Test Report

Product Name : Notebook P.C.

Model No. : T13Fg

FCC ID : MSQF9F

Applicant : ASUSTeK COMPUTER INC.

Address : 4FL., No. 150, Li-Te Rd., Peitou, Taipei, Taiwan, R.O.C.

Date of Receipt : Sep. 07, 2006

Issued Date : Sep. 20, 2006

Report No. : 069L065-RF-US-P05V01

Test Report Certification

Issued Date: Sep. 20, 2006
Report No.: 069L065-RF-US-P05V01

Product Name	: Notebook P.C.
Applicant	: ASUSTeK COMPUTER INC.
Address	: 4FL., No. 150, Li-Te Rd., Peitou, Taipei, Taiwan, R.O.C.
Manufacturer	: ASUSTeK COMPUTER INC.
Model No.	: T13Fg
FCC ID.	: MSQF9F
Rated Voltage	: AC 120V/60Hz
Working Voltage	: AC 120V/60Hz
Trade Name	: ASUS
Applicable Standard	: FCC CFR Title 47 Part 15 Subpart C: 2005 CISPR 22: 2005,ANSI C63.4: 2003
Test Result	: Complied

NVLAP Lab Code: 200533-0

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

Documented By : Leven Huang
(Leven Huang)

Tested By : Dino Chen
(Dino Chen)

Approved By : Gene Chang
(Gene Chang)

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1. GENERAL INFORMATION

1.1. EUT Description

Product Name	:	Notebook P.C.
Trade Name	:	ASUS
Model No.	:	T13Fg
FCC ID	:	MSQF9F
Frequency Range	:	2412MHz - 2462MHz, 5150-5250MHz, 5725-5850MHz
Number of Channels	:	11 in 2.4GHz band, 9 in 5GHz band
Channel Separation	:	5MHz in 2.4GHz band, 20MHz in 5GHz band
Channel Control	:	Auto
Data Rate	:	802.11b – 1, 2, 5.5, 11Mbps 802.11a/g – 6, 9, 12, 18, 24, 36, 48, 54Mbps
Type of Modulation	:	DSSS/ OFDM
Antenna Type	:	Connector (Reverse SMA)
Antenna Gain	:	Refer to the table “Antenna List”
Power Adapter	:	MFR: LITEON, M/N: PA-1650-02 Input: AC 100-240V, 50-60Hz, 1.6A Output: DC 19V, 3.42A Cable Out: Non-Shielded, 1.2m,with one ferrite core bonded. Power Cord: Non-Shielded, 1.8m

Antenna List

No.	Manufacturer	Part No.	Peak Gain
1	TYCO	1909401-R (Main) 1909402-L (Aux)	-0.40 dBi for 5.0 GHz 0.69 dBi for 2.4 GHz
2	ACON	APP6P-700010 (Main) APP6P-700011(Aux)	-2.11dBi for 5.0 GHz 0.52 dBi for 2.4 GHz

Frequency of Each Channel (2.4GHz):

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

Frequency of Each Channel (5GHz):

Channel	Frequency	Channel	Frequency
Channel 1:	5745 MHz	Channel 5:	5825 MHz
Channel 2:	5765 MHz		
Channel 3:	5785 MHz		
Channel 4:	5805 MHz		

Note:

1. This device is a Notebook P.C. with a built-in 2.4GHz and 5GHz transceiver.
2. Regarding to the operation frequency, the lowest, middle and highest frequency are selected to perform the test.
3. Lowest and highest data rates are tested in each mode. Only worst case is shown in the report. (802.11b is 11Mbps, 802.11g and 802.11a are 54Mbps)
4. These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15 Subpart C Paragraph 15.247 for spread spectrum devices.

1.2. Operational Description

EUT is a Notebook P.C. with a built-in 2.4GHz and 5GHz transceiver. There are 11 channels in 2412 – 2462MHz and 5 channels in 5745 – 5825MHz. The channels are separated by 5MHz in 2.4GHz band and 20MHz in 5GHz band. This device supports the data rates of 1, 2, 5.5, 11Mbps in 802.11b mode and 6, 9, 12, 18, 24, 36, 48, 54Mbps in 802.11a/g mode. The signals are modulated by DSSS in 802.11b mode and OFDM in 802.11a/g mode. The antennas are Connector and use diversity to improve the receiving sensitivity.

This Notebook P.C., complied with IEEE 802.11b, IEEE 802.11g, and IEEE 802.11a, is a high-efficiency Wireless LAN adapter. It allows your computer to connect to a wireless network and to share resources, such as files or printers without network wires. Wired Equivalent Protection (WEP) algorithm is used. In addition, its standard compliance ensures that it can communicate with any IEEE 802.11b, IEEE 802.11g, and IEEE 802.11a network.

Test Mode	Mode 1: Transmitter 802.11a-Intel:WM3945ABG
	Mode 2: Transmitter 802.11b-Intel:WM3945ABG
	Mode 3: Transmitter 802.11g-Intel:WM3945ABG

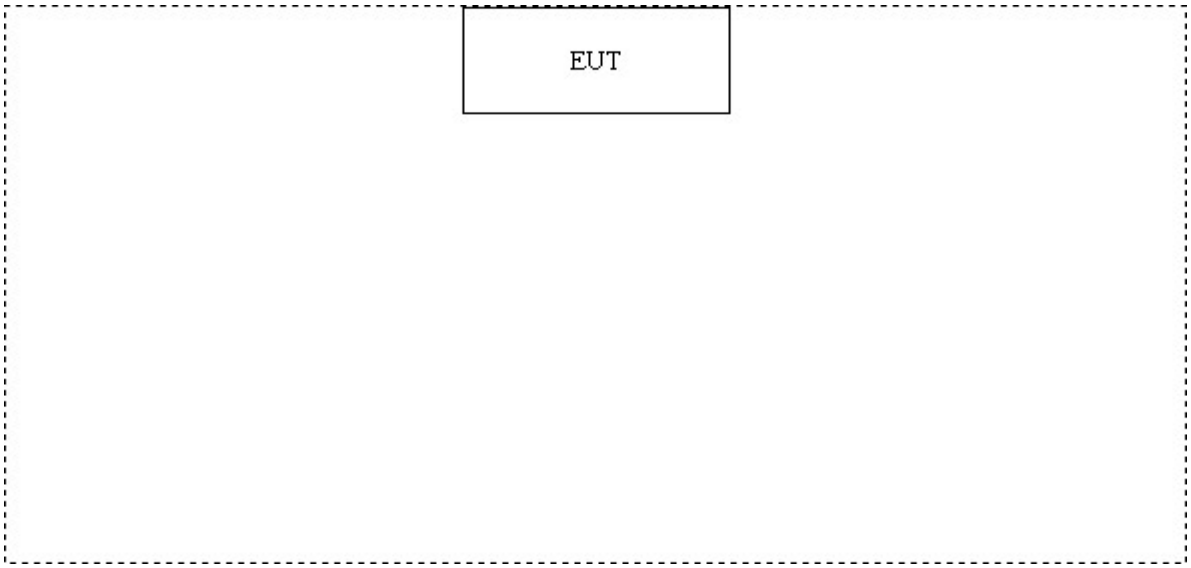
1.3. Tested System Datails

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

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

Signal Cable Type	Signal cable Description
N/A	

1.4. Configuration of tested System



1.5. EUT Exercise Software

(1) Setup the EUT as shown in Section 1.4

(2) Execute CRTU.exe on the notebook.

(3) Configure the test mode, the test channel, and the data rate.

(4) Press “OK” to start the continuous transmission.

(5) Verify that the EUT works properly.

1.6. Test Facility

Ambient conditions in the laboratory:

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

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

Accreditation on NVLAP
NVLAP Lab Code: 200533-0

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

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2. Conducted Emission

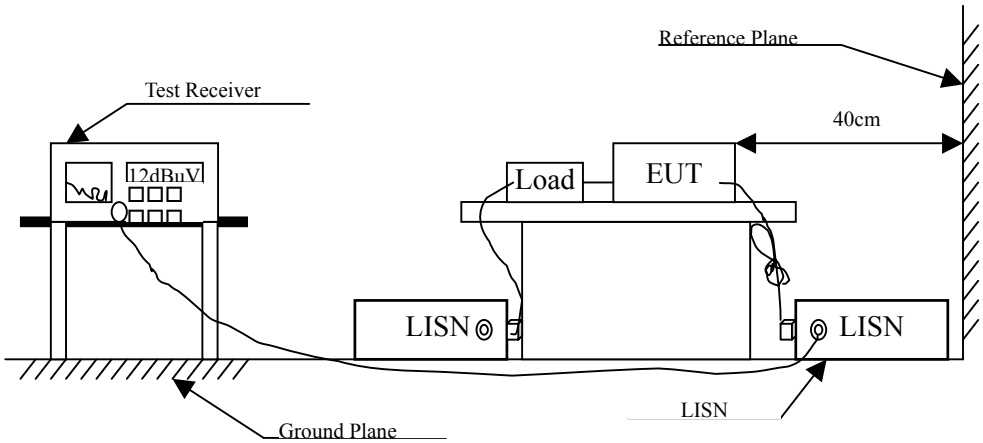
2.1. Test Equipment

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

Item	Instrument	Manufacturer	Type No./Serial No	Last Cal.	Remark
1	Test Receiver	R & S	ESCS 30/825442/17	May, 2006	
2	L.I.S.N.	R & S	ESH3-Z5/825016/6	May, 2006	EUT
3	L.I.S.N.	Kyoritsu	KNW-407/8-1420-3	May, 2006	Peripherals
4	Pulse Limiter	R & S	ESH3-Z2	May, 2006	
5	No.1 Shielded Room			N/A	

Note: All equipments are calibrated every one year.

2.2. Test Setup



2.3. Limits

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

2.4. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)
Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2003 on conducted measurement.
Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

2.5. Uncertainty

± 2.26 dB

2.6. Test Result of Conducted Emission

Product : Notebook P.C.
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 1: Transmitter 802.11a-Intel:WM3945ABG (5785MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 1					
Quasi-Peak					
0.212	0.560	48.120	48.680	-15.549	64.229
0.282	0.300	41.860	42.160	-20.069	62.229
0.762	0.310	38.270	38.580	-17.420	56.000
1.062	0.320	32.190	32.510	-23.490	56.000
1.423	0.330	38.010	38.340	-17.660	56.000
1.847	0.340	38.020	38.360	-17.640	56.000
Average					
0.212	0.560	45.230	45.790	-8.439	54.229
0.282	0.300	37.510	37.810	-14.419	52.229
0.762	0.310	28.360	28.670	-17.330	46.000
1.062	0.320	29.150	29.470	-16.530	46.000
1.423	0.330	35.880	36.210	-9.790	46.000
1.847	0.340	36.200	36.540	-9.460	46.000

Note:

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

Product : Notebook P.C.
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 1: Transmitter 802.11a-Intel:WM3945ABG (5785MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 2					
Quasi-Peak					
0.212	0.300	48.200	48.500	-15.729	64.229
0.280	0.300	36.910	37.210	-25.076	62.286
0.425	0.310	35.260	35.570	-22.573	58.143
0.745	0.319	40.430	40.749	-15.251	56.000
1.208	0.330	36.700	37.030	-18.970	56.000
1.708	0.340	38.600	38.940	-17.060	56.000
Average					
0.212	0.300	45.230	45.530	-8.699	54.229
0.280	0.300	32.660	32.960	-19.326	52.286
0.425	0.310	32.060	32.370	-15.773	48.143
0.745	0.319	29.090	29.409	-16.591	46.000
1.208	0.330	34.190	34.520	-11.480	46.000
1.708	0.340	36.880	37.220	-8.780	46.000

Note:

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

Product : Notebook P.C.
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 2: Transmitter 802.11b-Intel:WM3945ABG (2437MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 1					
Quasi-Peak					
0.150	0.300	51.200	51.500	-14.500	66.000
0.212	0.560	50.260	50.820	-13.409	64.229
0.285	0.300	45.190	45.490	-16.653	62.143
0.431	0.300	37.000	37.300	-20.671	57.971
0.751	0.310	33.420	33.730	-22.270	56.000
1.923	0.340	38.690	39.030	-16.970	56.000
Average					
0.150	0.300	39.750	40.050	-15.950	56.000
0.212	0.560	46.460	47.020	-7.209	54.229
0.285	0.300	39.360	39.660	-12.483	52.143
0.431	0.300	31.760	32.060	-15.911	47.971
0.751	0.310	24.600	24.910	-21.090	46.000
1.923	0.340	36.230	36.570	-9.430	46.000

Note:

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

Product : Notebook P.C.
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 2: Transmitter 802.11b-Intel:WM3945ABG (2437MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 2					
Quasi-Peak					
0.216	0.300	48.190	48.490	-15.624	64.114
0.281	0.300	41.210	41.510	-20.747	62.257
0.349	0.307	26.430	26.737	-33.577	60.314
0.749	0.320	39.120	39.440	-16.560	56.000
1.069	0.320	36.890	37.210	-18.790	56.000
1.421	0.330	35.380	35.710	-20.290	56.000
Average					
0.216	0.300	44.720	45.020	-9.094	54.114
0.281	0.300	35.280	35.580	-16.677	52.257
0.349	0.307	18.430	18.737	-31.577	50.314
0.749	0.320	28.060	28.380	-17.620	46.000
1.069	0.320	34.340	34.660	-11.340	46.000
1.421	0.330	32.690	33.020	-12.980	46.000

Note:

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

Product : Notebook P.C.
Test Item : Conducted Emission Test
Power Line : Line 1
Test Mode : Mode 3: Transmitter 802.11g-Intel:WM3945ABG (2437MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 1					
Quasi-Peak					
0.212	0.560	48.550	49.110	-15.119	64.229
0.282	0.300	42.340	42.640	-19.589	62.229
0.710	0.310	39.480	39.790	-16.210	56.000
0.923	0.310	33.420	33.730	-22.270	56.000
1.210	0.320	37.410	37.730	-18.270	56.000
1.493	0.330	36.920	37.250	-18.750	56.000
Average					
0.212	0.560	45.750	46.310	-7.919	54.229
0.282	0.300	37.360	37.660	-14.569	52.229
0.710	0.310	33.470	33.780	-12.220	46.000
0.923	0.310	31.910	32.220	-13.780	46.000
1.210	0.320	34.780	35.100	-10.900	46.000
1.493	0.330	34.260	34.590	-11.410	46.000

Note:

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

Product : Notebook P.C.
Test Item : Conducted Emission Test
Power Line : Line 2
Test Mode : Mode 3: Transmitter 802.11g-Intel:WM3945ABG (2437MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 2					
Quasi-Peak					
0.212	0.300	48.120	48.420	-15.809	64.229
0.280	0.300	36.970	37.270	-25.016	62.286
0.357	0.310	36.180	36.490	-23.596	60.086
0.724	0.312	37.770	38.082	-17.918	56.000
1.494	0.330	37.490	37.820	-18.180	56.000
1.849	0.340	37.540	37.880	-18.120	56.000
Average					
0.212	0.300	45.750	46.050	-8.179	54.229
0.280	0.300	32.460	32.760	-19.526	52.286
0.357	0.310	29.820	30.130	-19.956	50.086
0.724	0.312	28.320	28.632	-17.368	46.000
1.494	0.330	35.410	35.740	-10.260	46.000
1.849	0.340	35.420	35.760	-10.240	46.000

Note:

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

3. Peak Power Output

3.1. Test Equipment

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

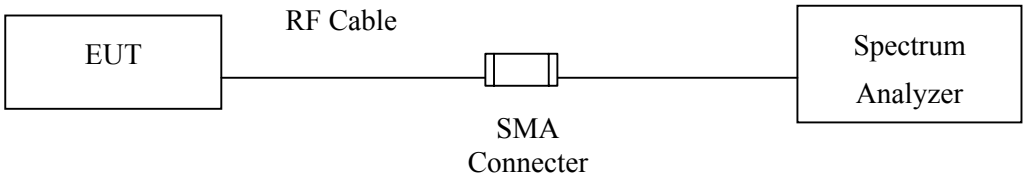
	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2006

Note: 1. All equipments are calibrated every one year.

2. The test instruments marked by "X" are used to measure the final test results.

3.2. Test Setup

Conduction Power Measurement



3.3. Limits

The maximum peak power shall be less 1 Watt.

3.4. Uncertainty

± 1.27 dB

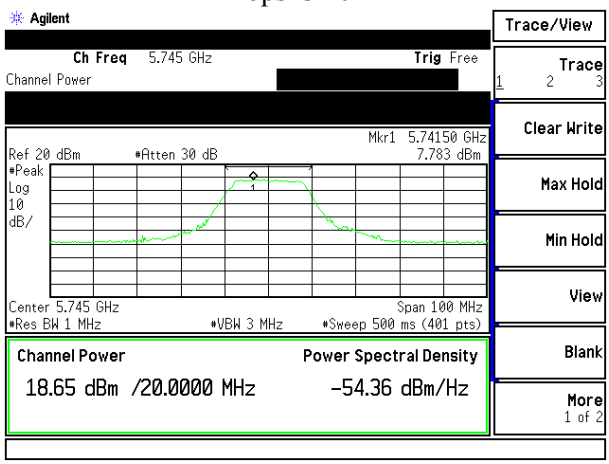
3.5. Test Result of Peak Power Output

Product : Notebook P.C.
Test Item : Peak Power Output Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-Intel:WM3945ABG

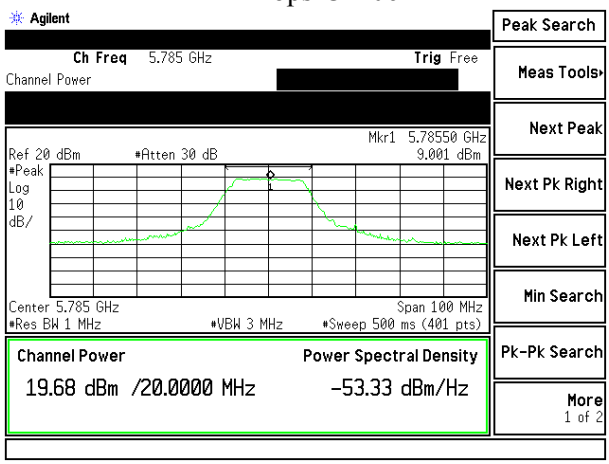
Data Speed: 54Mbps

Channel No.	Frequency (MHz)	Measurement	Required Limit	Result
1	5745.00	18.65 dBm	1Watt= 30 dBm	Pass
3	5785.00	19.68 dBm	1Watt= 30 dBm	Pass
5	5825.00	19.49 dBm	1Watt= 30 dBm	Pass

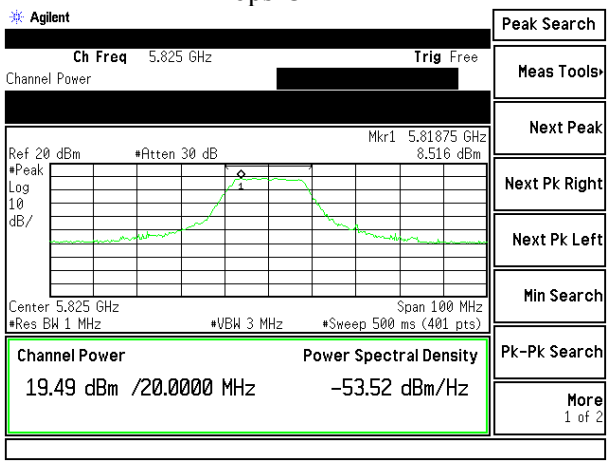
11Mbps-CH01



11Mbps-CH 06



11Mbps-CH 11

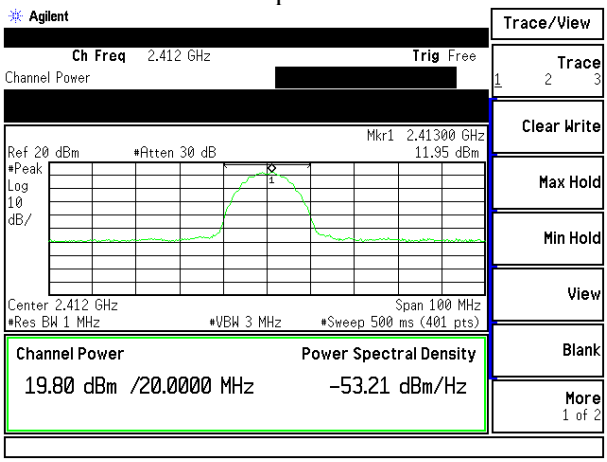


Product : Notebook P.C.
Test Item : Peak Power Output Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11b-Intel:WM3945ABG

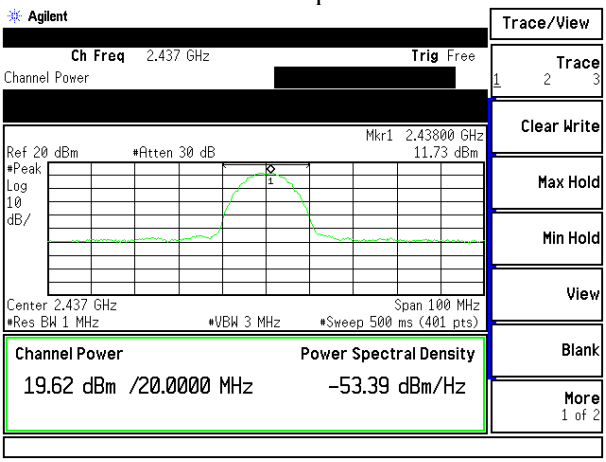
Data Speed: 11Mbps

Channel No.	Frequency (MHz)	Measurement	Required Limit	Result
1	2412.00	19.80 dBm	1Watt= 30 dBm	Pass
6	2437.00	19.62 dBm	1Watt= 30 dBm	Pass
11	2462.00	19.63 dBm	1Watt= 30 dBm	Pass

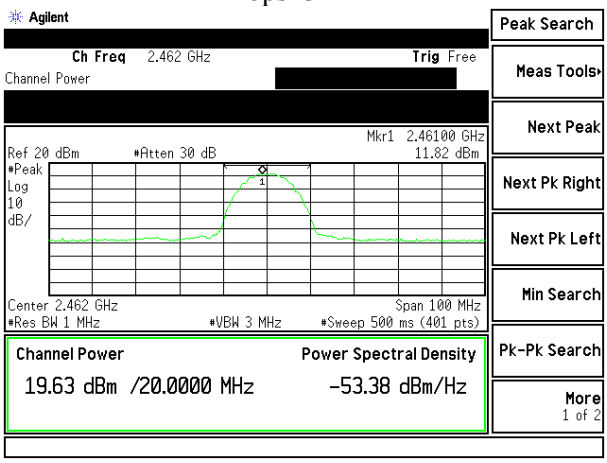
11Mbps-CH01



11Mbps-CH 06



11Mbps-CH11

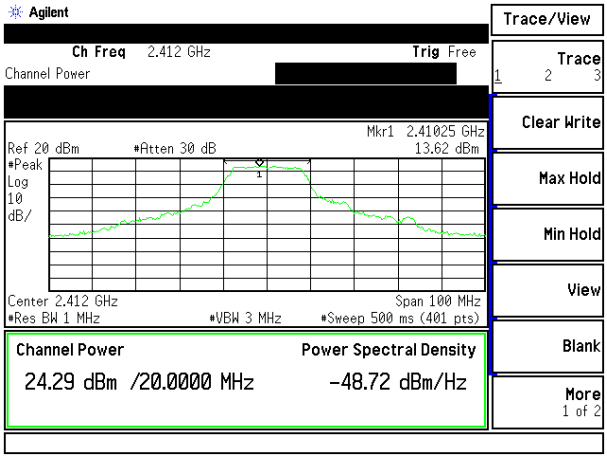


Product : Notebook P.C.
Test Item : Peak Power Output Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11g-Intel:WM3945ABG

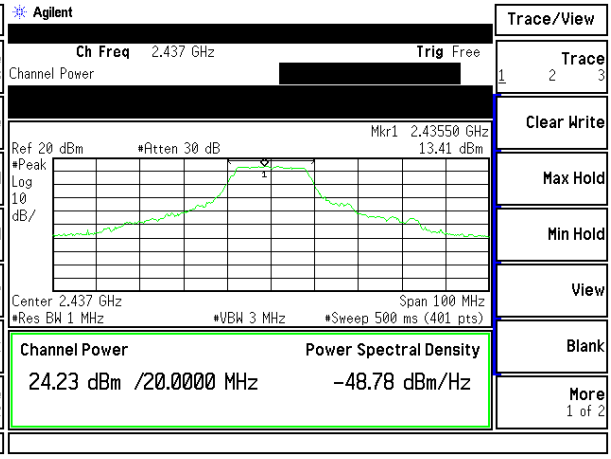
Data Speed: 54Mbps

Channel No.	Frequency (MHz)	Measurement	Required Limit	Result
1	2412.00	24.29 dBm	1Watt= 30 dBm	Pass
6	2437.00	24.23 dBm	1Watt= 30 dBm	Pass
11	2462.00	23.86 dBm	1Watt= 30 dBm	Pass

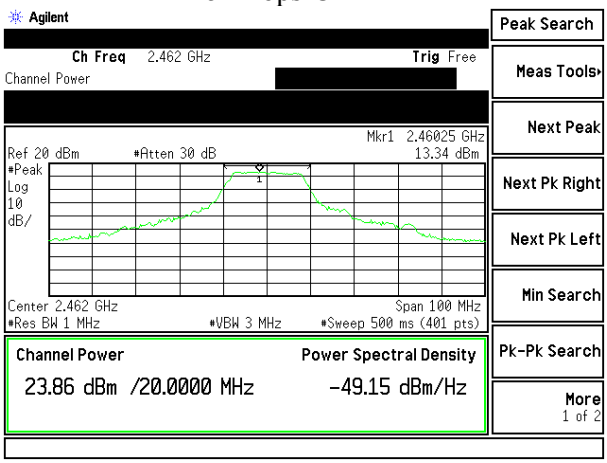
54Mbps-CH01



54Mbps-CH 06



54Mbps-CH11



4. Radiated Emission

4.1. Test Equipment

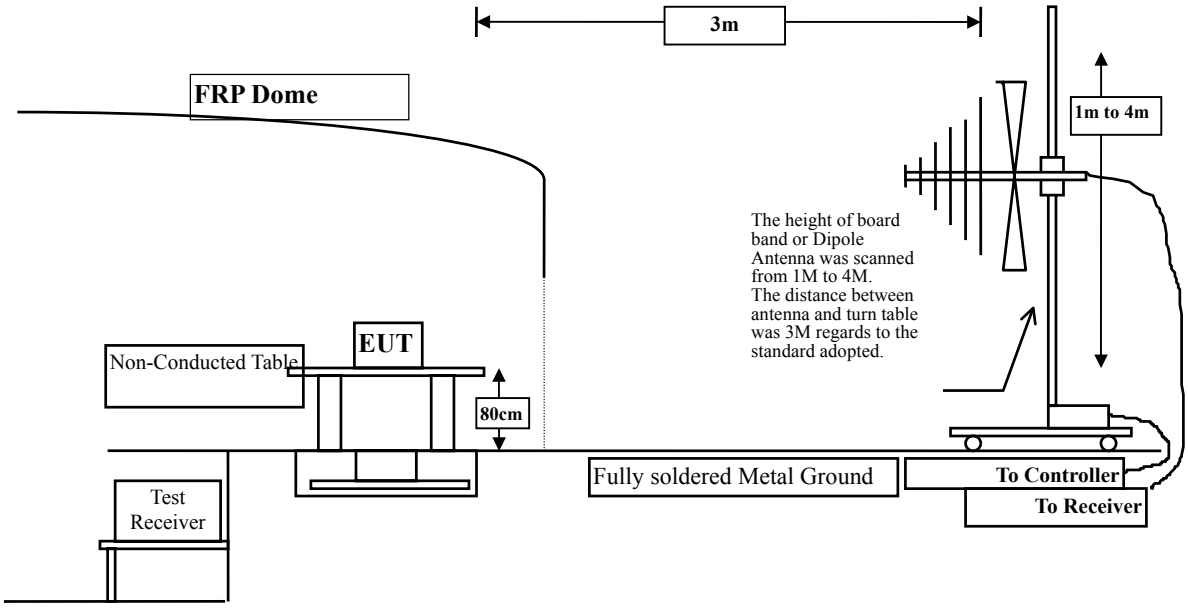
The following test equipment are used during the radiated emission test:

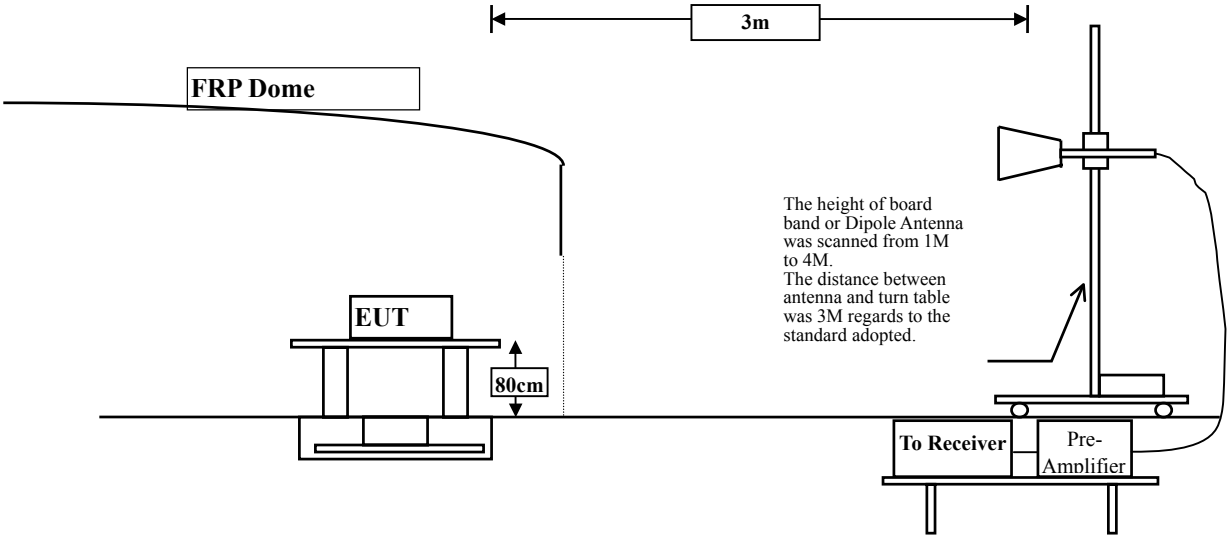
Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Site # 1		Test Receiver	R & S	ESCS 30 / 825442/14	May, 2006
		Spectrum Analyzer	Advantest	R3261C / 71720140	May, 2006
		Pre-Amplifier	HP	8447D/3307A01812	May, 2006
		Bilog Antenna	Chase	CBL6112B / 12452	Sep., 2006
		Horn Antenna	EM	EM6917 / 103325	May, 2006
Site # 2		Test Receiver	R & S	ESCS 30 / 825442/17	May, 2006
		Spectrum Analyzer	Advantest	R3261C / 71720609	May, 2006
		Pre-Amplifier	HP	8447D/3307A01814	May, 2006
		Bilog Antenna	Chase	CBL6112B / 2455	Sep., 2006
		Horn Antenna	EM	EM6917 / 103325	May, 2006
Site # 3	X	Test Receiver	R & S	ESI 26 / 838786 / 004	May, 2006
	X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2006
	X	Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2006
	X	Bilog Antenna	SCHAFFNER	CBL6112B / 2697	May, 2006
	X	Horn Antenna	ETS	3115 / 0005-6160	July, 2006
	X	Pre-Amplifier	QTK	QTK-AMP-01 / 0001	July, 2006

Note: 1. All equipments are calibrated every one year.

2. The test instruments marked by "X" are used to measure the final test results.

4.2. Test Setup





4.3. Limits

➢ **General Radiated Emission Limits**

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

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

Remarks : 1. RF Voltage (dBuV) = 20 log RF Voltage (uV)

2. In the Above Table, the tighter limit applies at the band edges.

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

4.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.
Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4: 2003 on radiated measurement.
The additional latch filter below 1GHz was used to measure the level of harmonics radiated emission during field dtrength of harmonics measurement.
The bandwidth below 1GHz setting on the field strength meter is 120 kHz, above 1GHz are 1 MHz.
The frequency range from 30MHz to 10th harminics is checked.

4.5. Uncertainty

± 3.8 dB below 1GHz
± 3.9 dB above 1GHz

4.6. Test Result of Radiated Emission

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-Intel:WM3945ABG (5745 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
11490.000	15.456	35.900	51.356	-22.614	74.000
17235.000	14.371	35.300	49.672	-24.298	74.000
Average Detector					
--					
Vertical					
Peak Detector					
11490.000	15.456	36.300	51.756	-22.214	74.000
17235.000	14.371	35.300	49.672	-24.298	74.000
Average Detector					
--					

Note:

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

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-Intel:WM3945ABG (5785MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
11570.000	14.834	35.800	50.634	-23.336	74.000
17355.000	14.244	35.700	49.945	-24.025	74.000
Average Detector					
--					
Vertical					
Peak Detector					
11570.000	14.834	35.100	49.934	-24.036	74.000
17355.000	14.244	35.790	50.035	-23.935	74.000
Average Detector					
--					

Note:

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

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-Intel:WM3945ABG (5825 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
11650.000	14.611	36.400	51.011	-22.959	74.000
17475.000	13.974	34.800	48.774	-25.196	74.000
Average Detector					
--					
Vertical					
Peak Detector					
11650.000	14.611	36.100	50.711	-23.259	74.000
17475.000	13.974	35.600	49.574	-24.396	74.000
Average Detector					
--					

Note:

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

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11b-Intel:WM3945ABG (2412MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
4824.000	3.723	39.478	43.201	-30.769	74.000
7236.000	9.439	39.596	49.034	-24.936	74.000
9648.000	11.829	39.716	51.545	-22.425	74.000
Average Detector					
--					
Vertical					
Peak Detector					
4824.000	3.723	41.267	44.990	-28.980	74.000
7236.000	9.439	41.713	51.151	-22.819	74.000
9648.000	11.829	39.700	51.529	-22.441	74.000
Average Detector					
--					

Note:

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

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11b-Intel:WM3945ABG (2437MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
4874.000	3.893	39.403	43.295	-30.675	74.000
7311.000	9.624	39.694	49.318	-24.652	74.000
9748.000	11.805	38.520	50.326	-23.644	74.000
Average Detector					
--					
Vertical					
Peak Detector					
4874.000	3.893	40.925	44.817	-29.153	74.000
7311.000	9.624	41.547	51.171	-22.799	74.000
9748.000	11.805	40.820	52.626	-21.344	74.000
Average Detector					
--					

Note:

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

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11b-Intel:WM3945ABG (2462MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
4924.000	4.075	40.025	44.100	-29.870	74.000
7386.000	9.812	40.027	49.839	-24.131	74.000
9848.000	11.819	40.050	51.869	-22.101	74.000
Average Detector					
--					
Vertical					
Peak Detector					
4924.000	4.075	41.451	45.525	-28.445	74.000
7386.000	9.812	41.334	51.146	-22.824	74.000
9848.000	11.819	42.018	53.837	-20.133	74.000
Average Detector					
--					

Note:

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

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3OATS
Test Mode : Mode 3: Transmitter 802.11g-Intel:WM3945ABG (2412 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
4824.000	3.723	38.440	42.163	-31.807	74.000
7236.000	9.439	40.461	49.899	-24.071	74.000
9648.000	11.829	36.811	48.640	-25.330	74.000
Average Detector					
--					
Vertical					
Peak Detector					
4824.000	3.723	37.964	41.687	-32.283	74.000
7236.000	9.439	44.515	53.953	-20.017	74.000
9648.000	11.829	37.846	49.675	-24.295	74.000
Average Detector					
--					

Note:

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

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11g-Intel:WM3945ABG (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
4874.000	3.893	38.571	42.463	-31.507	74.000
7311.000	9.624	41.074	50.698	-23.272	74.000
9748.000	11.805	37.426	49.232	-24.738	74.000
Average Detector					
--					
Vertical					
Peak Detector					
4874.000	3.893	38.079	41.971	-31.999	74.000
7311.000	9.624	42.467	52.091	-21.879	74.000
9748.000	11.805	38.336	50.142	-23.828	74.000
Average Detector					
--					

Note:

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

Product : Notebook P.C.
Test Item : Harmonic Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11g-Intel:WM3945ABG (2462 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector					
4924.000	4.075	37.859	41.933	-32.037	74.000
7386.000	9.812	40.320	50.132	-23.838	74.000
9848.000	11.819	38.290	50.109	-23.861	74.000
Average Detector					
--					
Vertical					
Peak Detector					
4924.000	4.075	38.204	42.278	-31.692	74.000
7386.000	9.812	42.676	52.488	-21.482	74.000
9848.000	11.819	38.198	50.017	-23.953	74.000
Average Detector					
--					

Note:

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

Product : Notebook P.C.
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-Intel:WM3945ABG (5785 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
QP Detector					
380.000	15.610	18.989	34.600	-11.400	46.000
405.000	17.091	19.909	37.000	-9.000	46.000
545.000	20.053	14.047	34.100	-11.900	46.000
660.000	20.941	10.559	31.500	-14.500	46.000
681.000	20.856	9.444	30.300	-15.700	46.000
811.000	21.606	14.494	36.100	-9.900	46.000
Vertical					
QP Detector					
270.000	14.021	19.079	33.100	-12.900	46.000
340.000	14.467	13.732	28.200	-17.800	46.000
720.000	22.090	8.080	30.170	-15.830	46.000
785.100	22.190	1.110	23.300	-22.700	46.000
830.000	21.443	6.157	27.600	-18.400	46.000
950.000	23.508	0.592	24.100	-21.900	46.000

Note:

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

Product : Notebook P.C.
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11b-Intel:WM3945ABG (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
QP Detector					
199.900	8.821	26.100	34.921	-8.579	43.500
271.500	12.447	25.100	37.547	-8.453	46.000
406.100	15.986	21.360	37.346	-8.654	46.000
544.110	18.708	15.690	34.398	-11.602	46.000
661.100	19.379	19.100	38.479	-7.521	46.000
818.100	20.176	12.100	32.276	-13.724	46.000
Vertical					
QP Detector					
271.100	12.853	23.600	36.452	-9.548	46.000
405.100	17.641	13.100	30.742	-15.258	46.000
540.000	18.904	13.200	32.103	-13.897	46.000
681.000	18.754	19.600	38.354	-7.646	46.000
750.100	21.587	16.300	37.888	-8.112	46.000
815.100	20.119	6.700	26.819	-19.181	46.000

Note:

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

Product : Notebook P.C.
Test Item : General Radiated Emission Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11g-Intel:WM3945ABG (2437 MHz)

Frequency	Correct Factor	Reading Level	Measurement Level	Margin	Limit
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
QP Detector					
199.900	8.821	25.700	34.521	-8.979	43.500
272.500	12.246	21.600	33.846	-12.154	46.000
406.100	15.986	23.800	39.786	-6.214	46.000
545.100	18.834	14.500	33.334	-12.666	46.000
665.100	19.229	19.300	38.528	-7.472	46.000
811.100	20.009	11.300	31.309	-14.691	46.000
Vertical					
QP Detector					
199.900	8.808	18.600	27.407	-16.093	43.500
405.100	17.641	16.100	33.742	-12.258	46.000
540.000	18.904	14.500	33.403	-12.597	46.000
682.100	18.757	16.700	35.457	-10.543	46.000
750.100	21.587	16.100	37.688	-8.312	46.000
811.100	20.105	13.100	33.205	-12.795	46.000

Note:

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

5. Band Edge

5.1. Test Equipment

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

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Test Receiver	R & S	ESI 26 / 838786 / 004	May, 2006
X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2006
X	Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2006
X	Bilog Antenna	SCHAFFNER	CBL6112B / 2697	May, 2006
X	Horn Antenna	ETS	3115 / 0005-6160	July, 2006
X	Pre-Amplifier	QTK	QTK-AMP-01 / 0001	July, 2006

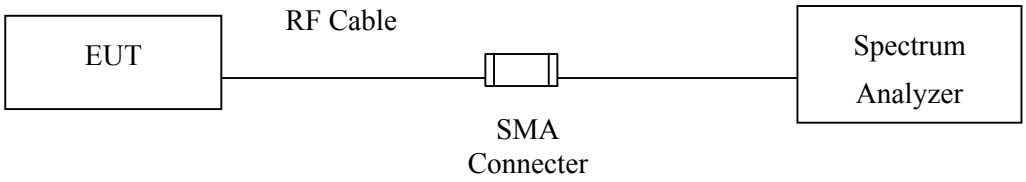
Test Site: Site 3

Note: 1. All equipments are calibrated every one year.

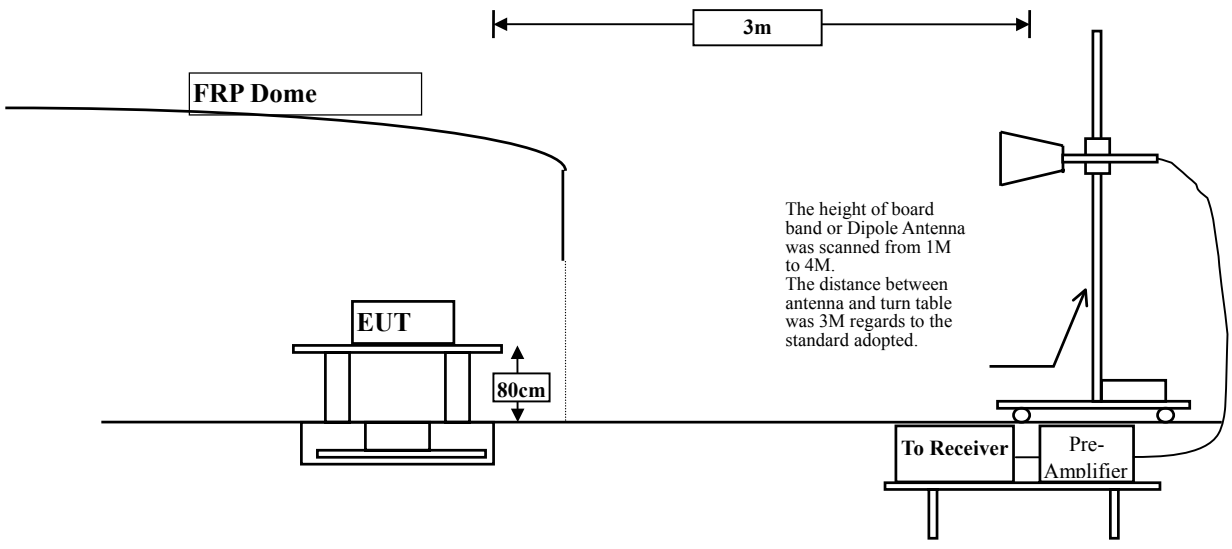
2. The test instruments marked by "X" are used to measure the final test results.

5.2. Test Setup

RF Conducted Measurement:



RF Radiated Measurement:



5.3. Limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

5.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.
Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4: 2003 on radiated measurement.
The bandwidth below 1GHz setting on the field strength meter is 120 kHz, above 1GHz are 1 MHz.

5.5. Uncertainty

Conducted is ± 1.27 dB
Radiated is ± 3.9 dB

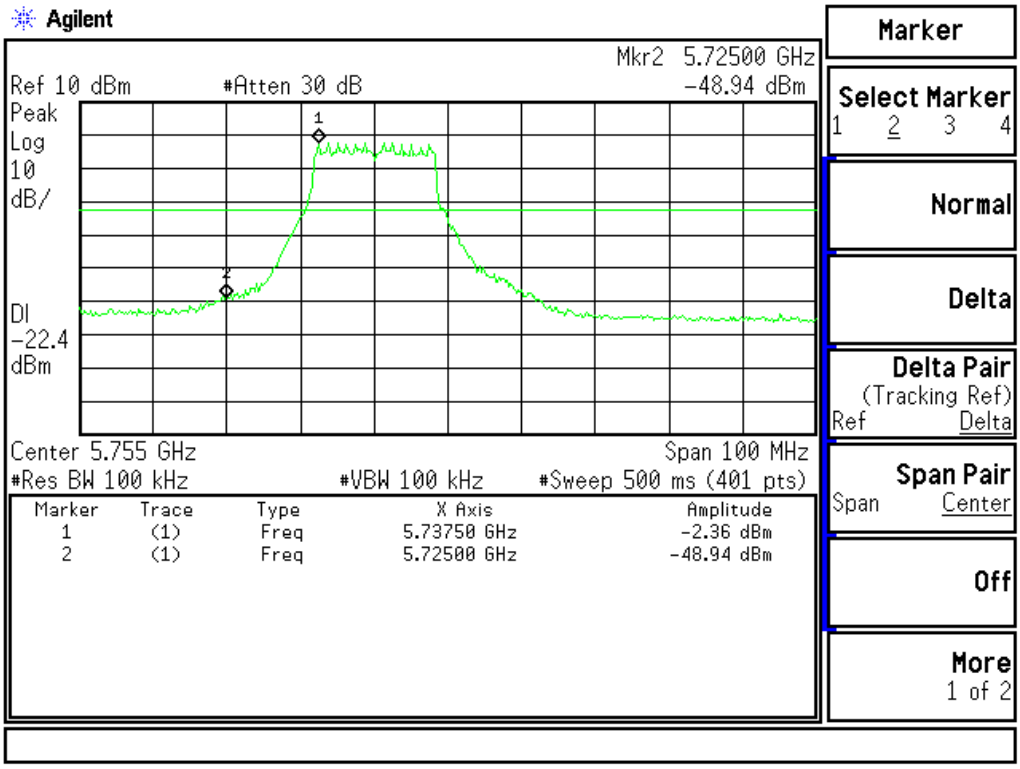
5.6. Test Result of Band Edge

Product : Notebook P.C.
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-Intel:WM3945ABG (5745MHz)

RF Conducted Measurement:

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
1	< 5725	>20	Pass

Figure Channel 1:

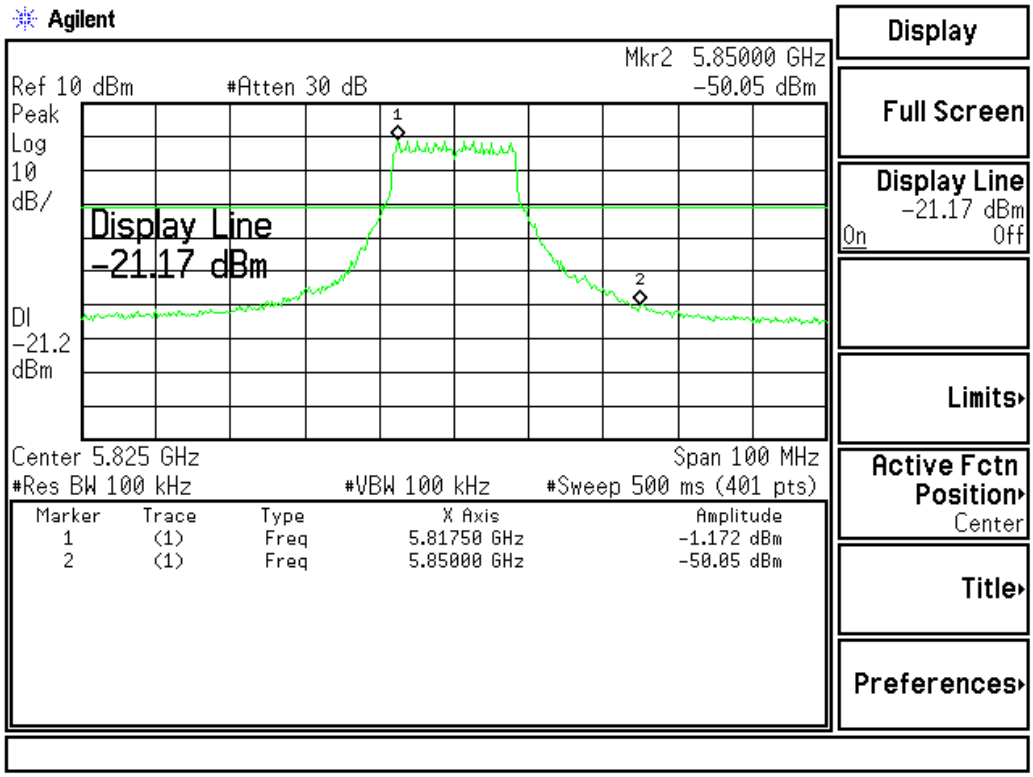


Product : Notebook P.C.
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-Intel:WM3945ABG (5825MHz)

RF Conducted Measurement:

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
5	> 5850	>20	Pass

Figure Channel 5:



Product : Notebook P.C.
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11b-Intel:WM3945ABG (2412MHz)

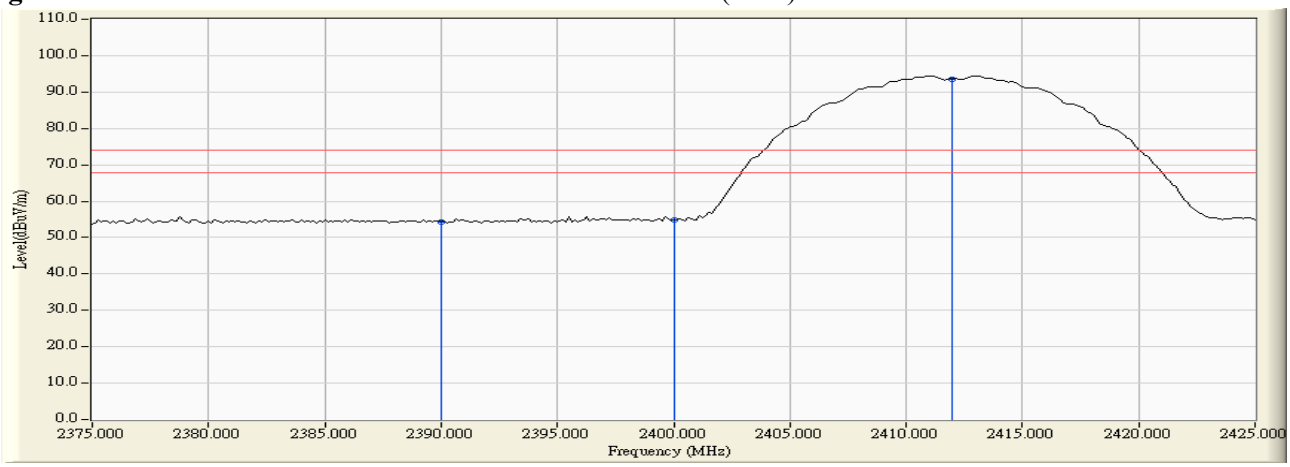
RF Radiated Measurement:

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

RF Radiated Measurement (Horizontal):

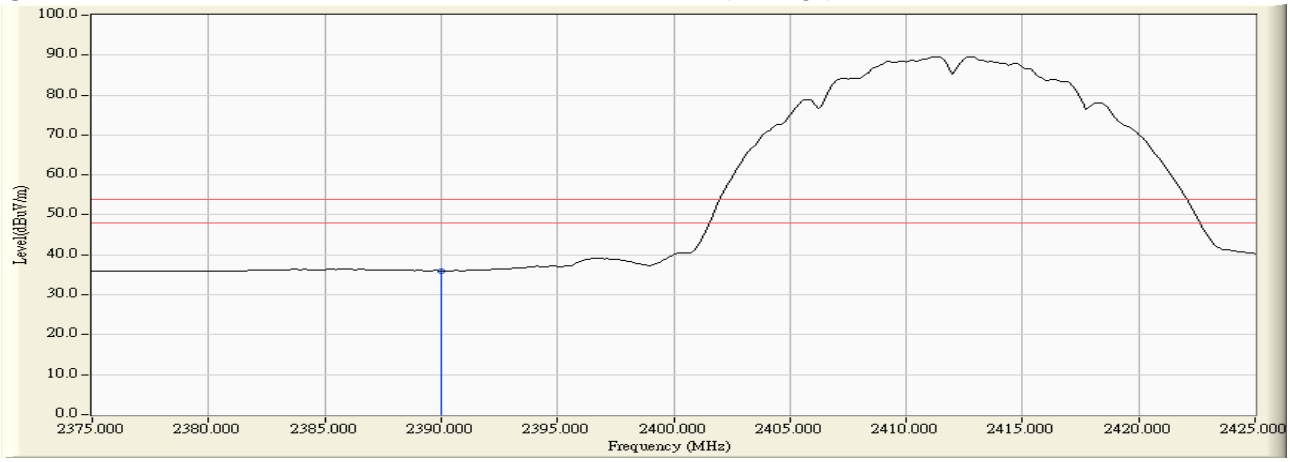
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
1 (Peak)	2412.000	-2.268	95.868	93.600	74.00	54.00	Pass
1 (Average)	2390.000	-2.378	38.392	36.015	74.00	54.00	Pass

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



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

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



Note: RBW=1MHz, VBW=300Hz, Sweep=500ms

Product : Notebook P.C.
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11b-Intel:WM3945ABG (2412MHz)

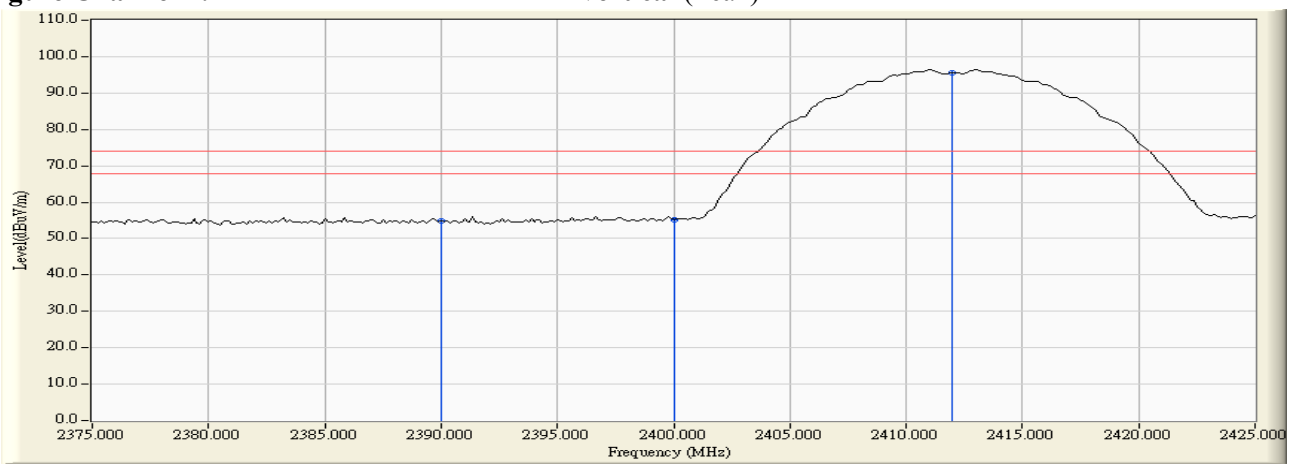
RF Radiated Measurement:

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

RF Radiated Measurement (Vertical):

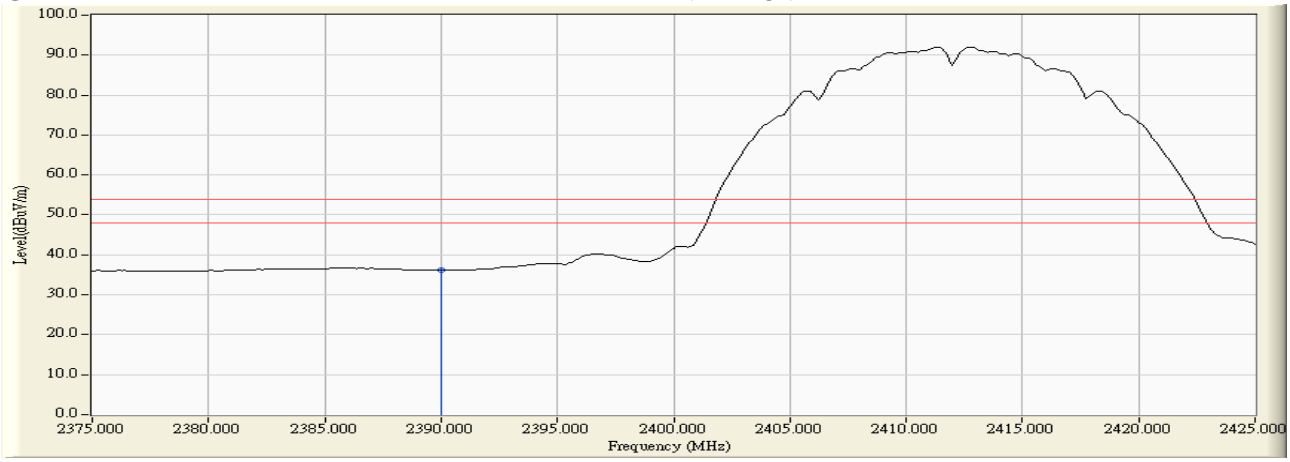
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
1 (Peak)	2412.000	-2.268	97.784	95.516	74.00	54.00	Pass
1 (Average)	2390.000	-2.378	38.476	36.099	74.00	54.00	Pass

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



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

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



Note: RBW=1MHz, VBW=300Hz, Sweep=500ms

Product : Notebook P.C.
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11b-Intel:WM3945ABG (2462MHz)

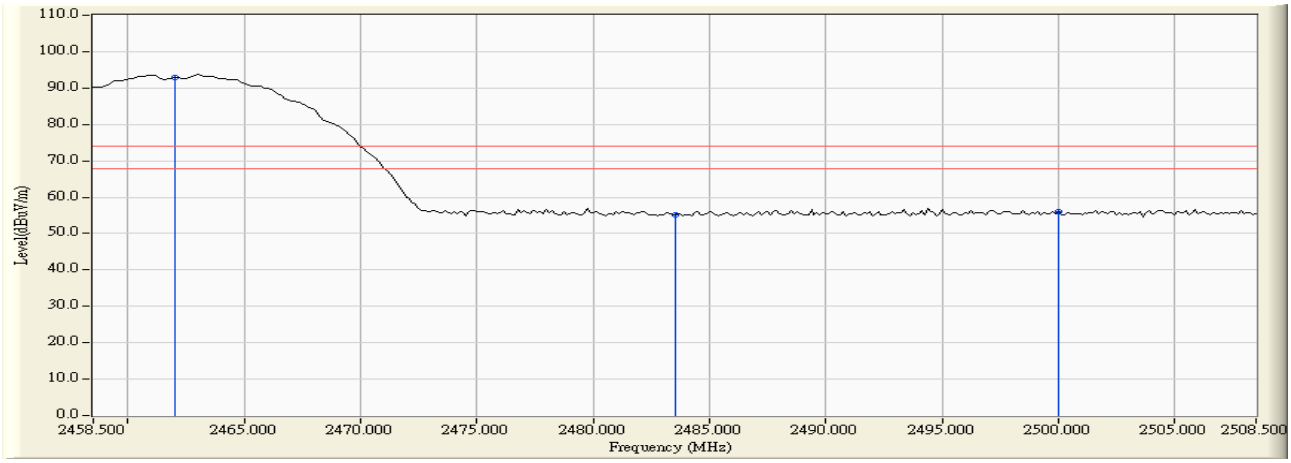
RF Radiated Measurement:

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

RF Radiated Measurement (Horizontal):

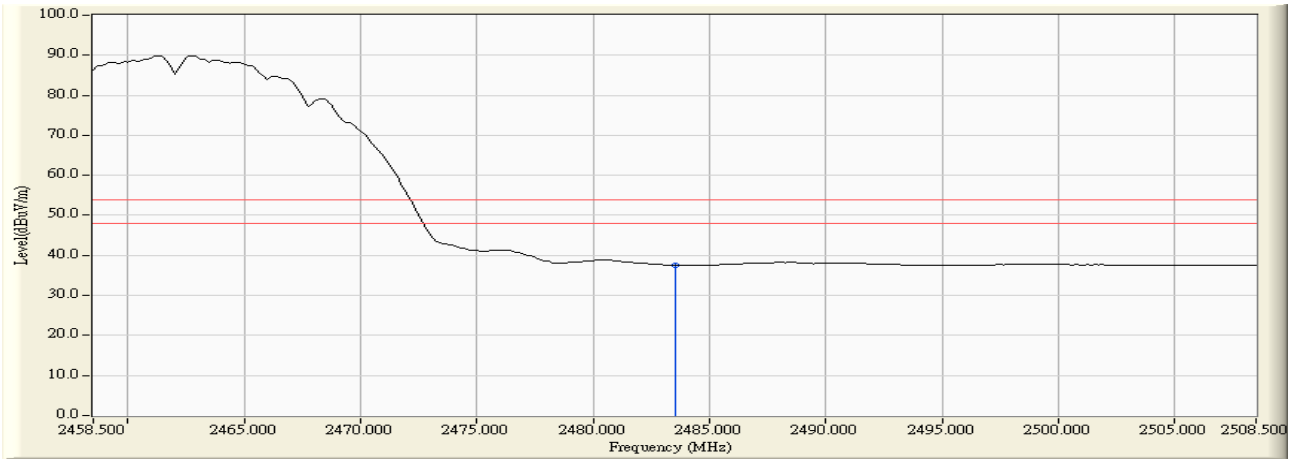
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
11(Peak)	2462.000	-2.034	94.782	92.749	74.00	54.00	Pass
11(Average)	2483.500	-1.937	39.522	37.585	74.00	54.00	Pass

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



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

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



Note: RBW=1MHz, VBW=300Hz, Sweep=500ms

Product : Notebook P.C.
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11b-Intel:WM3945ABG (2462MHz)

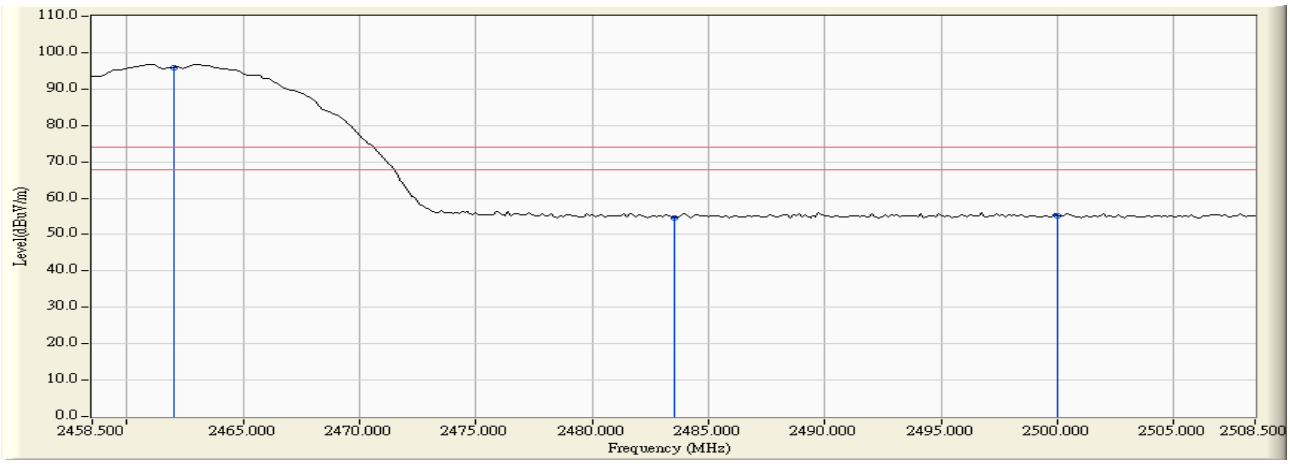
RF Radiated Measurement:

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

RF Radiated Measurement (Vertical):

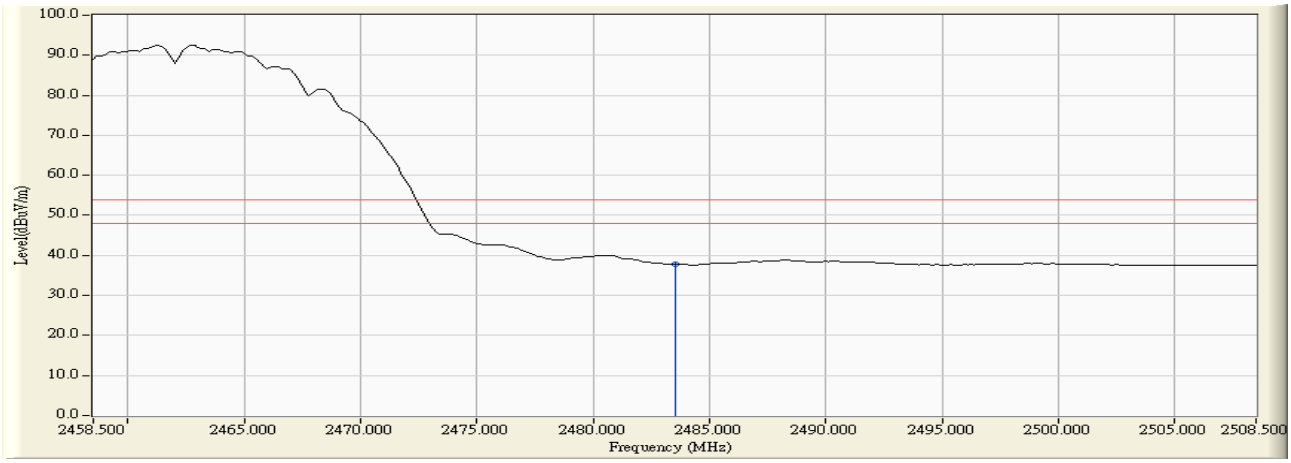
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
11(Peak)	2462.000	-2.034	97.955	95.922	74.00	54.00	Pass
11(Average)	2483.500	-1.937	39.671	37.734	74.00	54.00	Pass

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



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

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



Note: RBW=1MHz, VBW=300Hz, Sweep=500ms

Product : Notebook P.C.
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11g-Intel:WM3945ABG (2412MHz)

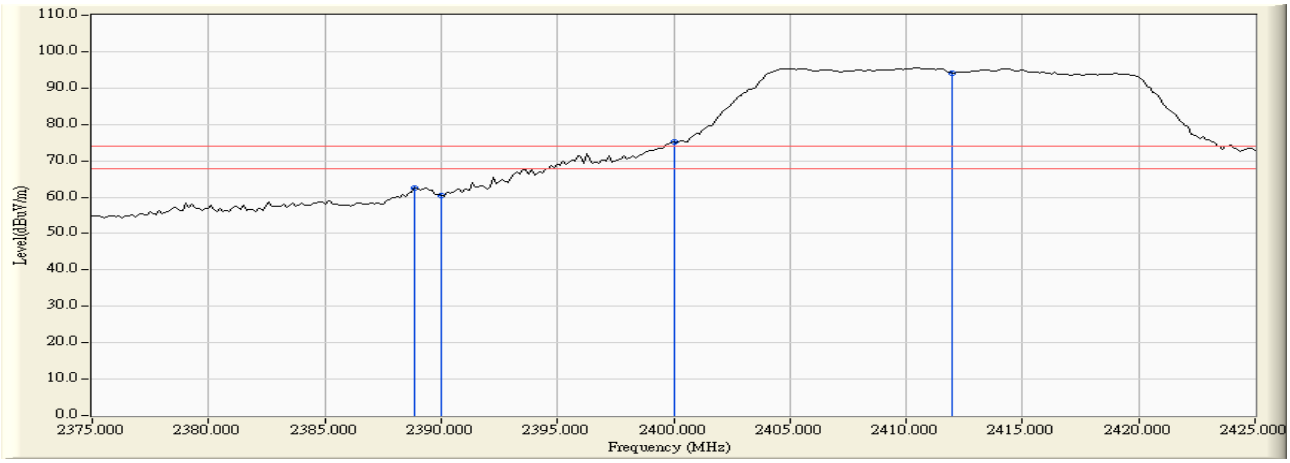
RF Radiated Measurement:

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

RF Radiated Measurement (Horizontal):

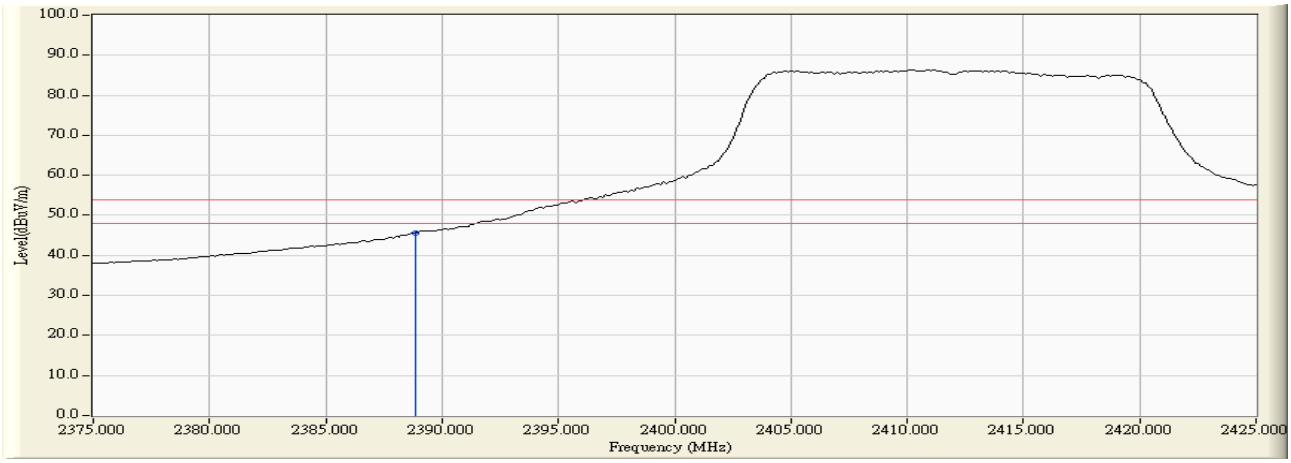
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
1 (Peak)	2412.000	-2.268	96.406	94.138	74.00	54.00	Pass
1 (Average)	2388.875	-2.382	47.961	45.578	74.00	54.00	Pass

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



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

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



Note: RBW=1MHz, VBW=300Hz, Sweep=500ms

Product : Notebook P.C.
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11g-Intel:WM3945ABG

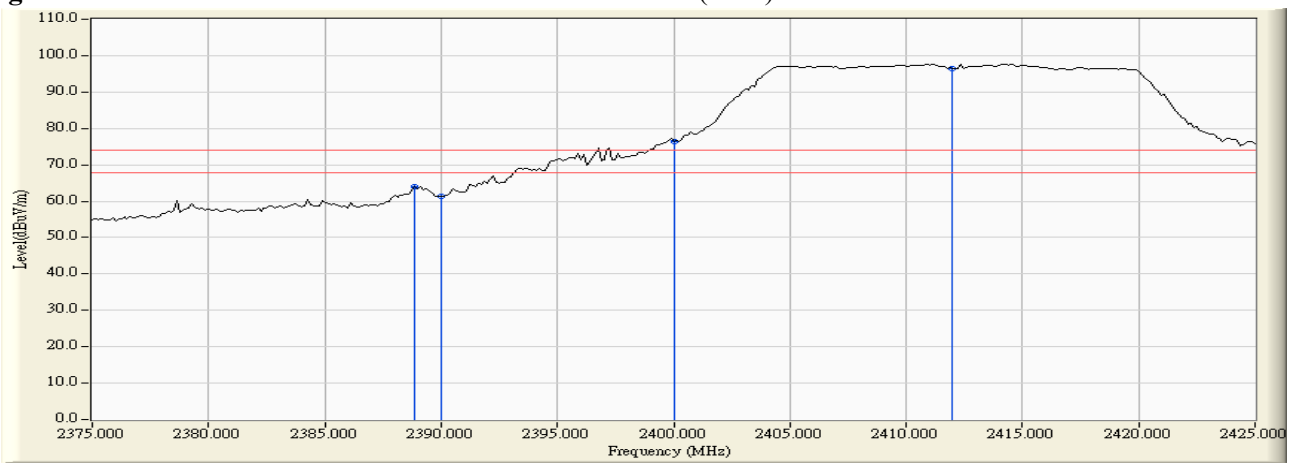
RF Radiated Measurement:

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

RF Radiated Measurement (Vertical):

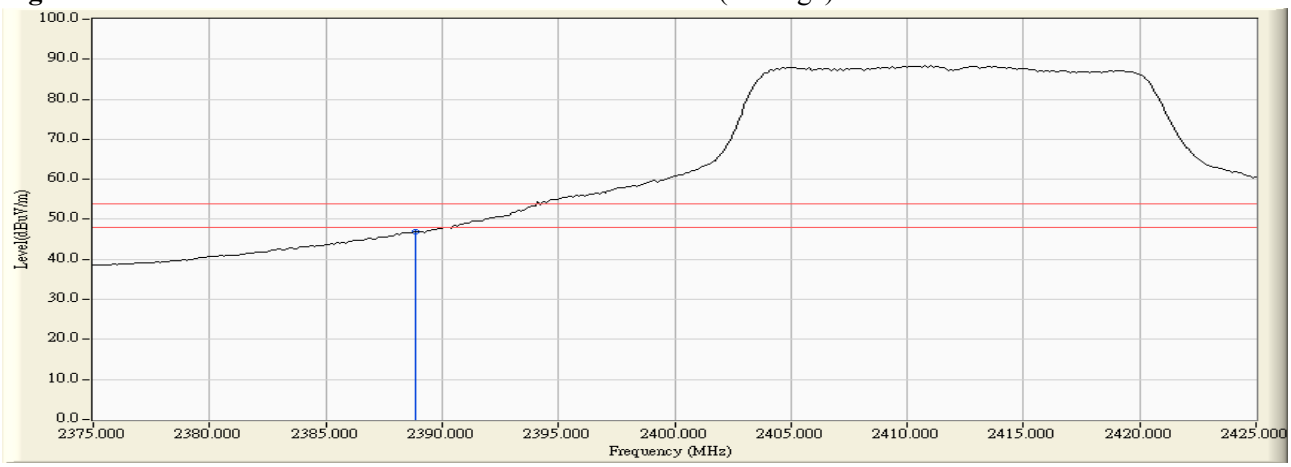
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
1 (Peak)	2412.000	-2.268	98.580	96.312	74.00	54.00	Pass
1 (Average)	2388.875	-2.382	49.166	46.783	74.00	54.00	Pass

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



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

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



Note: RBW=1MHz, VBW=300Hz, Sweep=500ms

Product : Notebook P.C.
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11g-Intel:WM3945ABG (2462MHz)

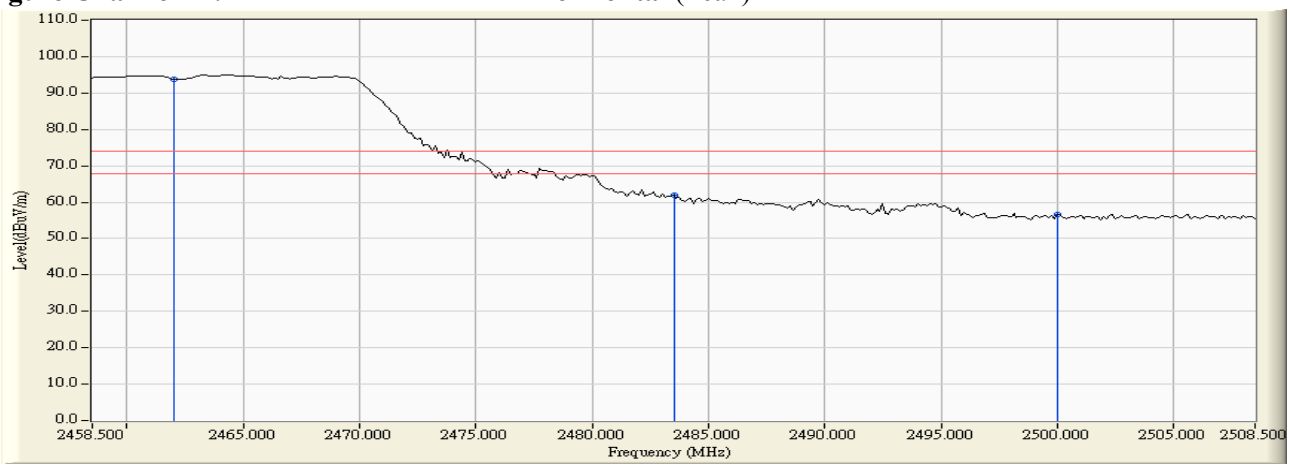
RF Radiated Measurement:

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

RF Radiated Measurement (Horizontal):

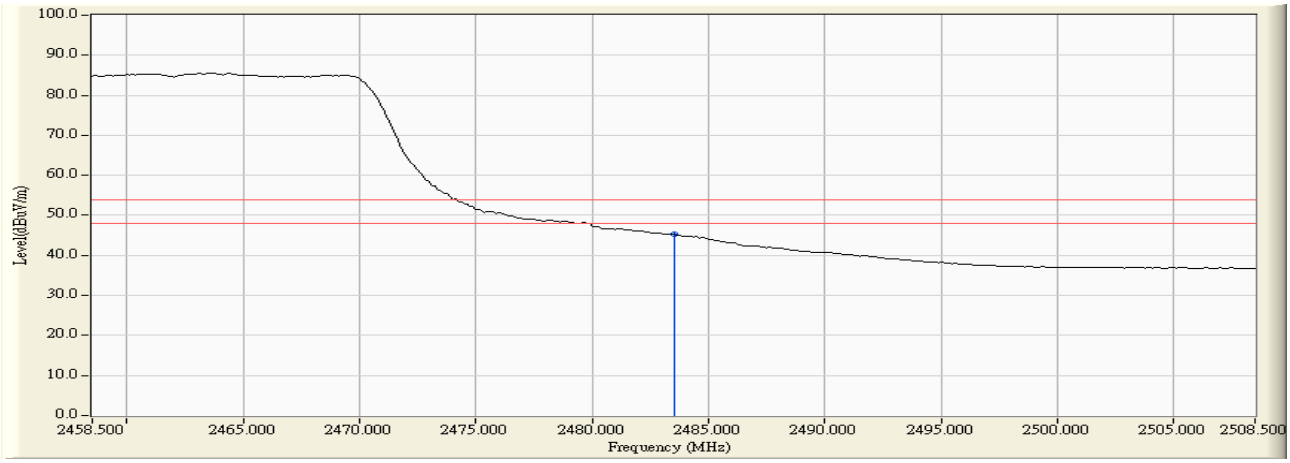
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
11 (Peak)	2462.000	-2.034	95.819	93.786	74.00	54.00	Pass
11(Average)	2483.500	-1.937	47.230	45.293	74.00	54.00	Pass

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



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

Figure Channel 11: **Horizontal** (Average)



Note: RBW=1MHz, VBW=300Hz, Sweep=500ms

Product : Notebook P.C.
Test Item : Band Edge Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11g-Intel:WM3945ABG

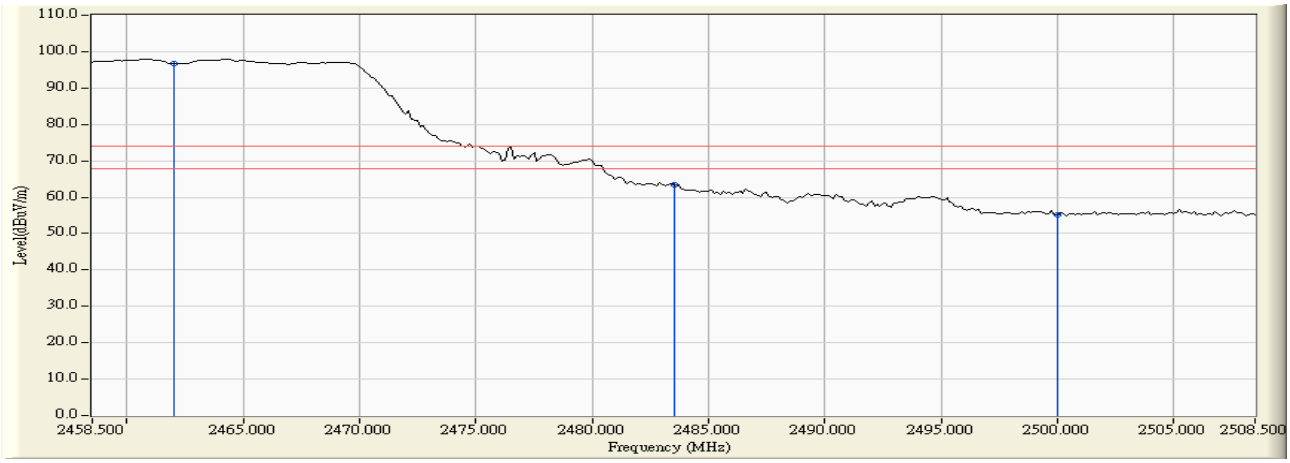
RF Radiated Measurement:

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

RF Radiated Measurement (Vertical):

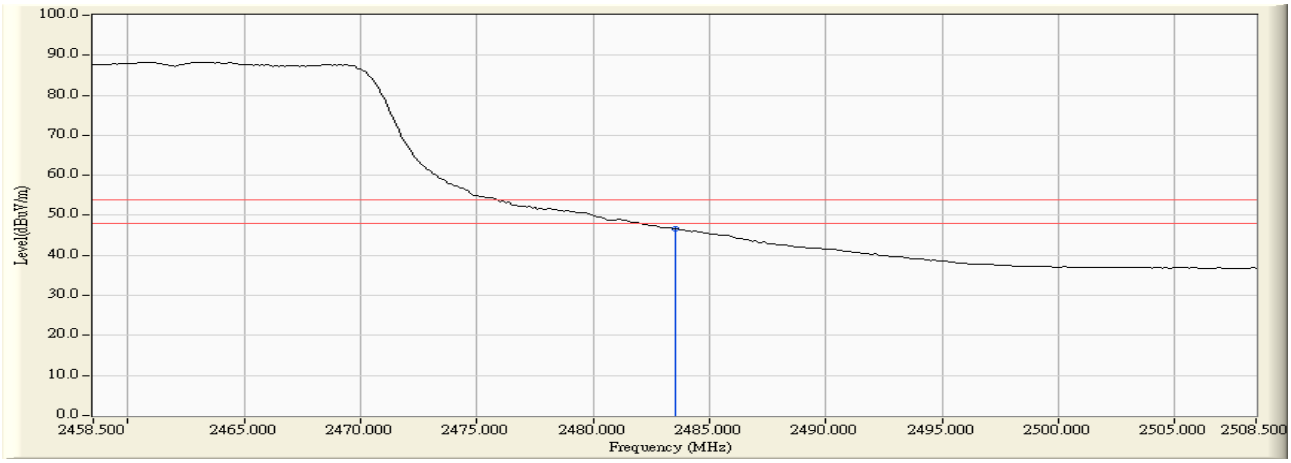
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
11 (Peak)	2462.000	-2.034	98.760	96.727	74.00	54.00	Pass
11(Average)	2483.500	-1.937	48.543	46.606	74.00	54.00	Pass

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



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

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



Note: RBW=1MHz, VBW=300Hz, Sweep=500ms

Note: The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

6. Occupied Bandwidth

6.1. Test Equipment

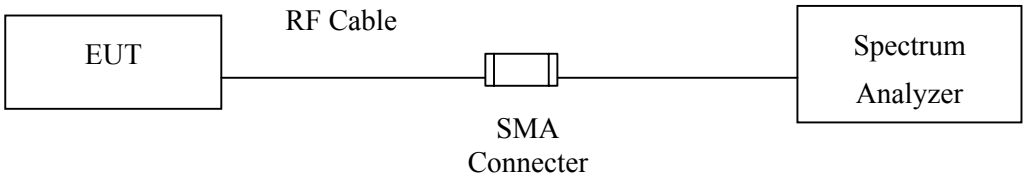
The following test equipments are used during the radiated emission tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2006

Note: 1. All equipments are calibrated every one year.

2. The test instruments marked by "X" are used to measure the final test results.

6.2. Test Setup



6.3. Limits

The minimum bandwidth shall be at least 500kHz.

6.4. Uncertainty

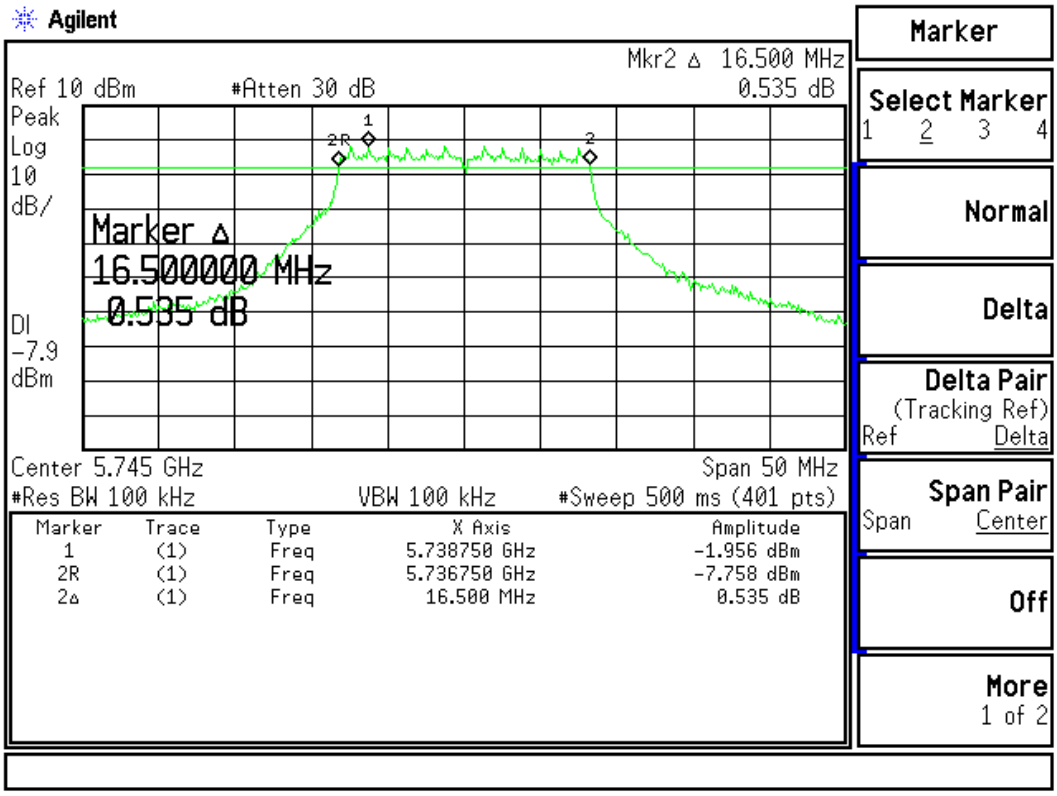
± 150Hz

6.5. Test Result of Occupied Bandwidth

Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-Intel:WM3945ABG (5745MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1 (54Mbps)	5745.00	16500	>500	Pass

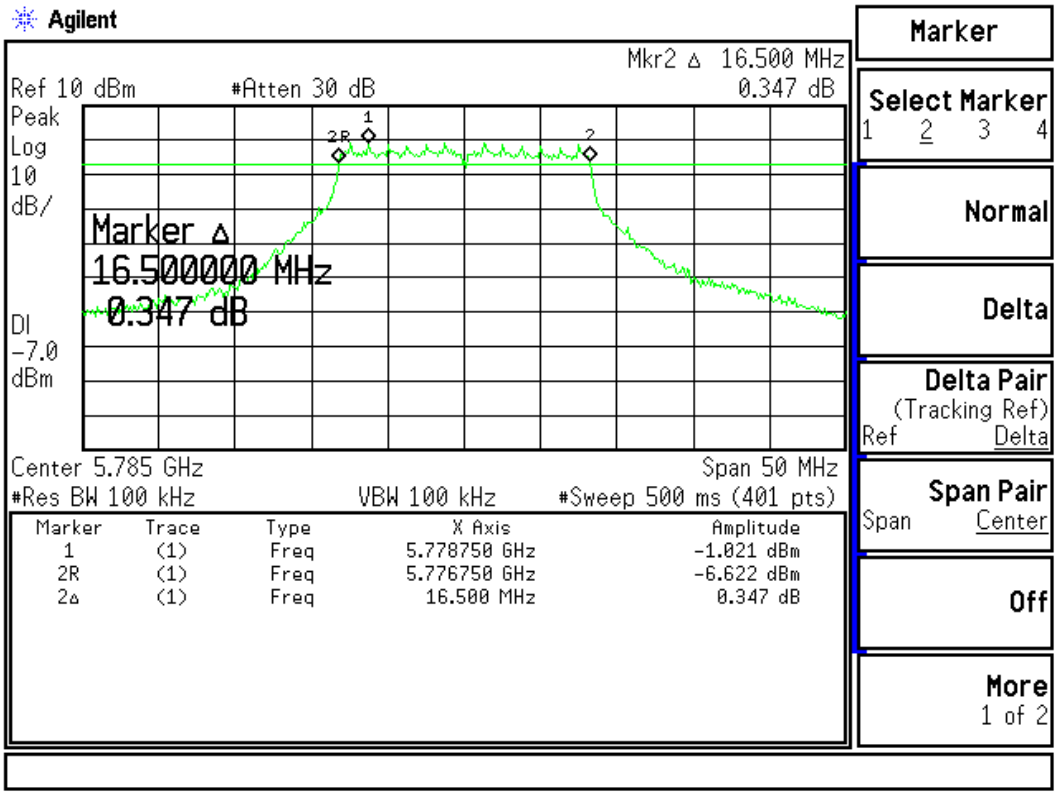
Figure Channel 1:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-Intel:WM3945ABG (5785MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
3 (54Mbps)	5785.00	16500	>500	Pass

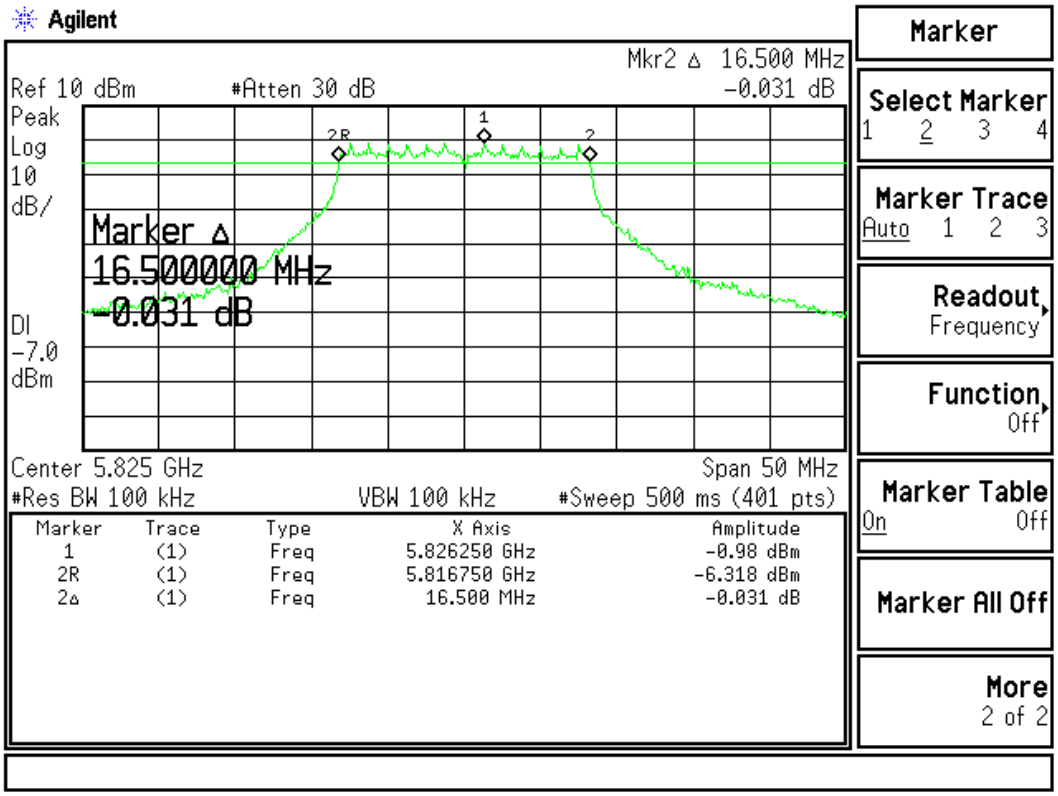
Figure Channel 3:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-Intel:WM3945ABG (5825MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
5 (54Mbps)	5825.00	16500	>500	Pass

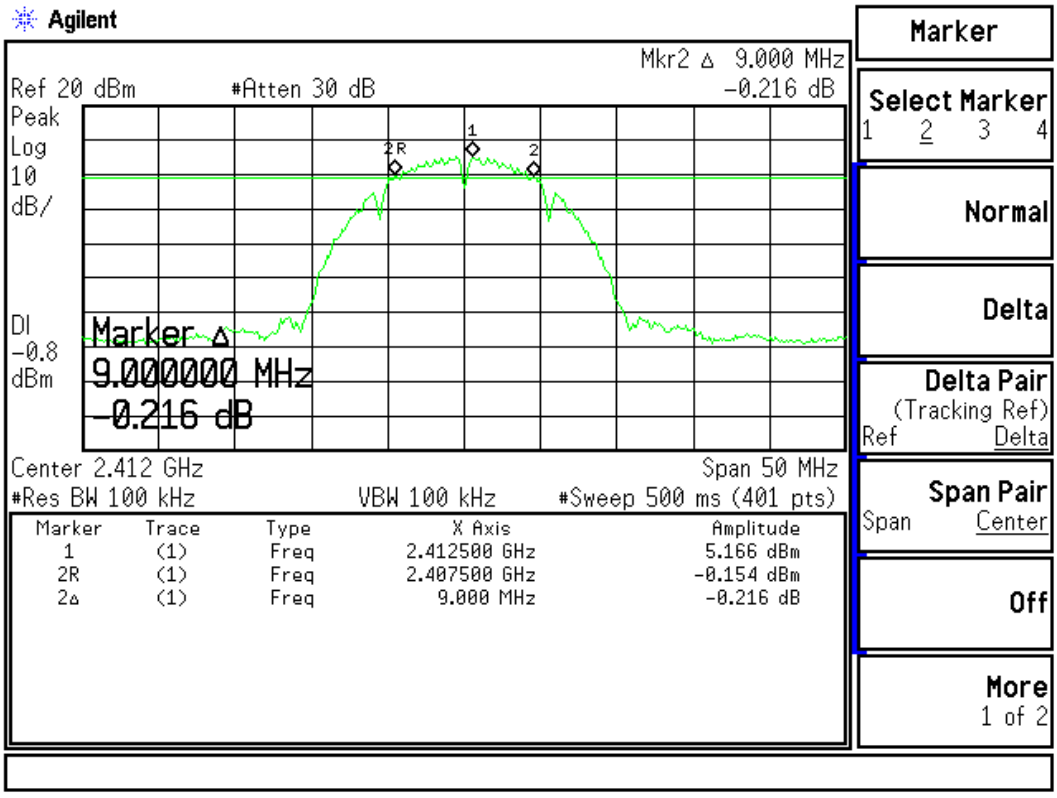
Figure Channel 5:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11b-Intel:WM3945ABG (2412MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1 (11Mbps)	2412.00	9000	>500	Pass

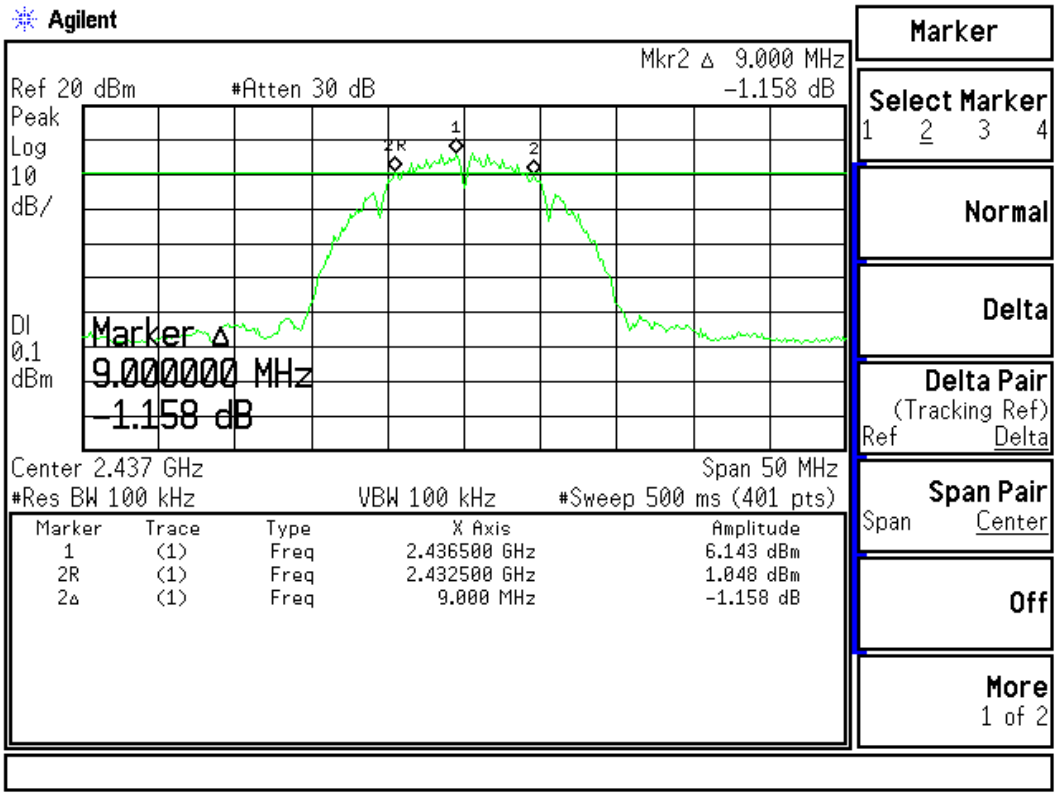
Figure Channel 1:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11b-Intel:WM3945ABG (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6 (11Mbps)	2437.00	9000	>500	Pass

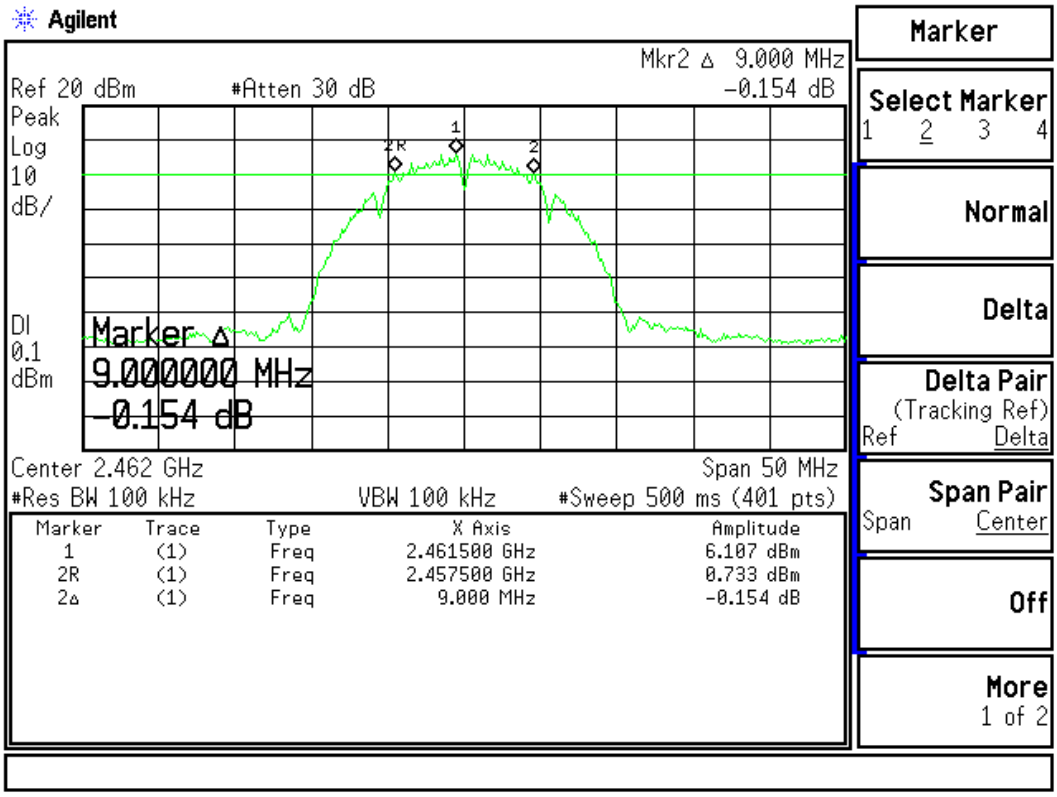
Figure Channel 6:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11b-Intel:WM3945ABG (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11 (11Mbps)	2462.00	9000	>500	Pass

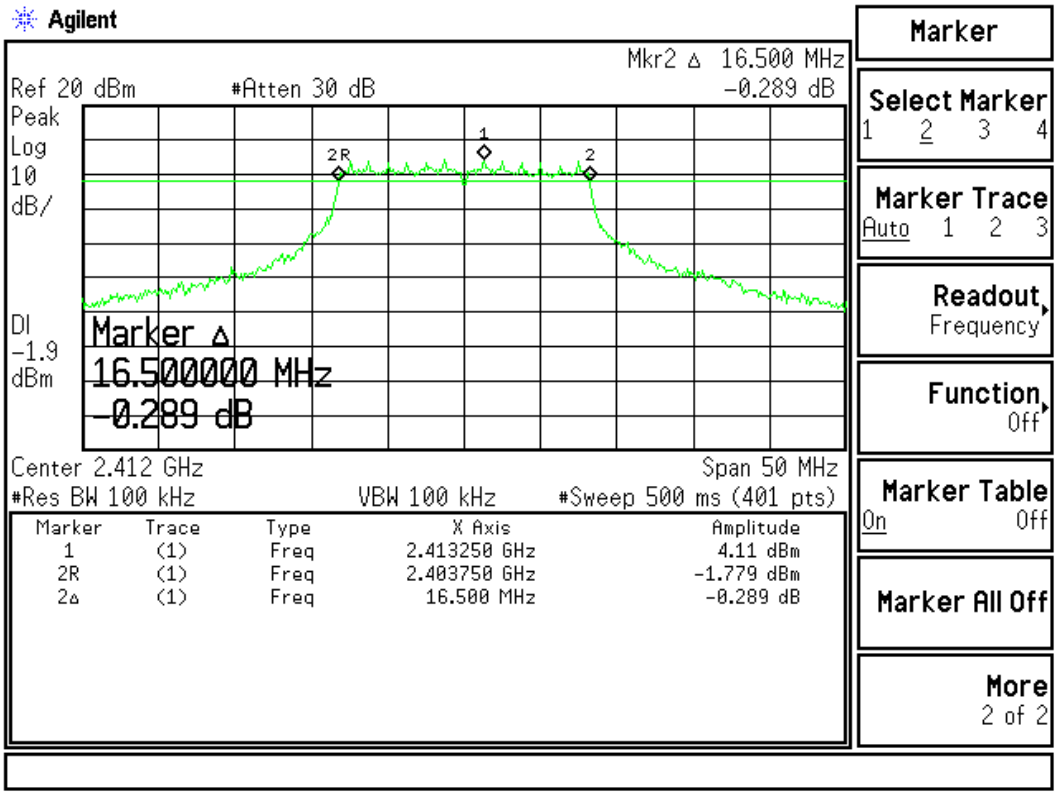
Figure Channel 11:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11g-Intel:WM3945ABG (2412MHz)

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

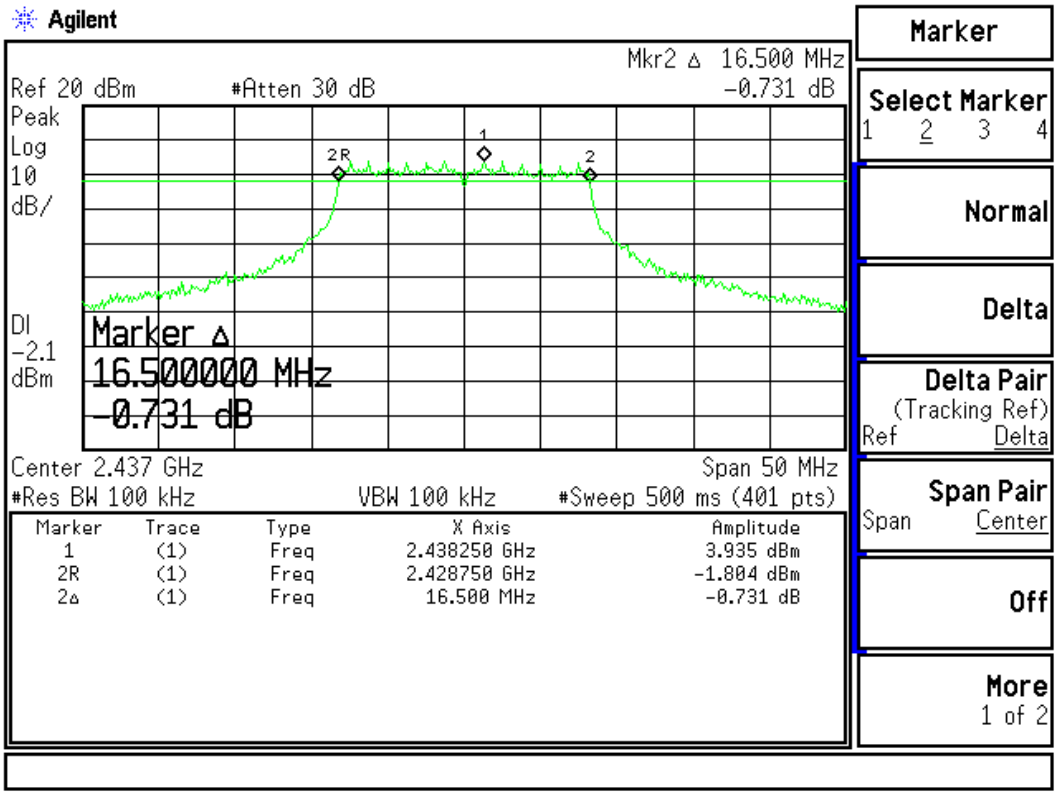
Figure Channel 1:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11g-Intel:WM3945ABG (2437MHz)

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

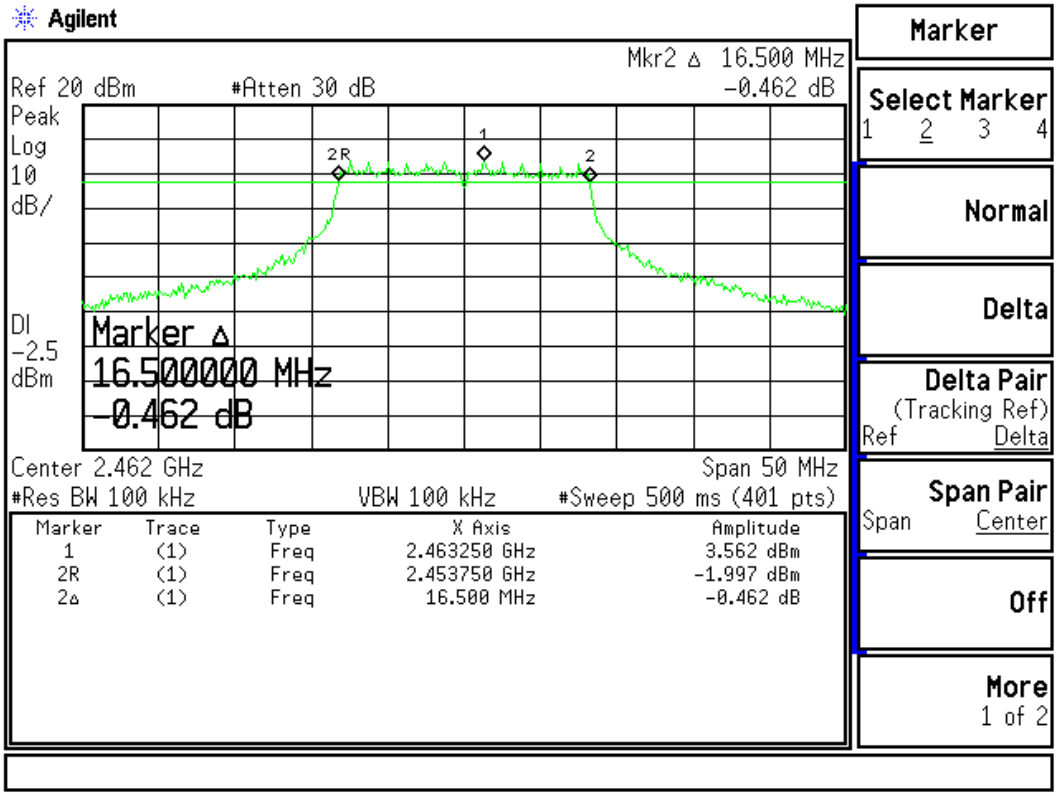
Figure Channel 6:



Product : Notebook P.C.
Test Item : Occupied Bandwidth Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11g-Intel:WM3945ABG (2462MHz)

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

Figure Channel 11:



7. Power Density

7.1. Test Equipment

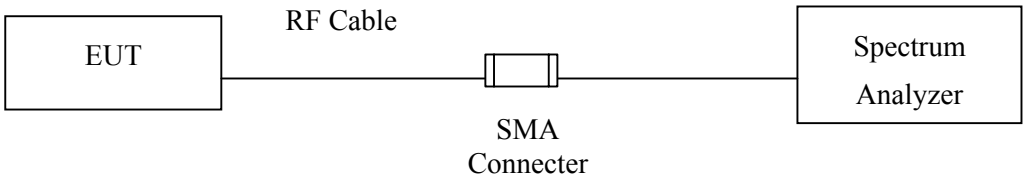
The following test equipments are used during the radiated emission tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2006

Note: 1. All equipments are calibrated every one year.

2. The test instruments marked by "X" are used to measure the final test results.

7.2. Test Setup



7.3. Limits

The peak power spectral density conducted from the intentional radiator to the antenna shall not be greater 8dBm in any 3kHz band during any time interval of continuous transmission.

7.4. Uncertainty

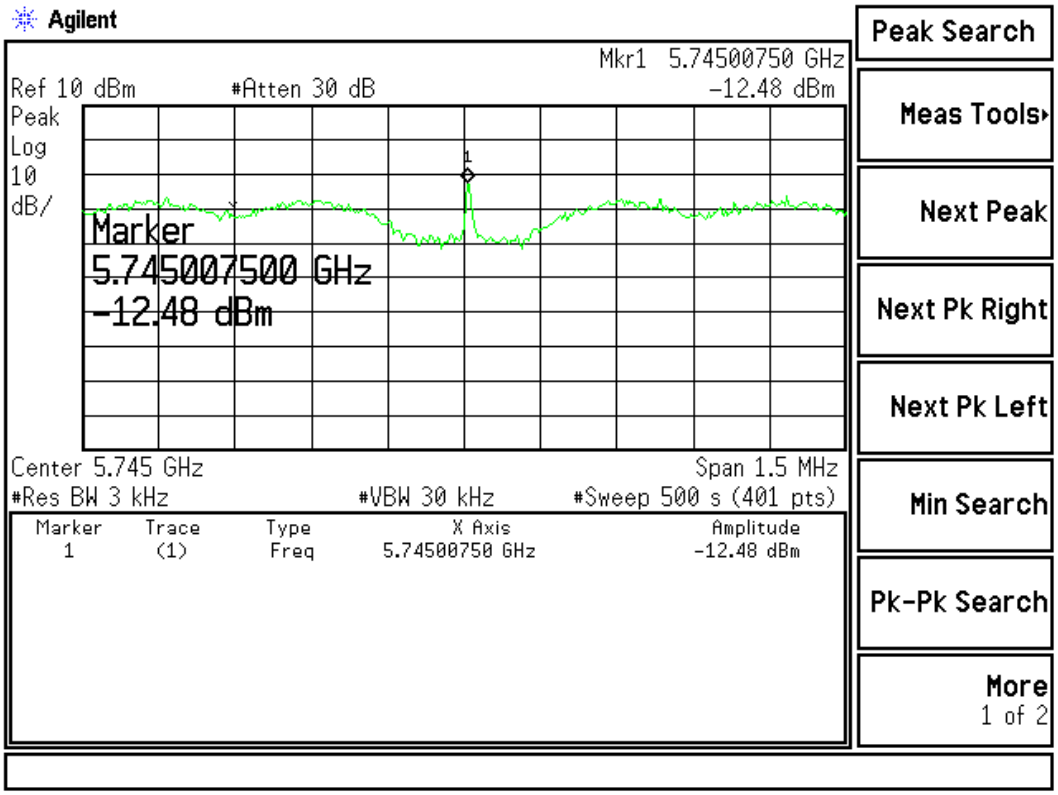
± 1.27 dB

7.5. Test Result of Power Density

Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 1: Transmitter 802.11a-Intel:WM3945ABG (5745MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1 (54Mbps)	5745	-12.48	< 8dBm	Pass

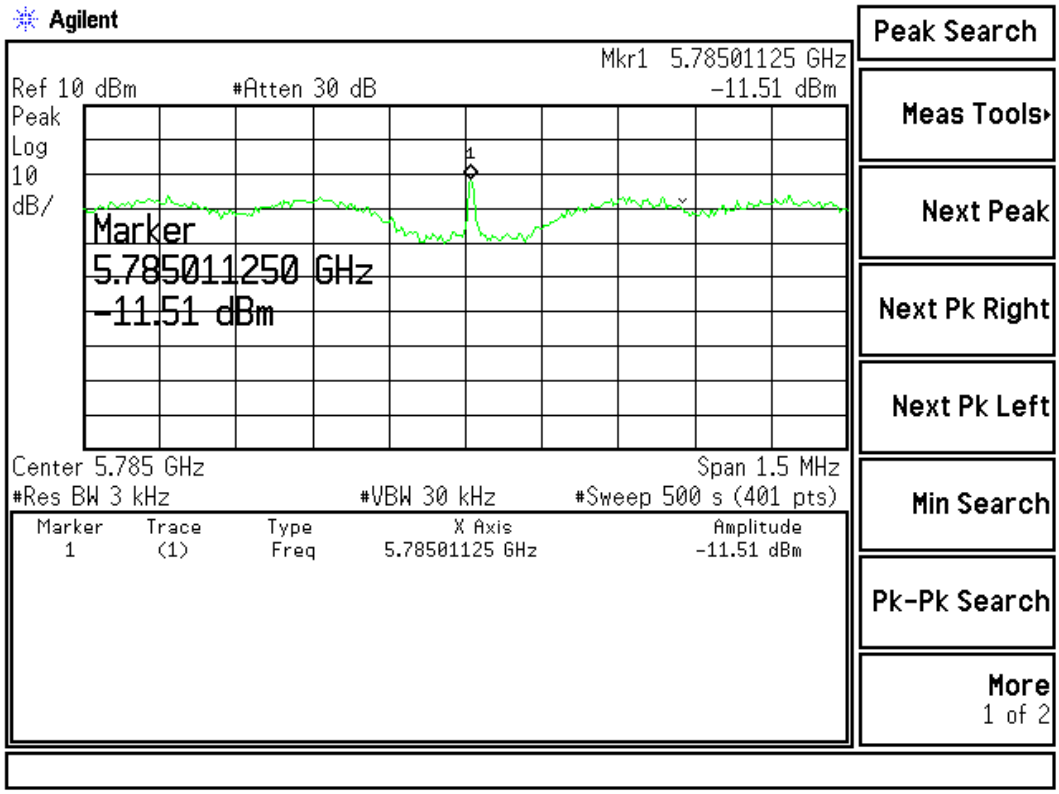
Figure Channel 1:



Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3OATS
Test Mode : Mode 1: Transmitter 802.11a-Intel:WM3945ABG (5785MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
3 (54Mbps)	5785	-11.51	< 8dBm	Pass

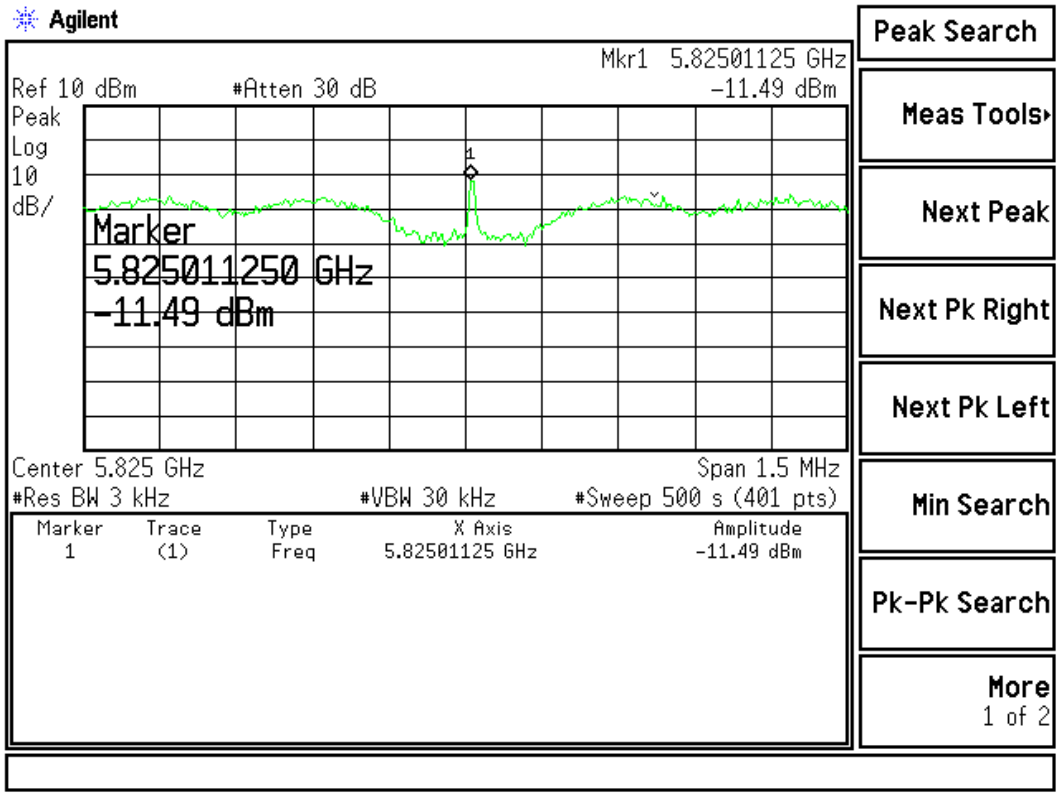
Figure Channel 3:



Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3OATS
Test Mode : Mode 1: Transmitter 802.11a-Intel:WM3945ABG (5825MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
5 (54Mbps)	5825	-11.49	< 8dBm	Pass

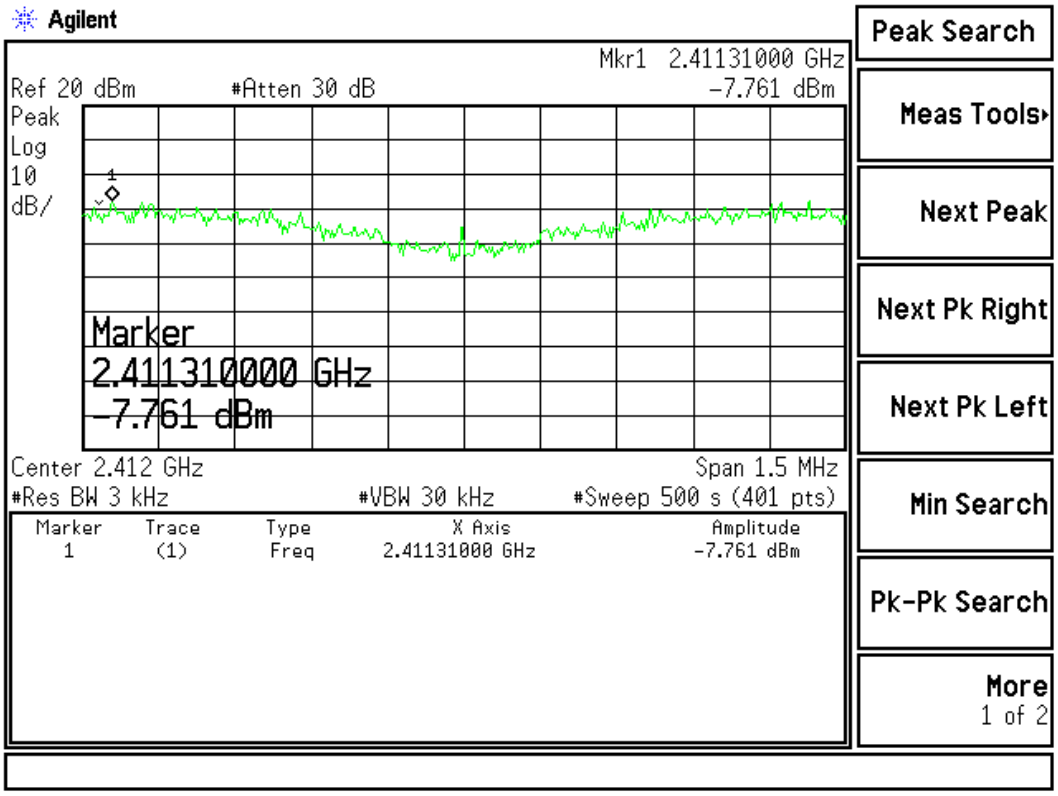
Figure Channel 5:



Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11b-Intel:WM3945ABG (2412MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1 (11Mbps)	2412	-7.761	< 8dBm	Pass

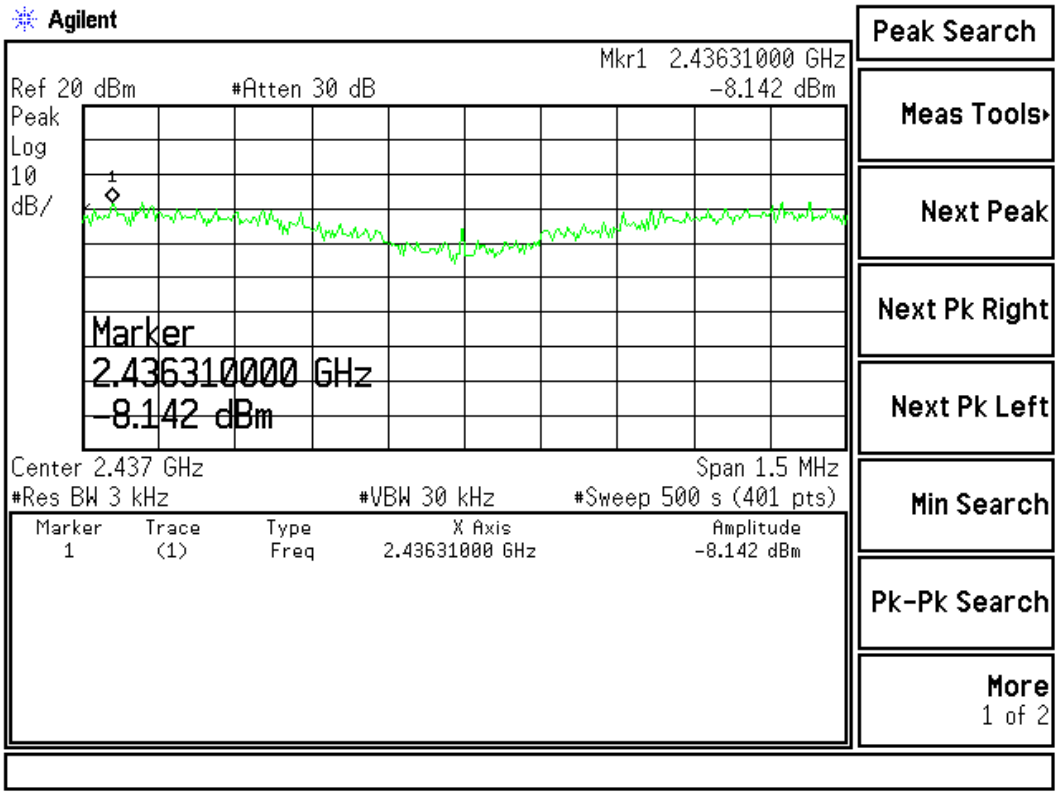
Figure Channel 1:



Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3OATS
Test Mode : Mode 2: Transmitter 802.11b-Intel:WM3945ABG (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6 (11Mbps)	2437	-8.142	< 8dBm	Pass

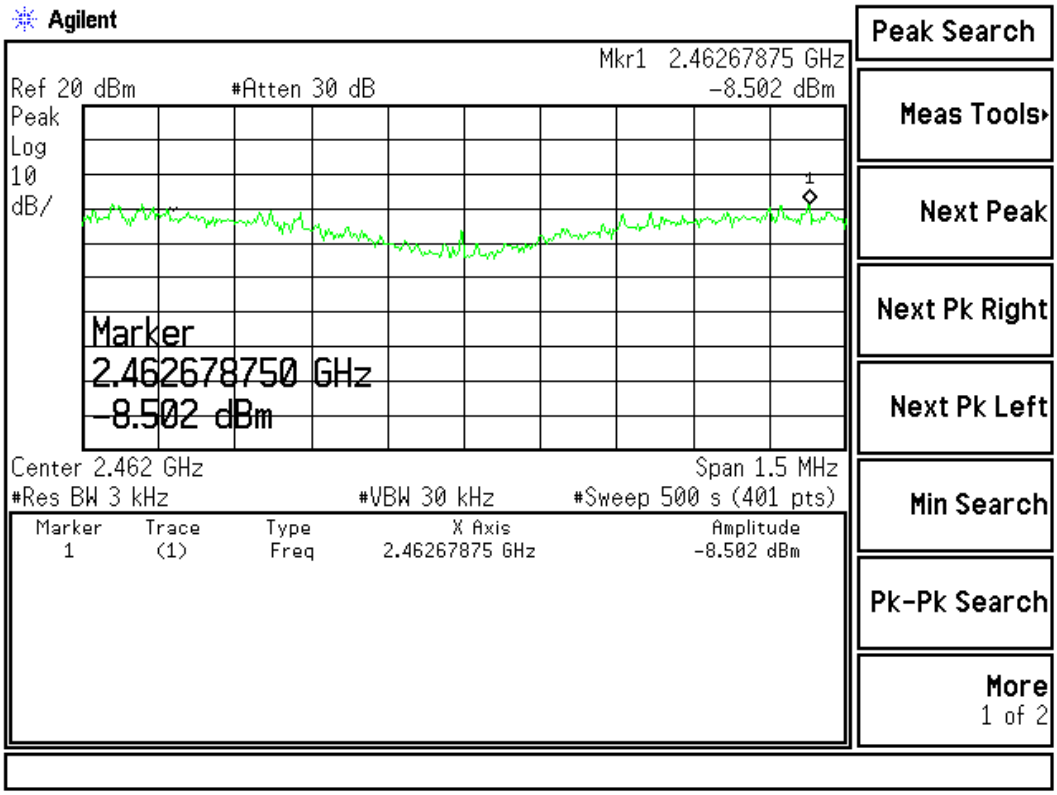
Figure Channel 6:



Product : Notebook P.C.
Test Item : Density Data
Test Site : No.3 OATS
Test Mode : Mode 2: Transmitter 802.11b-Intel:WM3945ABG (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
11 (11Mbps)	2462	-8.502	< 8dBm	Pass

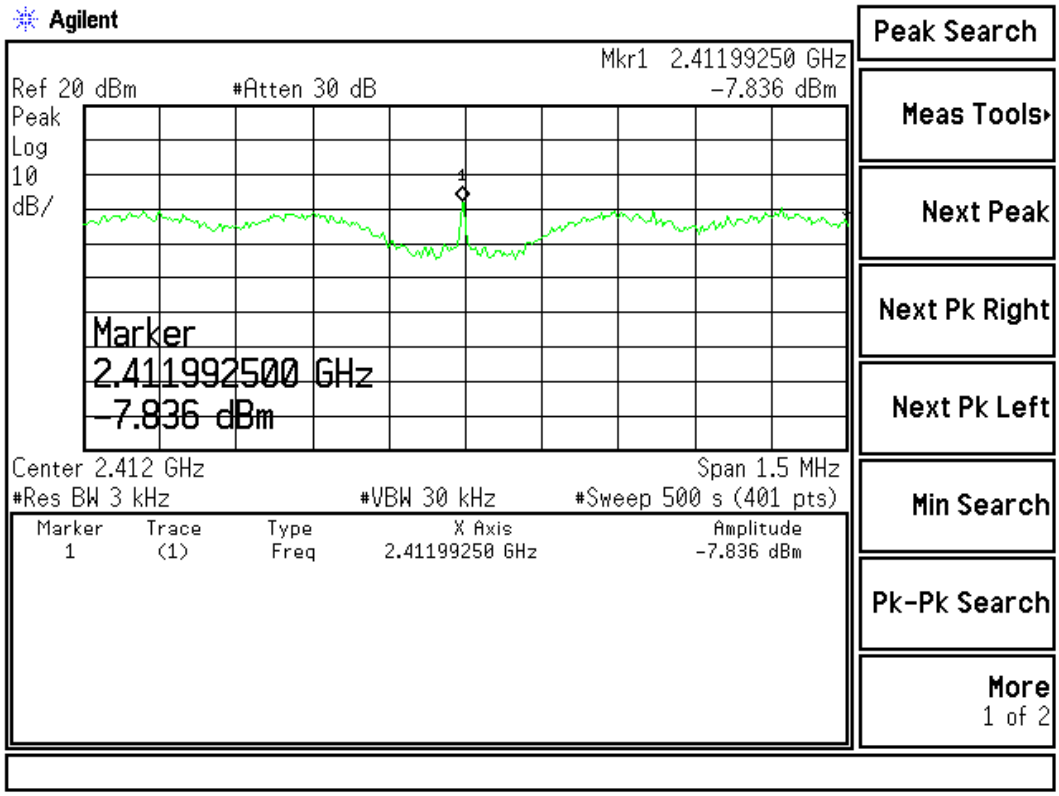
Figure Channel 11:



Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11g-Intel:WM3945ABG (2412MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1 (54Mbps)	2412	-7.836	< 8dBm	Pass

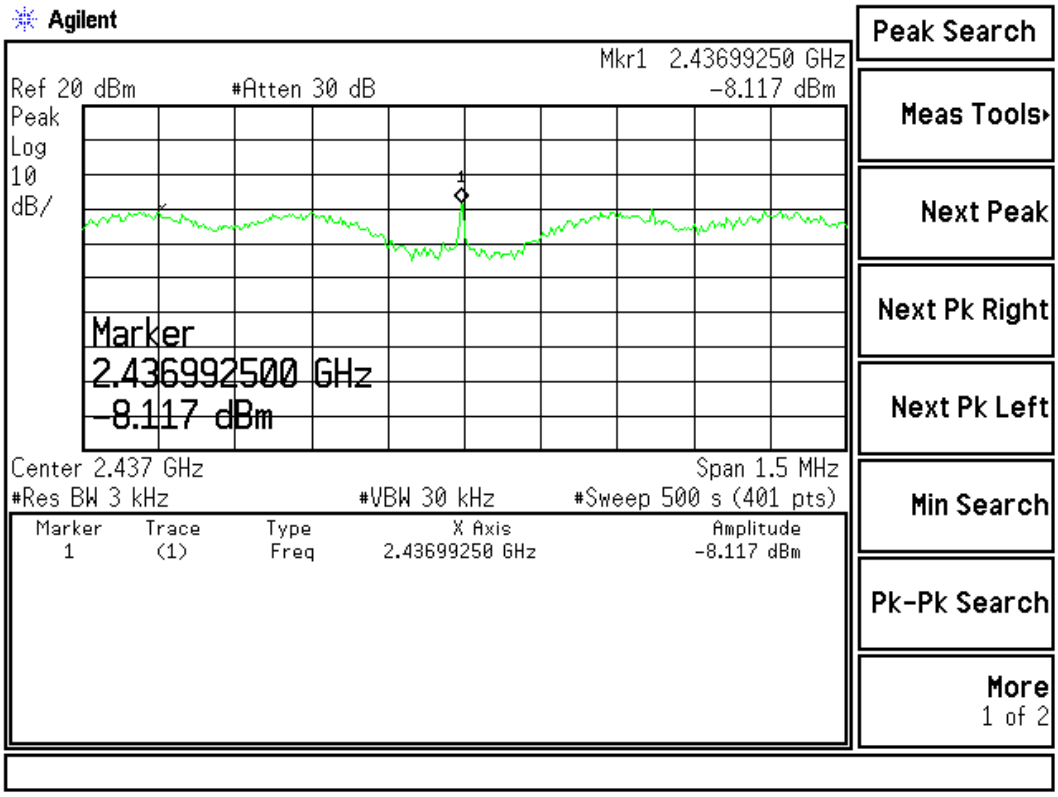
Figure Channel 1:



Product : Notebook P.C.
Test Item : Power Density Data
Test Site : No.3OATS
Test Mode : Mode 3: Transmitter 802.11g-Intel:WM3945ABG (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6 (54Mbps)	2437	-8.117	< 8dBm	Pass

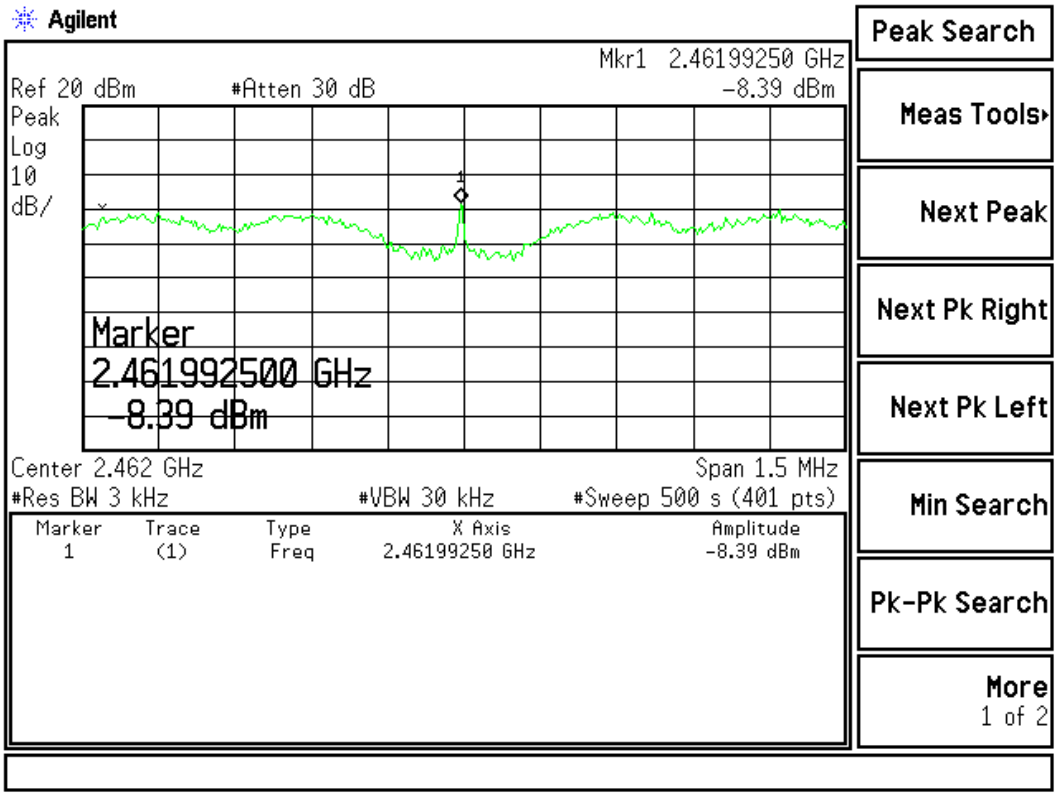
Figure Channel 6:



Product : Notebook P.C.
Test Item : Density Data
Test Site : No.3 OATS
Test Mode : Mode 3: Transmitter 802.11g-Intel:WM3945ABG (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
11 (54Mbps)	2462	-8.39	< 8dBm	Pass

Figure Channel 11:



8. EMI Reduction Method During Compliance Testing

No modification was made during testing.