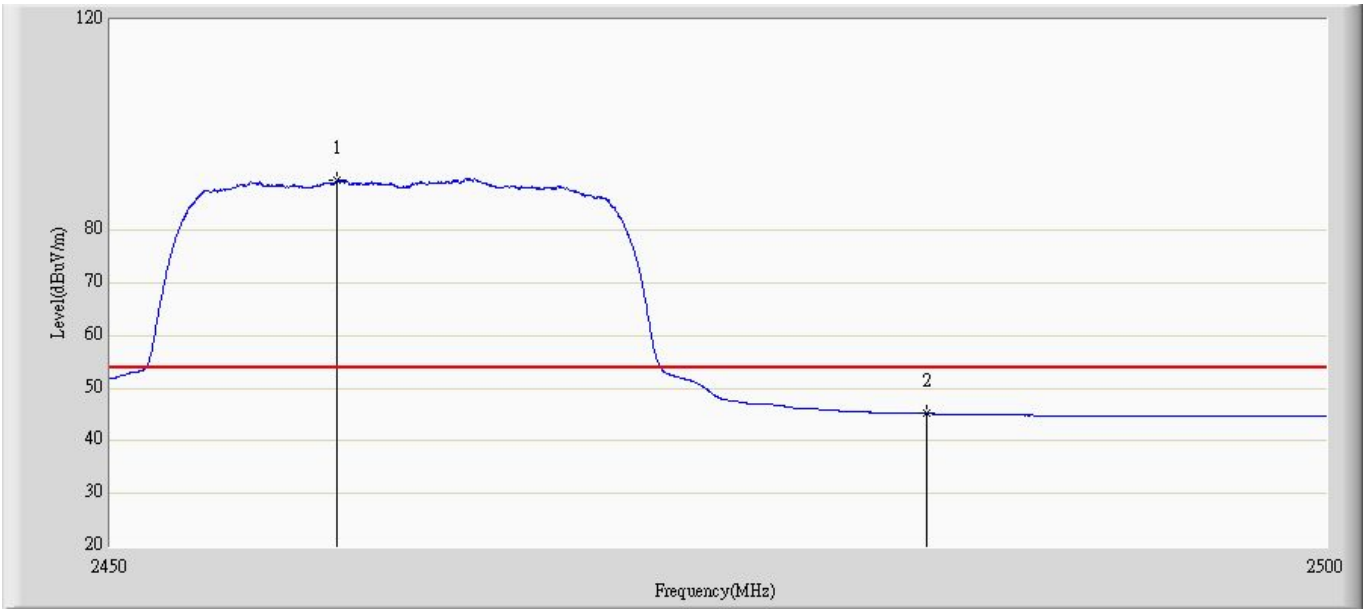
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.0	45.767	15.223	-8.233	54	30.543	AV
2	X	*	2408.9	90.214	59.65	NA	NA	30.563	AV

Profile: 103S075R	Page No.: 23
Engineer: Ken	
Site: AC2	Time: 2010/03/24 - 16:26
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2462MHz by 802.11n(20MHz)	



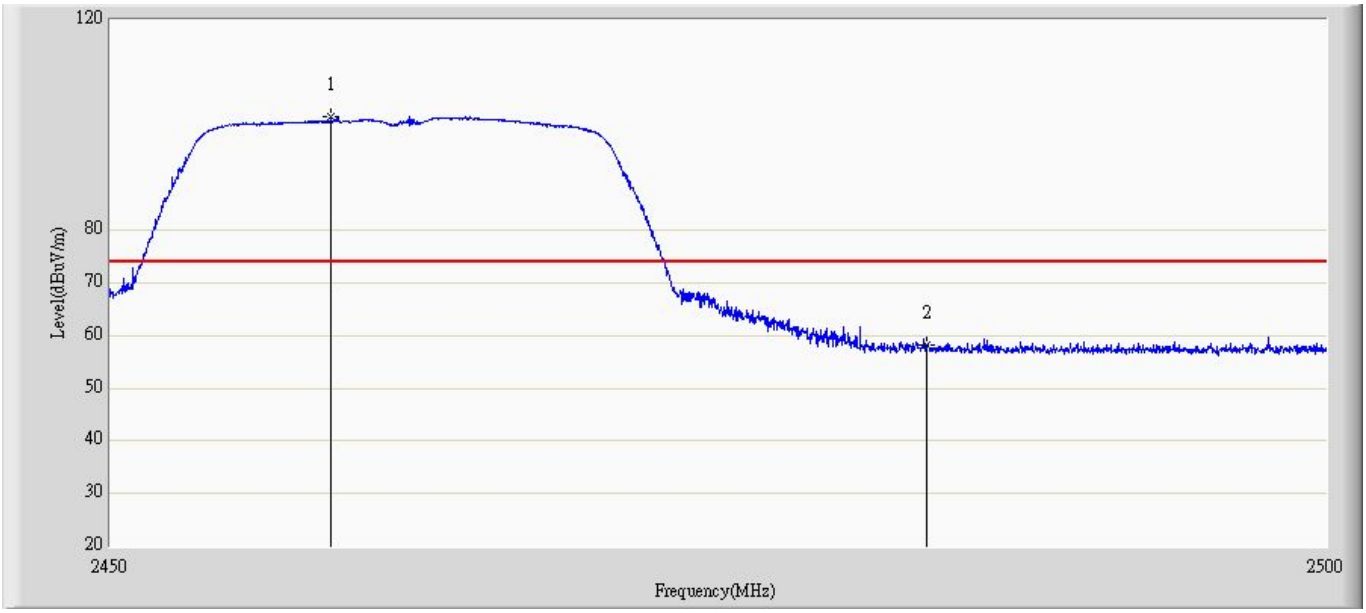
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2459.3	103.226	72.435	NA	NA	30.791	PK
2			2483.5	58.977	28.338	-15.023	74	30.638	PK

Profile: 103S075R	Page No.: 24
Engineer: Ken	
Site: AC2	Time: 2010/03/24 - 16:27
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2462MHz by 802.11n(20MHz)	



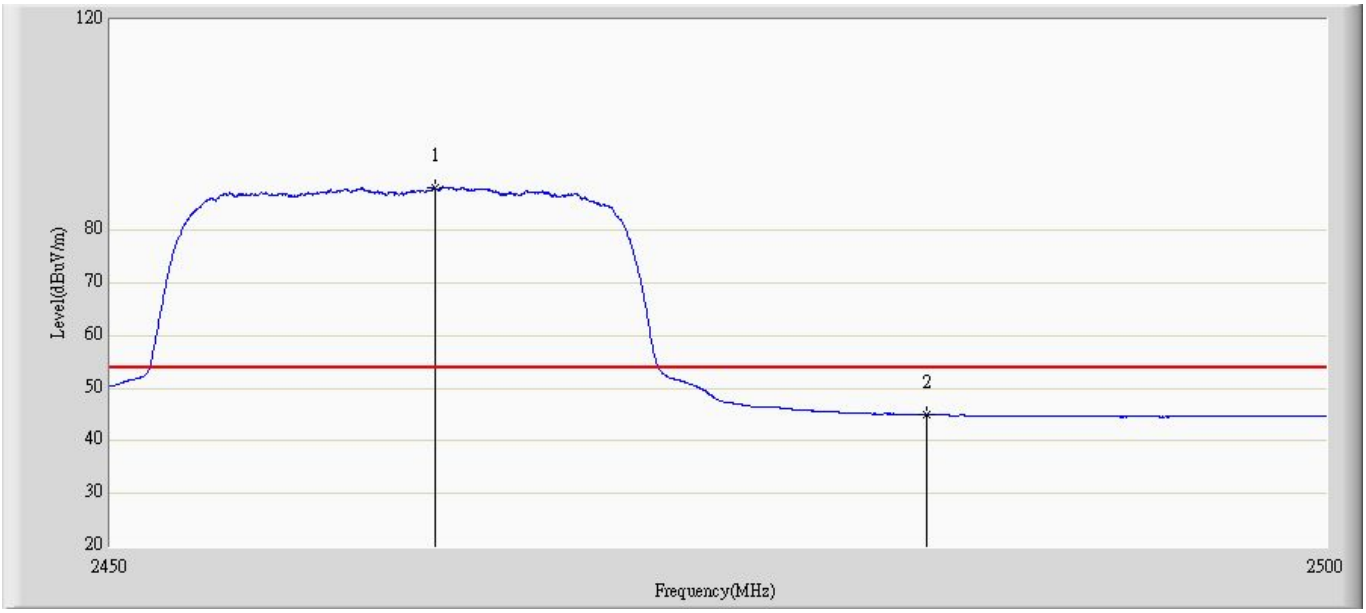
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2459.3	89.4	58.609	NA	NA	30.791	AV
2			2483.5	45.181	14.542	-8.819	54	30.638	AV

Profile: 103S075R	Page No.: 21
Engineer: Ken	
Site: AC2	Time: 2010/03/24 - 15:55
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2462MHz by 802.11n(20MHz)	



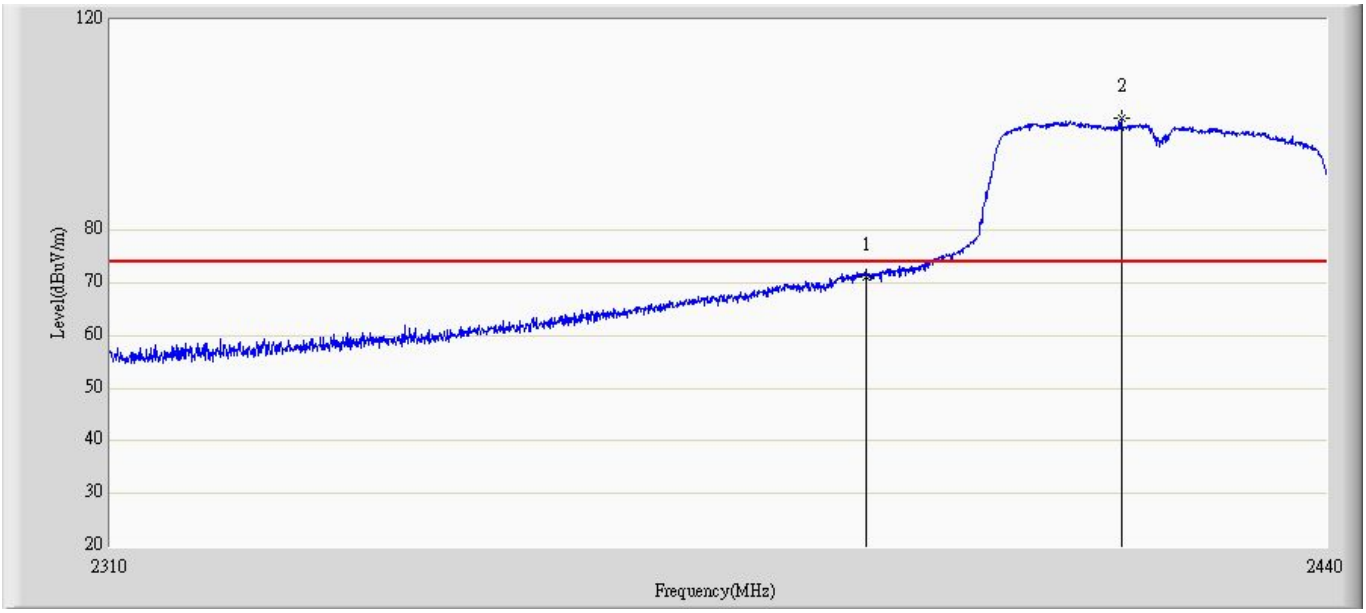
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2459.0	101.548	70.756	NA	NA	30.793	PK
2			2483.5	58.111	27.472	-15.889	74	30.638	PK

Profile: 103S075R	Page No.: 22
Engineer: Ken	
Site: AC2	Time: 2010/03/24 - 15:59
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2462MHz by 802.11n(20MHz)	



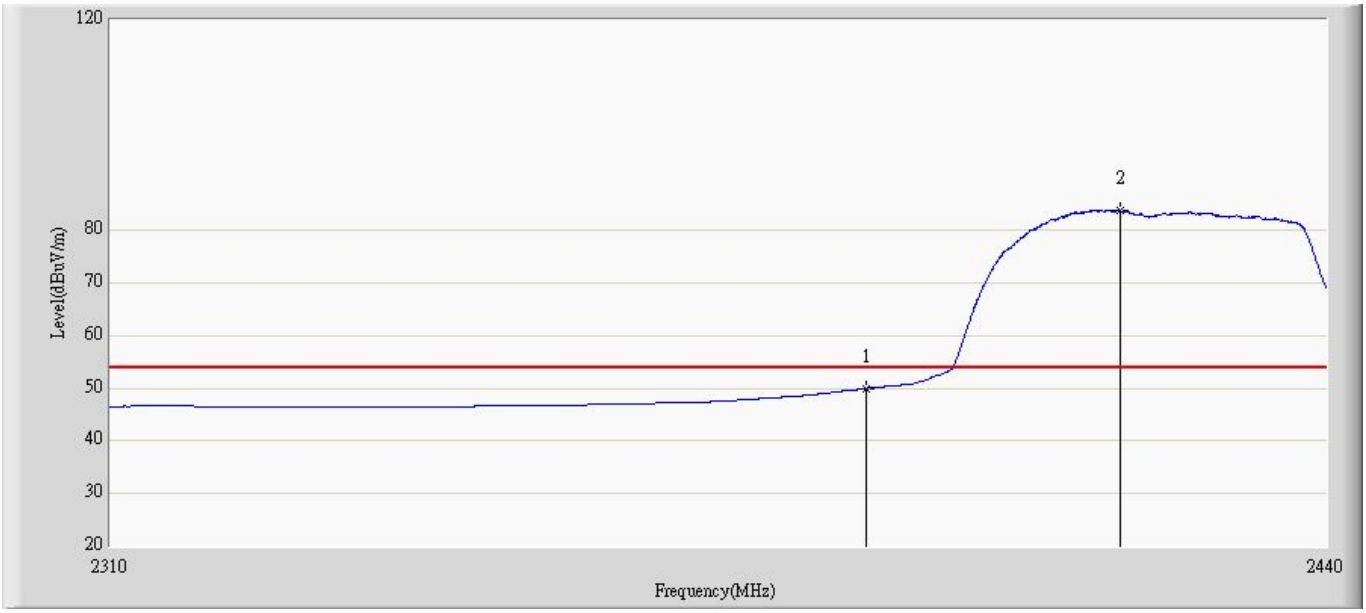
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2463.3	88.081	57.31	NA	NA	30.77	AV
2			2483.5	44.903	14.264	-9.097	54	30.638	AV

Profile: 103S075R	Page No.: 27
Engineer: Ken	
Site: AC2	Time: 2010/03/26 - 19:31
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2422MHz by 802.11n(40MHz)	



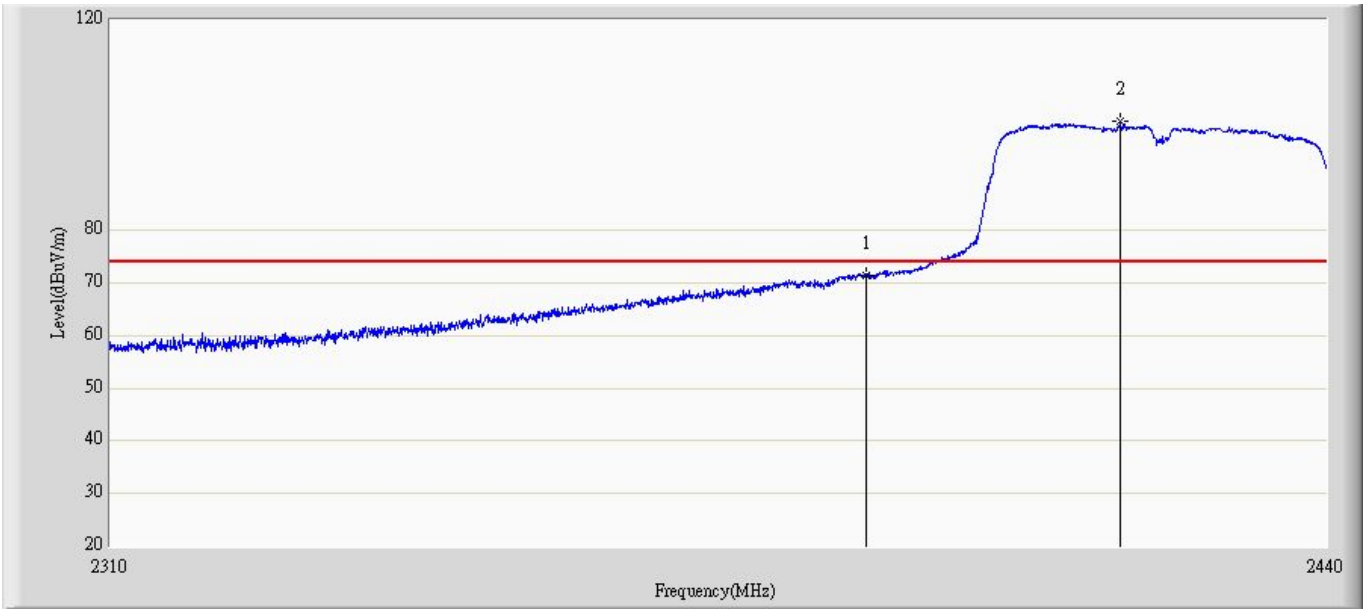
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.0	71.219	40.675	-2.781	74	30.543	PK
2	X	*	2417.6	101.235	70.606	NA	NA	30.628	PK

Profile: 103S075R	Page No.: 28
Engineer: Ken	
Site: AC2	Time: 2010/03/24 - 16:49
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2422MHz by 802.11n(40MHz)	



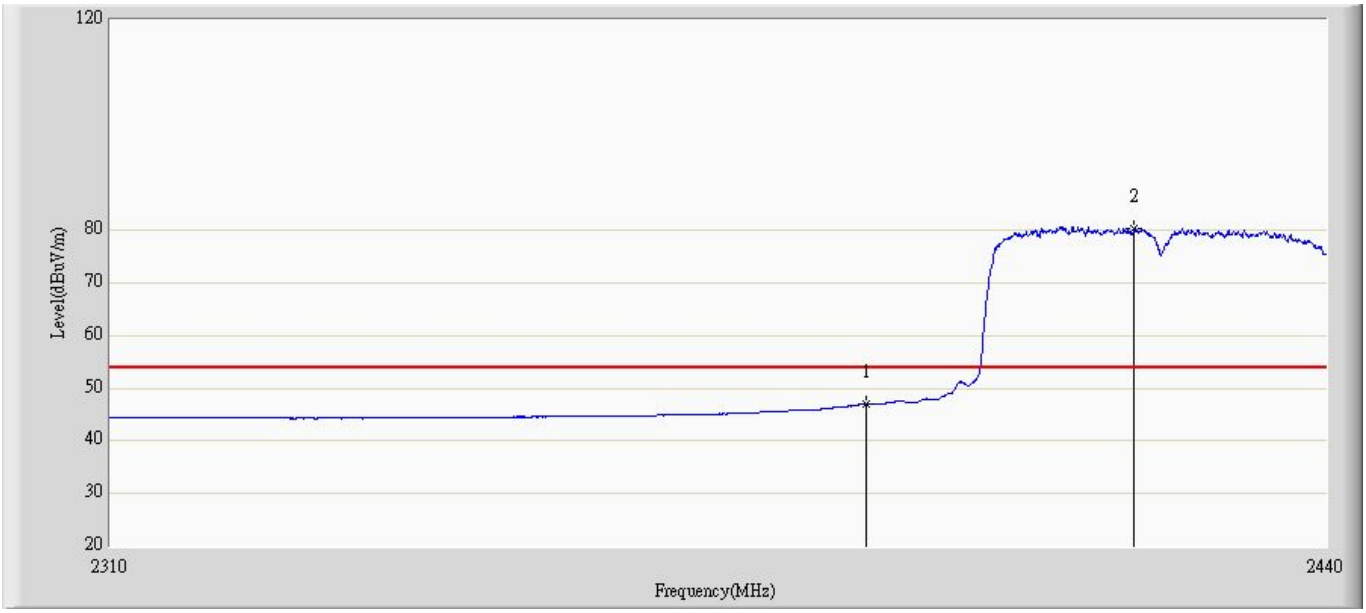
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.0	49.982	19.438	-4.018	54	30.543	AV
2	X	*	2417.6	83.725	53.097	NA	NA	30.628	AV

Profile: 103S075R	Page No.: 25
Engineer: Ken	
Site: AC2	Time: 2010/03/24 - 16:41
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2422MHz by 802.11n(40MHz)	



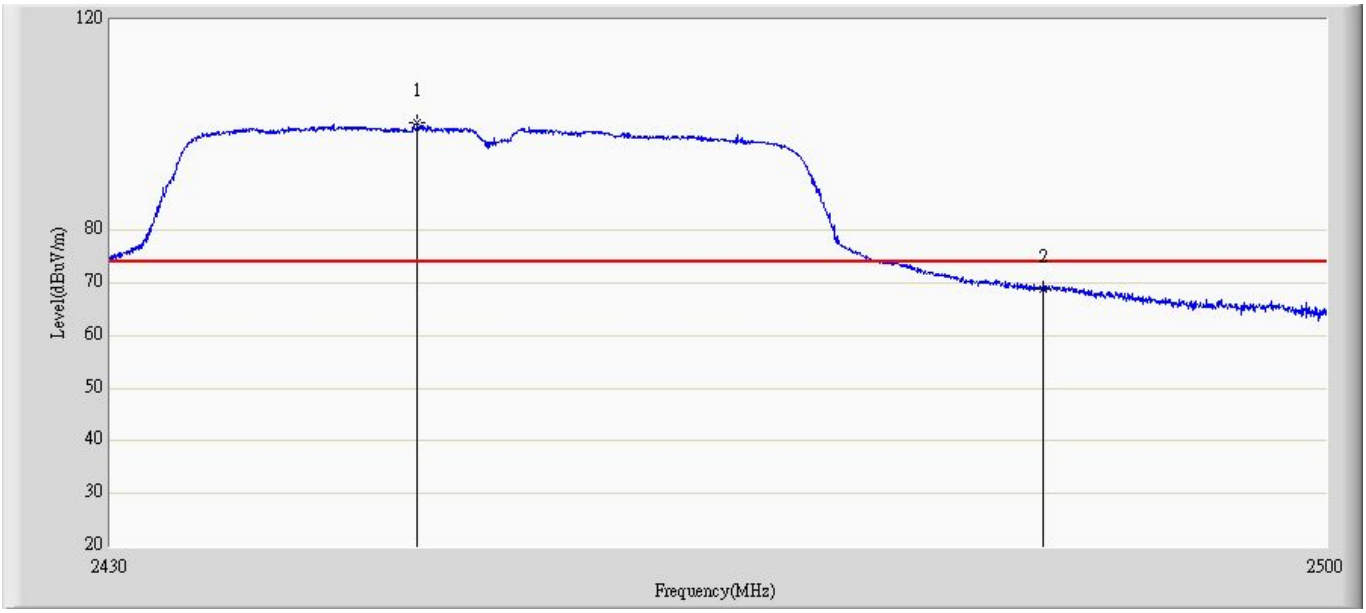
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.0	71.366	40.822	-2.634	74	30.543	PK
2	X	*	2417.6	100.704	70.076	NA	NA	30.628	PK

Profile: 103S075R	Page No.: 26
Engineer: Ken	
Site: AC2	Time: 2010/03/24 - 16:45
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2422MHz by 802.11n(40MHz)	



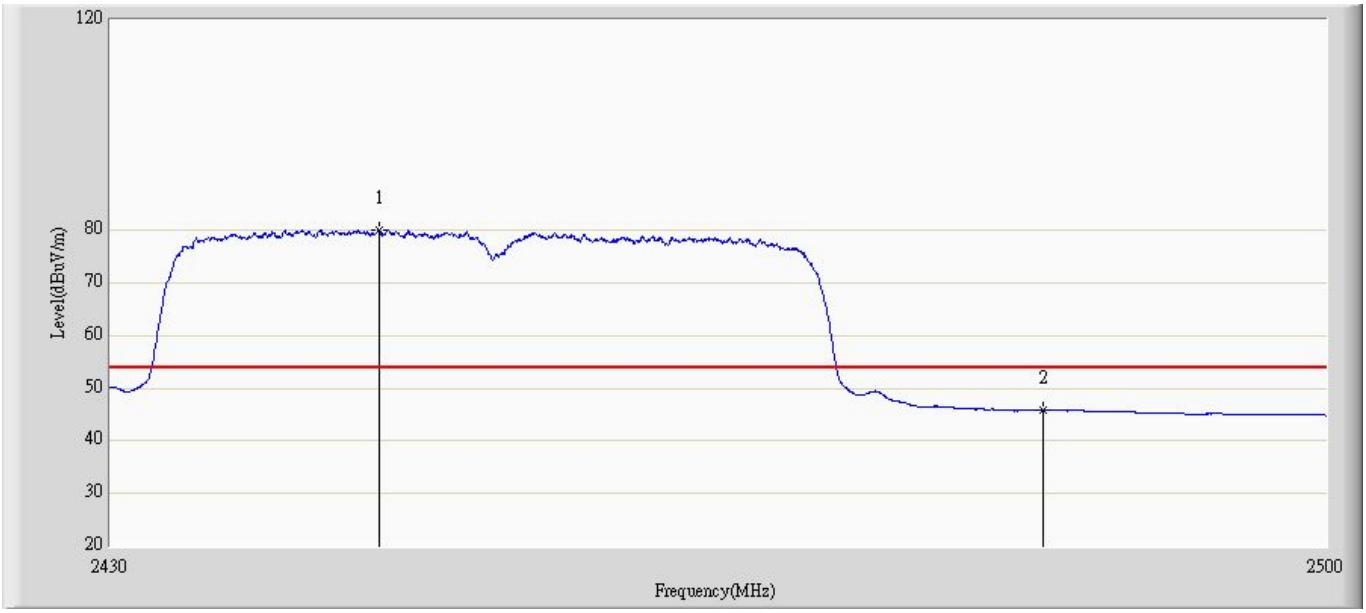
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2390.0	46.932	16.388	-7.068	54	30.543	AV
2	X	*	2419.1	80.437	49.796	NA	NA	30.641	AV

Profile: 103S075R	Page No.: 29
Engineer: Ken	
Site: AC2	Time: 2010/03/24 - 16:51
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2452MHz by 802.11n(40MHz)	



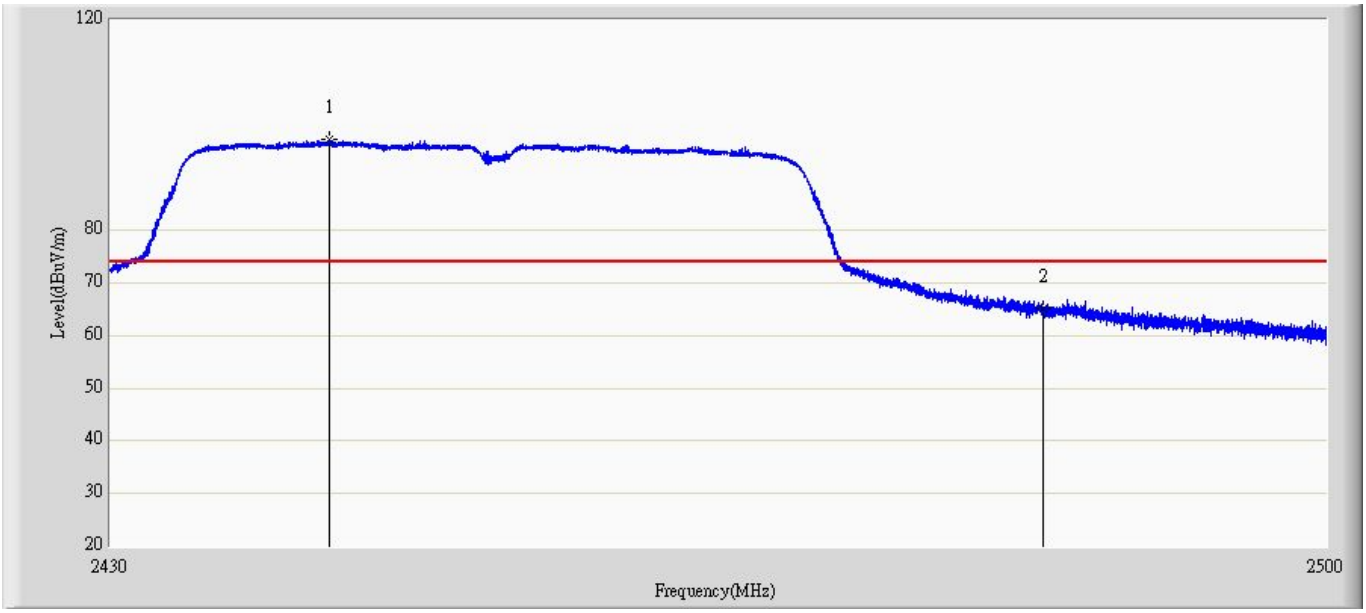
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2447.5	100.318	69.478	NA	NA	30.839	PK
2			2483.5	68.738	38.099	-5.262	74	30.638	PK

Profile: 103S075R	Page No.: 30
Engineer: Ken	
Site: AC2	Time: 2010/03/24 - 16:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Horizontal
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2452MHz by 802.11n(40MHz)	



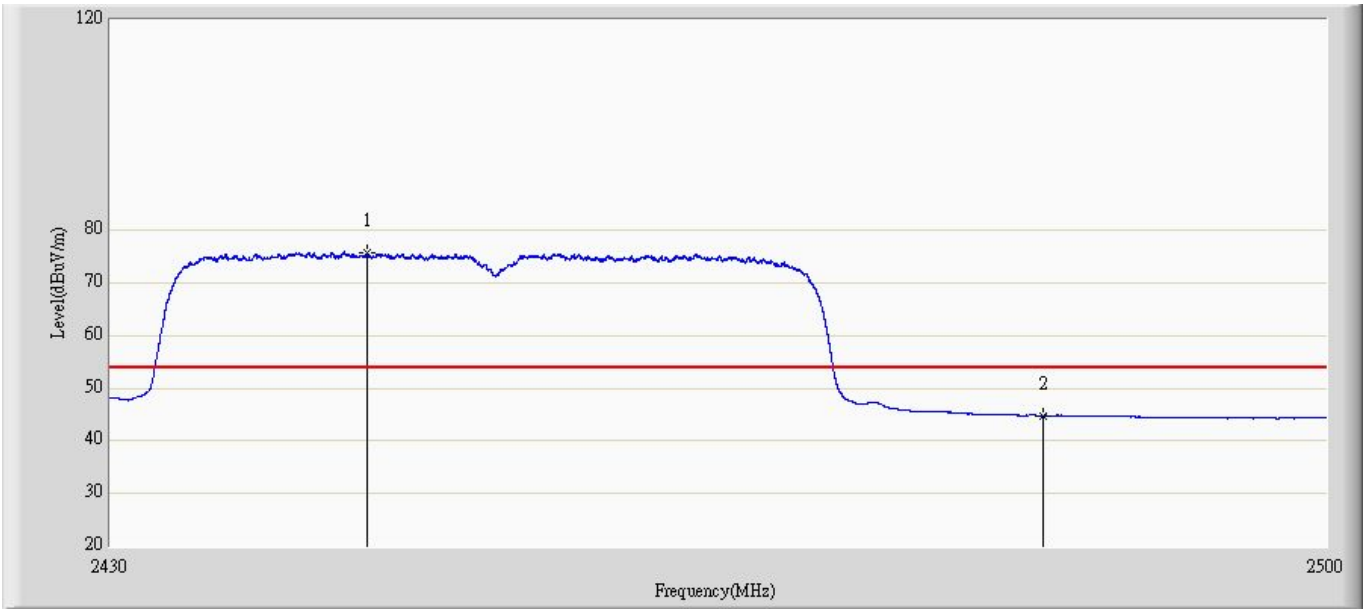
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2445.3	80.124	49.275	NA	NA	30.849	AV
2			2483.5	45.776	15.137	-8.224	54	30.638	AV

Profile: 103S075R	Page No.: 31
Engineer: Ken	
Site: AC2	Time: 2010/03/26 - 19:57
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2452MHz by 802.11n(40MHz)	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2442.5	97.227	66.396	NA	NA	30.831	PK
2			2483.5	65.013	34.374	-8.987	74	30.638	PK

Profile: 103S075R	Page No.: 32
Engineer: Ken	
Site: AC2	Time: 2010/03/26 - 20:07
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_737(1-18GHz)	Polarity: Vertical
EUT: Eee PC	Power: AC 120V/60Hz
Note: Mode 4: Transmit at channel 2452MHz by 802.11n(40MHz)	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1	X	*	2444.7	75.723	44.876	NA	NA	30.848	AV
2			2483.5	44.84	14.201	-9.16	54	30.638	AV

7. Operation Frequency Range of 20dB Bandwidth

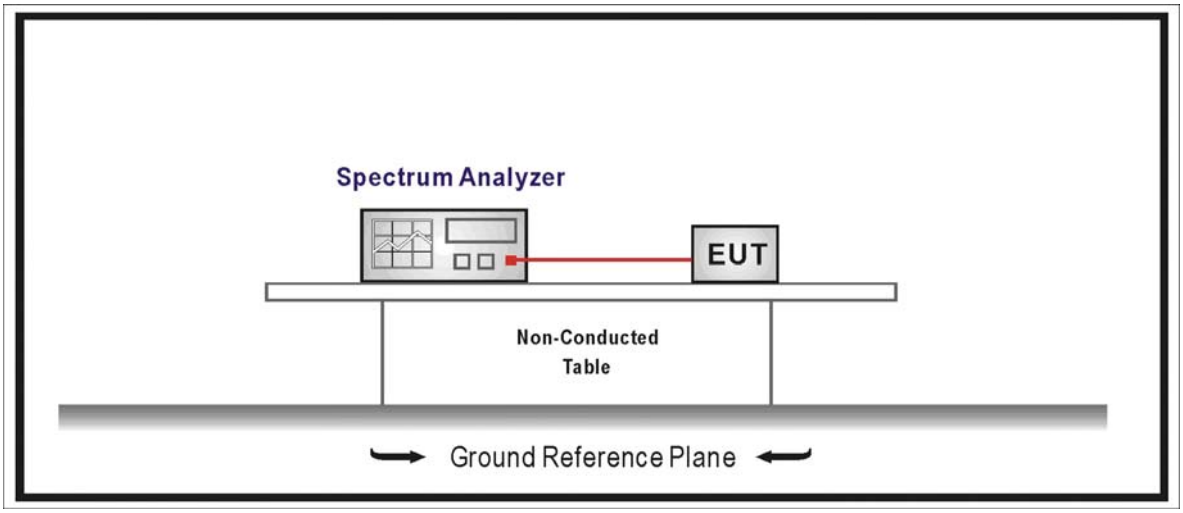
7.1. Test Equipment

Operation Frequency Range of 20dB Bandwidth / AC-6

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2009/06/11
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.

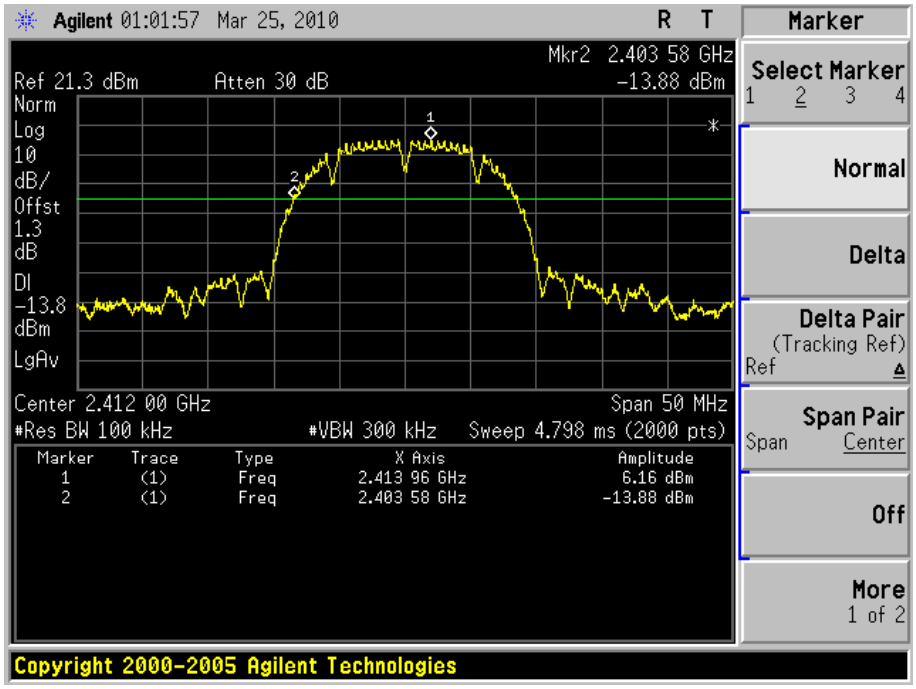
7.5. Uncertainty

The measurement uncertainty is defined as ± 1 kHz

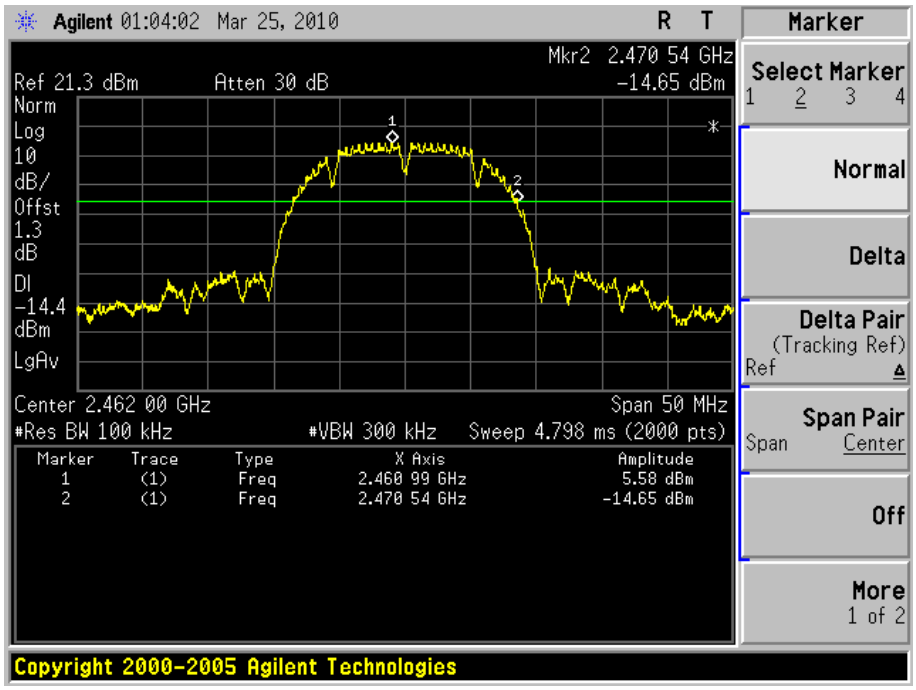
7.6. Test Result

Product	:	Eee PC
Test Item	:	Operation Frequency Range of 20dB Bandwidth
Test Site	:	AC-6
Test Mode	:	Mode 1: Transmit by 802.11b

Channel 01 (2412MHz)

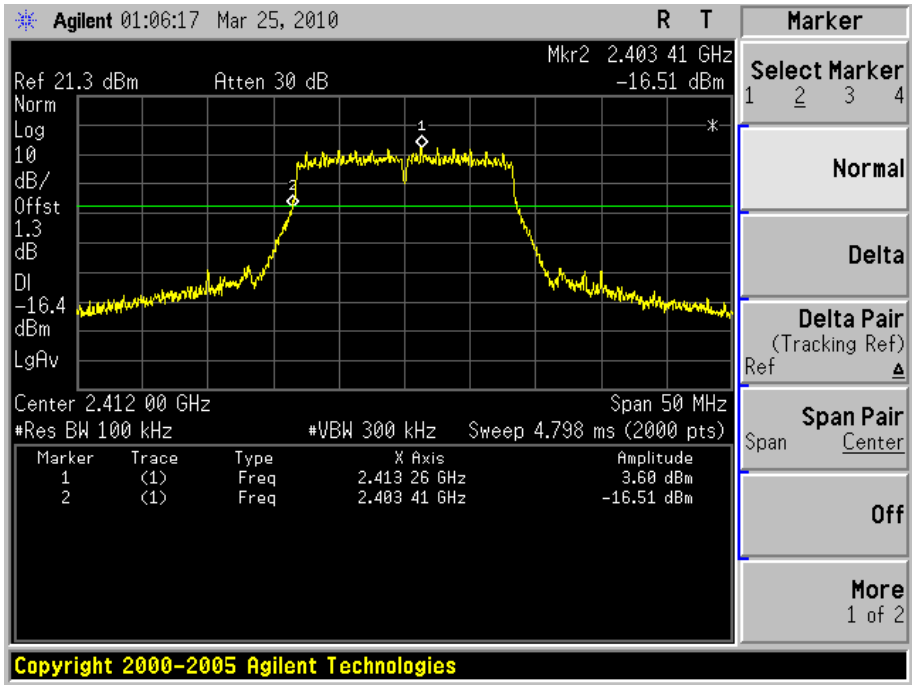


Channel 11 (2462MHz)

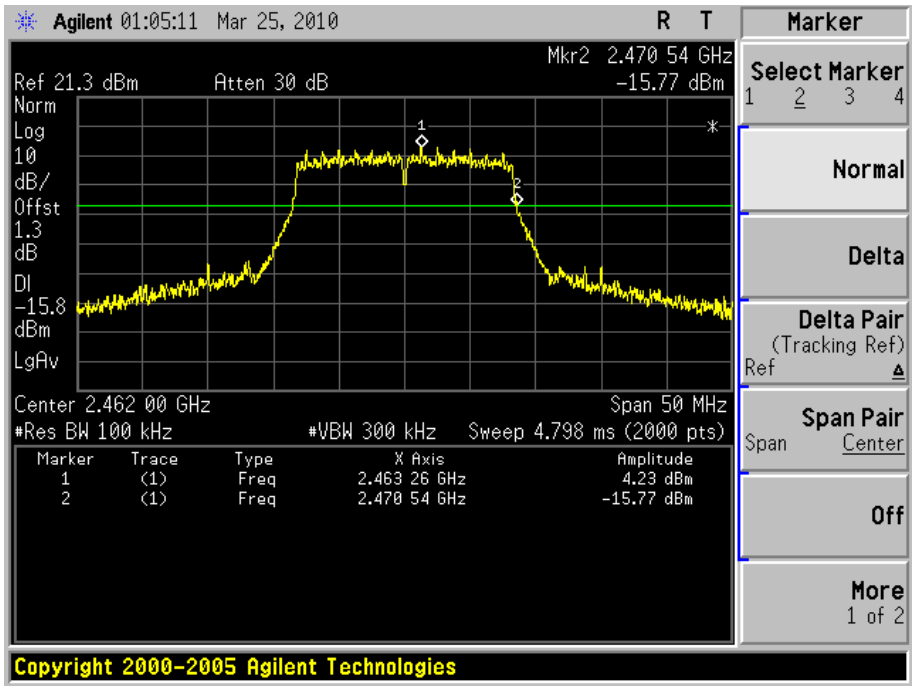


Product	:	Eee PC
Test Item	:	Operation Frequency Range of 20dB Bandwidth
Test Site	:	AC-6
Test Mode	:	Mode 2: Transmit by 802.11g

Channel 01 (2412MHz)

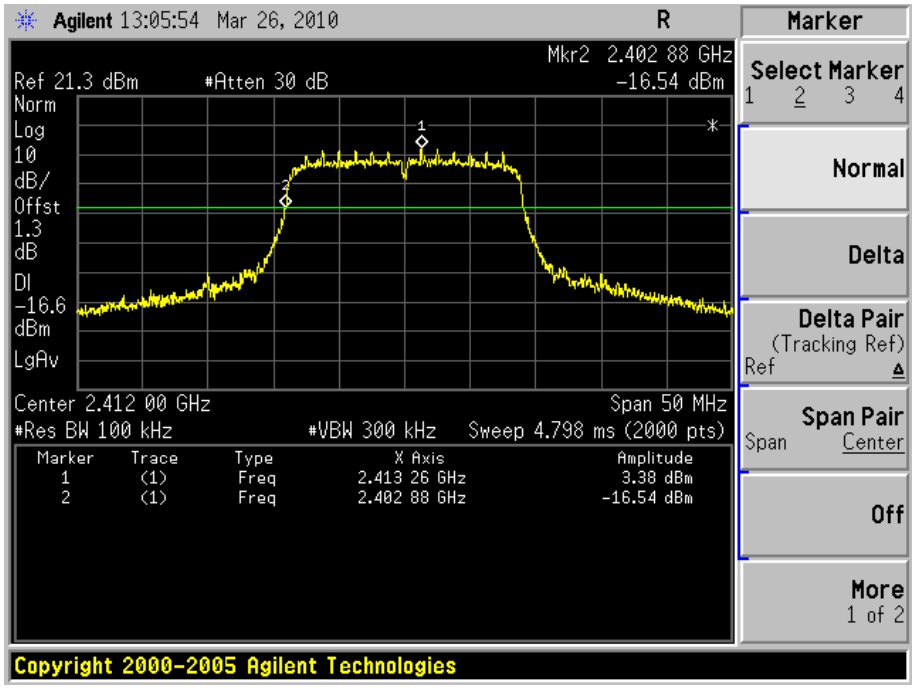


Channel 11 (2462MHz)

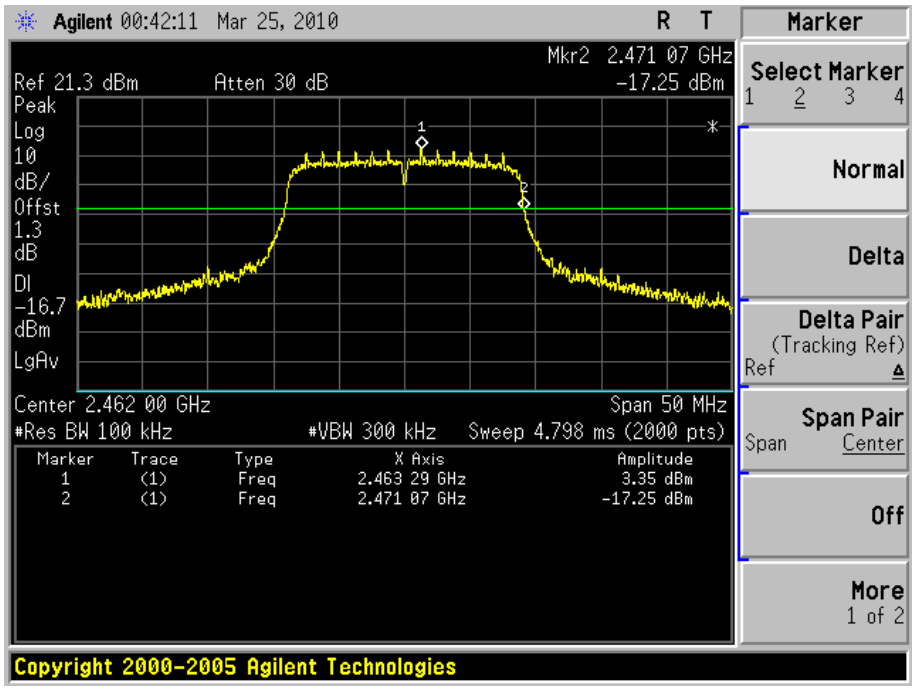


Product	:	Eee PC
Test Item	:	Operation Frequency Range of 20dB Bandwidth
Test Site	:	AC-6
Test Mode	:	Mode 3: Transmit by 802.11n (20MHz)

Channel 01 (2412MHz)

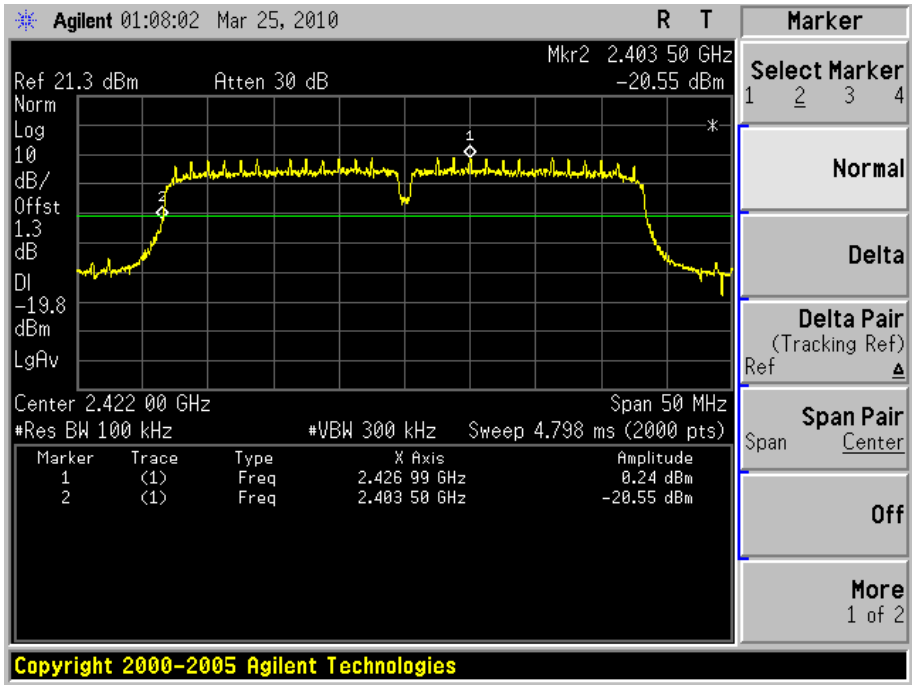


Channel 11 (2462MHz)

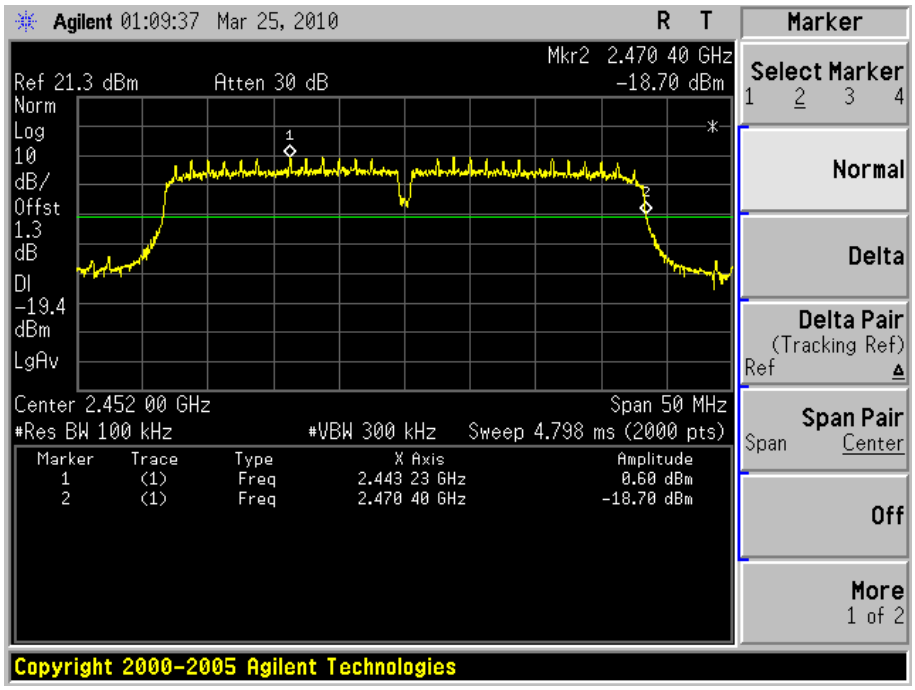


Product	:	Eee PC
Test Item	:	Operation Frequency Range of 20dB Bandwidth
Test Site	:	AC-6
Test Mode	:	Mode 4: Transmit by 802.11n (40MHz)

Channel 03 (2422MHz)



Channel 09 (2452MHz)



8. Occupied Bandwidth

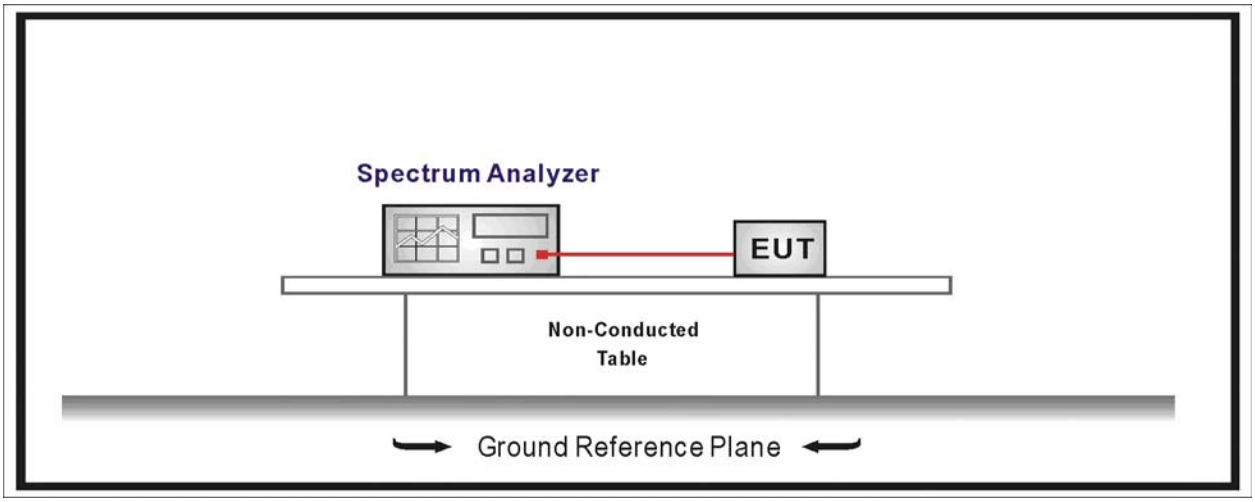
8.1. Test Equipment

Occupied Bandwidth / AC-6

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	E4446A	MY45300103	2009/06/11
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

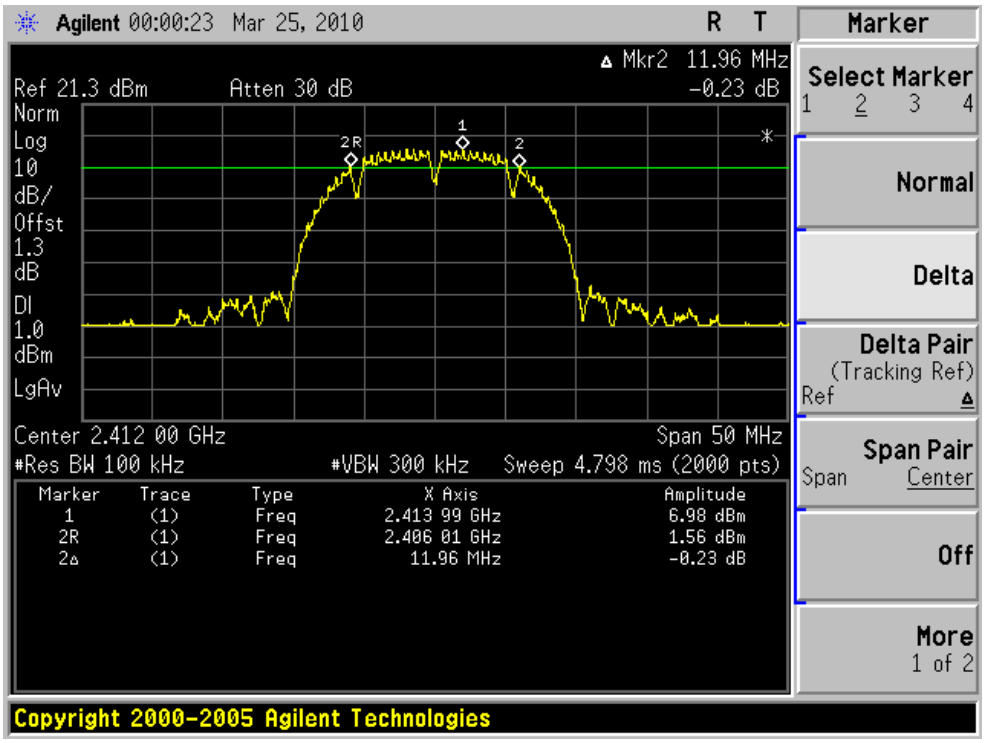
The measurement uncertainty is defined as ± 1 kHz

8.6. Test Result

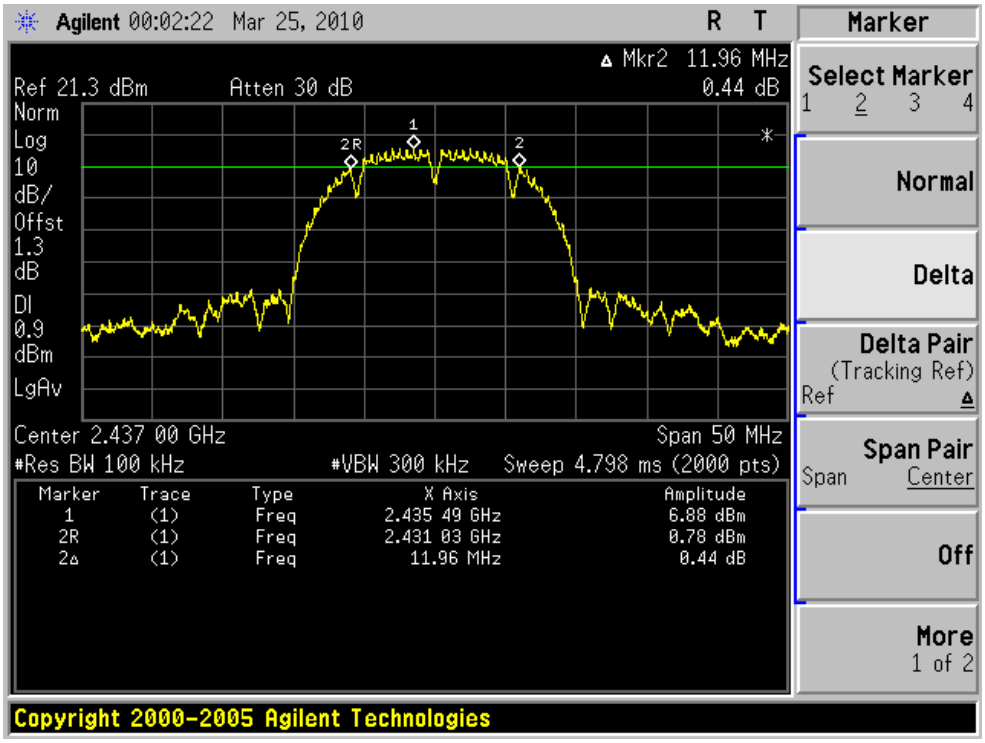
Product	:	Eee PC
Test Item	:	6dB Occupied Bandwidth
Test Site	:	AC-6
Test Mode	:	Mode 1: Transmit by 802.11b

Channel No.	Frequency (MHz)	Occupied Bandwidth (kHz)	Limit (kHz)	Result
01	2412	11960	500	Pass
06	2437	11960	500	Pass
11	2462	11930	500	Pass

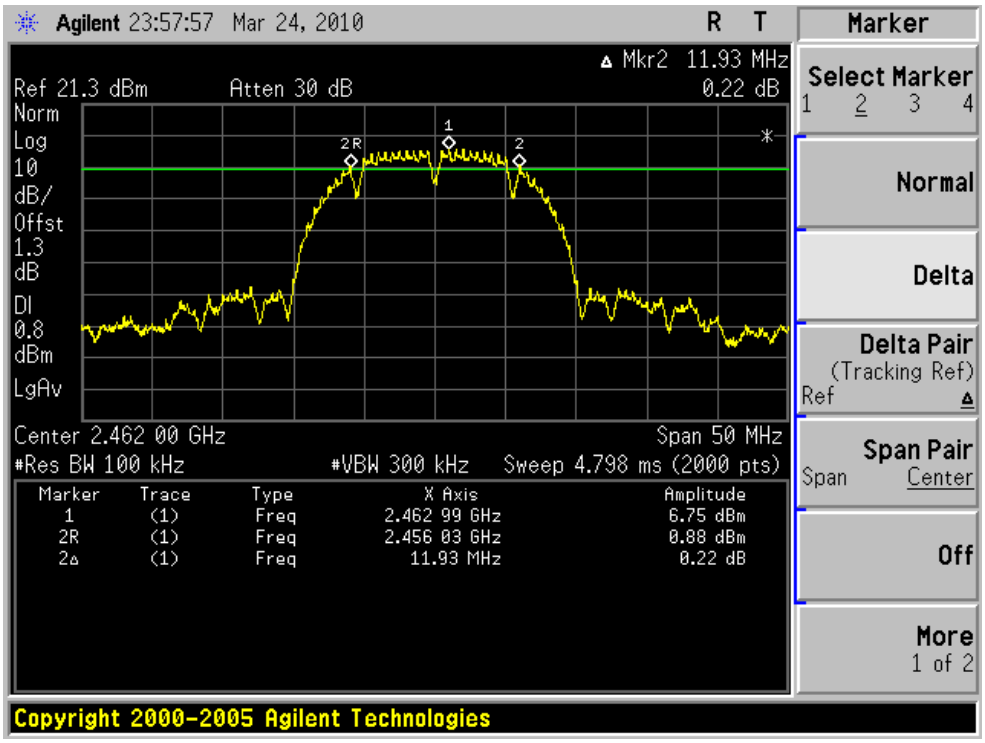
Channel 01 (2412MHz)



Channel 06 (2437MHz)



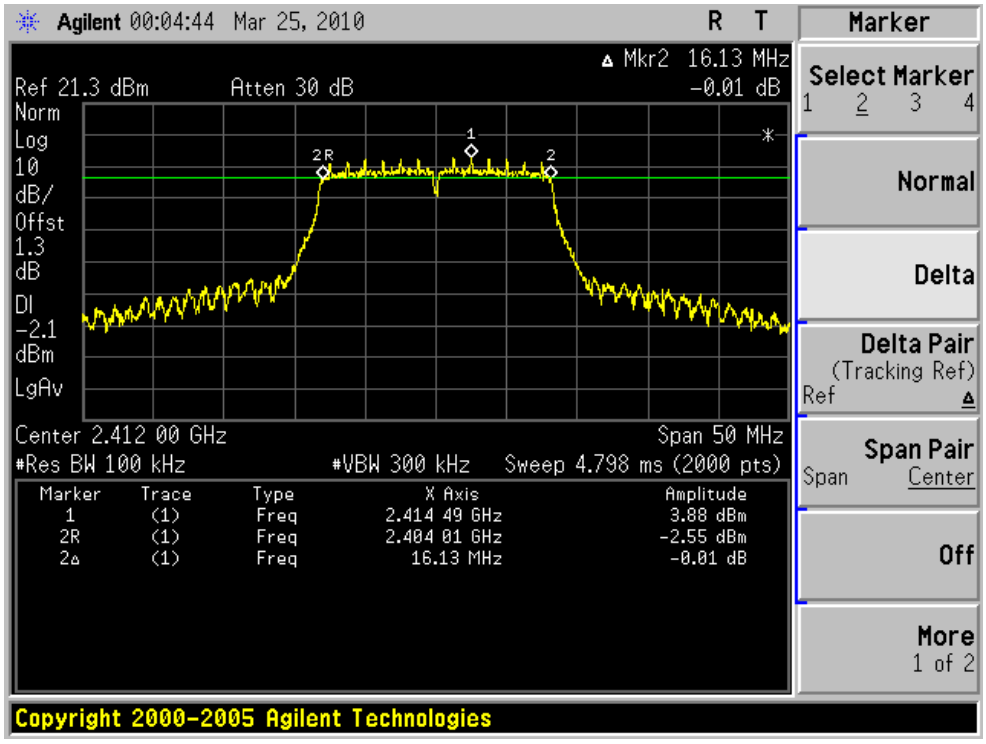
Channel 11 (2462MHz)



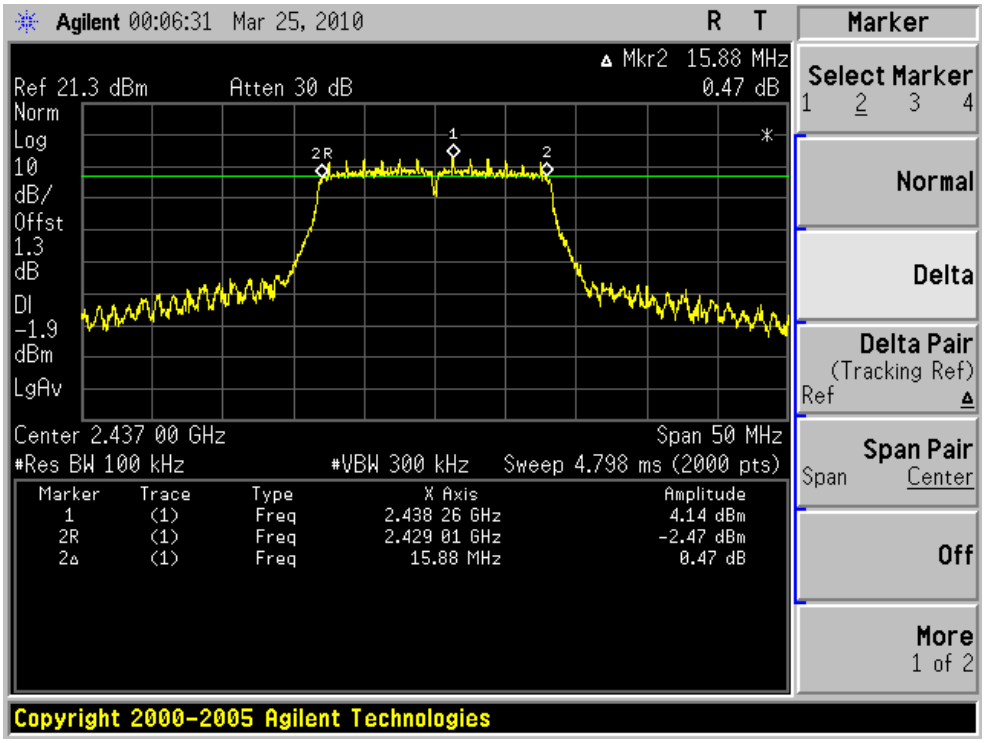
Product	:	Eee PC
Test Item	:	6dB Occupied Bandwidth
Test Site	:	AC-6
Test Mode	:	Mode 2: Transmit by 802.11g

Channel No.	Frequency (MHz)	Occupied Bandwidth (kHz)	Limit (kHz)	Result
01	2412	16130	500	Pass
06	2437	15880	500	Pass
11	2462	15810	500	Pass

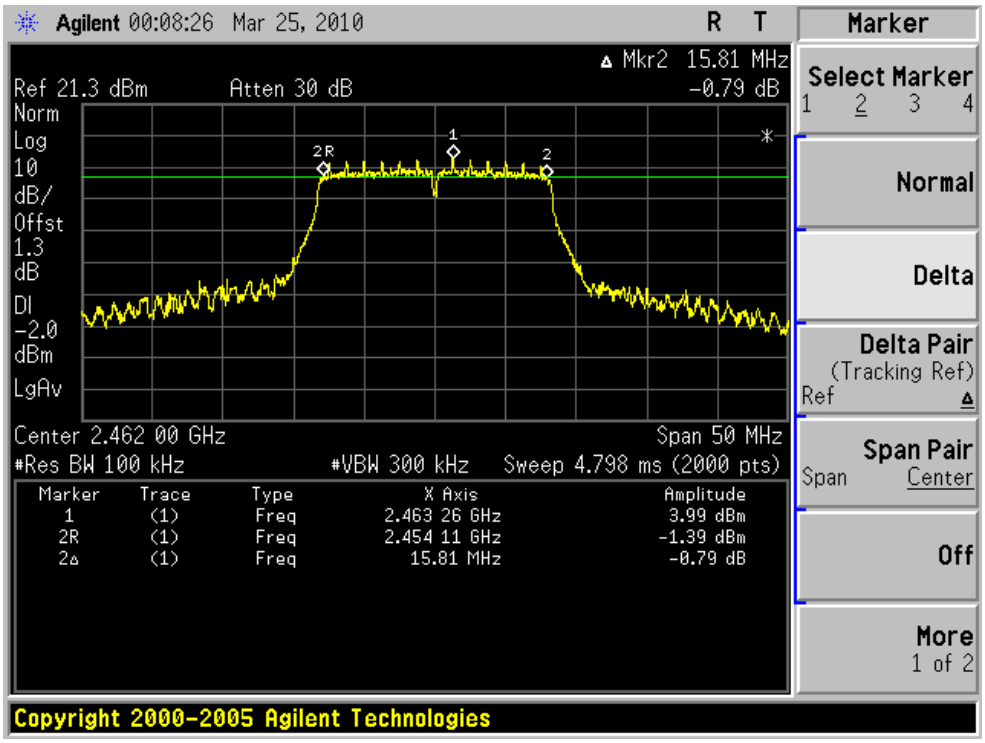
Channel 01 (2412MHz)



Channel 06 (2437MHz)



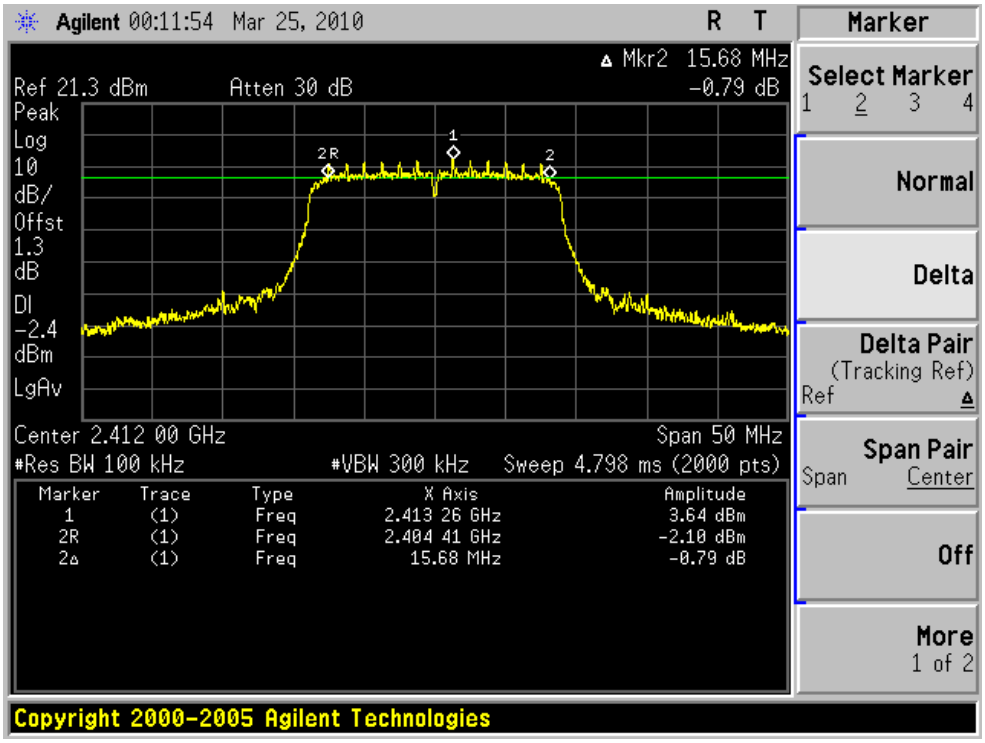
Channel 11 (2462MHz)



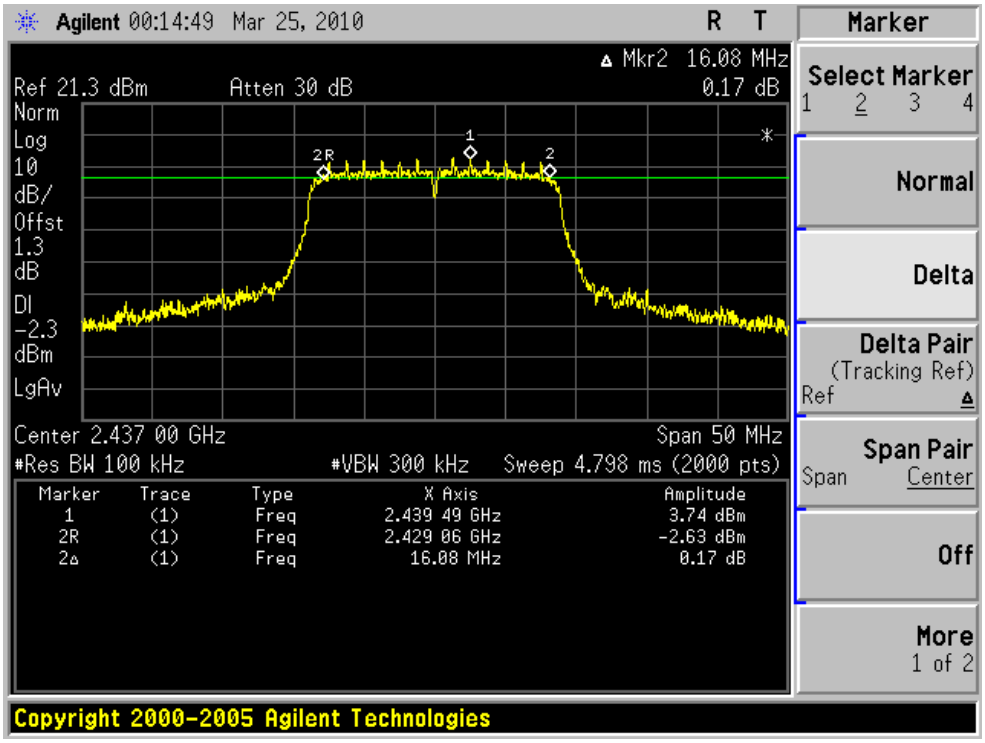
Product	:	Eee PC
Test Item	:	6dB Occupied Bandwidth
Test Site	:	AC-6
Test Mode	:	Mode 3: Transmit by 802.11n (20MHz)

Channel No.	Frequency (MHz)	Occupied Bandwidth (kHz)	Limit (kHz)	Result
01	2412	15680	500	Pass
06	2437	16080	500	Pass
11	2462	15660	500	Pass

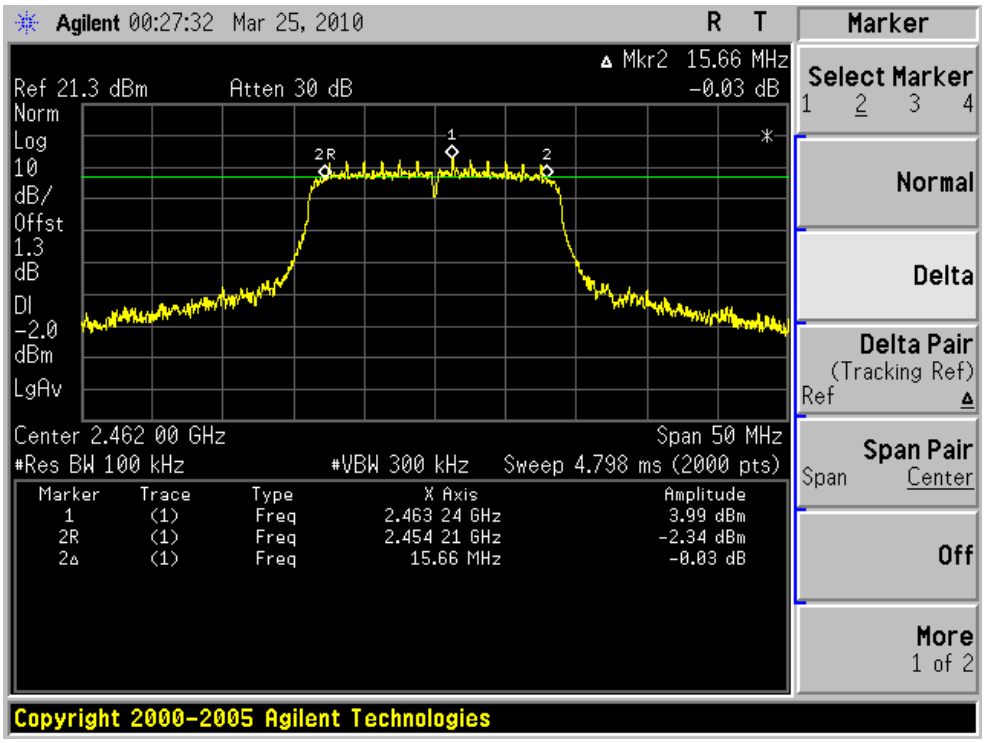
Channel 01 (2412MHz)



Channel 06 (2437MHz)



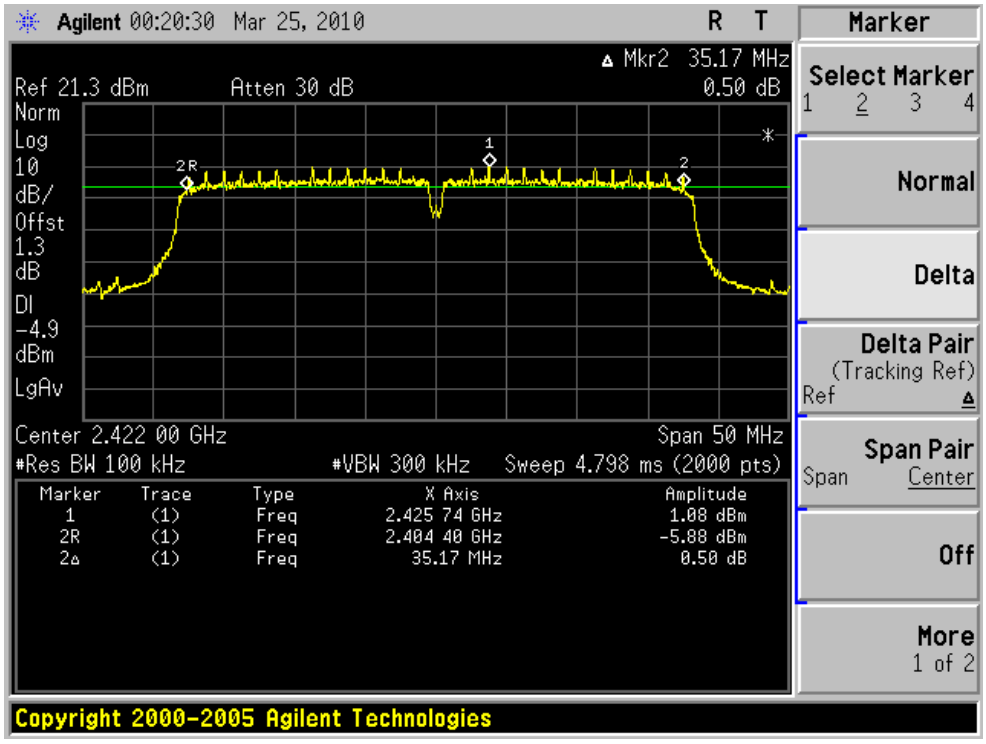
Channel 11 (2462MHz)



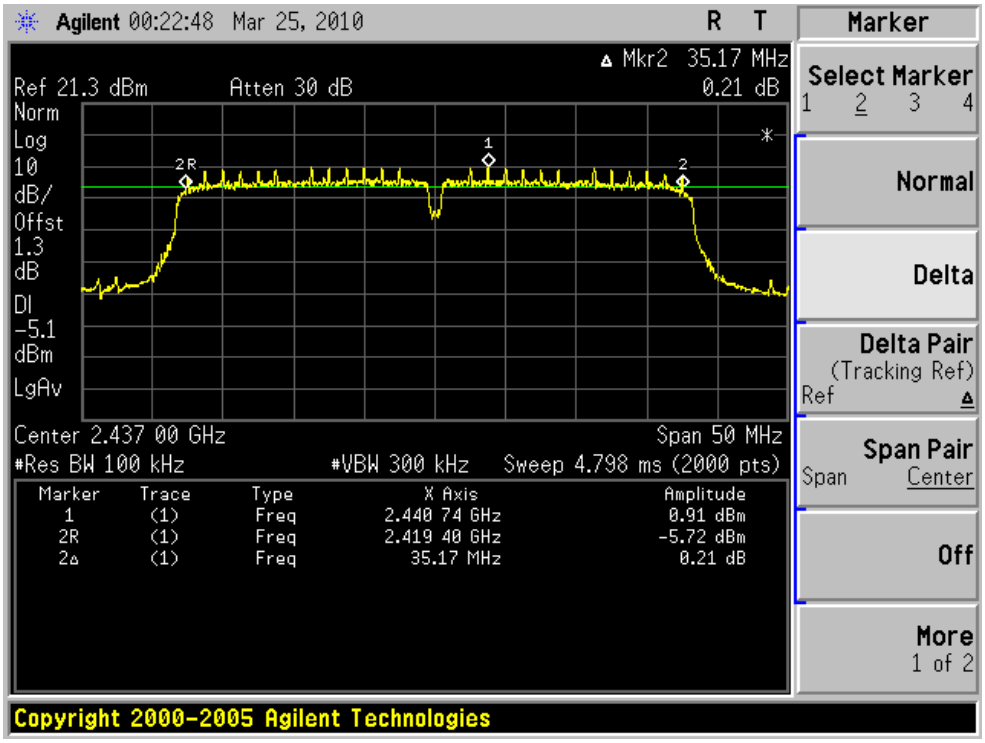
Product	:	Eee PC
Test Item	:	6dB Occupied Bandwidth
Test Site	:	AC-6
Test Mode	:	Mode 4: Transmit by 802.11n (40MHz)

Channel No.	Frequency (MHz)	Occupied Bandwidth (kHz)	Limit (kHz)	Result
03	2422	35170	500	Pass
06	2437	35170	500	Pass
09	2452	35170	500	Pass

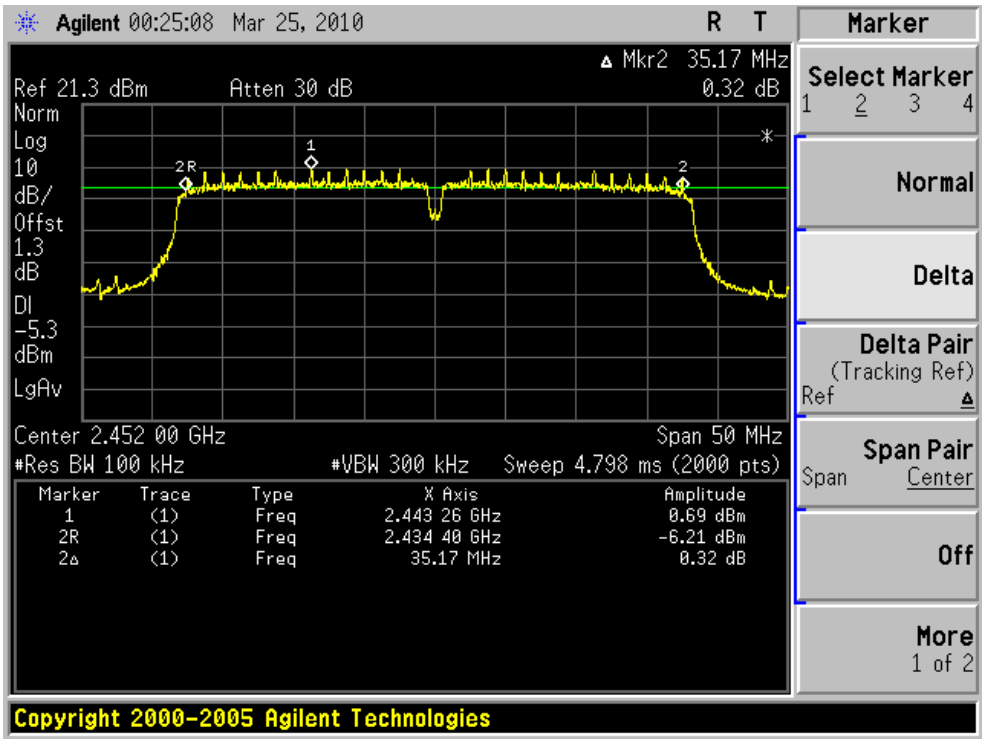
Channel 03 (2422MHz)



Channel 06 (2437MHz)



Channel 09 (2452MHz)



9. Power Output

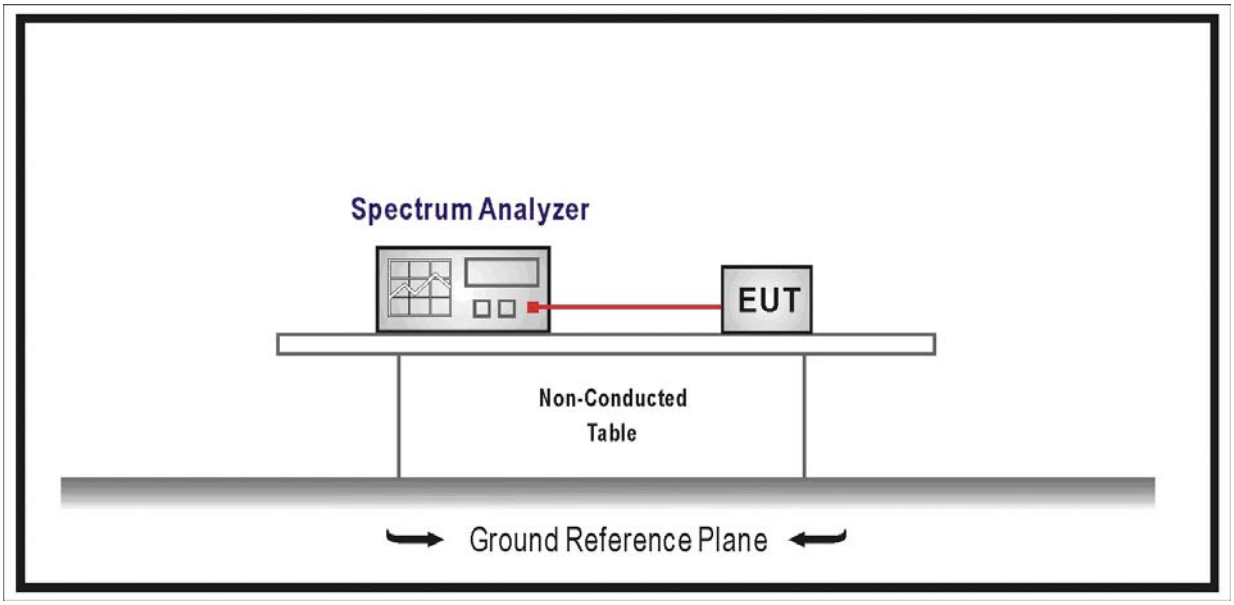
9.1. Test Equipment

Power Output / AC-6

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Wideband Peak Power Meter	Anritsu	ML2495A	0905006	2010/02/12
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	18.32
			2	18.16
			5.5	18.09
			11	18.02
802.11g	2437	6	6	22.95
			9	22.81
			12	22.72
			18	22.59
			24	22.43
			36	22.31
			48	22.15
			54	22.06
802.11n (20M)	2437	6	6.5	23.24
			13.0	23.08
			19.5	22.95
			26.0	22.84
			39.0	22.71
			52.0	22.56
			58.5	22.43
			65.0	22.29
802.11n (40M)	2437	6	13.5	23.37
			27.0	23.19
			40.5	23.18
			54.0	23.03
			81.0	22.82
			108.0	22.43
			121.5	22.18
			135.0	21.63

Product	:	Eee PC
Test Item	:	Power Output
Test Site	:	AC-6

Test Mode	Channel No.	Frequency (MHz)	Conducted Power (dBm)	Limit (dBm)	Result
802.11b	01	2412	18.58	30	Pass
	06	2437	18.32	30	Pass
	11	2462	18.14	30	Pass
802.11g	01	2412	22.81	30	Pass
	06	2437	22.95	30	Pass
	11	2462	22.98	30	Pass
802.11n(20M)	01	2412	22.65	30	Pass
	06	2437	23.24	30	Pass
	11	2462	23.35	30	Pass
802.11n(40M)	03	2422	23.34	30	Pass
	06	2437	23.37	30	Pass
	09	2452	23.29	30	Pass

10. Power Spectral Density

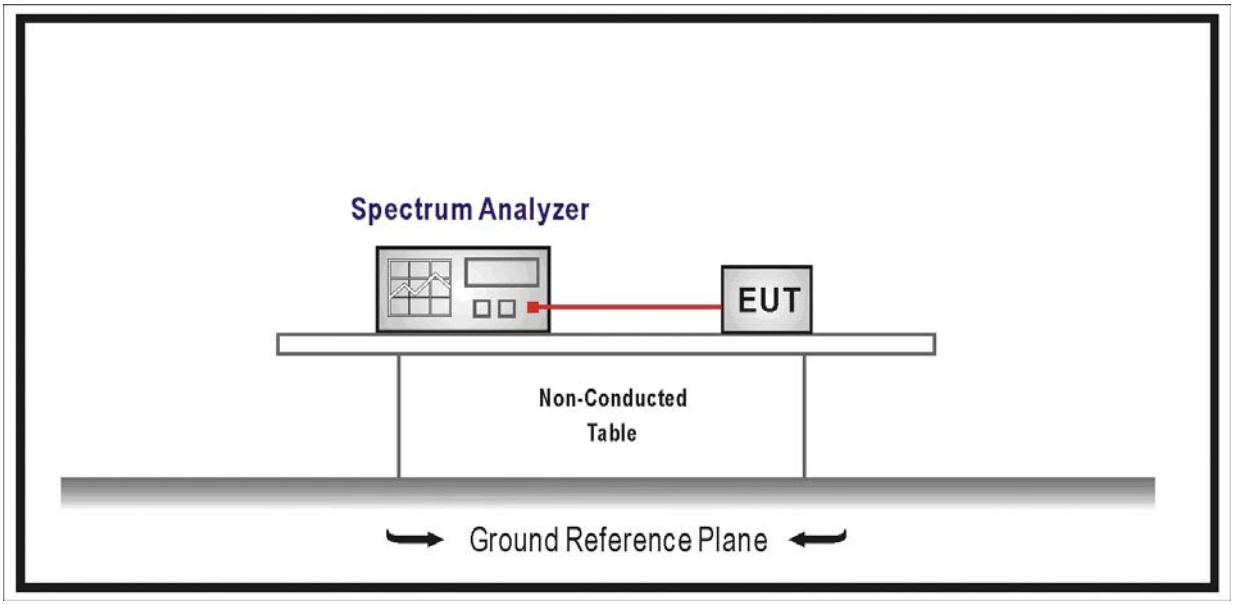
10.1. Test Equipment

Power Spectral Density / AC-6

Instrument	Manufacturer	Type No.	Serial No.	Cal. Date
Spectrum Analyzer	Agilent	N9020A	MY49100159	2009/05/06
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≧ 10 kHz, Sweep time=100s, Set detector=Peak detector.

10.5. Uncertainty

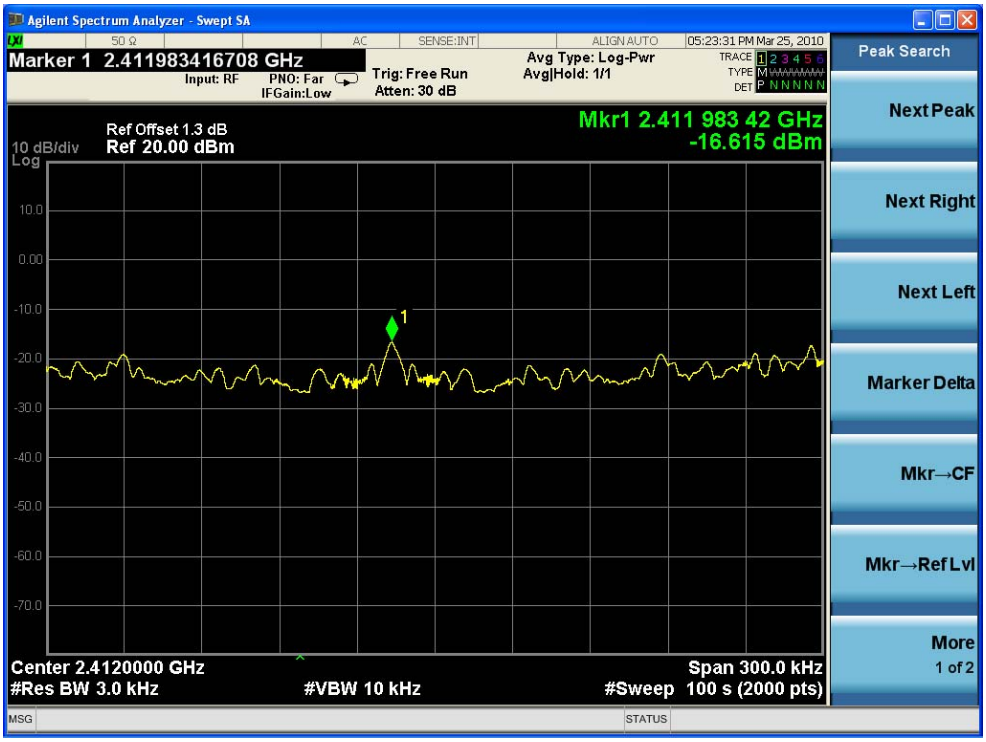
The measurement uncertainty is defined as ± 1.27 dB

10.6. Test Result

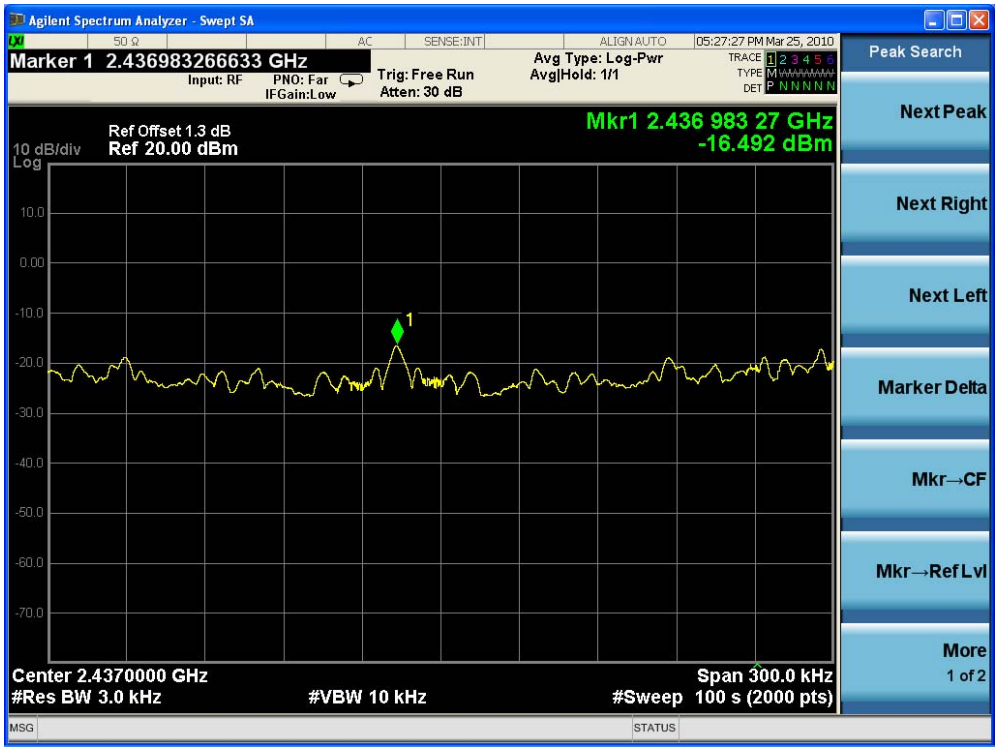
Product	:	Eee PC
Test Item	:	Power Spectral Density
Test Site	:	AC-6
Test Mode	:	Mode 1: Transmit by 802.11b

Channel No.	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm)	Result
01	2412	-16.62	8	Pass
06	2437	-16.49	8	Pass
11	2462	-17.20	8	Pass

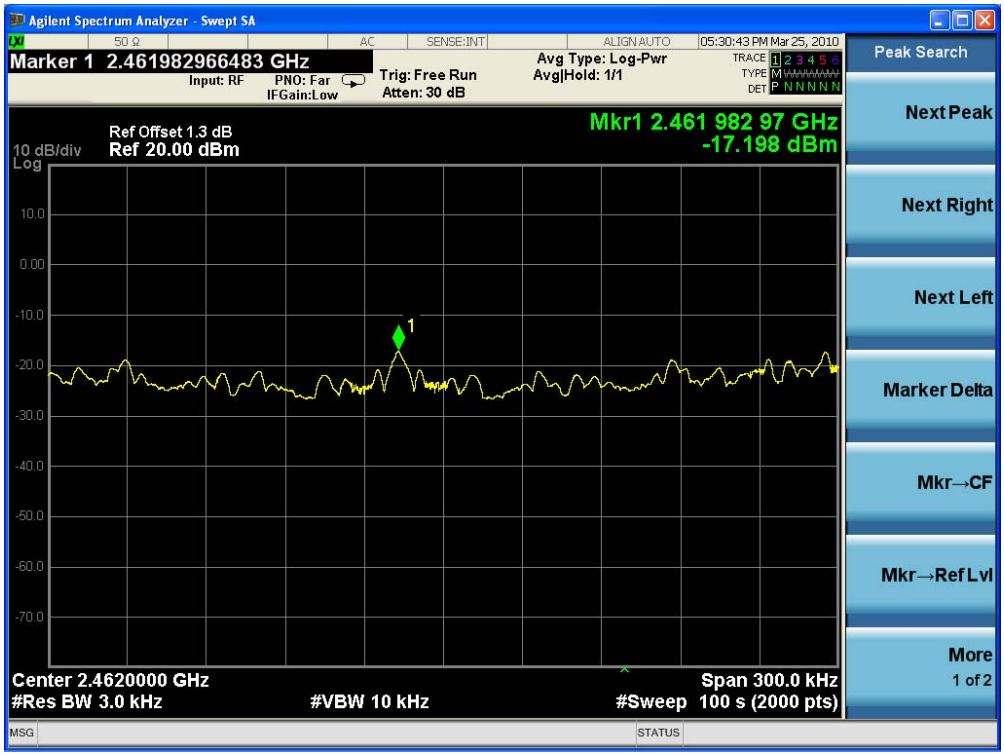
Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)



Product	:	Eee PC
Test Item	:	Power Spectral Density
Test Site	:	AC-6
Test Mode	:	Mode 2: Transmit by 802.11g

Channel No.	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm)	Result
01	2412	-18.34	8	Pass
06	2437	-18.21	8	Pass
11	2462	-18.93	8	Pass

Channel 01 (2412MHz)

Channel 06 (2437MHz)

Channel 11 (2462MHz)

Product	:	Eee PC
Test Item	:	Power Spectral Density
Test Site	:	AC-6
Test Mode	:	Mode 4: Transmit by 802.11n (20MHz)

Channel No.	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm)	Result
01	2412	-18.15	8	Pass
06	2437	-17.89	8	Pass
11	2462	-18.73	8	Pass

Channel 01 (2412MHz)

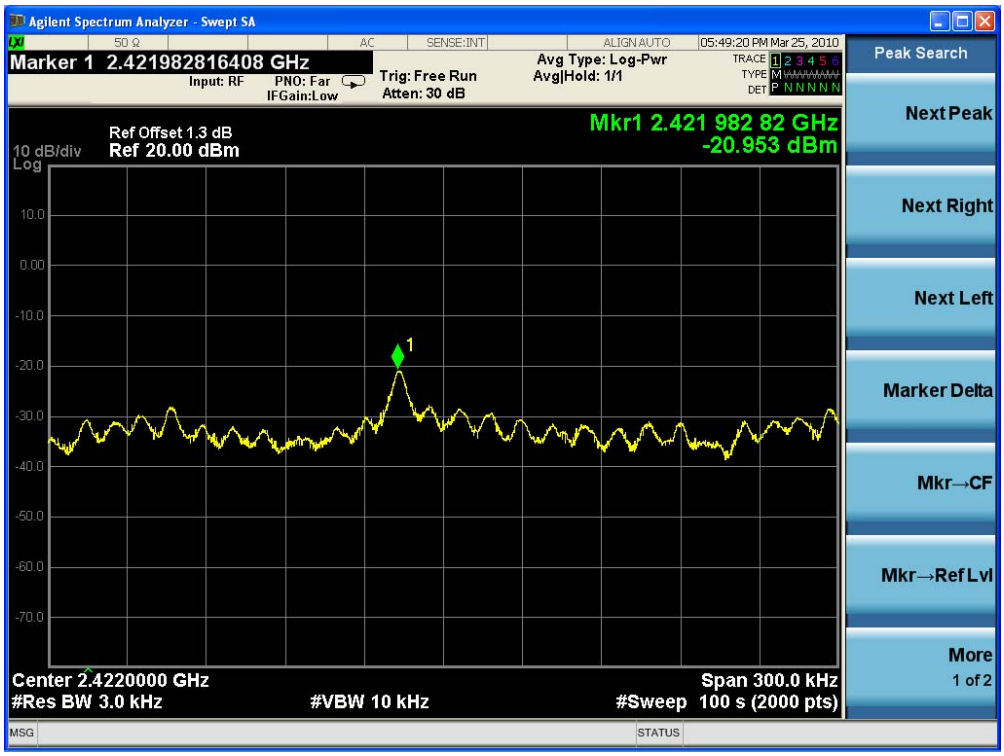
Channel 06 (2437MHz)

Channel 11 (2462MHz)

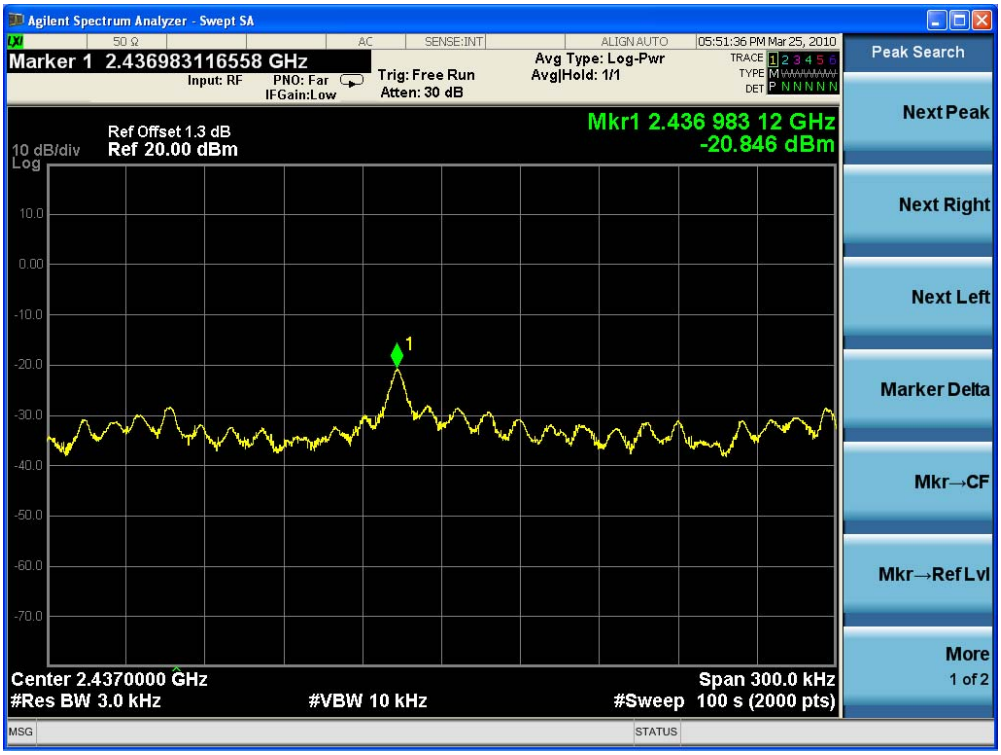
Product	:	Eee PC
Test Item	:	Power Spectral Density
Test Site	:	AC-6
Test Mode	:	Mode 5: Transmit by 802.11n (40MHz)

Channel No.	Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm)	Result
03	2422	-20.95	8	Pass
06	2437	-20.85	8	Pass
09	2452	-21.34	8	Pass

Channel 03 (2422MHz)



Channel 06 (2437MHz)



Channel 09 (2452MHz)