



Test Report

Product Name	DOLPHIN 7600 II Mobile Computer
Model No.	DOLPHIN 7600 II
FCC ID	HD5760004

Applicant	Honeywell International Inc.
Address	700 Visions Drive, PO Box 208 Skaneateles Falls,
	NY 13153-0208

Date of Receipt	July 18, 2007
Issued Date	Apr. 16, 2008
Report No.	077258R-RFUSP05V01
Version	V1.2

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: Apr. 16, 2008

Report No.: 077258R-RFUSP05V01



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

Product Name	DOLPHIN 7600 II Mobile Computer	
Applicant	Honeywell International Inc.	
Address	700 Visions Drive, PO Box 208 Skaneateles Falls, NY 13153-0208	
Manufacturer	E-TEN Information Systems Co., Ltd.	
Model No.	DOLPHIN 7600 II	
Rated Voltage	AC 120V/60Hz	
Working Voltage	DC 3.7V	
Trade Name	Honeywell	
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2007	
	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 :

(Engineering Adm. Specialist /

Rita Huang)

Tim Sung

Tested By

(Engineer / Tim Sung)

Approved By

ilac-MRA

Testing Laboratory
0914

(Deputy Manager / Vincent Lin)



TABLE OF CONTENTS

De	scription	Page
1.	GENERAL INFORMATION	5
1.1.	EUT Description	5
1.2.	Operational Description	
1.3.	Tested System Datails	
1.4.	Configuration of Test System	
1.5.	EUT Exercise Software	
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	15
3.2.	Test Setup	
3.3.	Test procedures	
3.4.	Limits	
3.5.	Uncertainty	
3.6.	Test Result of Peak Power Output	
4.	Radiated Emission	18
4.1.	Test Equipment	18
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	30
5.1.	Test Equipment	30
5.2.	Test Setup	30
5.3.	Limits	30
5.4.	Test Procedure	30
5.5.	Uncertainty	30
5.6.	Test Result of RF antenna conducted test	31
6.	Radiated Emission Band Edge	37
6.1.	Test Equipment	
6.2.	Test Setup	
6.3.	Limits	
6.4.	Test Procedure	38
6.5.	Uncertainty	38
6.6.	Test Result of Band Edge	39



7.	Occupied Bandwidth	47
7.1.	Test Equipment	47
7.2.	Test Setup	
7.3.	Test Procedures	
7.4.	Limits	
7.5.	Uncertainty	
7.6.	Test Result of Occupied Bandwidth	
8.	Power Density	52
8.1.	Test Equipment	52
8.2.	Test Setup	52
8.3.	Limits	52
8.4.	Test Procedures	
8.5.	Uncertainty	
8.6.	Test Result of Power Density	
9.	EMI Reduction Method During Compliance Testing	57

Attachment 1: EUT Test Photographs

Attachment 2: EUT Detailed Photographs



1. GENERAL INFORMATION

1.1. EUT Description

Product Name	DOLPHIN 7600 II Mobile Computer	
Trade Name	Honeywell	
Model No.	DOLPHIN 7600 II	
FCC ID	HD5760004	
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	odulation 802.11b:DSSS	
	DBPSK, DQPSK, CCK	
	802.11g: OFDM	
	BPSK, QPSK, 16QAM, 64QAM	
Antenna Type	Connector	
Antenna Gain	Refer to the table "Antenna List"	
Channel Control	Auto	
Power Adapter	MFR: PHIHONG M/N: PSA15R-050	
	Cable out: Non-Shielded, 1.8m with two ferrite cores bonded.	

Antenna List

No.	Manufacturer	Part No.	Peak Gain
1	E-TEN	N/A	1.89dBi (Max. Peak gain)



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		

Note:

- 1. The EUT is an DOLPHIN 7600 II Mobile Computer with a built-in 2.4GHz WLAN 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 1Mbps and 802.11g is 6Mbps)
- 4. 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.
- 5. The radiation measurements are performed in X, Y, Z axis positioning. Only the worst case is shown in the report.

1.2. Operational Description

The EUT is a DOLPHIN 7600 II Mobile Computer with 11 channels. This device provided four kinds of transmitting speed 1, 2, 5.5 and 11Mbps. The device of RF carrier is DBPSK, DQPSK and CCK (IEEE 802.11b) or eight kinds of transmitting speed 6, 9, 12, 18, 24, 36, 48 and 54Mbps. The device of RF carrier is OFDM (IEEE 802.11g).

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

This DOLPHIN 7600 II Mobile Computer, 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 DOLPHIN 7600 II Mobile Computer 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 Cable Type	Signal cable Description
A N/A	N/A

1.4. Configuration of Test System

1 1 1 1 1 1 1		EUT	 	
1	l			
i			I 	
1			1	
1				
I				
ı			1 1	
1				
1			 	
1			i I	
1			I 	
1				
1			 	
1			i	
İ			1	
1				
1			l I	

1.5. EUT Exercise Software

- (1) Setup the EUT as shown in section 1.4
- (2) Power on the EUT.
- (3) Click the icon in the tool bar and select "Activate (TestMode)".
- (4) Double-click the icon "My Device" on the desktop.
- (5) Double-click the file folder "IPSM".
- (6) Execute SEMRFTool 24XX CE.
- (7) Configure the test channel and the data rate.
- (8) Click on "Start" to transmit continuously.
- (9) 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

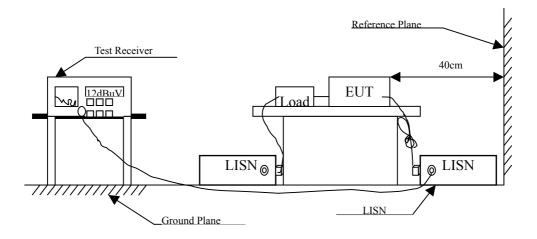
2.1. Test Equipment

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 30/825442/014	Feb., 2008	
2	L.I.S.N.	R & S	ESH3-Z5/825562/002	Feb., 2008	EUT
3	L.I.S.N.	R & S	ENV4200/848411/010	Feb., 2008	Peripherals
4	Pulse Limiter	R & S	ESH3-Z2/100410	July, 2007	
5	No.1 Shielded Room	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	I	imits						
MHz	uV	dBuV						
0.15 - 0.50	66-56 _(it)	56-46 _(it)						
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 : DOLPHIN 7600 II Mobile Computer

Test Item : Conducted Emission Test

Power Line : Line 1

Test Mode : Mode 1: Transmitter 802.11b (2437MHz)

Frequency	Correct	Reading	Reading Measurement		Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 1					
Quasi-Peak					
0.157	9.871	37.100	46.971	-18.829	65.800
0.685	9.820	21.810	31.630	-24.370	56.000
1.466	9.830	20.700	30.530	-25.470	56.000
3.130	9.850	29.460	39.310	-16.690	56.000
4.601	9.870	22.590	32.460	-23.540	56.000
9.713	9.930	24.020	33.950	-26.050	60.000
Average					
0.157	9.871	30.170	40.041	-15.759	55.800
0.685	9.820	13.120	22.940	-23.060	46.000
1.466	9.830	16.050	25.880	-20.120	46.000
3.130	9.850	25.710	35.560	-10.440	46.000
4.601	9.870	16.310	26.180	-19.820	46.000
9.713	9.930	19.330	29.260	-20.740	50.000

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



Test Item : Conducted Emission Test

Power Line : Line 2

Test Mode : Mode 1: Transmitter 802.11b (2437MHz)

Frequency	Correct	Reading	Reading Measurement		Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 2					_
Quasi-Peak					
0.193	9.860	38.500	48.360	-16.411	64.771
0.255	9.858	28.420	38.278	-24.722	63.000
0.576	9.830	22.530	32.360	-23.640	56.000
1.533	9.840	27.830	37.670	-18.330	56.000
3.130	9.850	29.320	39.170	-16.830	56.000
8.177	9.910	25.870	35.780	-24.220	60.000
Average					
0.193	9.860	29.450	39.310	-15.461	54.771
0.255	9.858	24.870	34.728	-18.272	53.000
0.576	9.830	19.650	29.480	-16.520	46.000
1.533	9.840	24.700	34.540	-11.460	46.000
3.130	9.850	26.540	36.390	-9.610	46.000
8.177	9.910	23.780	33.690	-16.310	50.000

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



Test Item : Conducted Emission Test

Power Line : Line 1

Test Mode : Mode 2: Transmitter 802.11g (2437MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 1					_
Quasi-Peak					
0.193	9.850	39.350	49.200	-15.571	64.771
0.256	9.848	28.260	38.108	-24.863	62.971
0.576	9.830	24.850	34.680	-21.320	56.000
1.470	9.830	23.890	33.720	-22.280	56.000
2.939	9.850	28.500	38.350	-17.650	56.000
9.713	9.930	24.770	34.700	-25.300	60.000
Average					
0.193	9.850	31.590	41.440	-13.331	54.771
0.256	9.848	25.620	35.468	-17.503	52.971
0.576	9.830	22.970	32.800	-13.200	46.000
1.470	9.830	20.730	30.560	-15.440	46.000
2.939	9.850	25.580	35.430	-10.570	46.000
9.713	9.930	20.420	30.350	-19.650	50.000

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



Test Item : Conducted Emission Test

Power Line : Line 2

Test Mode : Mode 2: Transmitter 802.11g (2437MHz)

Frequency	Correct	Reading	Reading Measurement		Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV	dB	dBuV
LINE 2					_
Quasi-Peak					
0.193	9.860	40.300	50.160	-14.611	64.771
0.255	9.858	26.940	36.798	-26.202	63.000
0.830	9.840	25.780	35.620	-20.380	56.000
1.341	9.830	27.870	37.700	-18.300	56.000
3.002	9.850	29.910	39.760	-16.240	56.000
8.306	9.910	27.370	37.280	-22.720	60.000
Average					
0.193	9.860	31.810	41.670	-13.101	54.771
0.255	9.858	22.740	32.598	-20.402	53.000
0.830	9.840	23.470	33.310	-12.690	46.000
1.341	9.830	24.200	34.030	-11.970	46.000
3.002	9.850	25.440	35.290	-10.710	46.000
8.306	9.910	24.890	34.800	-15.200	50.000

- 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:

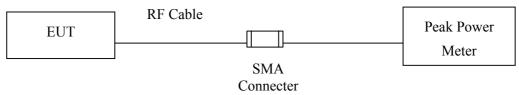
Equipment		Manufacturer	Model No./Serial No.	Last Cal.
X	Power Meter	Anritsu	ML2495A/6K00003357	May, 2007
X	Power Sensor	Anritsu	MA2491A/034457	May, 2007

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.

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 : DOLPHIN 7600 II Mobile Computer

Test Item : Peak Power Output Data

Test Site : No.3 OATS

Test Mode : Mode 1: Transmitter 802.11b

Cable loss=0.5	dB	Peak Power Output Value (dBm)					
Chanal Na	Г., (МИ-)			D 1111			
Channel No.	Frequency (MHz)	1 Mbps	2Mbps	5.5Mbps	11Mbps	Required Limit	
1	2412.00	16.35				1Watt= 30 dBm	
6	2437.00	16.44	16.42	15.95	16.37	1Watt= 30 dBm	
11	2462.00	15.82				1Watt= 30 dBm	

Max. Radiated Power (EIRP)

Channel No.	Frequency (MHz)	Peak Power Output (dBm)	Max. Peak Antenna Gain (dBi)	Max. Radiated Power (EIRP) (dBm)	Required Limit
1	2412.00	16.35		18.24	1Watt= 30 dBm
6	2437.00	16.44	1.89	18.33	1Watt= 30 dBm
11	2462.00	15.82		17.71	1Watt= 30 dBm

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

Max. Radiated Power (EIRP) = Peak Power Output + Max. Peak Antenna Gain

Peak power meter and power sensor setting: RBW=50MHz; VBW=20MHz



Test Item : Peak Power Output Data

Test Site : No.3 OATS

Test Mode : Mode 2: Transmitter 802.11g

Cable loss=0.5				Peak P	ower O	utput Va	alue (dB	Sm)		
			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	21.1								1Watt= 30 dBm
6	2437.00	22.4	20.73	20.65	20.35	20.74	21.07	20.12	20.72	1Watt= 30 dBm
11	2462.00	20.64								1Watt= 30 dBm

Max. Radiated Power (EIRP)

Channel No.	Frequency (MHz)	Peak Power Output (dBm)	Max. Peak Antenna Gain (dBi)	Max. Radiated Power (EIRP) (dBm)	Required Limit
1	2412.00	21.1		22.99	1Watt= 30 dBm
6	2437.00	22.4	1.89	24.29	1Watt= 30 dBm
11	2462.00	20.64		22.53	1Watt= 30 dBm

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

Max. Radiated Power (EIRP) = Peak Power Output + Max. Peak Antenna Gain

Peak power meter and power sensor setting: RBW=50MHz; VBW=20MHz



4. Radiated Emission

4.1. Test Equipment

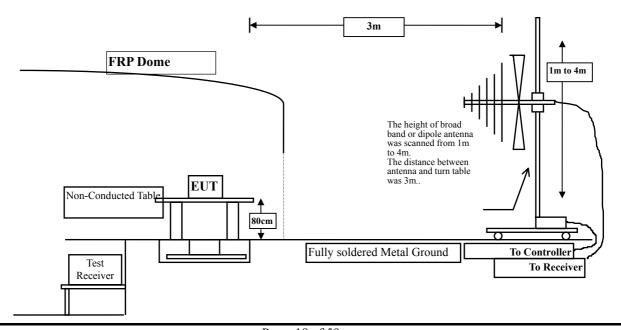
The following test equipments are used during the radiated emission test:

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



Page: 18 of 59



4.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall meet the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209 Limits						
Frequency MHz	uV/m @3m	dBuV/m@3m				
0.009-0.490	2400/F(KHz)@300	128.52-93.8				
0.0490-1.705	2400/F(KHz)@30	73.8-62.97				
1.705-30.0	30@30	69.54				
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 from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2003 on radiated measurement.

The resolution bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

The frequency range from 9KHz 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 : DOLPHIN 7600 II Mobile Computer
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	-0.229	47.060	46.831	-27.169	74.000
7236.000	3.182	41.730	44.912	-29.088	74.000
9648.000	5.798	43.150	48.949	-25.051	74.000
Average					
Detector:					
Vertical					
Peak Detector:					
4824.000	-0.229	48.620	48.391	-25.609	74.000
7236.000	3.182	41.750	44.932	-29.068	74.000
9648.000	5.798	43.860	49.659	-24.341	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.



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	-0.268	48.290	48.022	-25.978	74.000
7311.000	3.285	41.370	44.656	-29.344	74.000
9748.000	6.190	41.670	47.860	-26.140	74.000
Average					
Detector:					
Vertical					
Peak Detector:					
4874.000	-0.268	51.370	51.102	-22.898	74.000
7311.000	3.285	41.570	44.856	-29.144	74.000
9748.000	6.190	41.890	48.080	-25.920	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.



Test Site : No.3 OATS

Test Mode : Mode 1: Transmitter 802.11b (2462 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4924.000	0.105	46.510	46.615	-27.385	74.000
7386.000	3.644	41.060	44.705	-29.295	74.000
9848.000	6.582	41.870	48.452	-25.548	74.000
Average					
Detector:					
Vertical					
Peak Detector:					
4924.000	0.105	49.210	49.315	-24.685	74.000
7386.000	3.644	41.240	44.885	-29.115	74.000
9848.000	6.582	42.480	49.062	-24.938	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.



Test Site : No.3 OATS

Test Mode : 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	-0.229	42.970	42.741	-31.259	74.000
7236.000	3.182	41.420	44.602	-29.398	74.000
9648.000	5.798	41.430	47.229	-26.771	74.000
Average					
Detector:					
Vertical					
Peak Detector:					
4824.000	-0.229	43.680	43.451	-30.549	74.000
7236.000	3.182	42.720	45.902	-28.098	74.000
9648.000	5.798	43.080	48.879	-25.121	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.



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:					
4864.000	-0.262	42.970	42.708	-31.292	74.000
7311.000	3.285	41.800	45.086	-28.914	74.000
9748.000	6.190	40.800	46.990	-27.010	74.000
Average					
Detector:					
Vertical					
Peak Detector:					
4874.000	-0.268	46.790	46.522	-27.478	74.000
7311.000	3.285	41.720	45.006	-28.994	74.000
9748.000	6.190	42.720	48.910	-25.090	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.



Test Site : No.3 OATS

Test Mode : Mode 2: Transmitter 802.11g (2462 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
	Factor	Level	Level		
MHz	dB	dBuV	dBuV/m	dB	dBuV/m
Horizontal					
Peak Detector:					
4924.000	0.105	42.760	42.865	-31.135	74.000
7386.000	3.644	41.190	44.835	-29.165	74.000
9848.000	6.582	41.650	48.232	-25.768	74.000
Average					
Detector:					
Vertical					
Peak Detector:					
4924.000	0.105	44.570	44.675	-29.325	74.000
7386.000	3.644	41.720	45.365	-28.635	74.000
9848.000	6.582	42.360	48.942	-25.058	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.



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					
36.940	15.309	12.801	28.110	-11.890	40.000
58.490	6.837	23.389	30.226	-9.774	40.000
118.600	13.552	8.618	22.170	-21.330	43.500
331.980	17.795	15.392	33.187	-12.813	46.000
472.320	21.836	6.294	28.130	-17.870	46.000
699.100	25.187	14.234	39.421	-6.579	46.000
Vertical					
31.460	18.204	11.166	29.370	-10.630	40.000
58.430	6.846	19.875	26.721	-13.279	40.000
198.640	11.571	15.313	26.884	-16.616	43.500
332.640	17.815	19.000	36.815	-9.185	46.000
538.280	23.621	1.665	25.286	-20.714	46.000
699.180	25.190	5.106	30.295	-15.705	46.000

- 1. All Readings below 1GHz are Quasi-Peak Value
- 2. "means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor.



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					
35.280	16.208	13.155	29.364	-10.636	40.000
58.340	6.861	22.113	28.974	-11.026	40.000
117.300	13.513	10.797	24.310	-19.190	43.500
330.190	17.750	14.741	32.491	-13.509	46.000
472.320	21.836	5.725	27.561	-18.439	46.000
699.150	25.188	16.679	41.868	-4.132	46.000
Vertical					
33.410	17.193	9.627	26.821	-13.179	40.000
46.330	10.587	18.327	28.913	-11.087	40.000
67.198	6.569	20.566	27.136	-12.864	40.000
199.330	11.585	15.409	26.994	-16.506	43.500
334.150	17.862	19.637	37.498	-8.502	46.000
697.360	25.143	8.007	33.150	-12.850	46.000

- 1. All Readings below 1GHz are Quasi-Peak Value
- 2. "means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor.



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
					_
0.186	20.850	36.300	57.150	-58.639	115.789
0.310	20.850	32.160	53.010	-53.810	106.820
1.830	20.810	23.680	44.490	-25.050	69.540
2.370	20.800	23.380	44.180	-25.360	69.540
4.270	20.750	23.380	44.130	-25.410	69.540
11.490	20.570	23.180	43.750	-25.790	69.540

- 1. All Readings below 1GHz are Quasi-Peak Value
- 2. "means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor.



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
					_
0.238	20.850	32.050	52.900	-59.128	112.028
0.350	20.843	28.170	49.013	-54.914	103.927
0.810	20.830	24.260	45.090	-25.869	70.959
3.458	20.770	23.680	44.450	-25.090	69.540
6.750	20.690	23.980	44.670	-24.870	69.540
13.860	20.510	23.170	43.680	-25.860	69.540

- 1. All Readings below 1GHz are Quasi-Peak Value
- 2. "means this data is the worst emission level.
- 3. Measurement Level = Reading Level + Correct Factor.



5. RF antenna conducted test

5.1. Test Equipment

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

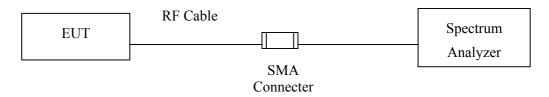
	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2007

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.

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 \pm 1.27dB



5.6. Test Result of RF antenna conducted test

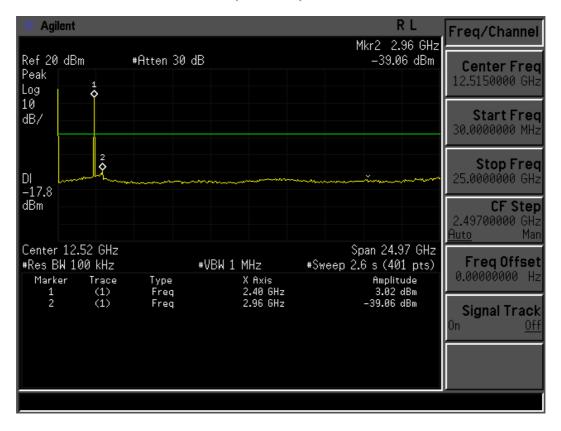
Product : DOLPHIN 7600 II Mobile Computer

Test Item : RF antenna conducted test

Test Site : No.3 OATS

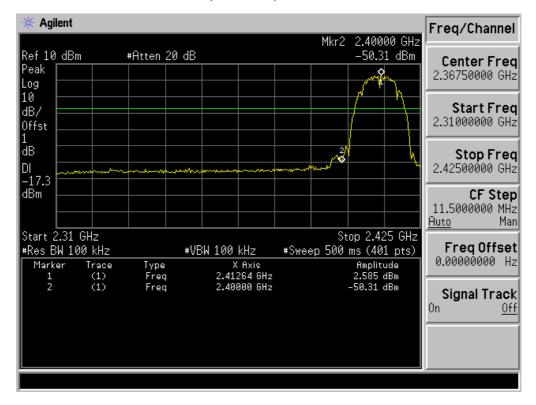
Test Mode : Mode 1: Transmitter 802.11b

Channel 01 (2412MHz) 30MHz-25GHz

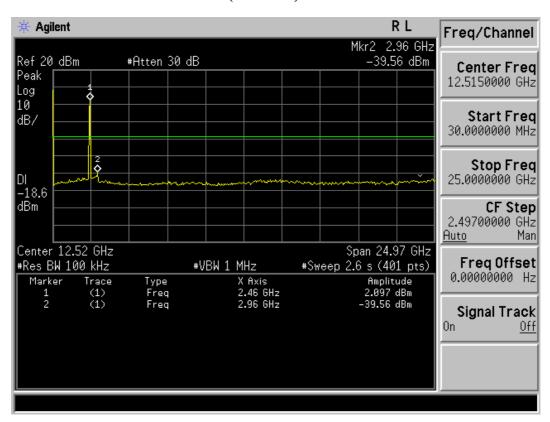




Channel 01 (2412MHz) 2310GHz-2425GHz

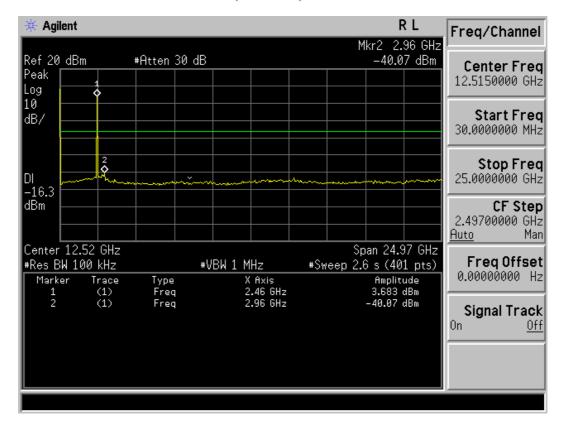


Channel 06 (2437MHz) 30MHz-25GHz

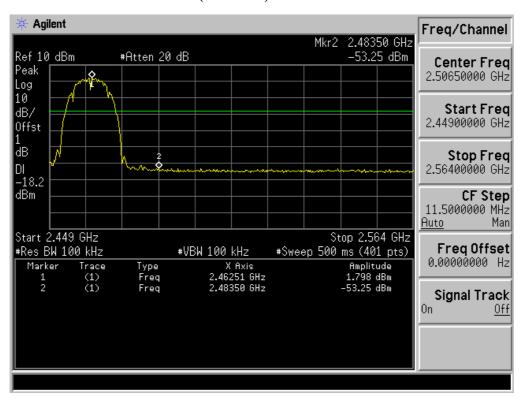




Channel 11 (2462MHz) 30MHz -25GHz



Channel 11 (2462MHz) 2449GHz -2564GHz



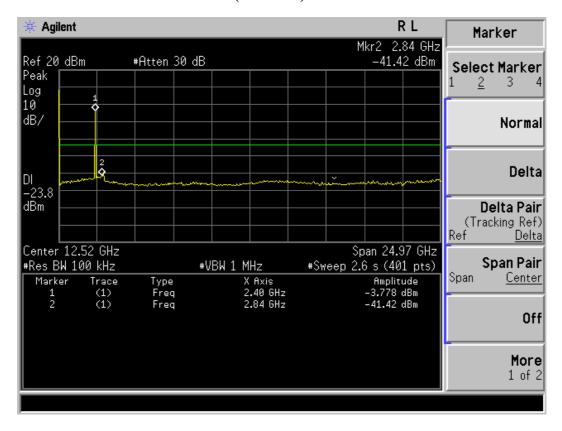


Product : DOLPHIN 7600 II Mobile Computer
Test Item : RF Antenna Conducted Spurious

Test Site : No.3 OATS

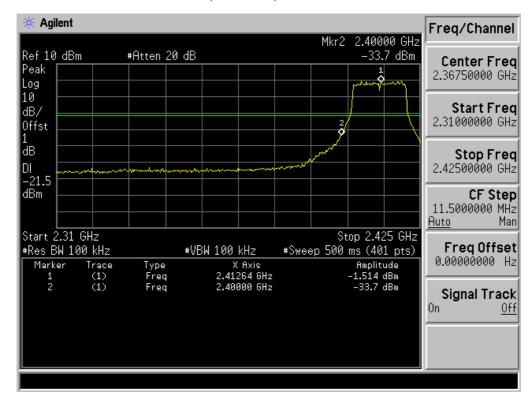
Test Mode : Mode 2: Transmitter 802.11g

Channel 01 (2412MHz) 30MHz-25GHz

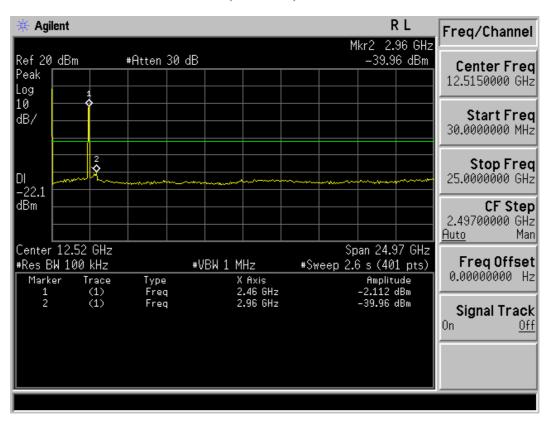




Channel 01 (2412MHz) 2310GHz-2425GHz

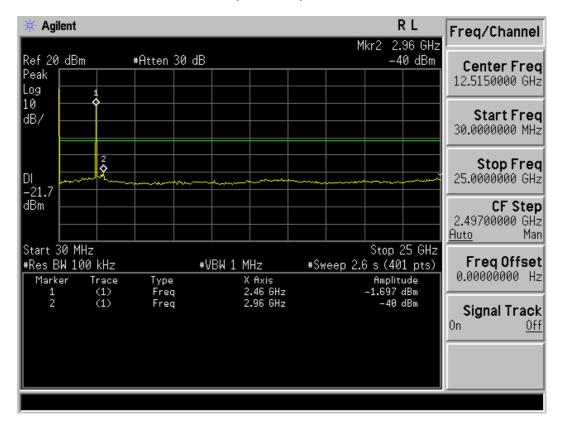


Channel 06 (2437MHz) 30MHz-25GHz

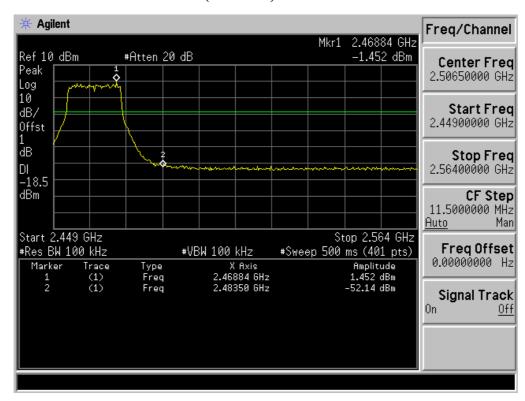




Channel 11 (2462MHz) 30MHz-25GHz



Channel 11 (2462MHz) 2449GHz-2564GHz





6. Radiated Emission Band Edge

6.1. Test Equipment

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

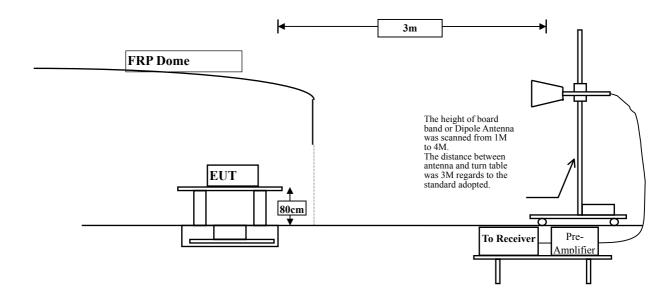
	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Test Receiver	R & S	ESI 26 / 838786 / 004	May, 2007
X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2007
X	Bilog Antenna	SCHAFFNER	CBL6112B / 2697	May, 2007
X	Horn Antenna	Schwarzbeck	BBHA9120D / 305, 306	July, 2007
X	Horn Antenna	Schwarzbeck	BBHA9170 / 208, 209	July, 2007
X	Pre-Amplifier	QTK	QTK-AMP-01 / 0001	July, 2007
X	Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2007
X	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 meet 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 : DOLPHIN 7600 II Mobile Computer

Test Item : Band Edge Data
Test Site : No.3 OATS

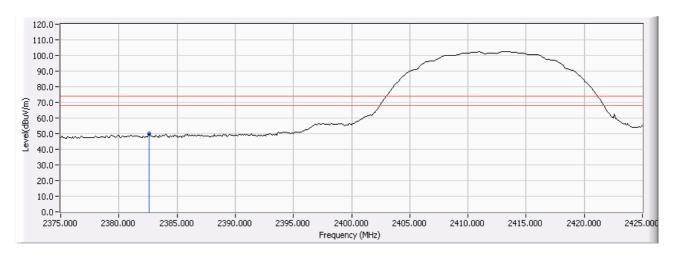
Test Mode : Mode 1: Transmitter 802.11b

RF Radiated Measurement (Horizontal):

Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
1 (Peak)	2382.600	-6.791	56.588	49.797	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.



Test Item : Band Edge Data
Test Site : No.3 OATS

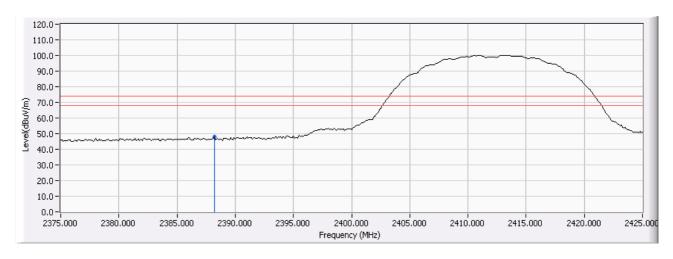
Test Mode : Mode 1: Transmitter 802.11b

RF Radiated Measurement (Vertical):

Channel	Frequency	Correct Fcator	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
Channel	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
1 (Peak)	2388.200	-6.774	54.753	47.980	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.



Test Item : Band Edge Data
Test Site : No.3 OATS

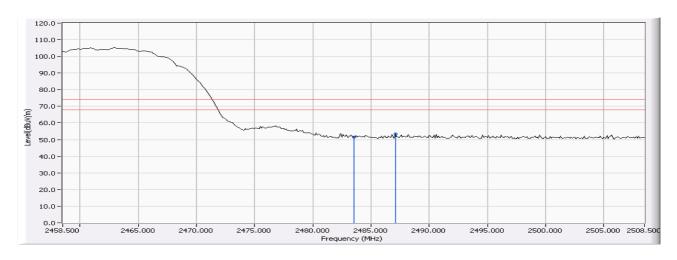
Test Mode : Mode 1: Transmitter 802.11b

RF Radiated Measurement (Horizontal):

Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
11(Peak)	2483.500	-6.469	58.087	51.619	74.00	54.00	Pass
11(Peak)	2487.100	-6.463	59.917	53.453	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.



Test Item : Band Edge Data
Test Site : No.3 OATS

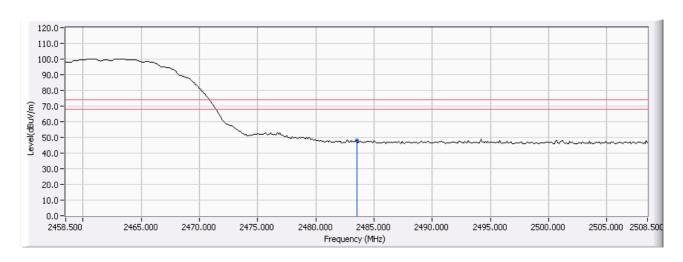
Test Mode : Mode 1: Transmitter 802.11b

RF Radiated Measurement (Vertical):

Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
11(Peak)	2483.500	-6.469	54.597	48.129	74.00	54.00	Pass

Figure Channel 11:

(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.



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)	Arerage Limit (dBuV/m)	Result
1 (Peak)	2390.000	-6.769	66.651	59.883	74.00	54.00	Pass
1 (Average)	2390.000	-6.769	54.227	47.459	74.00	54.00	Pass

Figure Channel 1:

Horizontal (Peak)

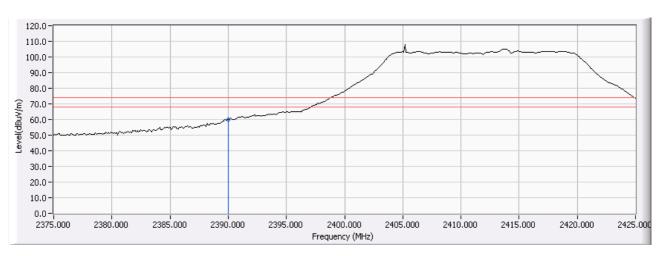
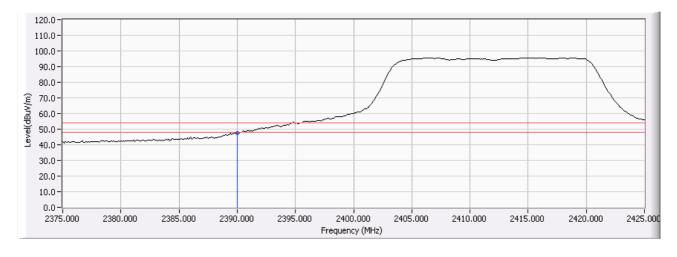


Figure Channel 1:

Horizontal (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.



Test Item : Band Edge Data
Test Site : No.3 OATS

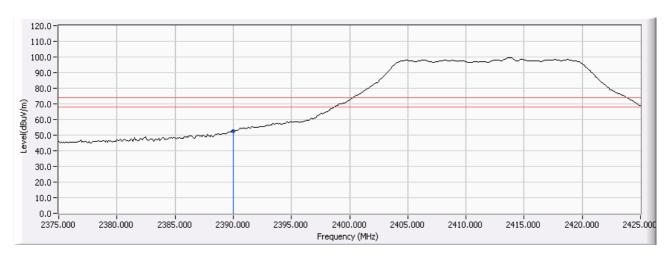
Test Mode : Mode 2: Transmitter 802.11g

RF Radiated Measurement (Vertical):

Channel	Frequency	Correct Fcator	Reading Level	Emission Level	Peak Limit	Arerage Limit	Result
Channel	(MHz)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dBuV/m)	Result
1 (Peak)	2390.000	-6.769	59.062	52.294	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.



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)	Arerage Limit (dBuV/m)	Result
11(Peak)	2483.500	-6.469	70.716	64.248	74.00	54.00	Pass
11 (Average)	2483.500	-6.469	51.344	44.876	74.00	54.00	Pass

Figure Channel 11:

Horizontal (Peak)

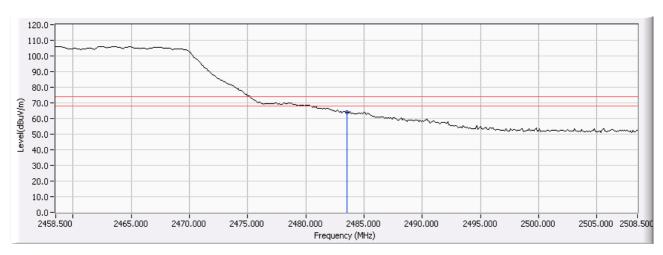
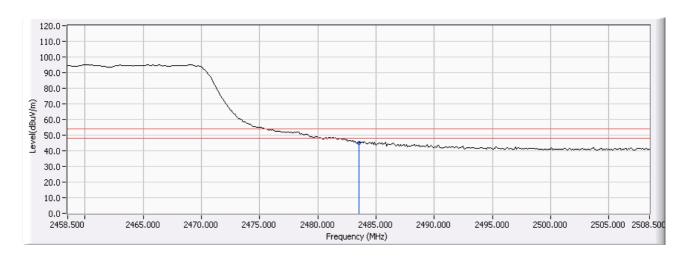


Figure Channel 11:

Horizontal (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.



Test Item : Band Edge Data
Test Site : No.3 OATS

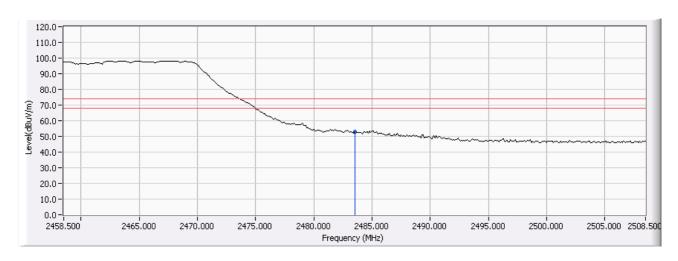
Test Mode : Mode 2: Transmitter 802.11g

RF Radiated Measurement (Vertical):

Channel	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Arerage Limit (dBuV/m)	Result
11(Peak)	2483.500	-6.469	59.372	52.904	74.00	54.00	Pass

Figure Channel 11:

(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.



7. Occupied Bandwidth

7.1. Test Equipment

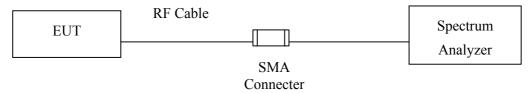
The following test equipments are used during the radiated emission tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Test Receiver	R & S	ESI 26 / 838786 / 004	May, 2007
X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 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.

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

± 150Hz



7.6. Test Result of Occupied Bandwidth

Product : DOLPHIN 7600 II Mobile Computer

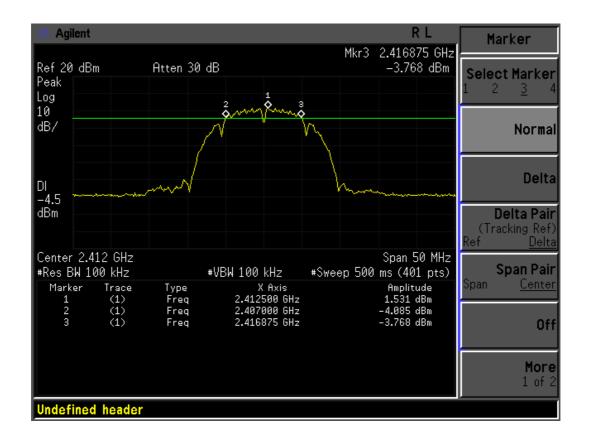
Test Item : Occupied Bandwidth Data

Test Site : No.3 OATS

Test Mode : Mode 1: Transmitter 802.11b

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1 (1Mbps)	2412.00	9875	>500	Pass
6 (1Mbps)	2437.00	10000	>500	Pass
11 (1Mbps)	2462.00	10000	>500	Pass

Channel 1: (2412MHz)

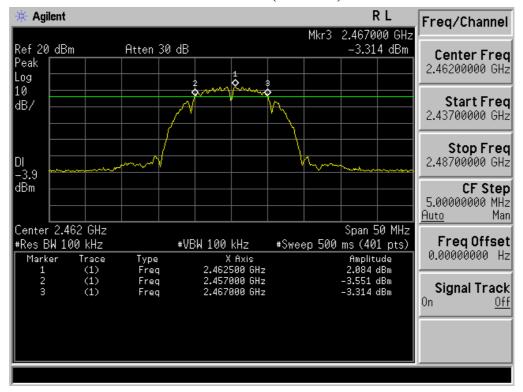




* Agilent R L Freq/Channel Mkr3 2.442000 GHz -4.824 dBm Ref 20 dBm Atten 30 dB Center Freq Peak 2.43700000 GHz Log 10 dB/ Start Freq 2.41200000 GHz Stop Freq DI -5.4 dBm 2.46200000 GHz CF Step 5.00000000 MHz <u>Auto</u> Man Center 2.437 GHz Span 50 MHz #Res BW 100 kHz Freq Offset #VBW 100 kHz #Sweep 500 ms (401 pts) 0.00000000 Hz Type Freq X Axis 2.437500 GHz Amplitude 0.589 dBm -5.01 dBm Marker Trace (1) (1) (1) 2.432000 GHz Freq Signal Track Freq 2.442000 GHz -4.824 dBm 0n Off

Channel 6: (2437MHz)







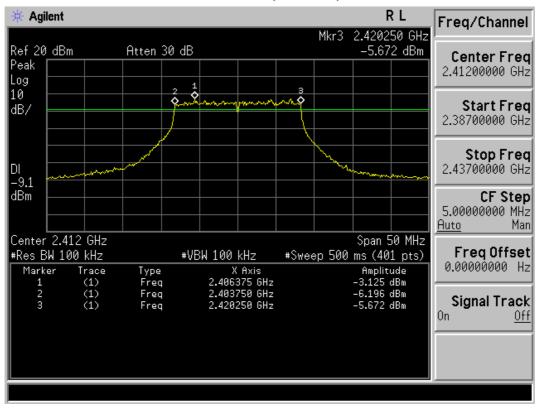
Test Item : Occupied Bandwidth Data

Test Site : No.3 OATS

Test Mode : Mode 2: Transmitter 802.11g

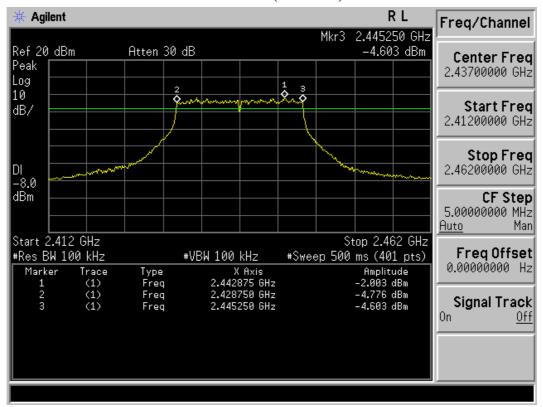
Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1 (6Mbps)	2412.00	16500	>500	Pass
6 (6Mbps)	2437.00	16500	>500	Pass
11 (6Mbps)	2462.00	16500	>500	Pass

Channel 1: (2412MHz)

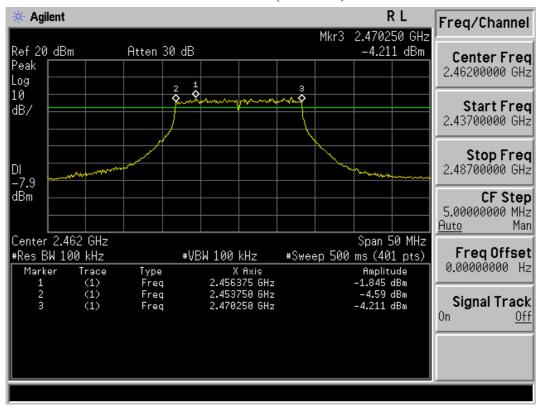




Channel 6: (2437MHz)



Channel 11: (2462MHz)





8. Power Density

8.1. Test Equipment

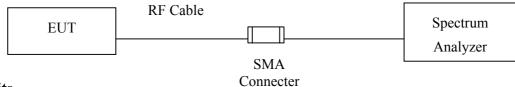
The following test equipments are used during the radiated emission tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Test Receiver	R & S	ESI 26 / 838786 / 004	May, 2007
X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 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.

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

± 1.27 dB



8.6. Test Result of Power Density

Product : DOLPHIN 7600 II Mobile Computer

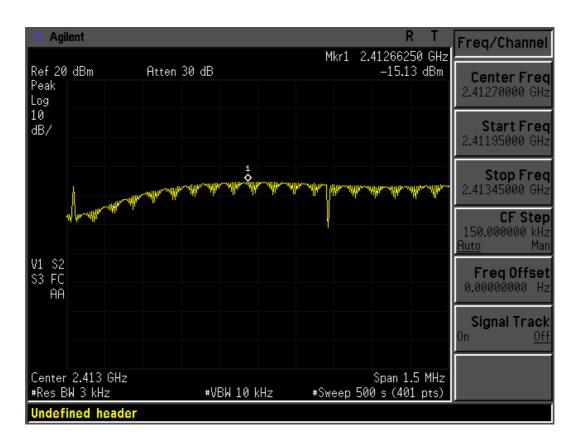
Test Item : Power Density Data

Test Site : No.3 OATS

Test Mode : Mode 1: Transmitter 802.11b

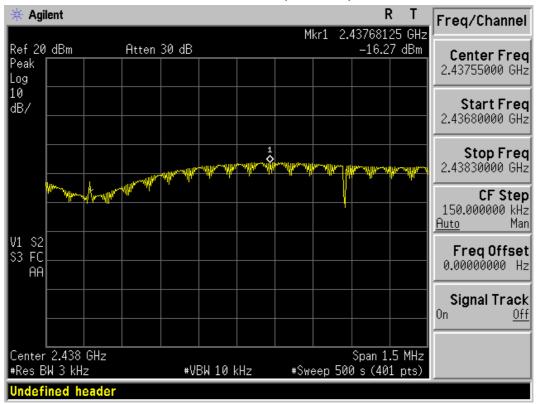
Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
1 (1Mbps)	2412.00	-15.13	< 10dBm	Pass
6 (1Mbps)	2437.00	-16.27	< 10dBm	Pass
11 (1Mbps)	2462.00	-14.69	< 10dBm	Pass

Channel 1: (2412MHz)

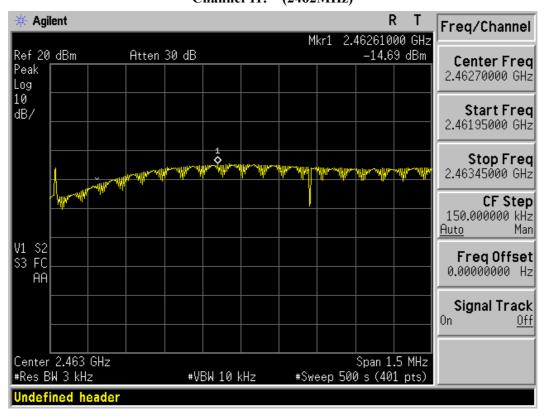




Channel 6: (2437MHz)



Channel 11: (2462MHz)





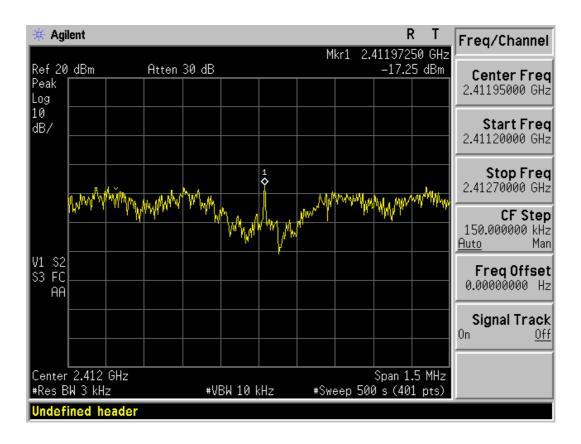
Test Item : Power Density Data

Test Site : No.3 OATS

Test Mode : Mode 2: Transmitter 802.11g

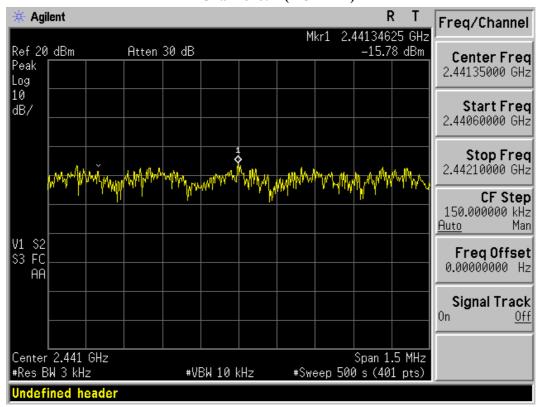
Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
1 (6Mbps)	2412.00	-17.25	< 10dBm	Pass
6 (6Mbps)	2437.00	-15.78	< 10dBm	Pass
11 (6Mbps)	2462.00	-14.96	< 10dBm	Pass

Channel 1: (2412MHz)

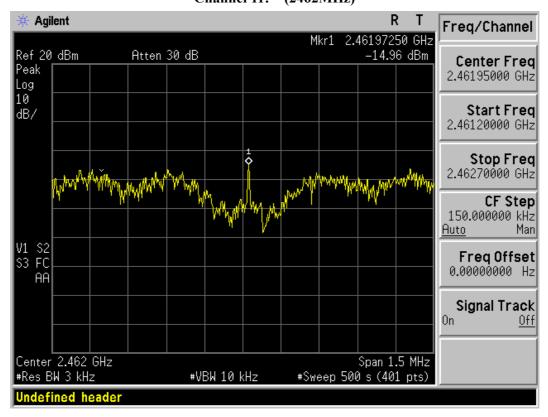




Channel 6: (2437MHz)



Channel 11: (2462MHz)





9. EMI Reduction Method During Compliance Testing

No modification was made during testing.



Attachment 1: EUT Test Photographs



Attachment 1: EUT Test Setup Photographs

Front View of Conducted Test



Back View of Conducted Test





Front View of Radiated Test (Loop Antenna)



Back View of Radiated Test (Loop Antenna)





Front View of Radiated Test



Back View of Radiated Test





Front View of Radiated Test (Horn)



Back View of Radiated Test (Horn)





Attachment 2: EUT Detailed Photographs



Attachment 2 : EUT Detailed Photographs

(1) EUT Photo



(2) EUT Photo





(3) EUT Photo



(4) EUT Photo





(5) EUT Photo



(6) EUT Photo





(7) EUT Photo



(8) EUT Photo





(9) EUT Photo



(10) EUT Photo





(11) EUT Photo



(12) EUT Photo





(13) EUT Photo

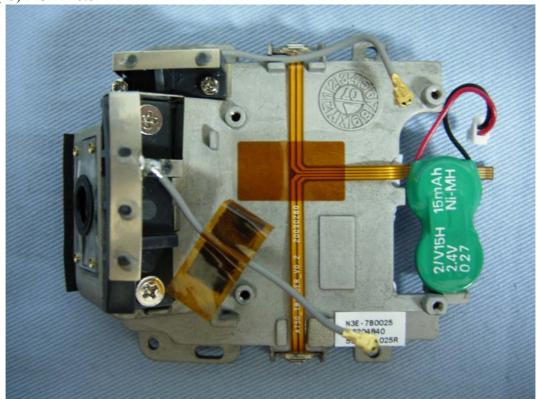


(14) EUT Photo

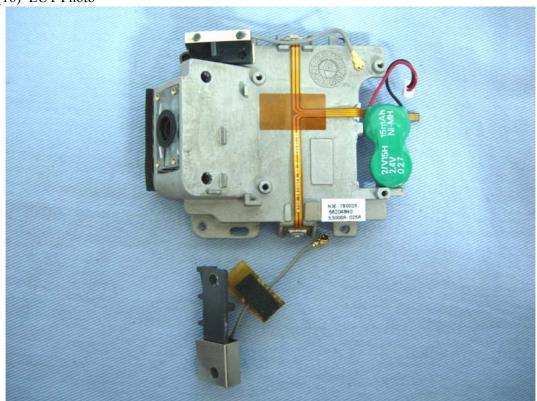




(15) EUT Photo

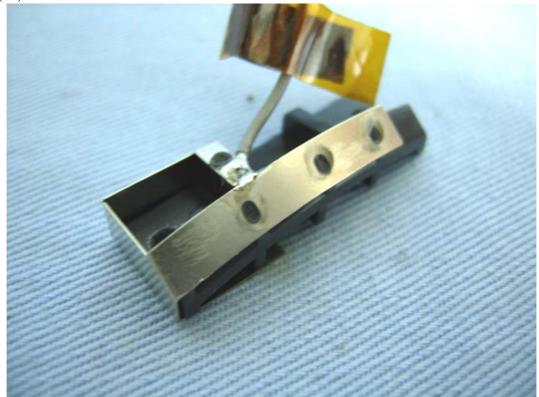


(16) EUT Photo





(17) EUT Photo



(18) EUT Photo





(19) EUT Photo



(20) EUT Photo





(21) EUT Photo



(22) EUT Photo

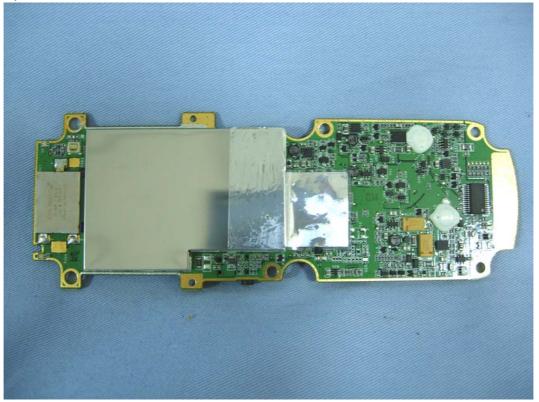




(23) EUT Photo



(24) EUT Photo





(25) EUT Photo



(26) EUT Photo





(27) EUT Photo



(28) EUT Photo





(29) EUT Photo



(30) EUT Photo





(31) EUT Photo

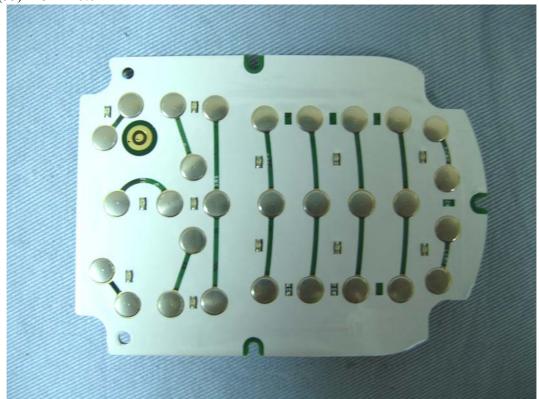


(32) EUT Photo





(33) EUT Photo



(34) EUT Photo





(35) EUT Photo



(36) EUT Photo





(37) EUT Photo



(38) EUT Photo





(39) EUT Photo

