

Test Report

Product Name	NetBook
Model No.	M912, R912
FCC ID	JCK-M912

Applicant	GIGA-BYTE TECHNOLOGY CO., LTD	
Address	5FL., No. 6, Bau Chiang Road, Hsin-Tien, Taipei-Hsien,	
	Taiwan, R.O.C.	

Date of Receipt	May. 28, 2008
Issued Date	June. 25, 2008
Report No.	086044R-RFUSP05V01
Version	V1.0

The 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

Test Report Certification

Issued Date: June. 25, 2008 Report No.: 086044R-RFUSP05V01



Accredited by NIST (NVLAP) NVLAP Lab Code: 200533-0

Product Name	NetBook		
Applicant	GIGA-BYTE TECHNOLOGY CO., LTD		
Address	5FL., No. 6, Bau Chiang Road, Hsin-Tien, Taipei-Hsien, Taiwan, R.O.C.		
Manufacturer	GIGA-BYTE TECHNOLOGY CO., LTD		
Model No.	M912, R912		
Rated Voltage	AC 120V/60Hz		
Working Voltage	DC 3.3V		
Trade Name	GIGABYTE		
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2007		
Test Result	Complied		

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 :

Genie Chang

(Adm. Specialist / Genie Chang)

Tested By

Jao 1SIM

(Engineer / Johnson Liao)

Approved By

(Deputy Manager / Vincent Lin)





TABLE OF CONTENTS

De	Description		
1.	GENERAL INFORMATION	5	
1.1.	EUT Description		
1.2.	Operational Description		
1.3.	Tested System Datails		
1.4.	Configuration of Test System	7	
1.5.	EUT Exercise Software	7	
1.6.	Test Facility		
2.	Conducted Emission	9	
2.1.	Test Equipment	9	
2.2.	Test Setup	9	
2.3.	Limits	9	
2.4.	Test Procedure		
2.5.	Uncertainty		
2.6.	Test Result of Conducted Emission		
3.	Peak Power Output	15	
3.1.	Test Equipment		
3.2.	Test Setup		
3.3.	Test procedures		
3.4.	Limits	15	
3.5.	Uncertainty		
3.6.	Test Result of Peak Power Output		
4.	Radiated Emission		
4.1.	Test Equipment		
4.2.	Test Setup		
4.3.	Limits		
4.4.	Test Procedure		
4.5.	Uncertainty		
4.6.	Test Result of Radiated Emission		
5.	RF antenna conducted test		
5.1.	Test Equipment		
5.2.	Test Setup		
5.3.	Limits		
5.4.	Test Procedure		
5.5.	Uncertainty		
5.6.	Test Result of RF antenna conducted test		
6.	Radiated Emission Band Edge	35	
6.1.	Test Equipment		
6.2.	Test Setup		
6.3.	Limits		
6.4.	Test Procedure		
6.5.	Uncertainty		
6.6.	Test Result of Band Edge		

QuieTer

7.	Occupied Bandwidth	45	
7.1.	Test Equipment	45	
7.2.	Test Setup	45	
7.3.	Test Procedures	45	
7.4.	Limits		
7.5.	Uncertainty		
7.6.	Test Result of Occupied Bandwidth		
8.	Power Density	50	
8.1.	Test Equipment		
8.2.	Test Setup		
8.3.	Limits		
8.4.	Test Procedures		
8.5.	Uncertainty		
8.6.	Test Result of Power Density		
9.	EMI Reduction Method During Compliance Testing	55	

Attachment 1: EUT Test Photographs

Attachment 2: EUT Detailed Photographs

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	NetBook	
Trade Name	GIGABYTE	
Model No.	M912, R912	
FCC ID	JCK-M912	
Frequency Range	802.11b/g: 2412-2462MHz	
Channel Number	802.11b/g: 11	
Data Speed	IEEE 802.11b – 1, 2, 5.5, 11Mbps	
	IEEE 802.11g – 6, 9, 12, 18, 24, 36 48, 54Mbps	
Type of Modulation	tion 802.11b:DSSS	
	DBPSK, DQPSK, CCK	
	802.11g: OFDM	
	BPSK, QPSK, 16QAM, 64QAM	
Antenna Type	PIFA	
Antenna Gain	Refer to the table "Antenna List"	
Channel Control	Auto	
Power Adapter	MFR: DELTA, M/N: ADP-36EH C	
	Input: AC 100-240V, 50-60Hz, 1A	
	Output: DC 12V, 3A	
	Cable out: Shielded, 1.8m.	
	Power Cord: Non-Shielded, 1.8m.	

Antenna List

No.	Manufacturer	Part No.	Peak Gain
1	ARISTOTLE	RFA-02-G21-70-385	-4.0dBi in 2.4 GHz
		RFA-02-G05-70B-385	

Frequency of Each Channel:

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		

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

1.2. Operational Description

The EUT is a NetBook with 11 channels. This device provides four kinds of transmitting speed 1, 2, 5.5 and 11Mbps. The modulation of device is BPSK, QPSK and CCK (IEEE 802.11b) and eight kinds of transmitting speed 6, 9, 12, 18, 24, 36, 48 and 54Mbps are provided. The technology of this device used is OFDM (IEEE 802.11g).

The device adapts direct sequence spread spectrum modulation. The antenna provides diversity function to improve the receiving function.

This NetBook, compliant with IEEE 802.11b and IEEE 802.11g, 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 being bound to the network wires. Operation in 2.4GHz Direst Sequence Spread Spectrum (DSSS) radio transmission, the NetBook Wired Equivalent Protection (WEP) algorithm is used. In addition, its standard compliance ensures that it can communicate with any IEEE 802.11b and IEEE 802.11g network.

Test Mode	Mode 1: Transmitter 802.11b
	Mode 2: Transmitter 802.11g

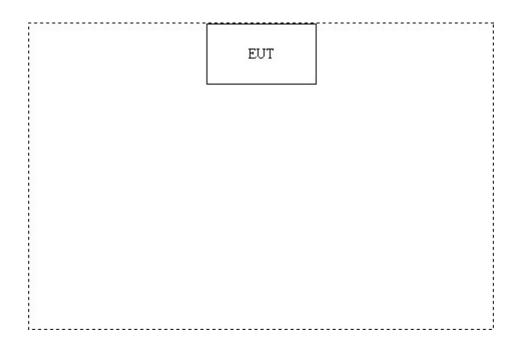
1.3. Tested System Datails

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
1.	N/A	N/A	N/A	N/A	N/A	N/A

Signal	l Cable Type	Signal cable Description
A.	N/A	N/A

1.4. Configuration of Test System



1.5. EUT Exercise Software

- (1) Setup the EUT as shown in Section 1.4
- (2) Execute "ART.exe" on the EUT.
- (3) Configure the test mode, the test channel, and the data rate.
- (4) Press "OK" to start the continuous Transmit.
- (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
	Registration Number: 92195
	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

FCC Accreditation Number: TW1014



2. Conducted Emission

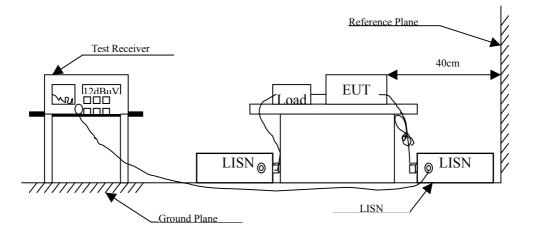
2.1. Test Equipment

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, 2008	
2	L.I.S.N.	R & S	ESH3-Z5/825016/6	May, 2008	EUT
3	L.I.S.N.	Kyoritsu	KNW-407/8-1420-3	May, 2008	Peripherals
4	Pulse Limiter	R & S	ESH3-Z2	May, 2008	
5	No.1 Shielded Roo	m		N/A	

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

2.2. Test Setup



2.3. Limits

FCC Part 15 Subpart C Paragraph 15.207 (dBuV) Limit			
Frequency	Limits		
MHz	uV	dBuV	
0.15 - 0.50	66-56 ₍₁₂₎	56-46 ₍₁₁₎	
0.50-5.0	56	46	
5.0 - 30	60	50	

2.4. 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 9kHz.

2.5. Uncertainty

± 2.26 dB

2.6. Test Result of Conducted Emission

Product	:	NetBook
Test Item	:	Conducted Emission Test
Power Line	:	Line 1
Test Mode	:	Mode 1: Transmitter 802.11b (2437MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 1					
Quasi-Peak					
0.162	0.492	51.840	52.332	-13.325	65.657
0.185	0.753	46.850	47.603	-17.397	65.000
0.236	0.395	38.510	38.905	-24.638	63.543
0.295	0.300	33.930	34.230	-27.627	61.857
0.713	0.310	32.940	33.250	-22.750	56.000
14.357	0.970	23.680	24.650	-35.350	60.000
Average					
0.162	0.492	34.650	35.142	-20.515	55.657
0.185	0.753	24.170	24.923	-30.077	55.000
0.236	0.395	20.520	20.915	-32.628	53.543
0.295	0.300	14.560	14.860	-36.997	51.857
0.713	0.310	25.440	25.750	-20.250	46.000
14.357	0.970	16.930	17.900	-32.100	50.000

Note:

1. All Reading Levels are Quasi-Peak and average value.

2. "" " means the worst emission level.

Product	:	NetBook
Test Item	:	Conducted Emission Test
Power Line	:	Line 2
Test Mode	:	Mode 1: Transmitter 802.11b (2437MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 2					
Quasi-Peak					
0.154	0.300	49.610	49.910	-15.976	65.886
0.177	0.300	48.840	49.140	-16.089	65.229
0.212	0.300	32.860	33.160	-31.069	64.229
0.248	0.300	37.730	38.030	-25.170	63.200
0.697	0.310	32.150	32.460	-23.540	56.000
3.228	0.380	22.960	23.340	-32.660	56.000
Average					
0.154	0.300	28.130	28.430	-27.456	55.886
0.177	0.300	33.500	33.800	-21.429	55.229
0.212	0.300	9.120	9.420	-44.809	54.229
0.248	0.300	23.670	23.970	-29.230	53.200
0.697	0.310	25.290	25.600	-20.400	46.000
3.228	0.380	16.140	16.520	-29.480	46.000

1. All Reading Levels are Quasi-Peak and average value.

2. "means the worst emission level.

Produ Test If	tem : Conduct	k ted Emission Test			
Power Test N		Transmitter 802.1	1g (2437MHz)		
Frequency	Correct	Reading	Measurement	Margin	Limit
1	Factor	Level	Level	C	
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 1					
Quasi-Peak					
0.189	0.725	41.920	42.645	-22.241	64.886
0.205	0.615	43.280	43.895	-20.534	64.429
0.220	0.505	40.650	41.155	-22.845	64.000
0.279	0.300	24.950	25.250	-37.064	62.314
0.408	0.300	29.730	30.030	-28.599	58.629
0.697	0.310	29.290	29.600	-26.400	56.000
Average					
0.189	0.725	19.670	20.395	-34.491	54.886
0.205	0.615	30.570	31.185	-23.244	54.429
0.220	0.505	24.040	24.545	-29.455	54.000
0.279	0.300	9.080	9.380	-42.934	52.314
0.408	0.300	18.670	18.970	-29.659	48.629
0.697	0.310	22.400	22.710	-23.290	46.000

1. All Reading Levels are Quasi-Peak and average value.

2. "means the worst emission level.

Product	: NetBoo				
Test Item		ted Emission Test			
Power Li		. Transmitter 802 1	$1 \sim (2.427) (11-)$		
Test Mod	le : Mode 2	: Transmitter 802.1	1g (243/MHZ)		
Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 2					
Quasi-Peak					
0.212	0.300	42.730	43.030	-21.199	64.229
0.232	0.300	38.730	39.030	-24.627	63.657
0.252	0.300	36.850	37.150	-25.936	63.086
0.306	0.300	28.240	28.540	-33.003	61.543
2.568	0.360	27.160	27.520	-28.480	56.000
3.611	0.390	26.020	26.410	-29.590	56.000
Average					
0.212	0.300	28.170	28.470	-25.759	54.229
0.232	0.300	20.580	20.880	-32.777	53.657
0.252	0.300	17.740	18.040	-35.046	53.086
0.306	0.300	9.510	9.810	-41.733	51.543
2.568	0.360	16.480	16.840	-29.160	46.000
3.611	0.390	16.110	16.500	-29.500	46.000

1. All Reading Levels are Quasi-Peak and average value.

2. "means the worst emission level.

3. Peak Power Output

3.1. Test Equipment

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

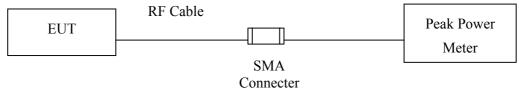
_	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Х	Power Meter	Anritsu	ML2495A/6K00003357	May, 2008
Х	Power Sensor	Anritsu	MA2491A/034457	May, 2008

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

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

3.2. Test Setup

Conducted Measurement



3.3. Test procedures

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

3.4. Limits

The maximum peak power shall be less 1 Watt.

3.5. Uncertainty

± 1.27 dB

3.6. Test Result of Peak Power Output

Product	:	NetBook
Test Item	:	Peak Power Output Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmitter 802.11b

Cable loss=0.5dB		Peak Power Output Value (dBm)					
Channel No.	Frequency (MHz)		D 11				
		1 Mbps	2Mbps	5.5Mbps	11Mbps	Required Limit	
1	2412.00				18.11	1Watt= 30 dBm	
6	2437.00	18.06	18.03	18.17	18.22	1Watt= 30 dBm	
11	2462.00				18.38	1Watt= 30 dBm	

Note: Peak Power Output Value =Reading value on peak power meter + cable loss

Product	:	NetBook
Test Item	:	Peak Power Output Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmitter 802.11g

Cable loss=0.5dB		Peak Power Output Value (dBm)								
	Data Rate (Mbps)									
Channel No.	Frequency (MHz)	6	9	12	18	24	36	48	54	Required Limit
		Mbps	Mbps	Mbps	Mbps	Mbps	Mbps	Mbps	Mbps	
1	2412.00								20.08	1Watt= 30 dBm
6	2437.00	20.78	20.82	21.02	21.04	21.12	21.28	21.29	21.85	1Watt= 30 dBm
11	2462.00								20.49	1Watt= 30 dBm

Note: Peak Power Output Value =Reading value on peak power meter + cable loss

4. Radiated Emission

4.1. Test Equipment

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

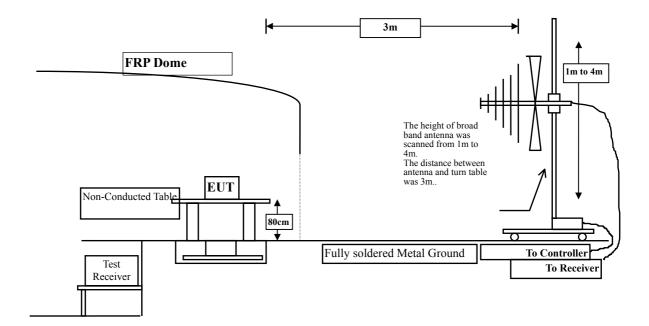
Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Site # 1		Test Receiver	R & S	ESCS 30 / 825442/14	May, 2008
		Spectrum Analyzer	Advantest	R3261C / 71720140	May, 2008
		Pre-Amplifier	HP	8447D/3307A01812	May, 2008
		Bilog Antenna	Chase	CBL6112B / 12452	Sep., 2007
		Horn Antenna	EM	EM6917 / 103325	May, 2008
Site # 2		Test Receiver	R & S	ESCS 30 / 825442/17	May, 2008
		Spectrum Analyzer	Advantest	R3261C / 71720609	May, 2008
		Pre-Amplifier	HP	8447D/3307A01814	May, 2008
		Bilog Antenna	Chase	CBL6112B / 2455	Sep., 2007
		Horn Antenna	EM	EM6917 / 103325	May, 2008
Site # 3	Х	Test Receiver	R & S	ESI 26 / 838786 / 004	May, 2008
	Х	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2008
	Х	Bilog Antenna	SCHAFFNER	CBL6112B / 2697	May, 2008
	Х	Horn Antenna	Schwarzbeck	BBHA9120D / 305, 306	July, 2007
	Х	Horn Antenna	Schwarzbeck	BBHA9170 / 208, 209	July, 2007
	Х	Pre-Amplifier	QTK	QTK-AMP-01 / 0001	July, 2007
	Х	Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2008
	Х	Pre-Amplifier	HP	8449B / 3008A01123	July, 2007

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

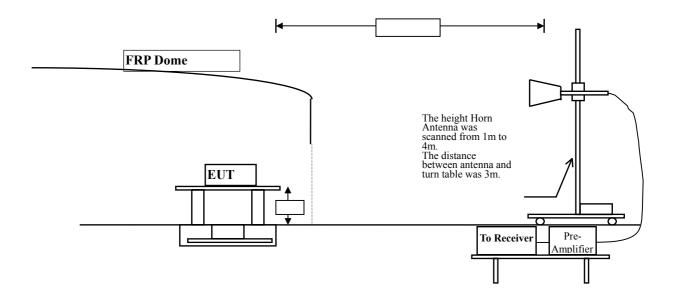
2. The test instruments marked with "X" are used to measure the final test results.

4.2. Test Setup

Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



4.3. 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: 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 between 1 meter and 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.

Radiated emission measurements below 1GHz are made using broadband Bilog antenna and above 1GHz are made using Horn Antennas.

The measurement is divided into the Preliminary Measurement and the Final Measurement. The suspected frequencies are searched for in Preliminary Measurement with the measurement antenna kept pointed at the source of the emission both in azimuth and elevation, with the polarization of the antenna oriented for maximum response. The antenna is pointed at an angle towards the source of the emission, and the EUT is rotated in both height and polarization to maximize the measured emission. The emission is kept within the illumination area of the 3 dB beamwidth of the antenna. The worst radiated emission is measured on the Final Measurement.

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

4.5. Uncertainty

± 3.9 dB above 1GHz

± 3.8 dB below 1GHz

4.6. Test Result of Radiated Emission

Product	:	NetBook
Test Item	:	Harmonic Radiated Emission Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmitter 802.11b (2412MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4824.000	3.723	37.820	41.543	-32.457	74.000
7236.000	9.439	36.250	45.689	-28.311	74.000
9648.000	11.829	36.610	48.439	-25.561	74.000
Average					
Detector:					
Vertical					
Peak Detector:					
4824.000	3.723	37.360	41.083	-32.917	74.000
7236.000	9.439	36.080	45.519	-28.481	74.000
9648.000	11.829	36.440	48.269	-25.731	74.000
Average					
Detector:					

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	: NetBook							
Test Item	: Harmonic Radiated Emission Data							
Test Site	: No.3 OATS							
Test Mode	: Mode 1: Transmitter 802.11b (2437 MHz)							
Frequency	Correct	Reading	Measurement	Margin	Limit			
	Factor	Level	Level					
MHz	dB	dBuV	dBuV/m	dB	dBuV/m			
Horizontal								
Peak Detector:								
4874.000	3.893	45.600	49.492	-24.508	74.000			
7311.000	9.624	37.360	46.984	-27.016	74.000			
9748.000	11.805	39.720	51.526	-22.474	74.000			
Average								
Detector:								
Vertical								
Peak Detector:								
4874.000	3.893	45.480	49.372	-24.628	74.000			
7311.000	9.624	38.360	47.984	-26.016	74.000			
9748.000	11.805	40.390	52.196	-21.804	74.000			
Average								
Detector:								

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product Test Item Test Site Test Mode	 NetBook Harmonic Radiated Emission Data No.3 OATS Mode 1: Transmitter 802.11b (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	37.670	41.745	-32.255	74.000		
7386.000	9.812	35.480	45.292	-28.708	74.000		
9848.000	11.819	37.050	48.869	-25.131	74.000		
Average							
Detector:							
Vertical							
Peak Detector:							
4924.000	4.075	37.150	41.225	-32.775	74.000		
7386.000	9.812	35.210	45.022	-28.978	74.000		
9848.000	11.819	36.500	48.319	-25.681	74.000		
Average							
Detector:							

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product Test Item Test Site Test Mode	 NetBook Harmonic Radiated Emission Data No.3 OATS Mode 2: Transmitter 802.11g (2412MHz) 						
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
4824.000	3.723	37.970	41.693	-32.307	74.000		
7236.000	9.439	35.645	45.084	-28.916	74.000		
9648.000	11.829	35.866	47.695	-26.305	74.000		
Average							
Detector:							
Vertical							
Peak Detector:							
4824.000	3.723	36.566	40.289	-33.711	74.000		
7236.000	9.439	34.964	44.403	-29.597	74.000		
9648.000	11.829	35.250	47.079	-26.921	74.000		
Average							
Detector:							

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	: NetBook							
Test Item	: Harmonic Radiated Emission Data							
Test Site	: No.3 OATS							
Test Mode	: Mode 2: Transmitter 802.11g (2437 MHz)							
Frequency	Correct	Reading	Measurement	Margin	Limit			
	Factor	Level	Level					
MHz	dB	dBuV	dBuV/m	dB	dBuV/m			
Horizontal								
Peak Detector:								
4874.000	3.893	40.908	44.800	-29.200	74.000			
7311.000	9.624	34.649	44.273	-29.727	74.000			
9748.000	11.805	35.120	46.926	-27.074	74.000			
Average								
Detector:								
Vertical								
Peak Detector:								
4874.000	3.893	37.413	41.305	-32.695	74.000			
7311.000	9.624	34.838	44.462	-29.538	74.000			
9748.000	11.805	35.151	46.957	-27.043	74.000			
Average								
Detector:								

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product Test Item	 NetBook Harmonic Radiated Emission Data 						
Test Site Test Mode	 No.3 OATS Mode 2: Transmitter 802.11g (2462 MHz) 						
Test Mode	: Mode 2	. Transmitter 802.	11g (2402 MITZ)				
Frequency	Correct	Reading	Measurement	Margin	Limit		
	Factor	Level	Level				
MHz	dB	dBuV	dBuV/m	dB	dBuV/m		
Horizontal							
Peak Detector:							
4924.000	4.075	37.231	41.306	-32.694	74.000		
7386.000	9.812	34.350	44.162	-29.838	74.000		
9848.000	11.819	35.173	46.992	-27.008	74.000		
Average							
Detector:							
Vertical							
Peak Detector:							
4924.000	4.075	36.900	40.975	-33.025	74.000		
7386.000	9.812	35.162	44.974	-29.026	74.000		
9848.000	11.819	35.656	47.475	-26.525	74.000		
Average							
Detector:							

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	: NetBook				
Test Item	: General Radiated Emission Data				
	Test Site : No.3 OATS				
Test Mode	: Mode 1: Transmitter 802.11b (2437 MHz)				
Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
272.500	39.852	-8.167	31.685	-14.315	46.000
335.550	46.189	-13.118	33.071	-12.929	46.000
481.050	46.548	-13.419	33.129	-12.871	46.000
575.625	48.324	-13.299	35.025	-10.975	46.000
624.125	47.268	-11.696	35.572	-10.428	46.000
721.125	52.164	-15.966	36.198	-9.802	46.000
Vertical					
272.500	40.236	-2.534	37.702	-8.298	46.000
340.400	47.379	-16.099	31.280	-14.720	46.000
408.300	48.575	-17.325	31.250	-14.750	46.000
527.125	48.225	-17.919	30.306	-15.694	46.000
624.125	47.618	-15.999	31.619	-14.381	46.000
721.125	53.464	-17.076	36.388	-9.612	46.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	: NetBoo	k			
Test Item	: General Radiated Emission Data				
Test Site	est Site : No.3 OATS				
Test Mode	: Mode 2: Transmitter 802.11g (2437 MHz)				
Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
272.500	39.852	-6.287	33.565	-12.435	46.000
335.550	46.189	-14.076	32.113	-13.887	46.000
432.550	46.341	-13.709	32.632	-13.368	46.000
481.050	46.548	-12.784	33.764	-12.236	46.000
575.625	48.324	-13.225	35.099	-10.901	46.000
624.125	47.268	-11.685	35.583	-10.417	46.000
Vertical					
335.550	46.139	-15.862	30.277	-15.723	46.000
527.125	48.225	-18.445	29.780	-16.220	46.000
624.125	47.618	-17.433	30.185	-15.815	46.000
721.125	53.464	-17.432	36.032	-9.968	46.000
815.700	54.234	-18.811	35.423	-10.577	46.000
963.625	53.061	-17.482	35.579	-18.421	54.000

- 1. All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

5. **RF** antenna conducted test

5.1. Test Equipment

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

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2008
Х	Test Receiver	R & S	ESI 26 / 838786 / 004	May, 2008
	Spectrum Analyzer	Agilent	N9010A / MY48030495	April, 2008

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

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

5.2. Test Setup

RF antenna Conducted 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 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.

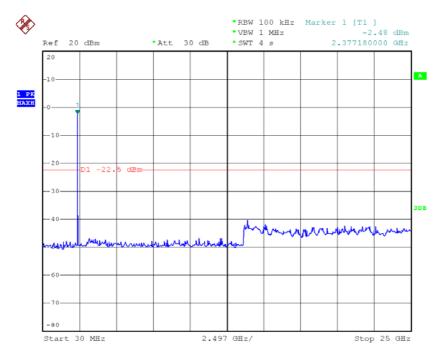
5.5. Uncertainty

The measurement uncertainty Conducted is defined as ± 1.27 dB

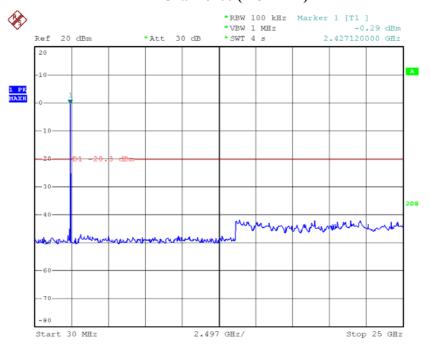
5.6. Test Result of RF antenna conducted test

Product	:	NetBook
Test Item	:	RF antenna conducted test
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmitter 802.11b

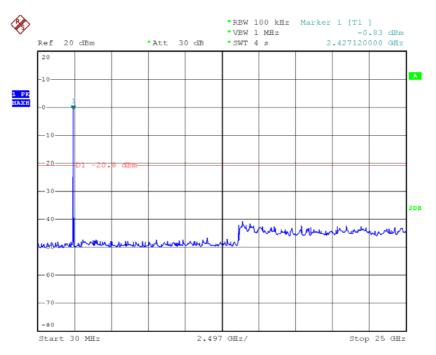
Channel 01 (2412MHz)



Date: 3.MAR.2008 20:38:19



Channel 06 (2437MHz)

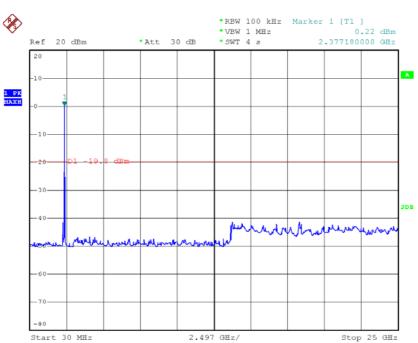


Channel 11 (2462MHz)

Date: 3.MAR.2008 20:39:11

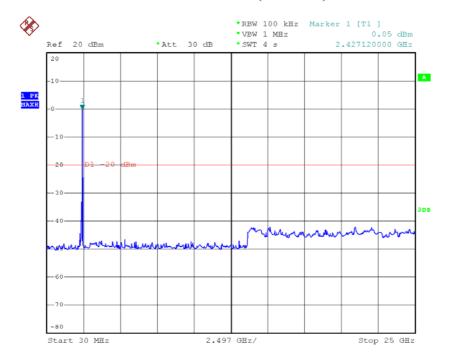
Date: 3.MAR.2008 20:39:44

Product	: N	letBook
Test Item	: F	RF Antenna Conducted Spurious
Test Site	: N	Jo.3 OATS
Test Mode	: N	Aode 2: Transmitter 802.11g
Test Site	: N	Jo.3 OATS



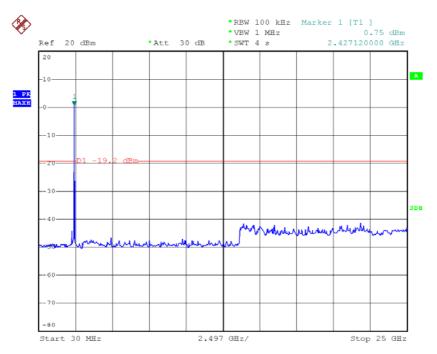
Channel 01 (2412MHz)

Date: 3.MAR.2008 20:40:27



Channel 06 (2437MHz)

Date: 3.MAR.2008 20:40:56



Channel 11 (2462MHz)

Date: 3.MAR.2008 20:41:26

6. Radiated Emission Band Edge

6.1. Test Equipment

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

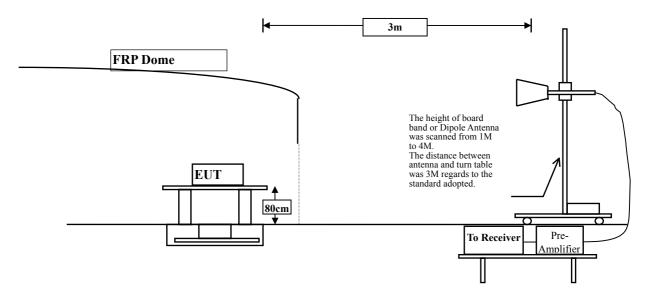
Equipment		Manufacturer Model No./Serial No.		Last Cal.
Х	Test Receiver	R & S	ESI 26 / 838786 / 004	May, 2008
Х	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2008
Х	Bilog Antenna	SCHAFFNER	CBL6112B / 2697	May, 2008
Х	Horn Antenna	Schwarzbeck	BBHA9120D / 305, 306	July, 2007
Х	Horn Antenna	Schwarzbeck	BBHA9170 / 208, 209	July, 2007
Х	Pre-Amplifier	QTK	QTK-AMP-01 / 0001	July, 2007
Х	Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2008
Х	Pre-Amplifier	HP	8449B / 3008A01123	July, 2007

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

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

6.2. Test Setup

RF Radiated Measurement:



6.3. 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.

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

± 3.9 dB above 1GHz

6.6. Test Result of Band Edge

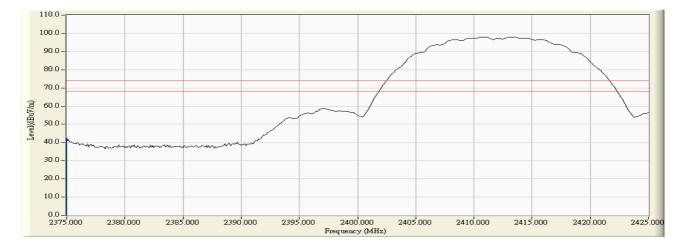
Product	:	NetBook
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmitter 802.11b

RF Radiated Measurement (Horizontal):

Channel	Frequency	Correct Factor	Reading Level	Emission Level	Peak Limit	Average Limit	Result
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
1 (Peak)	2375.000	-2.448	44.027	41.579	74.00	54.00	Pass

Figure Channel 1:

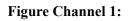
Horizontal (Peak)



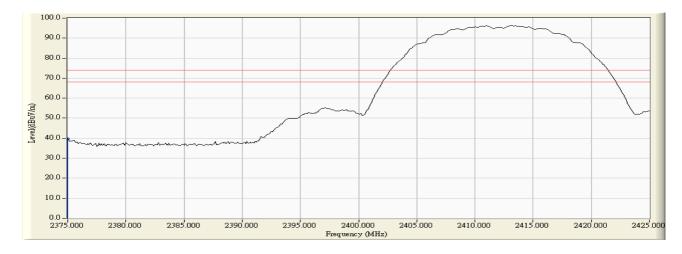
- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	NetBook
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmitter 802.11b

Channel	Frequency		Ũ	Emission Level		U	Result
	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
1 (Peak)	2375.000	-2.448	42.090	39.642	74.00	54.00	Pass



Vertical (Peak)



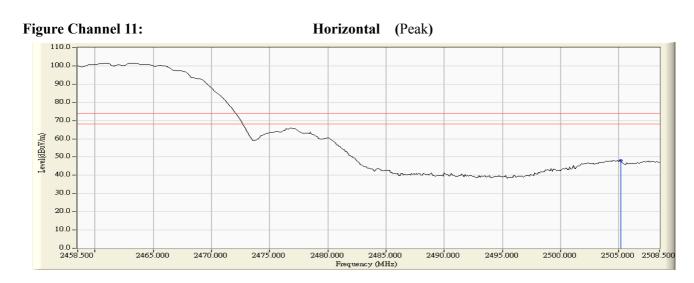
- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.



Product	:	NetBook
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmitter 802.11b

RF Radiated Measurement (Horizontal):

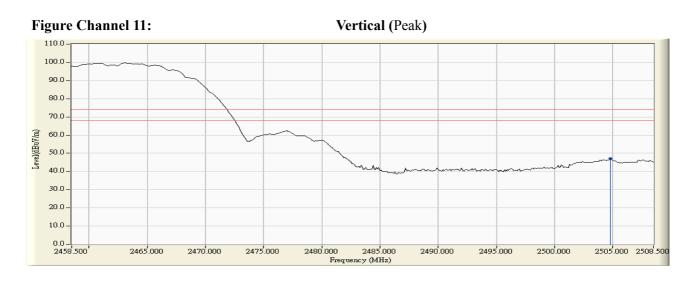
Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11(Peak)	2505.200	-1.870	49.849	47.979	74.00	54.00	Pass



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	NetBook
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmitter 802.11b

Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	U	Result
11(Peak)	2504.800	-1.871	48.912	47.041	74.00	54.00	Pass

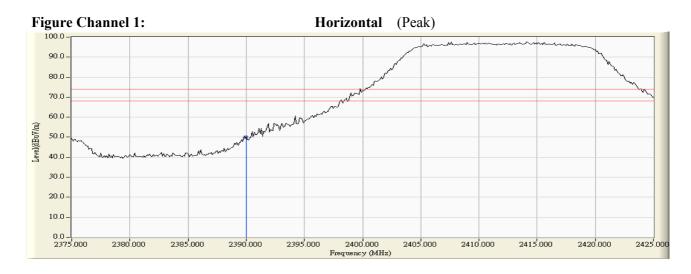


- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	NetBook
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmitter 802.11g

RF Radiated Measurement (Horizontal):

Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
1 (Peak)	2390.000	-2.378	52.382	50.005	74.00	54.00	Pass



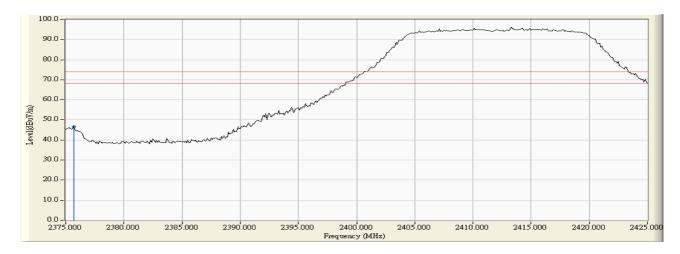
- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

Product	:	NetBook
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmitter 802.11g

	Frequency	Correct Ecotor	Reading Level	Emission Level	Deak Limit	Average Limit	
Channel						•	Result
Chamler	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	itesuit
1 (Peak)	2375.700	-2.444	49.125	46.681	74.00	54.00	Pass

Figure Channel 1:

Vertical (Peak)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

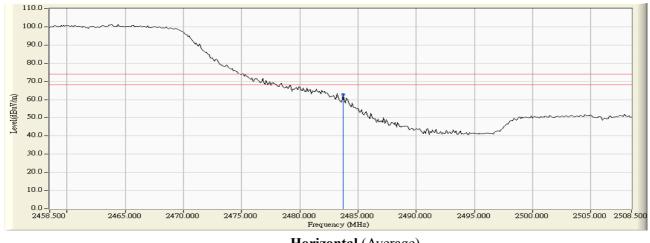
Product	:	NetBook
Test Item	:	Band Edge Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmitter 802.11g

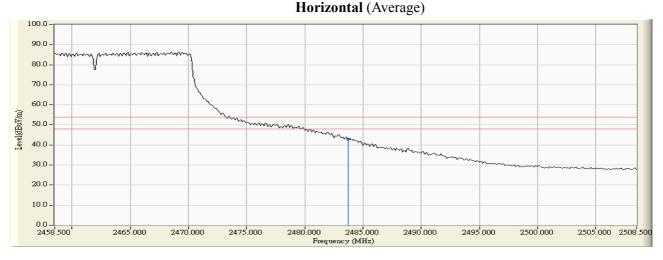
RF Radiated Measurement (Horizontal):

Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11(Peak)	2483.700	-1.936	64.683	62.747	74.00	54.00	Pass
11(Average)	2483.700	-1.936	44.744	42.808	74.00	54.00	Pass

Figure Channel 11:

Horizontal (Peak)





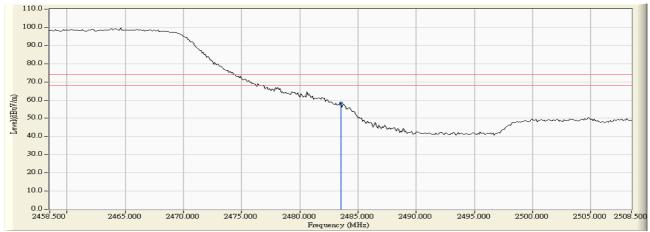
- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

:	NetBook
:	Band Edge Data
:	No.3 OATS
:	Mode 2: Transmitter 802.11g
	:

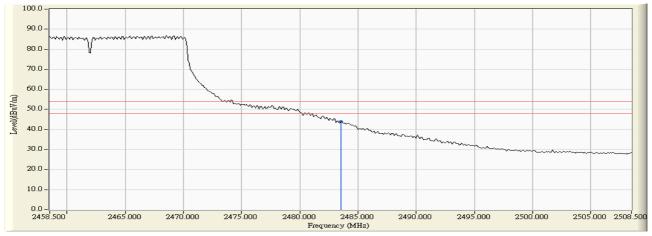
Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11(Peak)	2483.500	-1.937	60.238	58.301	74.00	54.00	Pass
11(Average)	2483.500	-1.937	45.884	43.947	74.00	54.00	Pass

Figure Channel 11:

Vertical (Peak)



Vertical (Average)



- 1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
- 2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- 3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- 4. "*", means this data is the worst emission level.
- 5. Measurement Level = Reading Level + Correct Factor.
- 6. The average measurement was not performed when the peak measured data under the limit of average detection.

7. Occupied Bandwidth

7.1. Test Equipment

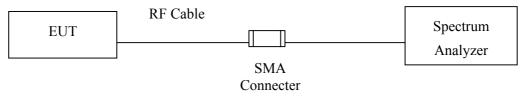
The following test equipments are used during the radiated emission tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Test Receiver	R & S	ESI 26 / 838786 / 004	May, 2008
Х	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2008
	Spectrum Analyzer	Agilent	N9010A / MY48030495	April, 2008

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

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

7.2. Test Setup



7.3. Test Procedures

The EUT was setup according to ANSI C63.4, 2003; 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.

7.4. Limits

The 6 dB bandwidth must be greater than 500 kHz.

7.5. Uncertainty

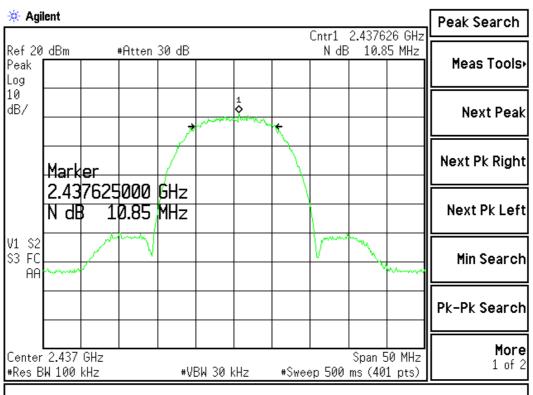
 \pm 150Hz

7.6. Test Result of Occupied Bandwidth

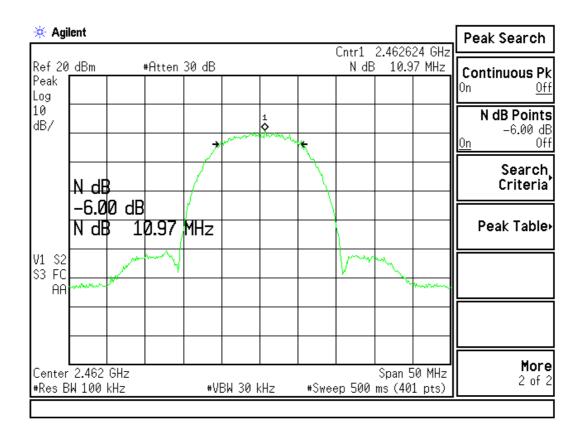
Product	:	NetBook
Test Item	:	Occupied Bandwidth Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmitter 802.11b

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1 (11Mbps)	2412.00	11100	>500	Pass
6 (11Mbps)	2437.00	10850	>500	Pass
11 (11Mbps)	2462.00	10970	>500	Pass

🔆 Agi	lent							Cn+r1	2 41 26	24 GHz	Peak Search
Ref 20 Peak Log	dBm		#Atten	30 dB				N dE		.1 MHz	Meas Tools•
10 dB/				*	a constant	1 \$					Next Peak
	Mark										Next Pk Right
	2.41 N dE		000 11.1	GHz MHz							Next Pk Left
V1 S2 S3 FC AA		and the second	m V					V	all a	·	Min Search
											Pk-Pk Search
	2.412 W 100			 #V	 BW 30	 <hz< td=""><td>#Swee</td><td>ep 500</td><td></td><td>50 MHz 1 pts)</td><td>More 1 of 2</td></hz<>	#Swee	ep 500		50 MHz 1 pts)	More 1 of 2



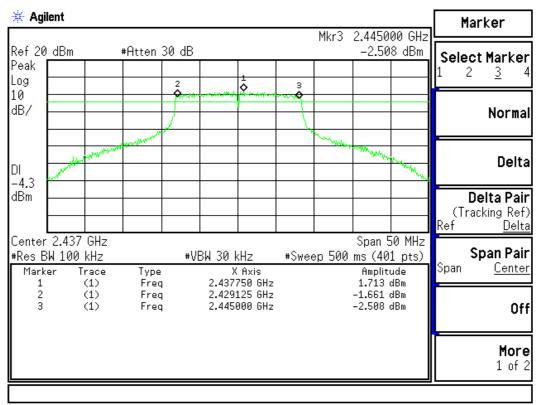
Channel 6:



Product	:	NetBook
Test Item	:	Occupied Bandwidth Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmitter 802.11g

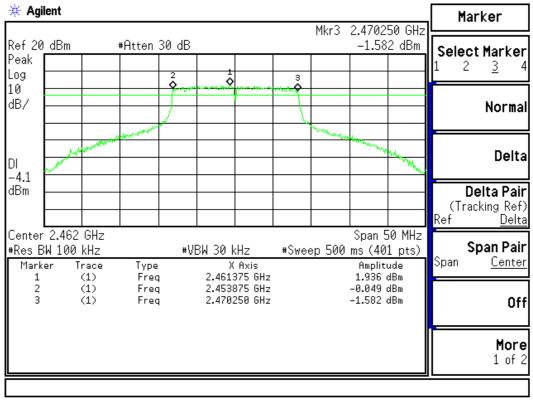
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1 (54Mbps)	2412.00	16500	>500	Pass
6 (54Mbps)	2437.00	15880	>500	Pass
11 (54Mbps)	2462.00	16380	>500	Pass

🔆 Agi	lent							Cn+r?	2.4202	34 64-	Mar	ker
Ref 20 Peak Log	dBm		#Atten	30 dB		1	3			2 dBm	Select	Marker <u>3</u> 4
10 dB/	Mark					Ŷ						Normal
DI -4.4		0250 02 d	1000 Bm	GHz				- Martin	and the second	Martin Martin		Delta
dBm												Ita Pair (ing Ref) <u>Delta</u>
#Res B Mark			Type Fred			Hz Axis 25 GHz	#Swee	ep 500	Span 5 ms (40 Amplite 1.643	ude	Sp Span	an Pair <u>Center</u>
1 2 3		(1) (1) (1)	Freq Freq Freq	I	2.4037	25 GH2 50 GHz 50 GHz			-3.972	dBm		Off
												More 1 of 2



Channel 6:

Figure Channel 11:



8. **Power Density**

8.1. Test Equipment

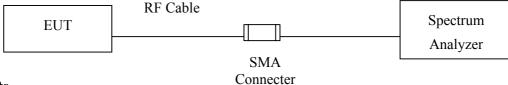
The following test equipments are used during the radiated emission tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Test Receiver	R & S	ESI 26 / 838786 / 004	May, 2008
Х	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2008
	Spectrum Analyzer	Agilent	N9010A / MY48030495	April, 2008

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

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

8.2. Test Setup



8.3. Limits

The transmitted power density averaged over any 1 second interval shall not be greater +8dBm in any 3kHz bandwidth.

8.4. Test Procedures

The EUT was setup according to ANSI C63.4, 2003; tested according to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements. Set RBW= 3 kHz, VBW=10KHz, Sweep time=(SPAN/3KHz), detector=Peak detector

8.5. Uncertainty

 \pm 1.27 dB

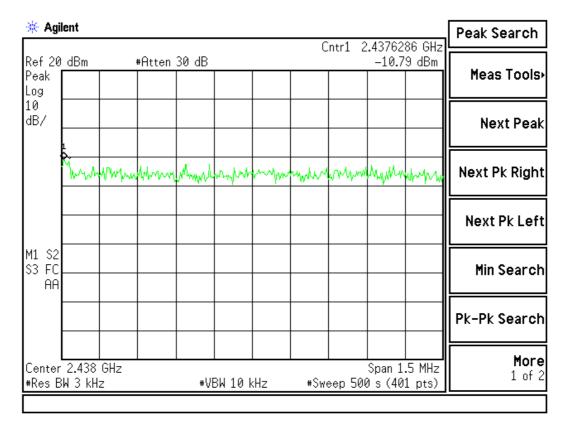
8.6. Test Result of Power Density

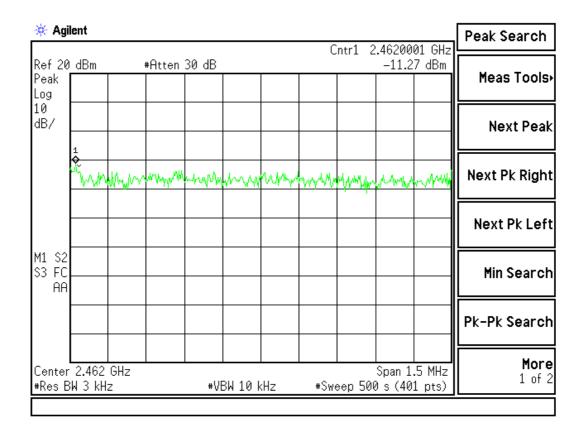
Product	:	NetBook
Test Item	:	Power Density Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 1: Transmitter 802.11b

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
1 (11Mbps)	2412.00	-11.50	< 10dBm	Pass
6 (11Mbps)	2437.00	-10.79	< 10dBm	Pass
11 (11Mbps)	2462.00	-11.27	< 10dBm	Pass

🔆 Agi	lent							ntr1 2	11262	47 GU-	Peak Search
Ref 20 Peak Log	dBm		#Atten	30 dB						5 dBm	Meas Tools+
10 dB/											Next Peak
	<i>Inn</i>	www	www.	montaport	MAN	· prom	abarr	n-Mukuham	Manager	Mr.Np.Vp	Next Pk Right
											Next Pk Left
V1 S2 S3 FC AA											Min Search
											Pk-Pk Search
Center #Res B				 #V{	 3W 10 k	(Hz	#Sw	 eep 500	 Span 1 0 s (40		More 1 of 2



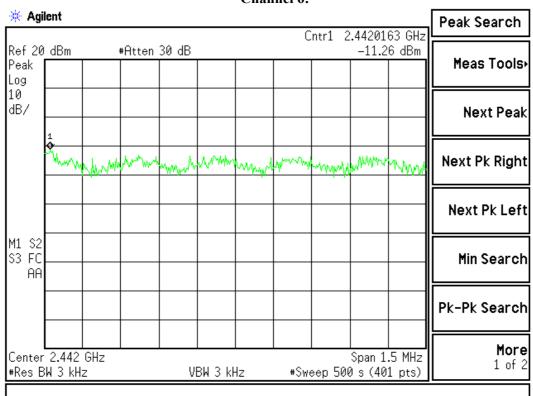




Product	:	NetBook
Test Item	:	Power Density Data
Test Site	:	No.3 OATS
Test Mode	:	Mode 2: Transmitter 802.11g

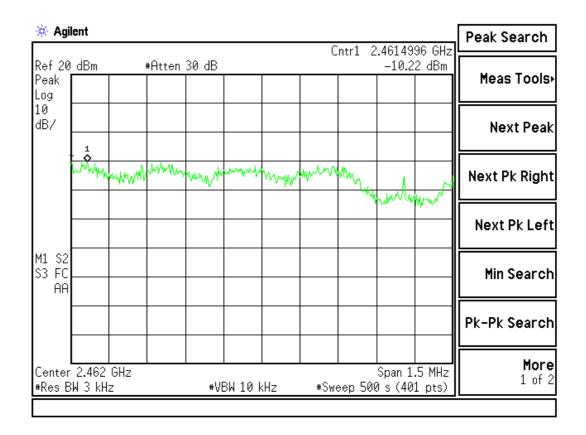
Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
1 (54Mbps)	2412.00	-10.85	< 10dBm	Pass
6 (54Mbps)	2437.00	-11.26	< 10dBm	Pass
11 (54Mbps)	2462.00	-10.22	< 10dBm	Pass

Log 10 dB/ dB/ M1 S2 S3 FC AAA AAA AAA AAA AAA AAA AAA A	🔆 Agi	lent							n+r1 2	41575	03 GH-	Peak Search
dB/ 1 Next Pea 1 1 1 <	Peak Log	dBm		#Atten	30 dB							Meas Tools∙
M1 S2 S3 FC AA					1							Next Peak
M1 S2 S3 FC AA		indum	Mar May	www.	Mr. May	www	hynn traans	why white	WWWW	Morand	www.	Next Pk Right
S3 FC Min Searc												Next Pk Left
	S3 FC											Min Search
												Pk-Pk Search
					 #V{	 3W 10 k	l (Hz	#Swe	 eep 50			More 1 of 2



Channel 6:

Channel 11:



9. EMI Reduction Method During Compliance Testing

No modification was made during testing.