



Test Report

Product Name : Wireless Skype Phone

Model No. : AiGuru S2

FCC ID. : MSQ-AIGURUS2

Applicant : ASUSTeK COMPUTER INC.

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

Date of Receipt : Nov. 14, 2006

Issued Date : Dec. 01, 2006

Report No. : 06BL105-RFUSP05V01

The test results relate only to the samples tested.

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This report must not be used to claim product endorsement by NVLAP any agency of the U.S. Government

Test Report Certification

Issued Date: Dec. 01, 2006

Report No.: 06BL105-RFUSP05V01



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

Product Name : Wireless Skype Phone

Applicant : ASUSTeK COMPUTER INC.

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

Manufacturer : ASUSTeK COMPUTER INC.

Model No. : AiGuru S2

Rated Voltage : AC 120V/60Hz

Working Voltage : DC 3.7V

Trade Name : ASUS

Applicable Standard : FCC CFR Title 47 Part 15 Subpart C: 2005
ANSI C63.4: 2003

Test Result : Complied



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Documented By : Leven Huang
(Leven Huang)



Tested By : Dino Chen
(Dino Chen)

Approved By : George Chen
(George Chen)



TABLE OF CONTENTS

Description	Page
1. GENERAL INFORMATION	5
1.1. EUT Description	5
1.2. Operational Description	6
1.3. Tested System Details	7
1.4. Configuration of Test System	7
1.5. EUT Exercise Software	7
1.6. Test Facility	8
2. Conducted Emission	9
2.1. Test Equipment	9
2.2. Test Setup	9
2.3. Limits	9
2.4. Test Procedure	10
2.5. Uncertainty	10
2.6. Test Result of Conducted Emission	11
3. Peak Power Output	15
3.1. Test Equipment	15
3.2. Test Setup	15
3.3. Limits	15
3.4. Uncertainty	15
3.5. Test Result of Peak Power Output	16
4. Radiated Emission	18
4.1. Test Equipment	18
4.2. Test Setup	18
4.3. Limits	19
4.4. Test Procedure	20
4.5. Uncertainty	20
4.6. Test Result of Radiated Emission	21
5. Band Edge	29
5.1. Test Equipment	29
5.2. Test Setup	29
5.3. Limits	30
5.4. Test Procedure	30
5.5. Uncertainty	30
5.6. Test Result of Band Edge	31
6. Occupied Bandwidth	47
6.1. Test Equipment	47
6.2. Test Setup	47
6.3. Limits	47
6.4. Uncertainty	47
6.5. Test Result of Occupied Bandwidth	48
7. Power Density	54
7.1. Test Equipment	54

7.2.	Test Setup	54
7.3.	Limits	54
7.4.	Uncertainty	54
7.5.	Test Result of Power Density	55
8.	EMI Reduction Method During Compliance Testing	61

Attachment 1: EUT Test Photographs

Attachment 2: EUT Detailed Photographs

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Wireless Skype Phone
Trade Name	ASUS
Model No.	AiGuru S2
FCC ID.	MSQ-AIGURUS2
Frequency Range	802.11b/g: 2412-2462MHz
Number of Channels	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	DSSS/OFDM
Antenna Type	PIFA
Antenna Gain	Refer to the table “Antenna List”
Channel Control	Auto

Antenna List

No.	Manufacturer	Part No.	Peak Gain
1	ACON	AFM00-000013	1.56dBi for 2.4 GHz

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 a Wireless Skype Phone with a built-in 2.4GHz 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 spread spectrum devices.

1.2. Operational Description

The EUT is a Wireless Skype Phone with a built-in 2.4GHz transceiver. This device has 11 channels in 2412 – 2462MHz. The signals are modulated by DSSS and OFDM. This device supports 1, 2, 5.5, 6 , 9, 11, 12, 18, 24, 36, 48 and 54Mbps. The antenna type is PIFA.

This phone optimizes the latest in VoIP technology, which allows you to make calls through an Internet connection using the Skype program. This phone features the wireless technology that allows you the convenience of communications without being stuck on your seat and to the computer. Move around and keep in touch without the hassle of cords and cables.

Test Mode	Mode 1: Transmitter (802.11b 1Mbps)
	Mode 2: Transmitter (802.11g 6Mbps)

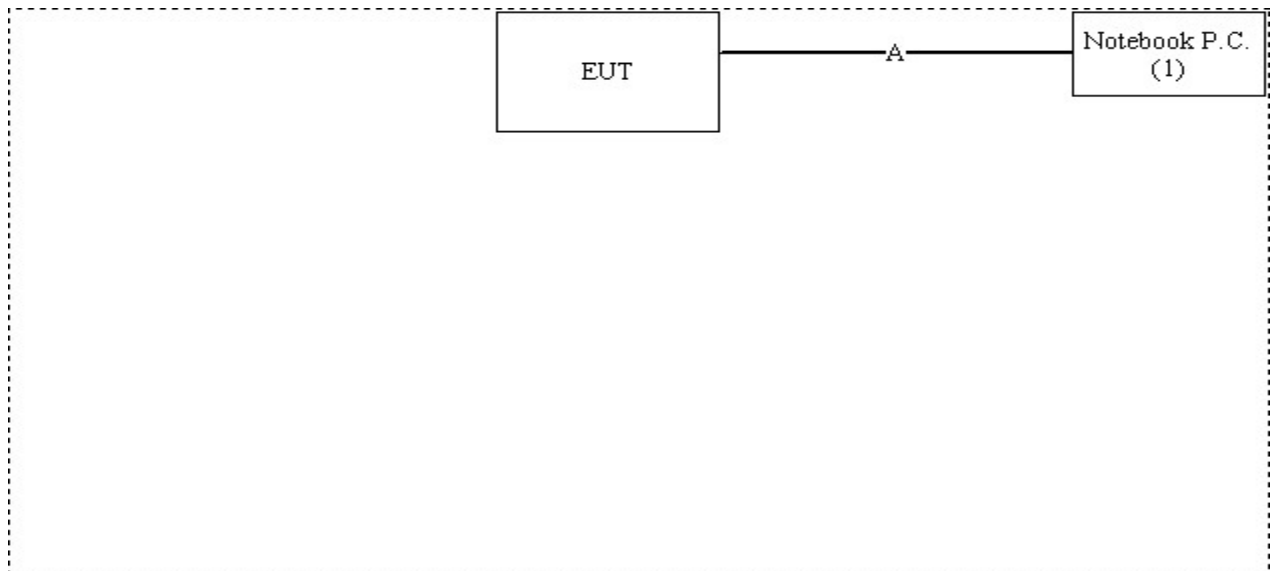
1.3. Tested System Details

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.	Power Cord
(1) Notebook PC	DELL	PP18L	42649348672	Non-Shielded, 0.8m

Signal Cable Type	Signal cable Description
A. USB Cable	Shielded, 1.5m

1.4. Configuration of Test System



1.5. EUT Exercise Software

- (1) Setup the EUT as shown in section 1.4.
- (2) Press “0 mode rate txpower channel” (mode=1 or 2, rate=0 to 13, txpower=12-15, channel=1 to 11)
- (3) Press Dial to start continuous transmission.
- (4) Press Cancel to stop transmission.
- (5) Press channel
- (6) Press Dial to start receiving.

1.6. Test Facility

Ambient conditions in the laboratory:

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

Site Description: File on
 Federal Communications Commission
 FCC Engineering Laboratory
 7435 Oakland Mills Road
 Columbia, MD 21046
 Reference 31040/SIT1300F2
 Registration number : TW014



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



0914

2. Conducted Emission

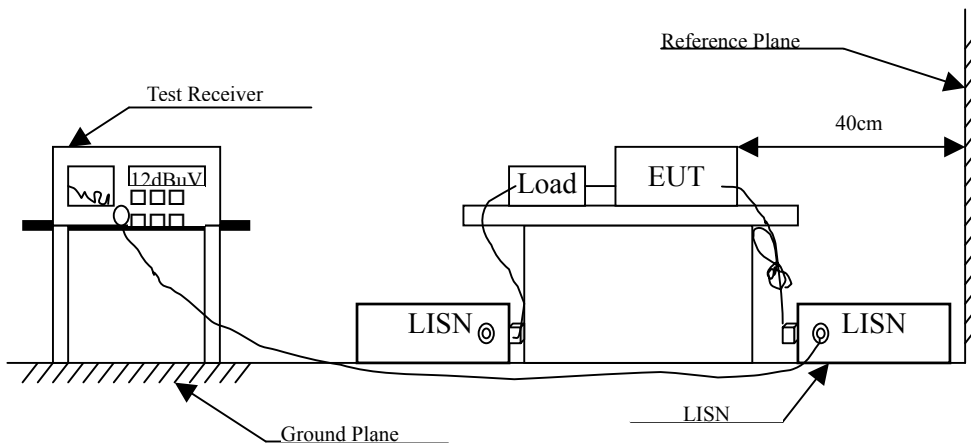
2.1. Test Equipment

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

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

Note: All instruments are calibrated every one year.

2.2. Test Setup



2.3. Limits

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

2.4. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm /50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs.)

Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2003 on conducted measurement.

Conducted emissions were 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 : Wireless Skype Phone
 Test Item : Conducted Emission Test
 Power Line : Line 1
 Test Mode : Mode 1: Transmitter (802.11b 1Mbps) (2437MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
LINE 1					
Quasi-Peak					
0.162	0.202	43.450	43.652	-22.005	65.657
0.185	0.202	48.910	49.112	-15.888	65.000
0.279	0.213	38.130	38.343	-23.971	62.314
1.681	0.262	35.920	36.182	-19.818	56.000
3.709	0.339	26.070	26.409	-29.591	56.000
12.295	0.754	10.710	11.464	-48.536	60.000
Average					
0.162	0.202	14.590	14.792	-40.865	55.657
0.185	0.202	35.400	35.602	-19.398	55.000
0.279	0.213	26.200	26.413	-25.901	52.314
1.681	0.262	23.560	23.822	-22.178	46.000
3.709	0.339	17.380	17.719	-28.281	46.000
12.295	0.754	4.680	5.434	-44.566	50.000

Note:

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

Product : Wireless Skype Phone
 Test Item : Conducted Emission Test
 Power Line : Line 2
 Test Mode : Mode 1: Transmitter (802.11b 1Mbps) (2437MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
LINE 2					
Quasi-Peak					
0.193	0.202	48.550	48.752	-16.019	64.771
0.279	0.203	37.360	37.563	-24.751	62.314
0.584	0.217	33.540	33.757	-22.243	56.000
1.462	0.255	37.070	37.325	-18.675	56.000
3.248	0.323	27.590	27.913	-28.087	56.000
23.209	0.810	17.480	18.290	-41.710	60.000
Average					
0.193	0.202	36.600	36.802	-17.969	54.771
0.279	0.203	30.340	30.543	-21.771	52.314
0.584	0.217	24.500	24.717	-21.283	46.000
1.462	0.255	26.080	26.335	-19.665	46.000
3.248	0.323	18.320	18.643	-27.357	46.000
23.209	0.810	2.720	3.530	-46.470	50.000

Note:

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

Product : Wireless Skype Phone
 Test Item : Conducted Emission Test
 Power Line : Line 1
 Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2437MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
LINE 1					
Quasi-Peak					
0.193	0.202	47.770	47.972	-16.799	64.771
0.295	0.214	34.520	34.734	-27.123	61.857
0.560	0.217	31.950	32.167	-23.833	56.000
0.845	0.231	30.940	31.171	-24.829	56.000
1.560	0.260	36.610	36.870	-19.130	56.000
16.127	0.915	6.790	7.705	-52.295	60.000
Average					
0.193	0.202	41.390	41.592	-13.179	54.771
0.295	0.214	25.990	26.204	-25.653	51.857
0.560	0.217	21.970	22.187	-23.813	46.000
0.845	0.231	16.550	16.781	-29.219	46.000
1.560	0.260	26.190	26.450	-19.550	46.000
16.127	0.915	1.840	2.755	-47.245	50.000

Note:

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

Product : Wireless Skype Phone
 Test Item : Conducted Emission Test
 Power Line : Line 2
 Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2437MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
LINE 2					
Quasi-Peak					
0.197	0.202	46.360	46.562	-18.095	64.657
0.322	0.214	33.050	33.264	-27.822	61.086
0.447	0.216	31.700	31.916	-25.598	57.514
0.802	0.230	35.630	35.860	-20.140	56.000
1.392	0.248	37.260	37.508	-18.492	56.000
14.873	0.789	10.260	11.049	-48.951	60.000
Average					
0.197	0.202	36.130	36.332	-18.325	54.657
0.322	0.214	16.640	16.854	-34.232	51.086
0.447	0.216	10.830	11.046	-36.468	47.514
0.802	0.230	28.380	28.610	-17.390	46.000
1.392	0.248	25.120	25.368	-20.632	46.000
14.873	0.789	5.090	5.879	-44.121	50.000

Note:

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

3. Peak Power Output

3.1. Test Equipment

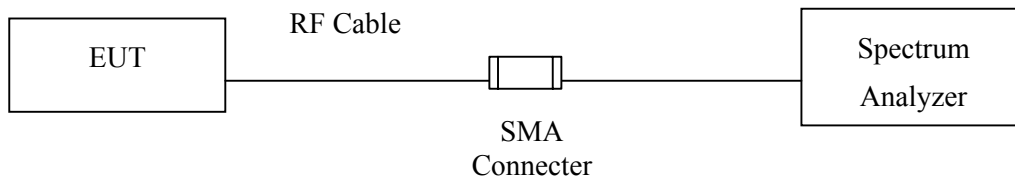
The following test equipments are used during the radiated emission tests:

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

- Note:
1. All instruments are calibrated every one year.
 2. The test instruments marked by “X” are used to measure the final test results.

3.2. Test Setup

Conduction Power Measurement



3.3. Limits

The maximum peak power shall be less 1 Watt.

3.4. Uncertainty

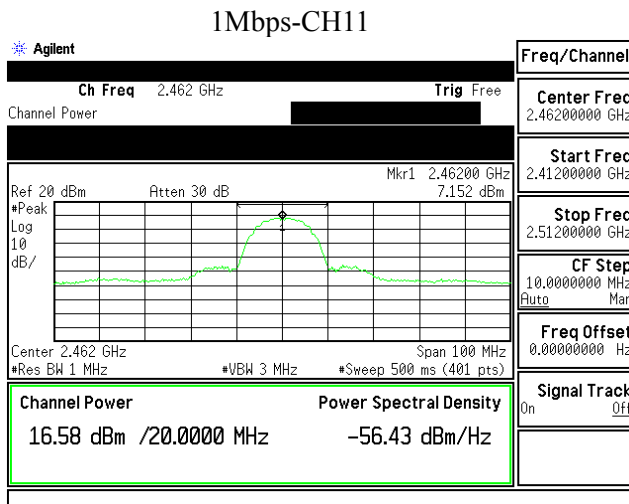
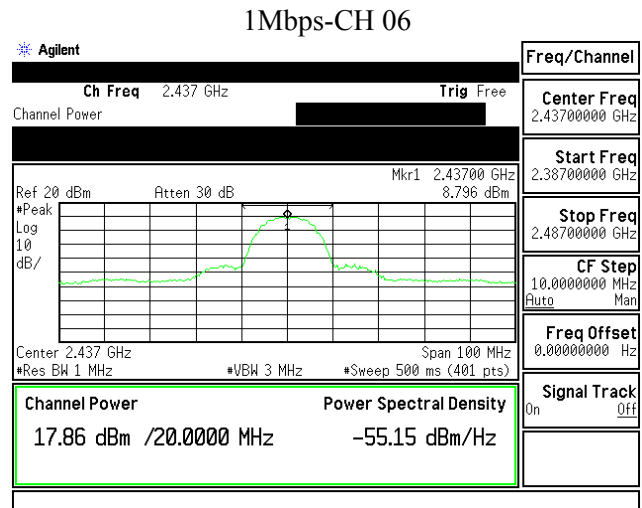
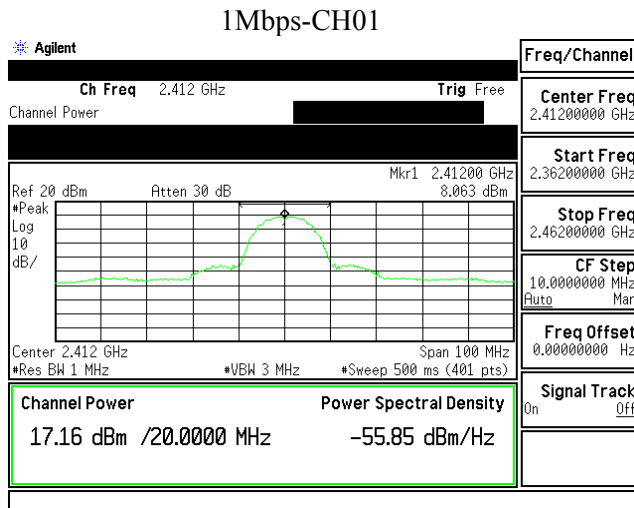
± 1.27 dB

3.5. Test Result of Peak Power Output

Product : Wireless Skype Phone
 Test Item : Peak Power Output Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmitter (802.11b 1Mbps)

Data Speed: 1Mbps

Channel No.	Frequency (MHz)	Measurement	Required Limit	Result
1	2412.00	17.16dBm	1 Watt= 30 dBm	Pass
6	2437.00	17.86dBm	1 Watt= 30 dBm	Pass
11	2462.00	16.58dBm	1 Watt= 30 dBm	Pass

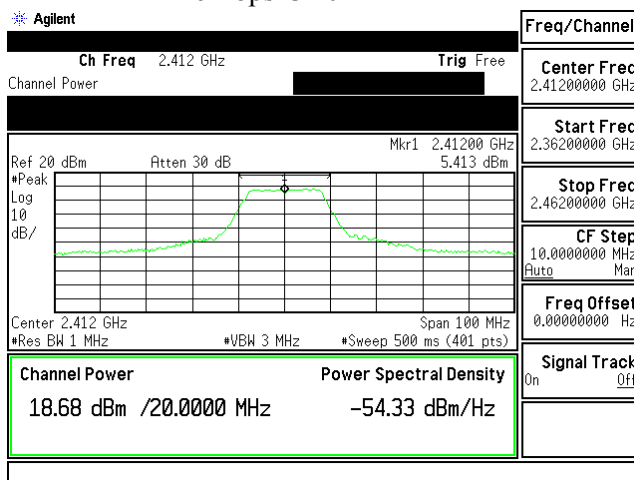


Product : Wireless Skype Phone
 Test Item : Peak Power Output Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmitter (802.11g 6Mbps)

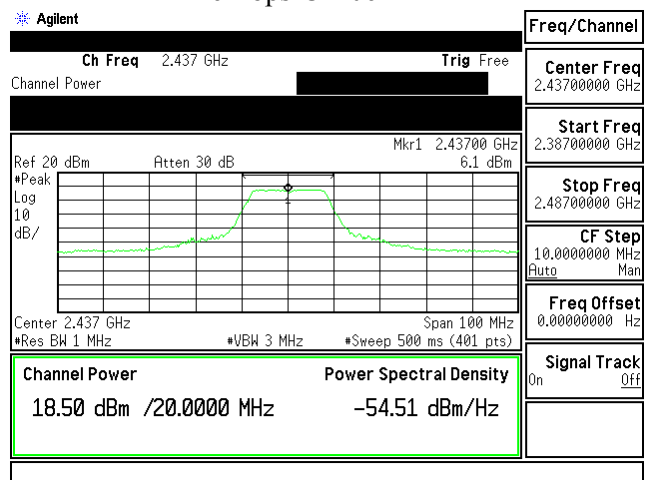
Data Speed: 6Mbps

Channel No.	Frequency (MHz)	Measurement	Required Limit	Result
1	2412.00	18.68dBm	1 Watt= 30 dBm	Pass
6	2437.00	18.50dBm	1 Watt= 30 dBm	Pass
11	2462.00	18.79dBm	1 Watt= 30 dBm	Pass

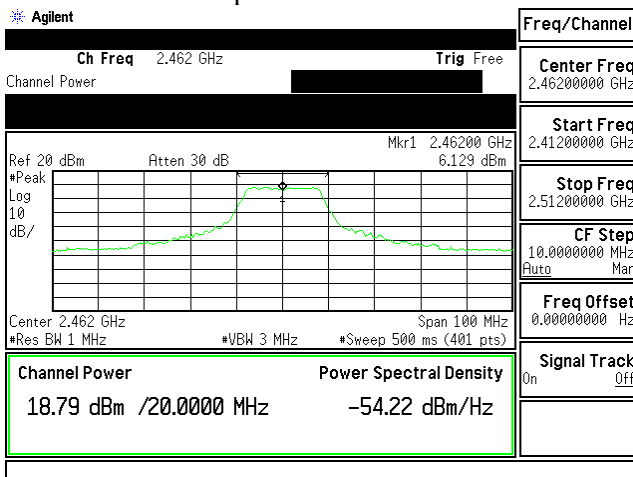
6Mbps-CH01



6Mbps-CH 06



6Mbps-CH11



4. Radiated Emission

4.1. Test Equipment

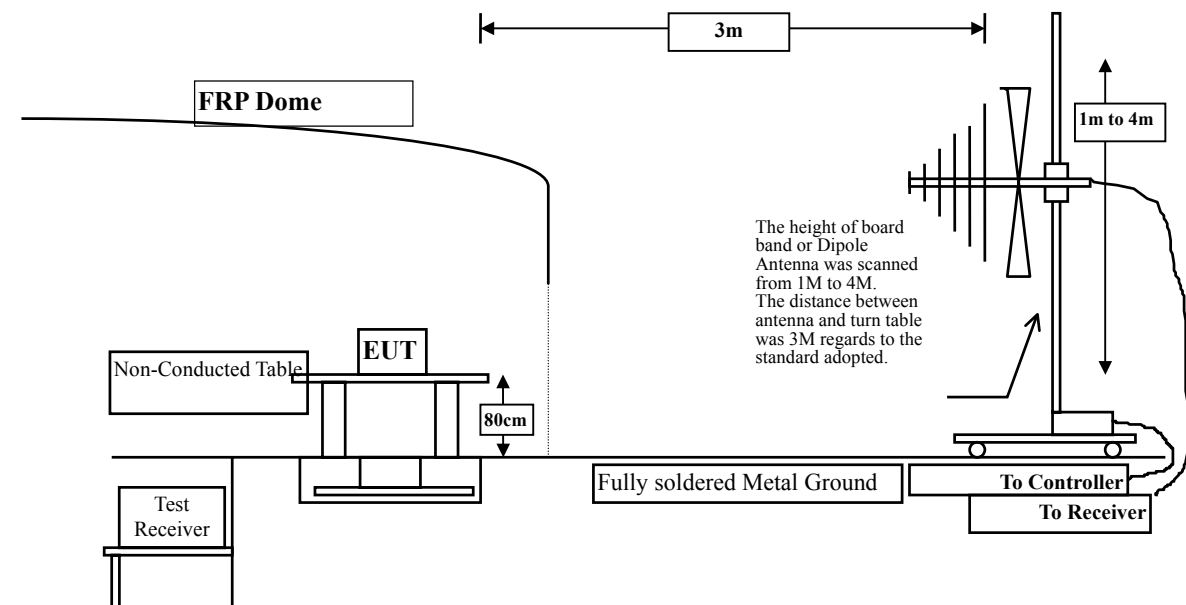
The following test equipment are used during the radiated emission test:

Test Site	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
Site # 1	Test Receiver	R & S	ESCS 30 / 825442/14	May, 2006
	Spectrum Analyzer	Advantest	R3261C / 71720140	May, 2006
	Pre-Amplifier	HP	8447D/3307A01812	May, 2006
	Bilog Antenna	Chase	CBL6112B / 12452	Sep., 2006
	Horn Antenna	EM	EM6917 / 103325	May, 2006
Site # 2	Test Receiver	R & S	ESCS 30 / 825442/17	May, 2006
	Spectrum Analyzer	Advantest	R3261C / 71720609	May, 2006
	Pre-Amplifier	HP	8447D/3307A01814	May, 2006
	Bilog Antenna	Chase	CBL6112B / 2455	Sep., 2006
	Horn Antenna	EM	EM6917 / 103325	May, 2006
Site # 3	X Test Receiver	R & S	ESI 26 / 838786 / 004	May, 2006
	X Spectrum Analyzer	Advantest	R3162 / 100803480	May, 2006
	X Pre-Amplifier	QTK	QTK-AMP-03 / 0003	May, 2006
	X Bilog Antenna	SCHAFFNER	CBL6112B / 2697	May, 2006
	X Horn Antenna	ETS	3115 / 0005-6160	July, 2006
	X Pre-Amplifier	QTK	QTK-AMP-01 / 0001	July, 2006

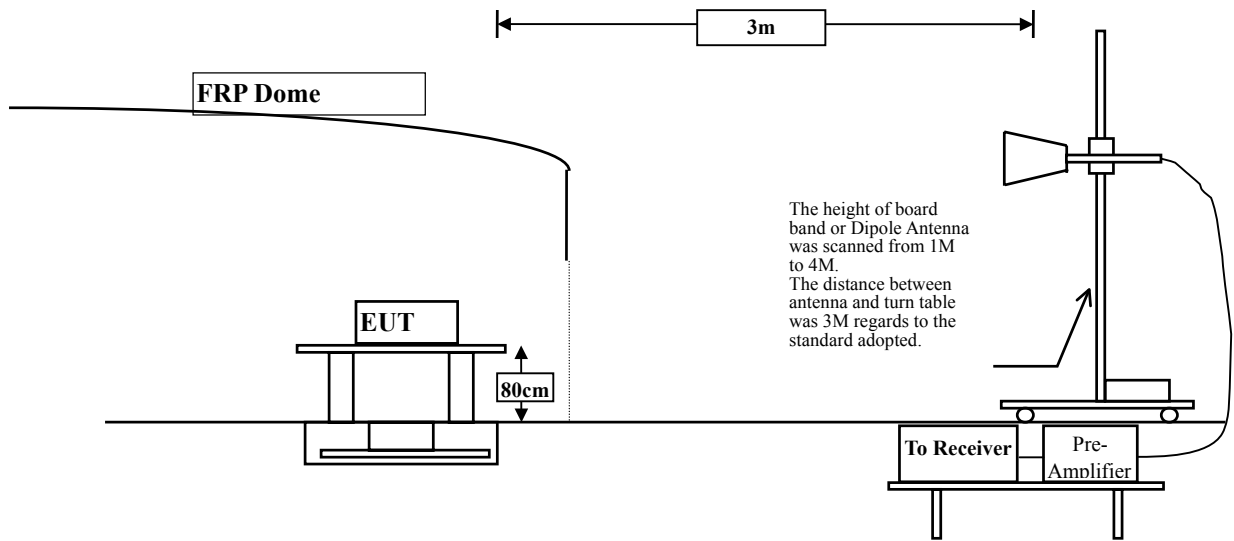
- Note:
1. All instruments are calibrated every one year.
 2. The test instruments marked by "X" are used to measure the final test results.

4.2. Test Setup

Below 1GHz



Above 1GHz



4.3. Limits

➤ General Radiated Emission Limits

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

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

- Remarks :
1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
 2. In the Above Table, the tighter limit applies at the band edges.
 3. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

4.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

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

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4: 2003 on radiated measurement.

The additional latch filter below 1GHz was used to measure the level of harmonics radiated emission during field strength of harmonics measurement.

The bandwidth below 1GHz setting on the field strength meter (R&S Test Receiver ESCS 30)is 120 kHz, above 1GHz are 1 MHz.

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

4.5. Uncertainty

± 3.8 dB below 1GHz

± 3.9 dB above 1GHz

4.6. Test Result of Radiated Emission

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

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
4824.000	3.781	38.412	42.193	-31.807	74.000
7236.000	10.969	38.788	49.757	-24.243	74.000
9648.000	14.882	37.834	52.716	-21.284	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	3.781	37.756	41.537	-32.463	74.000
7236.000	10.969	37.363	48.332	-25.668	74.000
9648.000	14.882	37.261	52.143	-21.857	74.000
Average Detector:					
--					

Note:

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

Product : Wireless Skype Phone
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmitter (802.11b 1Mbps) (2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
------------------	-------------------------	--------------------------	--------------------------------	--------------	-----------------

Horizontal
Peak Detector:

4874.000	3.913	36.832	40.745	-33.255	74.000
7311.000	11.547	37.573	49.120	-24.880	74.000
9748.000	14.260	37.130	51.390	-22.610	74.000

Average Detector:

--

Vertical
Peak Detector:

4874.000	3.913	37.423	41.336	-32.664	74.000
7311.000	11.547	38.071	49.618	-24.382	74.000
9748.000	14.260	36.842	51.102	-22.898	74.000

Average Detector:

--

Note:

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

Product : Wireless Skype Phone
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmitter (802.11b 1Mbps) (2462 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
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Horizontal

Peak Detector:

4924.000	4.054	37.594	41.648	-32.352	74.000
7386.000	11.873	37.343	49.217	-24.783	74.000
9848.000	13.462	36.382	49.844	-24.156	74.000

Average Detector:

--

Vertical

Peak Detector:

4924.000	4.054	38.376	42.430	-31.570	74.00
7386.000	11.873	37.726	49.600	-24.400	74.00
9848.000	13.462	36.955	50.417	-23.583	74.00

Average Detector:

--

Note:

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

Product : Wireless Skype Phone
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3OATS
 Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2412 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level	dB	dBuV/m
	dB	dBuV	dBuV/m		

Horizontal
Peak Detector:

4824.000	3.781	37.613	41.394	-32.606	74.00
7236.000	10.969	37.702	48.671	-25.329	74.00
9648.000	14.882	37.394	52.276	-21.724	74.00

Average Detector:

--

Vertical
Peak Detector:

4824.000	3.781	37.704	41.485	-32.515	74.00
7236.000	10.969	37.766	48.735	-25.265	74.00
9648.000	14.882	36.876	51.758	-22.242	74.00

Average Detector:

--

Note:

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

Product : Wireless Skype Phone
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2437 MHz)

Frequency	Correct	Reading	Measurement	Margin	Limit
MHz	Factor	Level	Level	dB	dBuV/m
	dB	dBuV	dBuV/m		

Horizontal

Peak Detector:

4874.000	3.913	36.689	40.602	-33.398	74.00
7311.000	11.547	37.054	48.601	-25.399	74.00
9748.000	14.260	36.689	50.949	-23.051	74.00

Average Detector:

--

Vertical

Peak Detector:

4874.000	3.913	36.778	40.691	-33.309	74.00
7311.000	11.547	36.985	48.532	-25.468	74.00
9748.000	14.260	36.530	50.790	-23.210	74.00

Average Detector:

--

Note:

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

Product : Wireless Skype Phone
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2462 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
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Horizontal
Peak Detector:

4924.000	4.054	38.275	42.329	-31.671	74.00
7386.000	11.873	37.196	49.070	-24.930	74.00
9848.000	13.462	36.372	49.834	-24.166	74.00

Average Detector:

--

Vertical
Peak Detector:

4924.000	4.054	37.413	41.467	-32.533	74.00
7386.000	11.873	37.233	49.107	-24.893	74.00
9848.000	13.462	36.845	50.307	-23.693	74.00

Average Detector:

--

Note:

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

Product : Wireless Skype Phone
 Test Item : General Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmitter (802.11b 1Mbps) (2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
379.200	15.669	10.103	25.772	-20.228	46.000
507.725	18.807	5.721	24.528	-21.472	46.000
595.025	20.077	8.802	28.880	-17.120	46.000
730.825	21.300	6.506	27.806	-18.194	46.000
883.600	22.418	8.332	30.750	-15.250	46.000
985.450	23.373	8.472	31.845	-22.155	54.000
Vertical					
379.200	16.655	6.272	22.927	-23.073	46.000
544.100	20.532	3.703	24.235	-21.765	46.000
619.275	21.591	5.666	27.257	-18.743	46.000
692.025	20.525	6.099	26.624	-19.376	46.000
844.800	21.527	5.921	27.448	-18.552	46.000
966.050	22.938	9.307	32.245	-21.755	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. "■" means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The radiated emissions were checked with horizontal and vertical positions of the cords to find the worst emissions.
5. The radiated emissions below 1GHz of the lowest, middle, highest frequency are pretested. Only the worst case is shown on the report.

Product : Wireless Skype Phone
 Test Item : General Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
379.200	15.669	9.409	25.078	-20.922	46.000
473.775	18.633	6.069	24.702	-21.298	46.000
544.100	19.945	9.730	29.675	-16.325	46.000
643.525	20.926	7.076	28.002	-17.998	46.000
796.300	22.034	7.871	29.905	-16.095	46.000
963.625	23.223	8.057	31.280	-22.720	54.000
Vertical					
500.450	18.354	4.548	22.902	-23.098	46.000
619.275	21.591	4.765	26.356	-19.644	46.000
755.075	23.113	3.529	26.642	-19.358	46.000
808.425	21.730	4.974	26.704	-19.296	46.000
881.175	22.702	2.962	25.664	-20.336	46.000
970.900	22.856	7.507	30.363	-23.637	54.000

Note:

1. All Readings below 1GHz are Quasi-Peak, above are performed with peak and/or average measurements as necessary.
2. “█” means the worst emission level.
3. Measurement Level = Reading Level + Correct Factor.
4. The radiated emissions were checked with horizontal and vertical positions of the cords to find the worst emissions.
5. The radiated emissions below 1GHz of the lowest, middle, highest frequency are pretested. Only the worst case is shown on the report.

5. Band Edge

5.1. Test Equipment

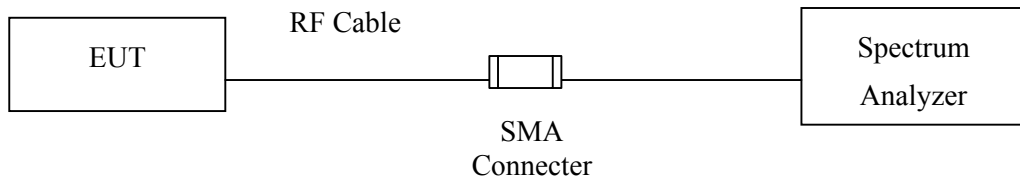
The following test equipments are used during the band edge tests:

Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X Spectrum Analyzer	HP	E4407B / US39440758	May, 2006
X Test Receiver	R & S	ESCS 30 / 825442/14	May, 2006
X Spectrum Analyzer	Advantest	R3261C / 71720140	May, 2006
X Pre-Amplifier	HP	8447D/3307A01812	May, 2006
X Bilog Antenna	Chase	CBL6112B / 12452	Sep., 2006
X Horn Antenna	EM	EM6917 / 103325	May, 2006

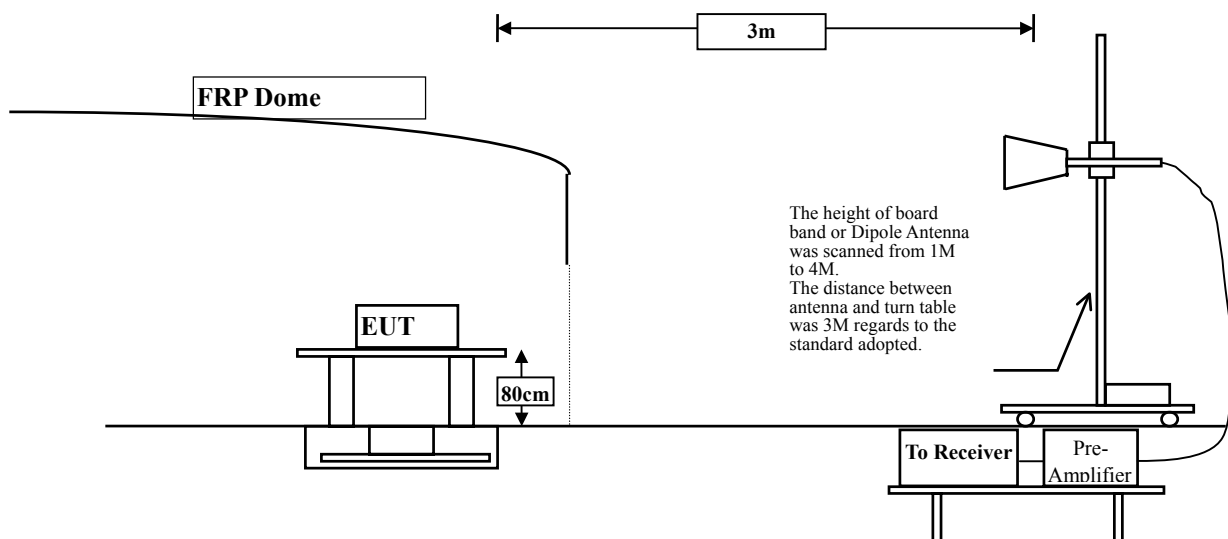
- Note:
1. All instruments are calibrated every one year.
 2. The test instruments marked by "X" are used to measure the final test results.

5.2. Test Setup

RF Conducted Measurement:



RF Radiated Measurement:



5.3. Limits

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

5.4. Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

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

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.4: 2003 on radiated measurement.

The bandwidth below 1GHz setting on the field strength meter (R&S Test Receiver ESCS 30)is 120 kHz, above 1GHz are 1 MHz.

5.5. Uncertainty

Conducted is ± 1 MHz

Radiated is ± 3.9 dB.

5.6. Test Result of Band Edge

Product : Wireless Skype Phone
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmitter (802.11b 1Mbps) (2412 MHz)

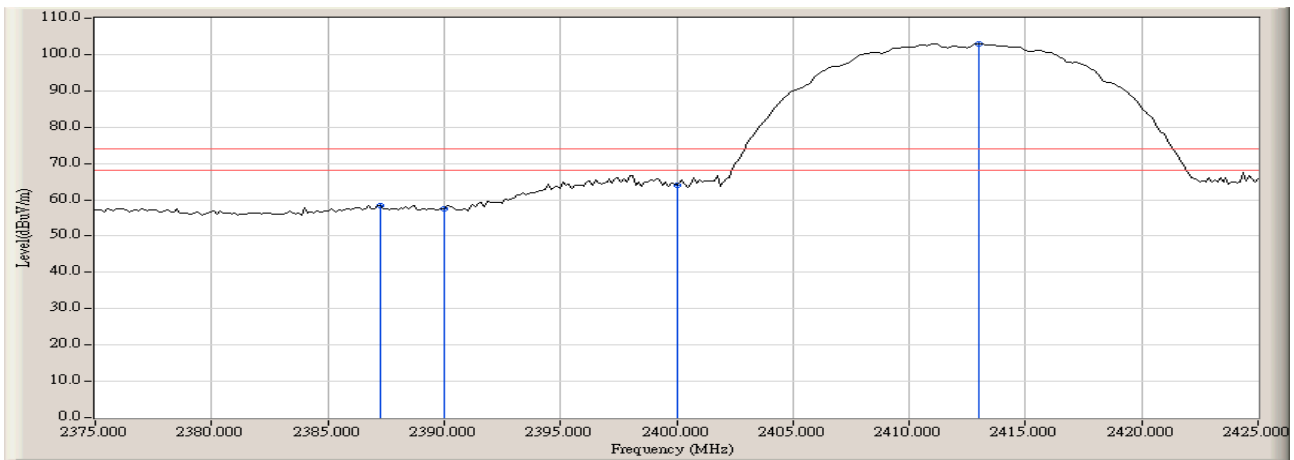
RF Radiated Measurement:

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

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01(Peak)	2387.250	-2.266	60.512	58.246	74.00	54.00	Pass
01(Avg)	2387.250	-2.266	46.738	44.472	74.00	54.00	Pass

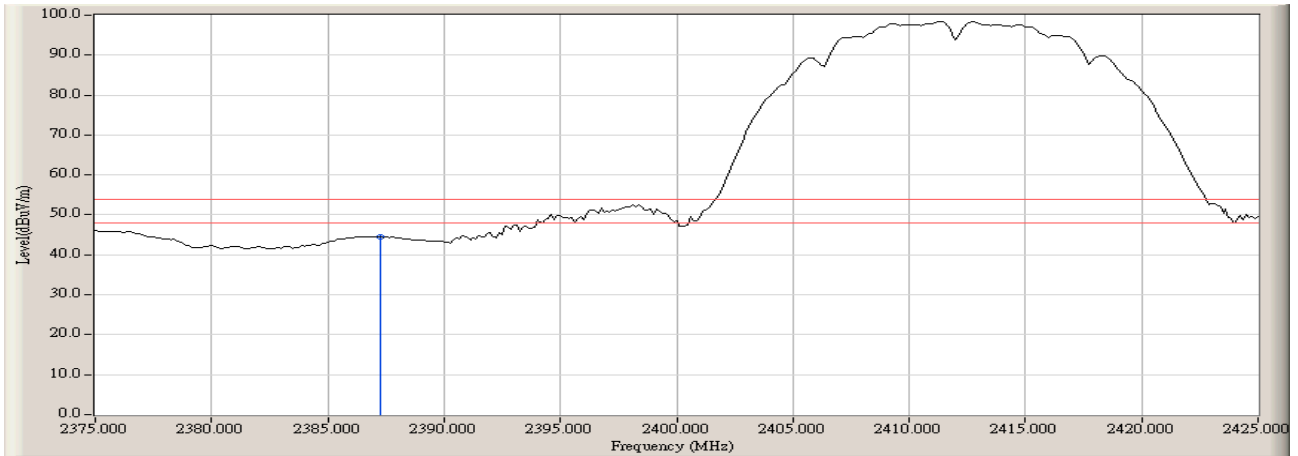
Figure Channel 1: Horizontal (peak)



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

Figure Channel 1:

Horizontal (Average)



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

Product : Wireless Skype Phone
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmitter (802.11b 1Mbps) (2412 MHz)

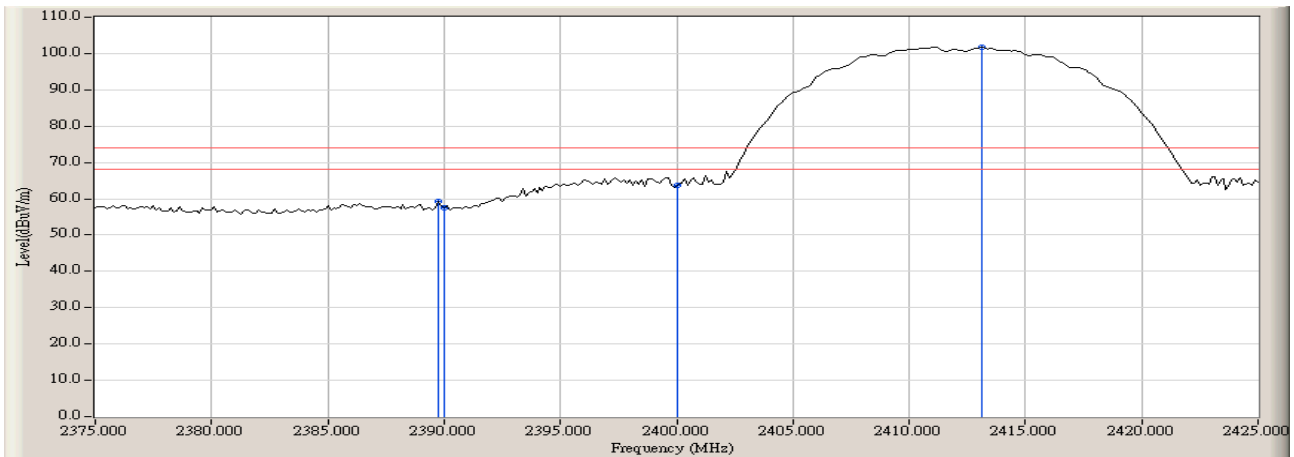
RF Radiated Measurement:

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

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01(Peak)	2389.750	-2.257	61.403	59.145	74.00	54.00	Pass
01(Avg)	2389.750	-2.257	45.862	43.604	74.00	54.00	Pass

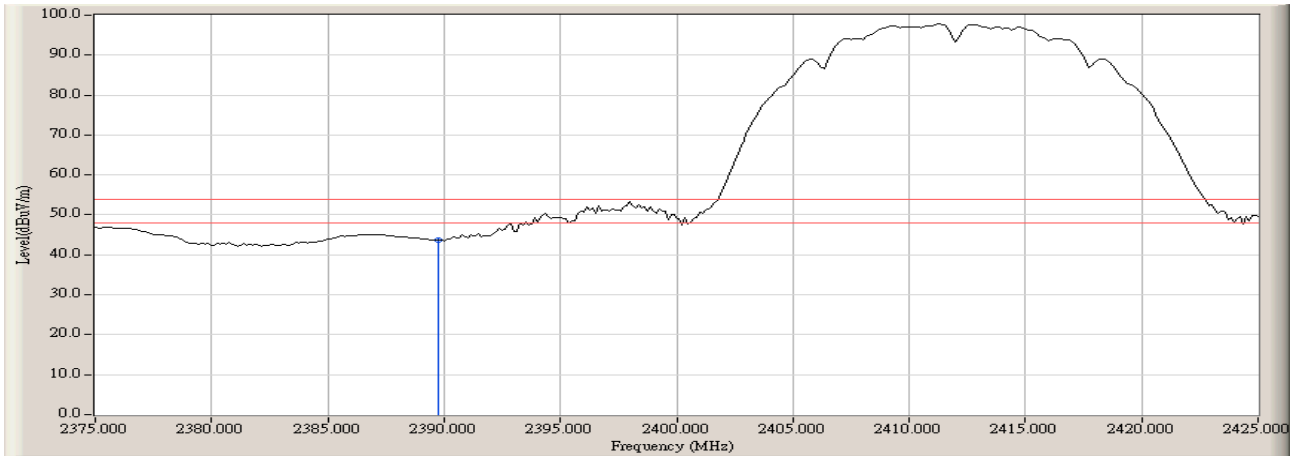
Figure Channel 1: Vertical (Peak)



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

Figure Channel 1:

Vertical (Average)



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

Product : Wireless Skype Phone
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmitter (802.11b 1Mbps) (2462 MHz)

RF Radiated Measurement:

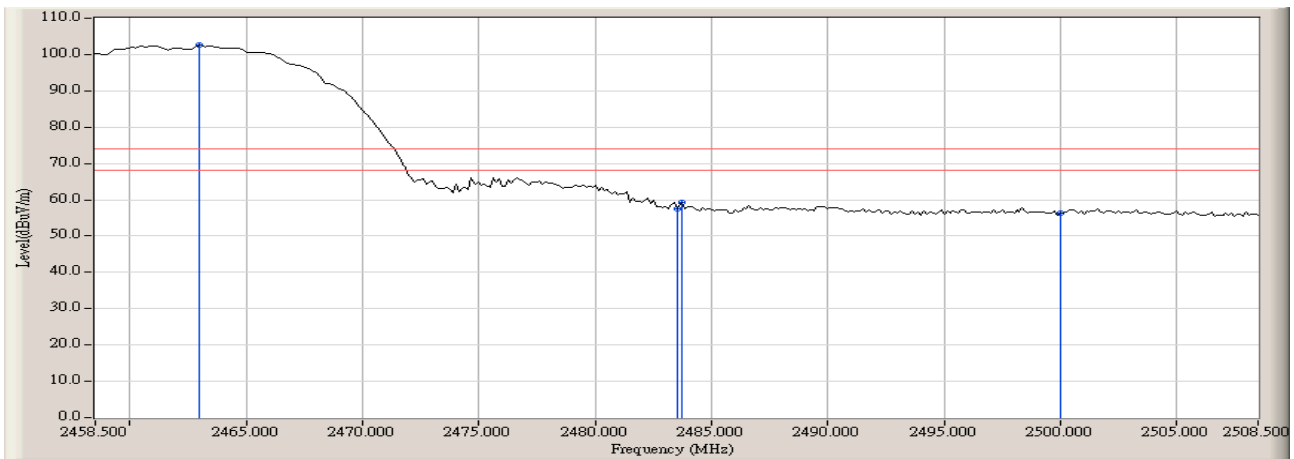
Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
11 (Horizontal)	>2483.5	>20	Pass

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11(Peak)	2483.750	-1.895	61.076	59.182	74.00	54.00	Pass
11(Avg)	2483.750	-1.895	47.132	45.238	74.00	54.00	Pass

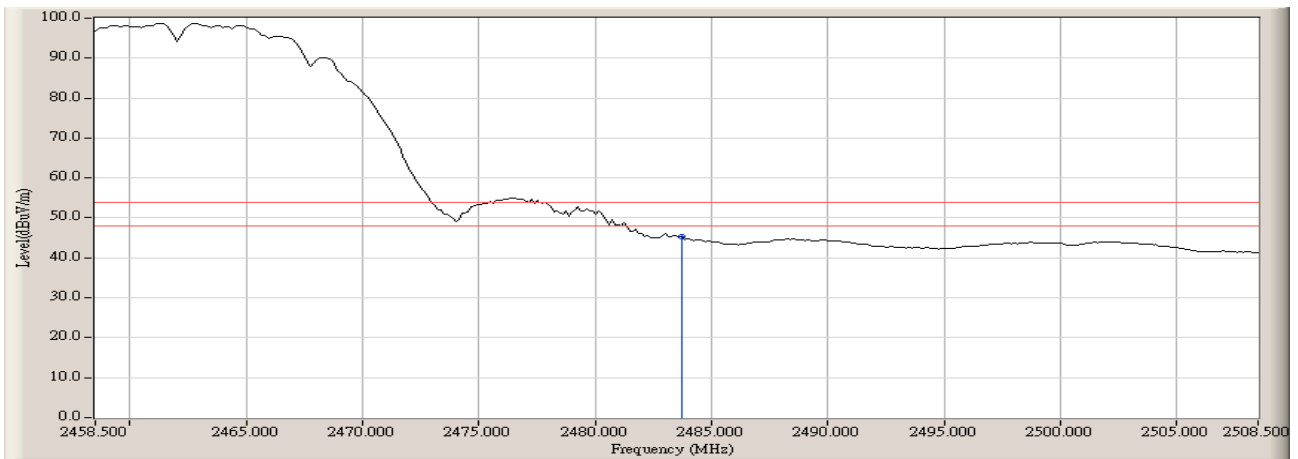
Figure Channel 11:

Horizontal (Peak)



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

Figure Channel 11: Horizontal (Average)



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

Product : Wireless Skype Phone
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmitter (802.11b 1Mbps) (2462 MHz)

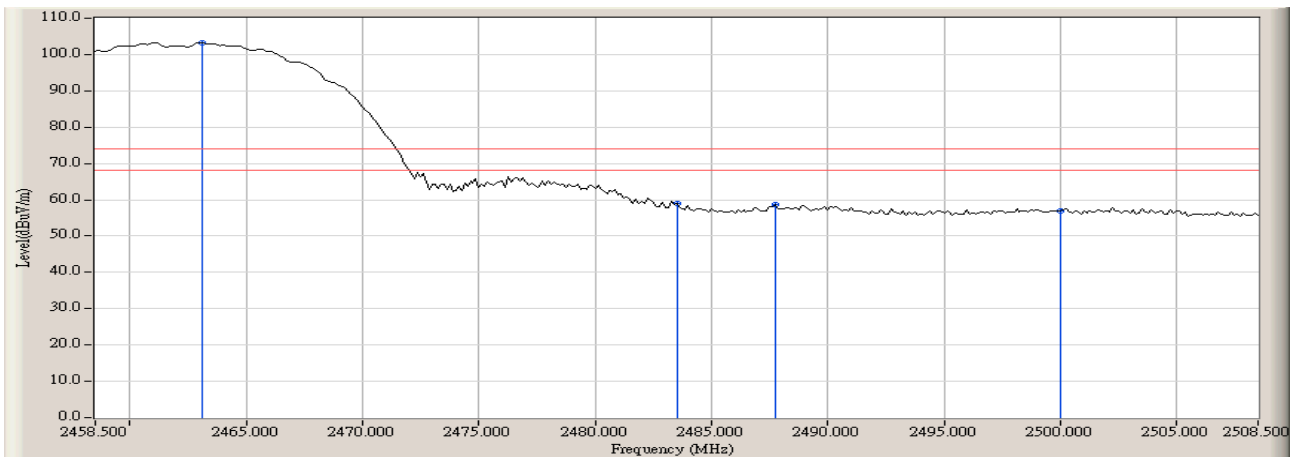
RF Radiated Measurement:

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

RF Radiated Measurement (Vertical):

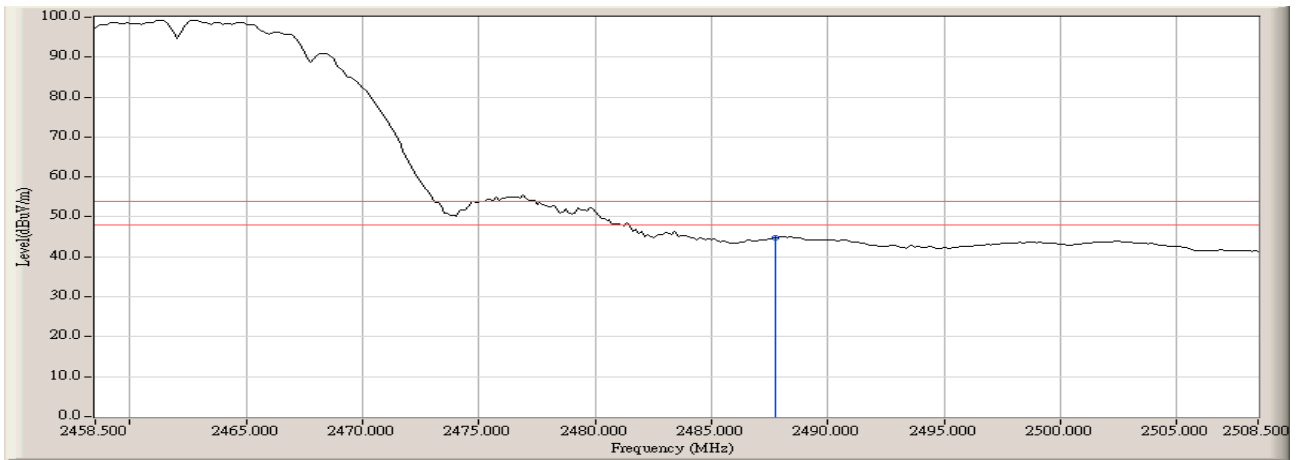
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11(Peak)	2487.750	-1.881	60.457	58.576	74.00	54.00	Pass
11(Avg)	2487.750	-1.881	46.588	44.707	74.00	54.00	Pass

Figure Channel 11: Vertical (Peak)



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

Figure Channel 11: Vertical (Average)



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

Product : Wireless Skype Phone
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2412 MHz)

RF Radiated Measurement:

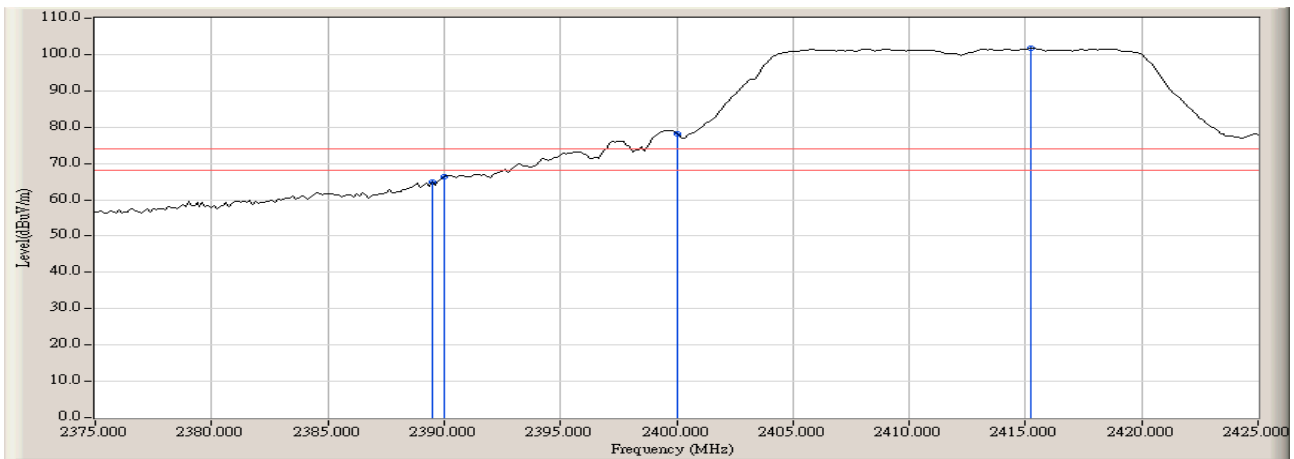
Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
1 (Horizontal)	<2400	>20	Pass

RF Radiated Measurement (Horizontal):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01(Peak)	2389.500	-2.258	67.160	64.902	74.00	54.00	Pass
01(Avg)	2389.500	-2.258	51.014	48.756	74.00	54.00	Pass

Figure Channel 1:

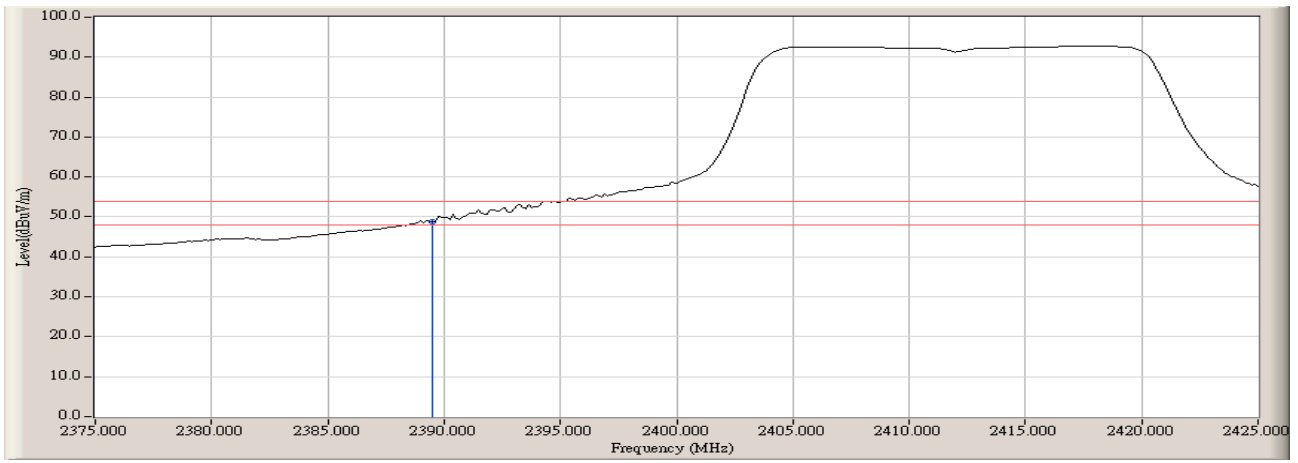
Horizontal (Peak)



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

Figure Channel 1:

Horizontal (Average)



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

Product : Wireless Skype Phone
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2412 MHz)

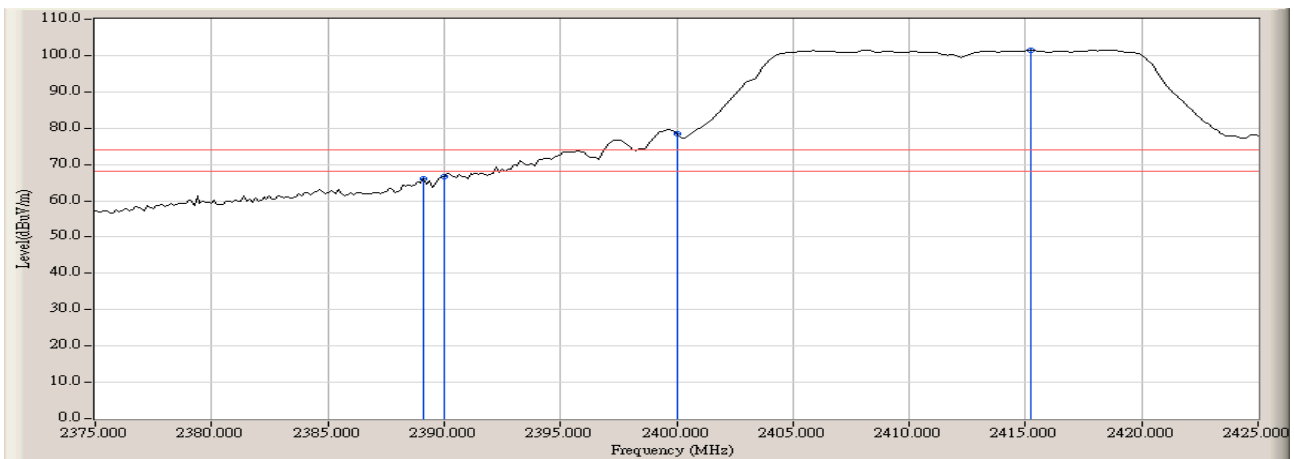
RF Radiated Measurement:

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

RF Radiated Measurement (Vertical):

Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
01(Peak)	2389.125	-2.260	68.305	66.045	74.00	54.00	Pass
01(Avg)	2389.125	-2.260	46.898	44.638	74.00	54.00	Pass

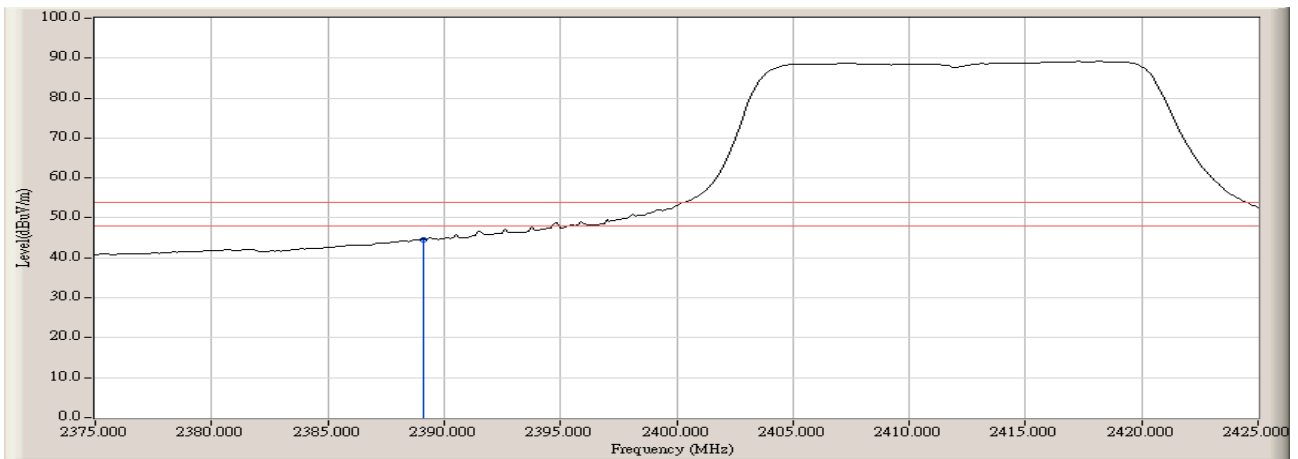
Figure Channel 1: Vertical (Peak)



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

Figure Channel 1:

Vertical (Average)



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

Product : Wireless Skype Phone
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2462 MHz)

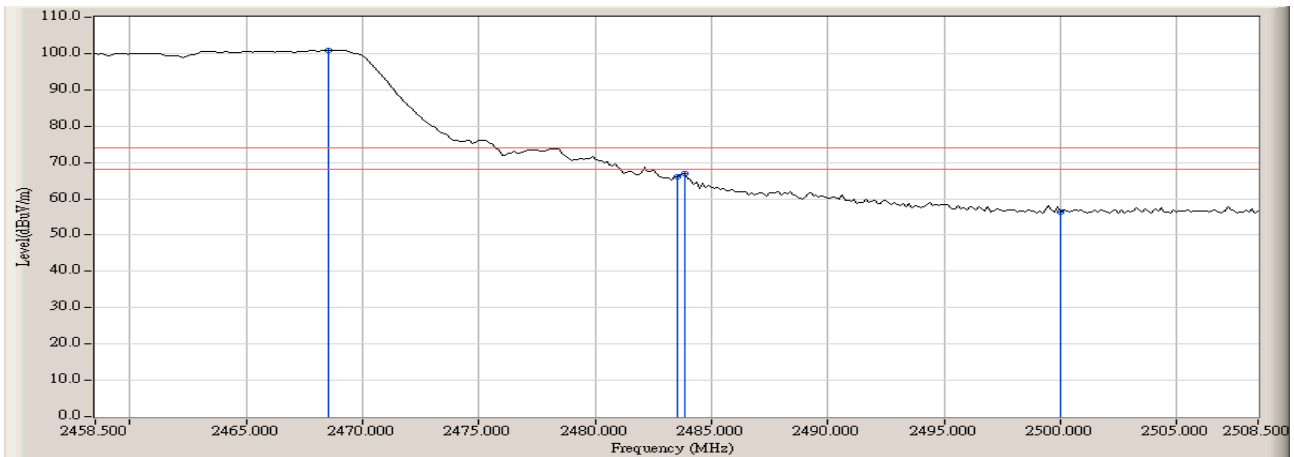
RF Radiated Measurement:

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

RF Radiated Measurement (Horizontal):

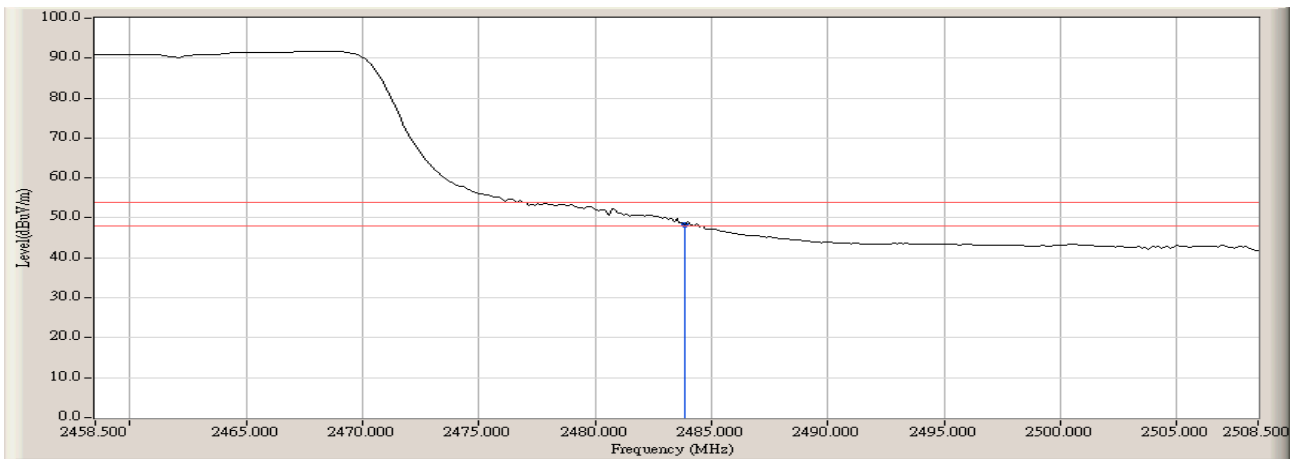
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11(Peak)	2483.875	-1.894	68.895	67.001	74.00	54.00	Pass
11(Avg)	2483.875	-1.894	50.091	48.197	74.00	54.00	Pass

Figure Channel 11: Horizontal (Peak)



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

Figure Channel 11: Horizontal (Average)



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

Product : Wireless Skype Phone
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2462 MHz)

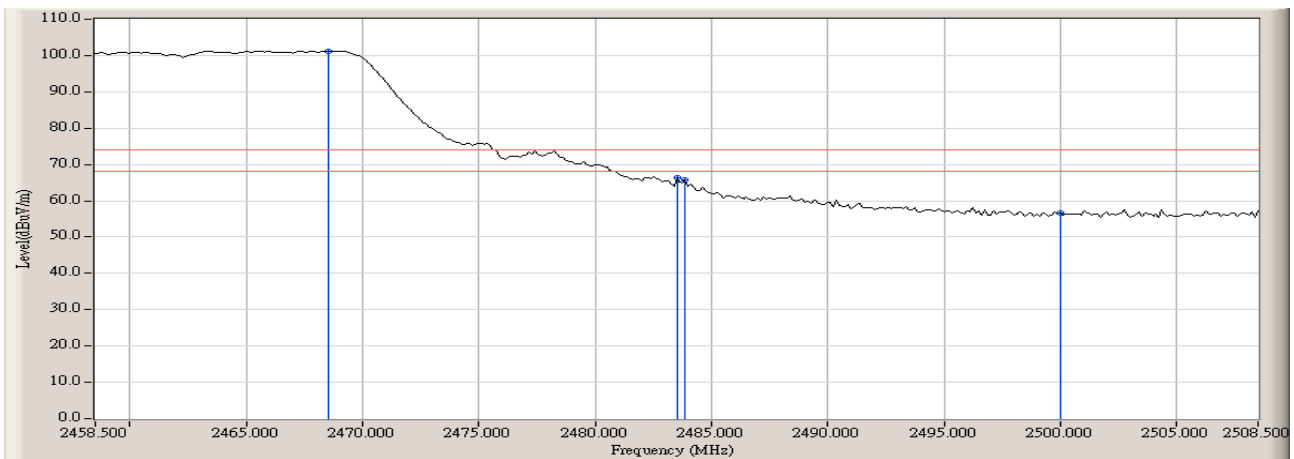
RF Radiated Measurement:

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

RF Radiated Measurement (Vertical):

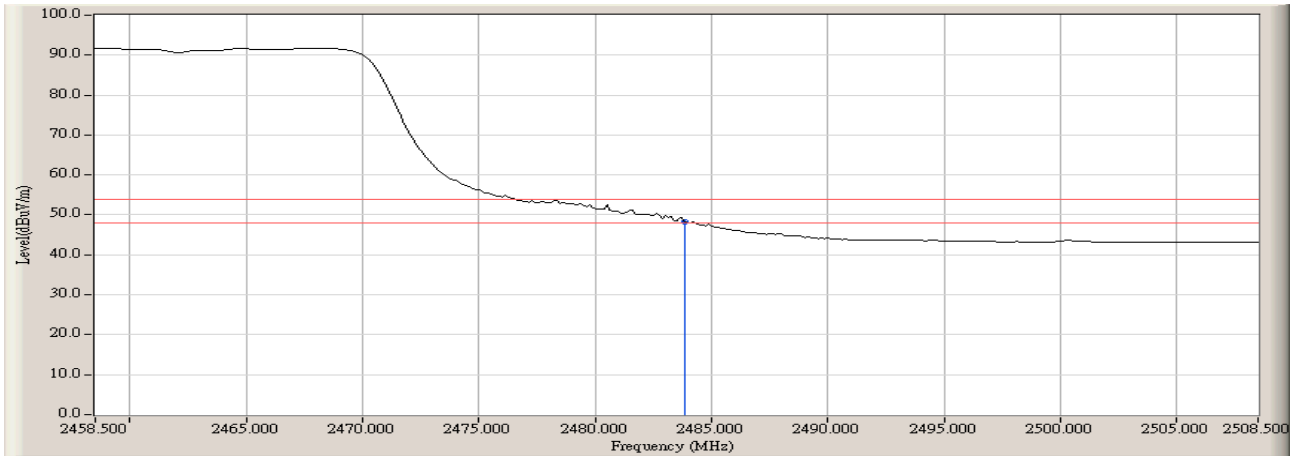
Channel No.	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Emission Level (dBuV/m)	Peak Limit (dBuV/m)	Average Limit (dBuV/m)	Result
11(Peak)	2483.875	-1.894	67.544	65.650	74.00	54.00	Pass
11(Avg)	2483.875	-1.894	50.156	48.262	74.00	54.00	Pass

Figure Channel 11: Vertical (Peak)



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

Figure Channel 11: Vertical (Average)



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

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

6. Occupied Bandwidth

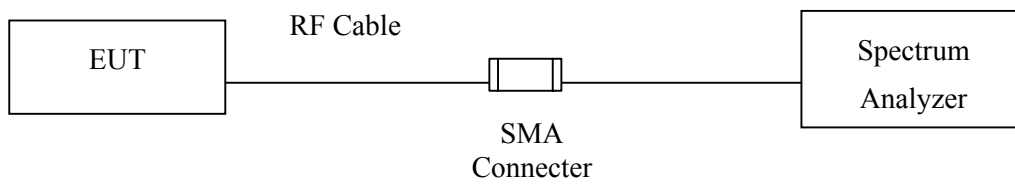
6.1. Test Equipment

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

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

- Note:
1. All instruments are calibrated every one year.
 2. The test instruments marked by “X” are used to measure the final test results.

6.2. Test Setup



6.3. Limits

The minimum bandwidth shall be at least 500kHz.

6.4. Uncertainty

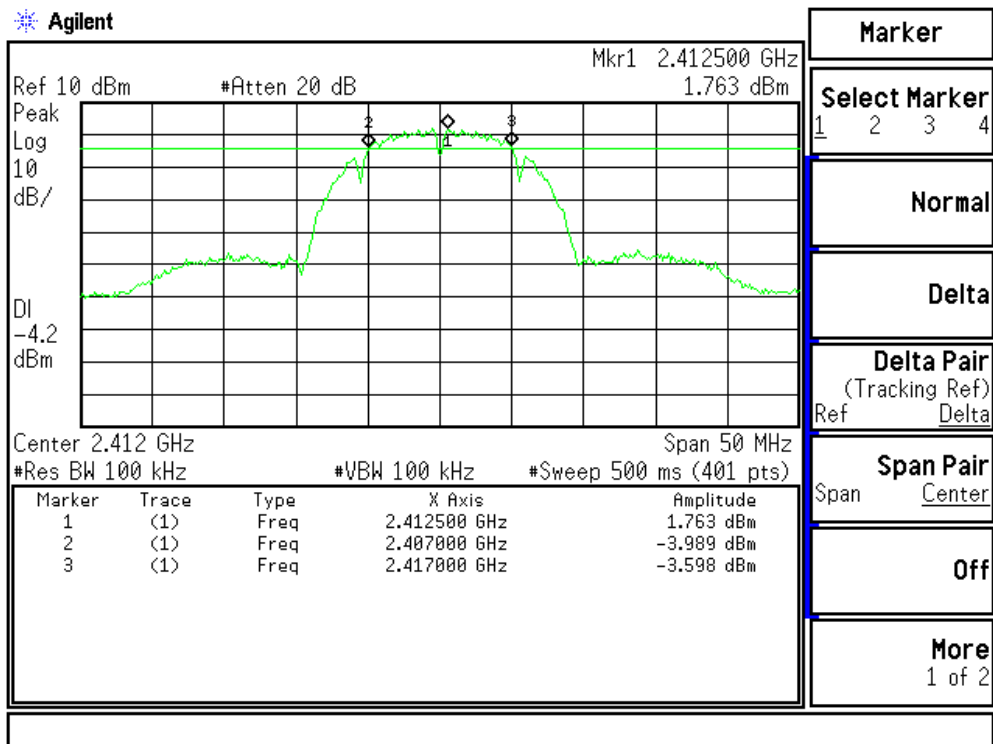
± 150Hz

6.5. Test Result of Occupied Bandwidth

Product : Wireless Skype Phone
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmitter (802.11b 1Mbps) (2412MHz)

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

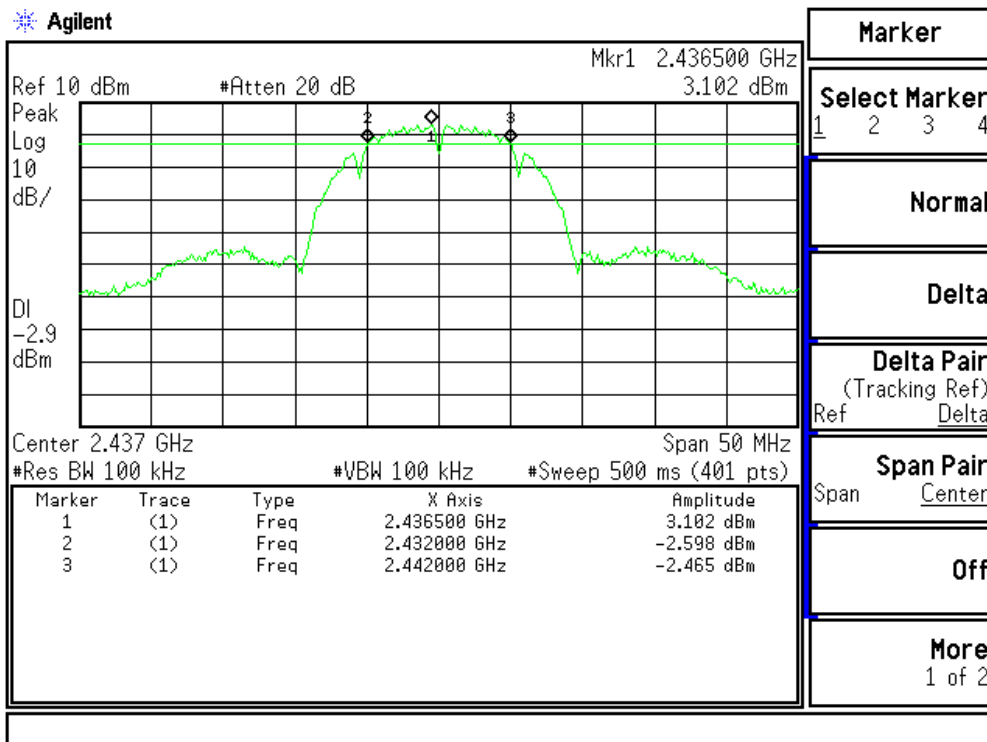
Figure Channel 1: 1Mbps



Product : Wireless Skype Phone
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmitter (802.11b 1Mbps) (2437MHz)

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

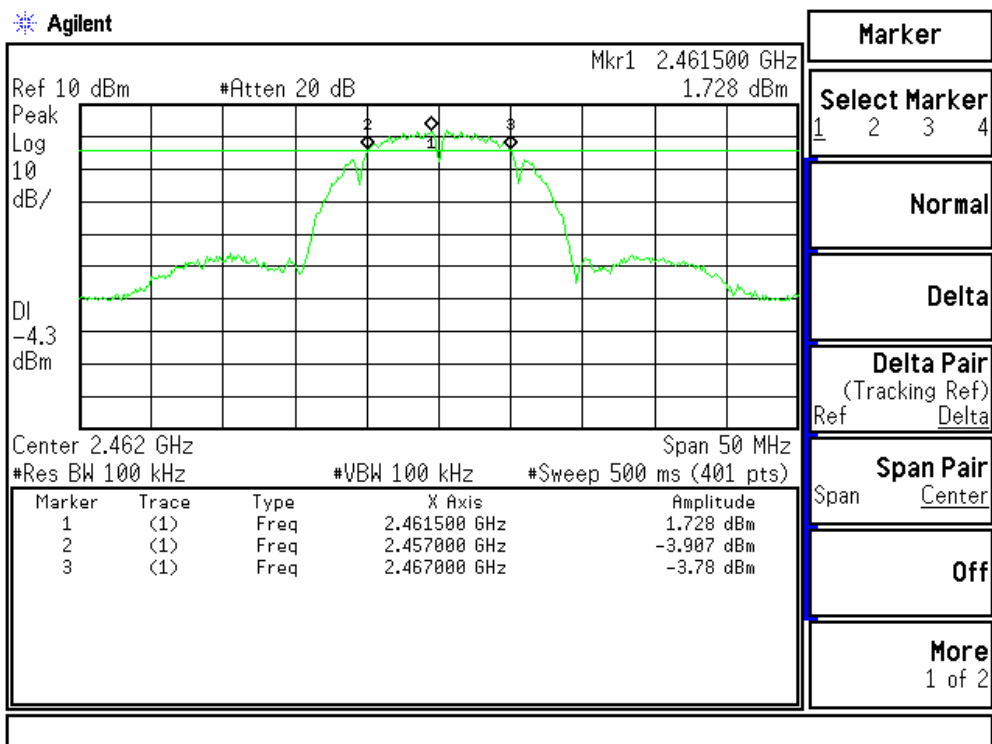
Figure Channel 6: 1Mbps



Product : Wireless Skype Phone
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmitter (802.11b 1Mbps) (2462MHz)

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

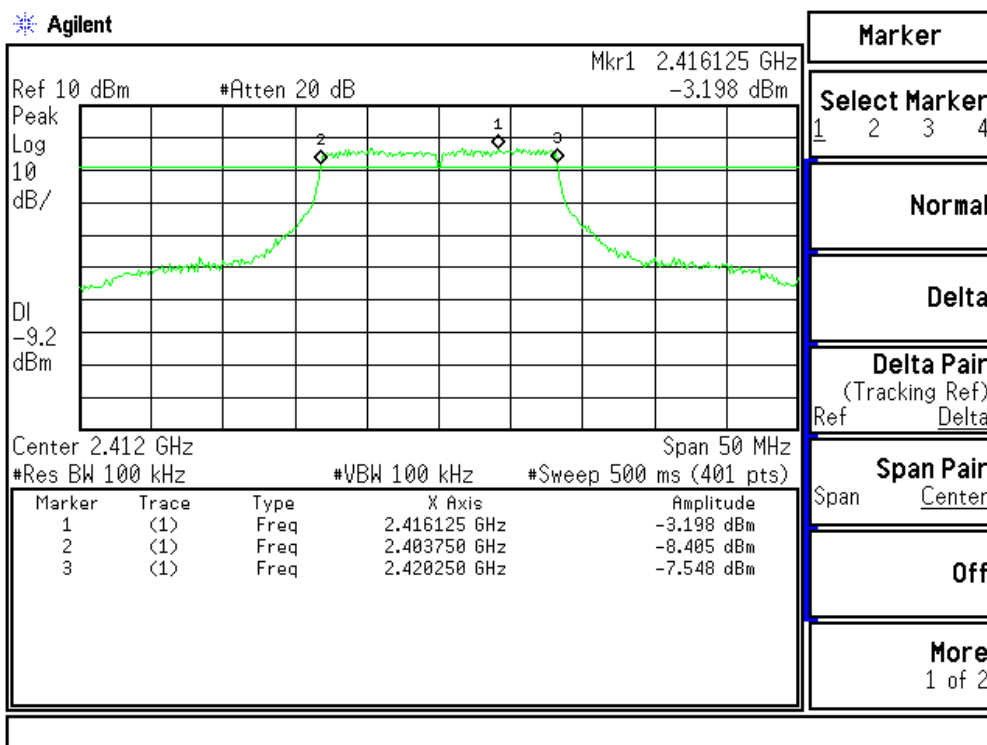
Figure Channel 11: 1Mbps



Product : Wireless Skype Phone
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2412MHz)

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

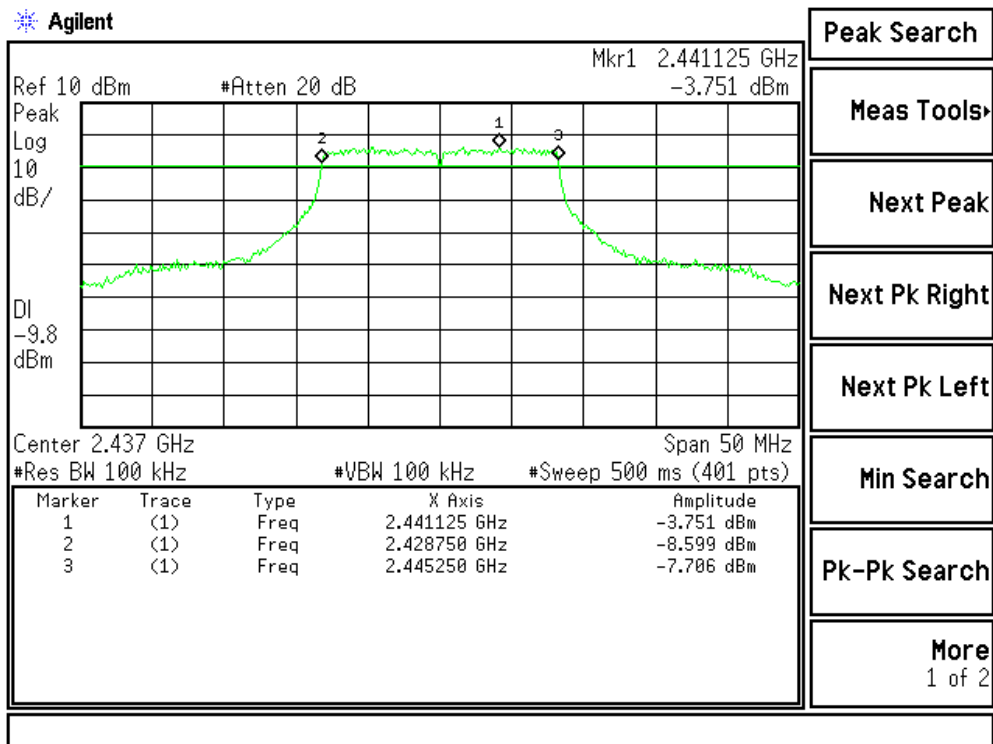
Figure Channel 1: 6Mbps



Product : Wireless Skype Phone
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2437MHz)

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

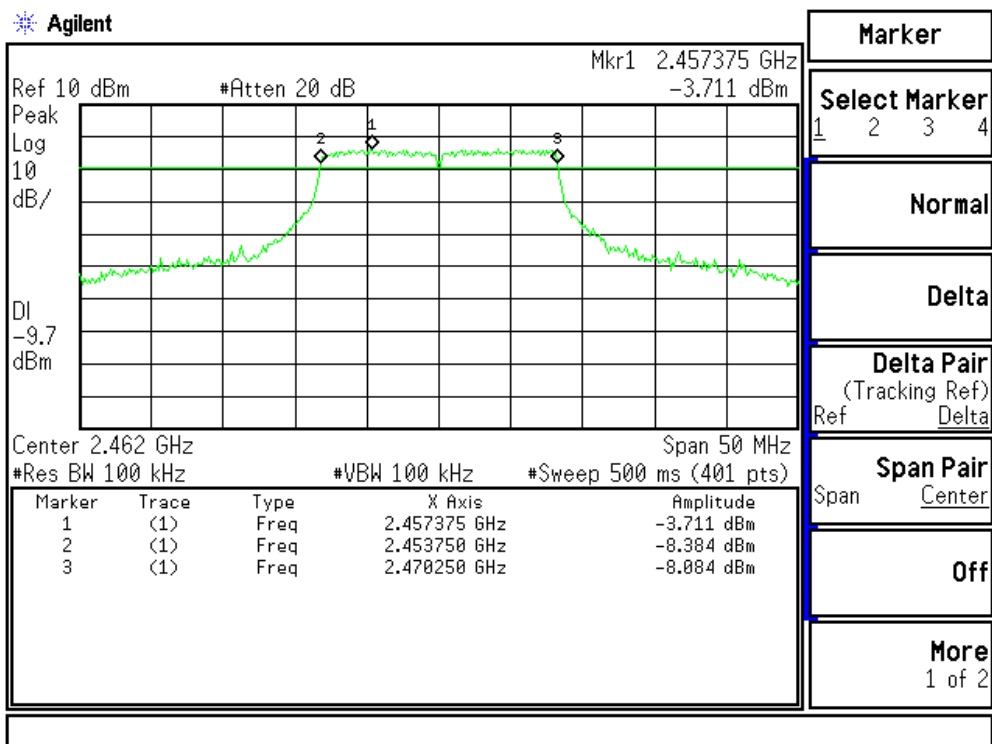
Figure Channel 6: 6Mbps



Product : Wireless Skype Phone
 Test Item : Occupied Bandwidth Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2462MHz)

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

Figure Channel 11: 6Mbps



7. Power Density

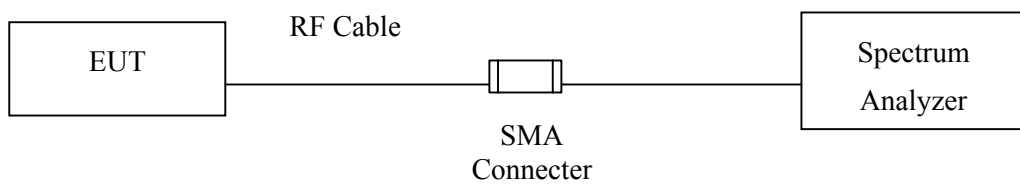
7.1. Test Equipment

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

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

Note: 1. All equipment upon which need to calibrated are with calibration period of 1 year.
 2. Mark "X" test instruments are used to measure the final test results.

7.2. Test Setup



7.3. Limits

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

7.4. Uncertainty

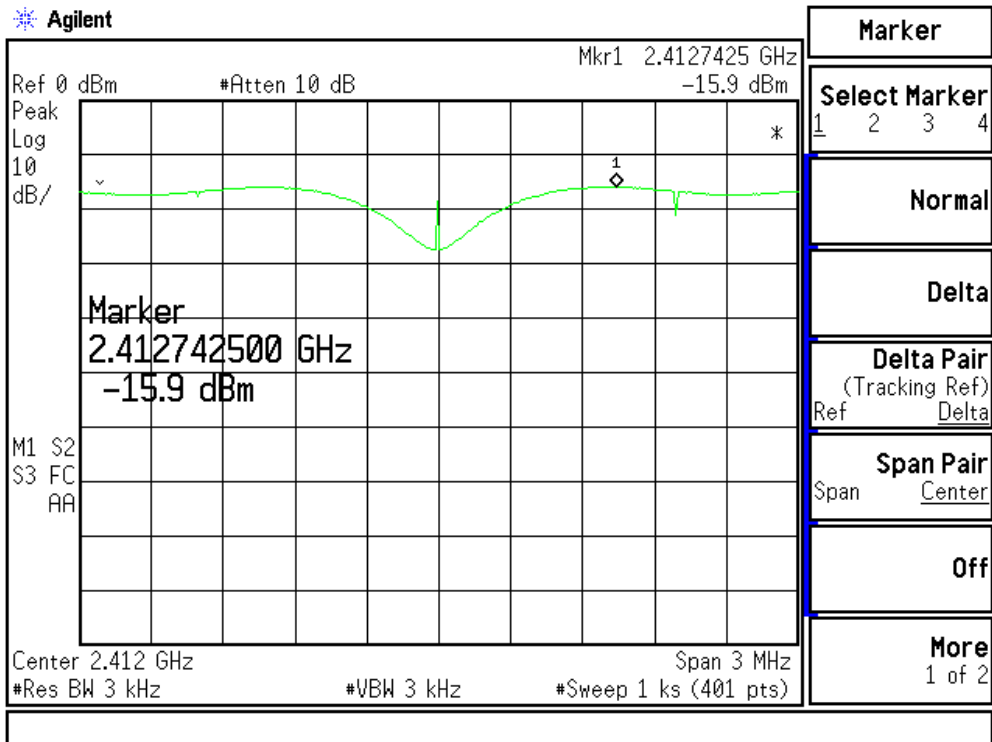
± 1.27 dB

7.5. Test Result of Power Density

Product : Wireless Skype Phone
 Test Item : Power Density Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmitter (802.11b 1Mbps) (2412MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1 (1Mbps)	2412.00	-15.9	< 8dBm	Pass

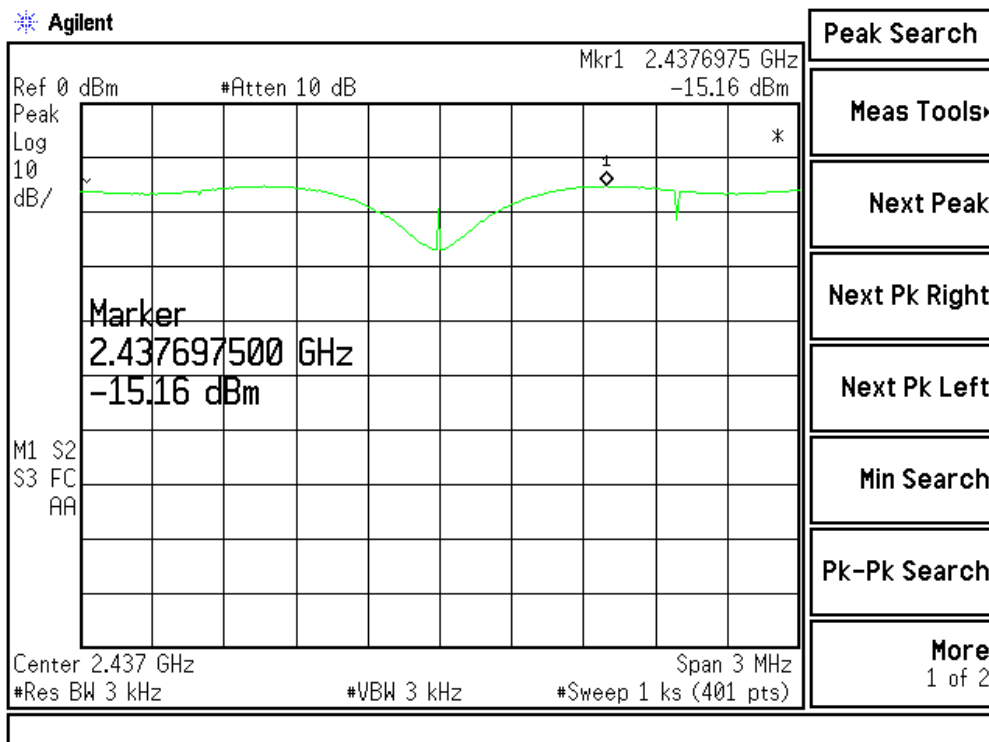
Figure Channel 1: 1Mbps



Product : Wireless Skype Phone
 Test Item : Power Density Data
 Test Site : No.3OATS
 Test Mode : Mode 1: Transmitter (802.11b 1Mbps) (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6 (1Mbps)	2437.000	-15.16	< 8dBm	Pass

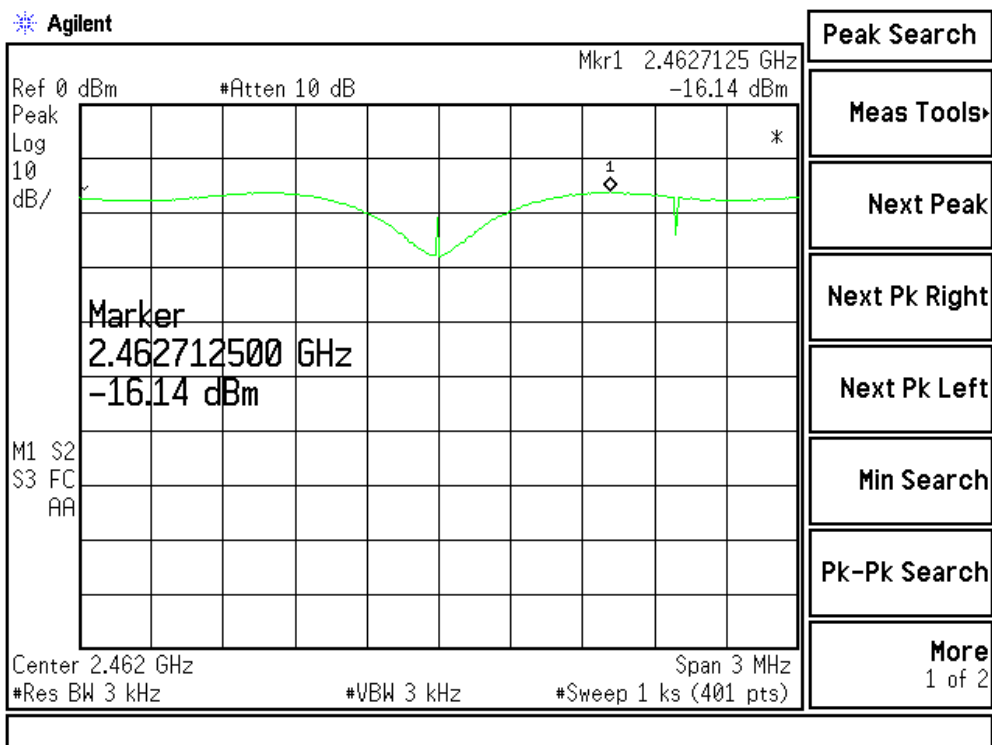
Figure Channel 6: 1Mbps



Product : Wireless Skype Phone
 Test Item : Density Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmitter (802.11b 1Mbps) (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
11 (1Mbps)	2462.00	-16.14	< 8dBm	Pass

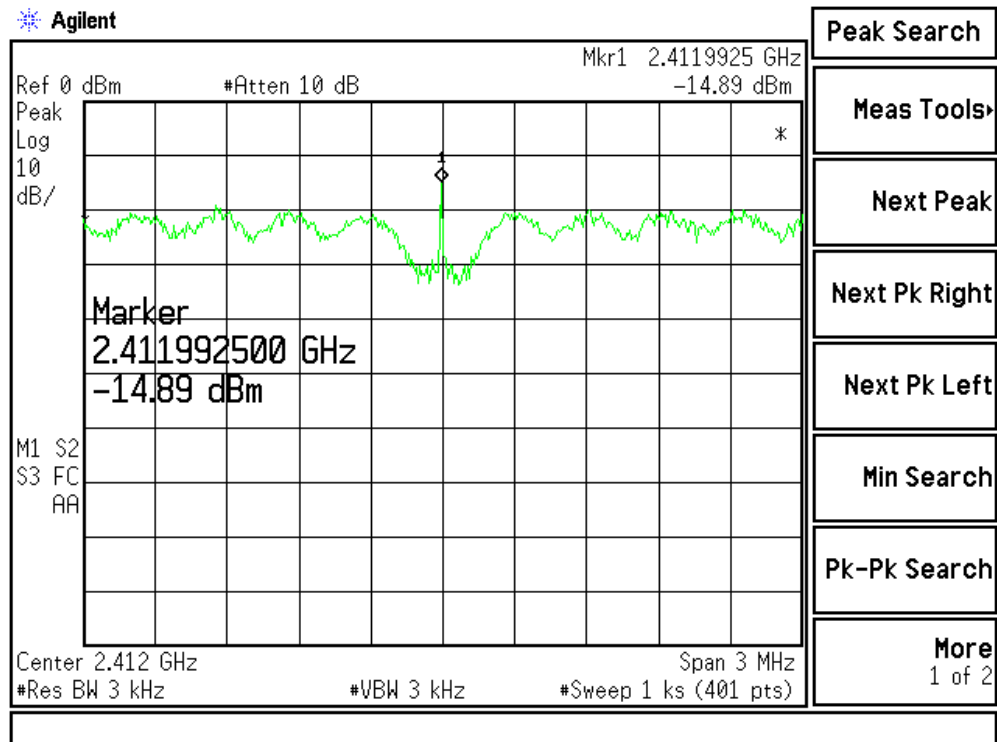
Figure Channel 11: 1Mbps



Product : Wireless Skype Phone
 Test Item : Power Density Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2412MHz)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1 (6 Mbps)	2412.00	-14.89	< 8dBm	Pass

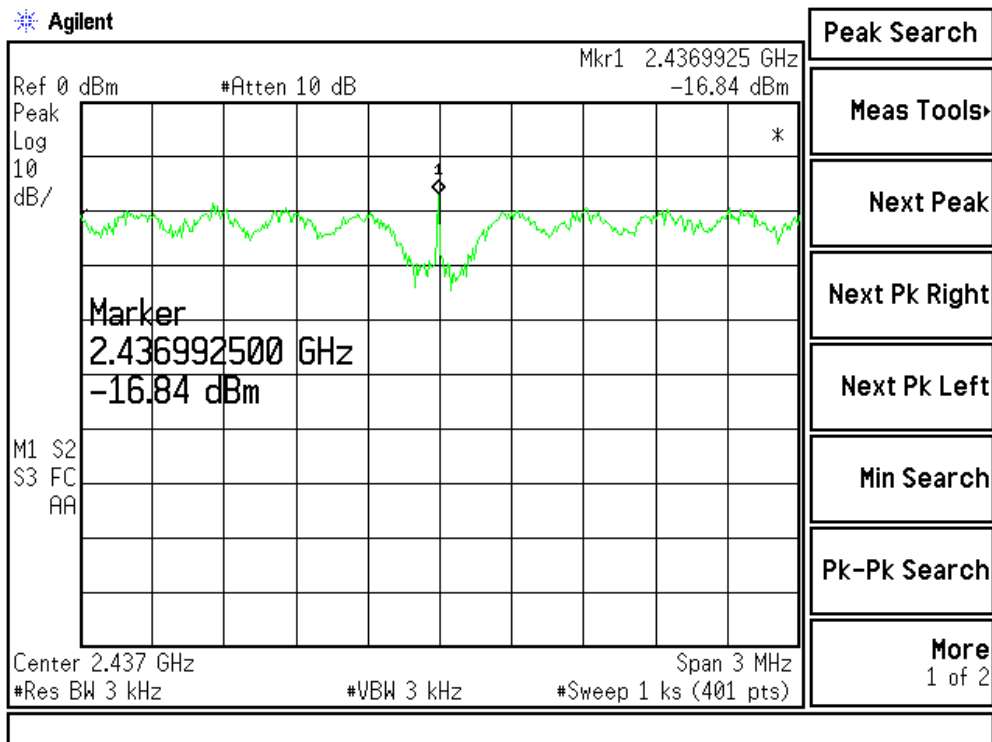
Figure Channel 1: 6 Mbps



Product : Wireless Skype Phone
 Test Item : Power Density Data
 Test Site : No.3OATS
 Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2437MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6 (6 Mbps)	2437.000	-16.84	< 8dBm	Pass

Figure Channel 6: 6 Mbps

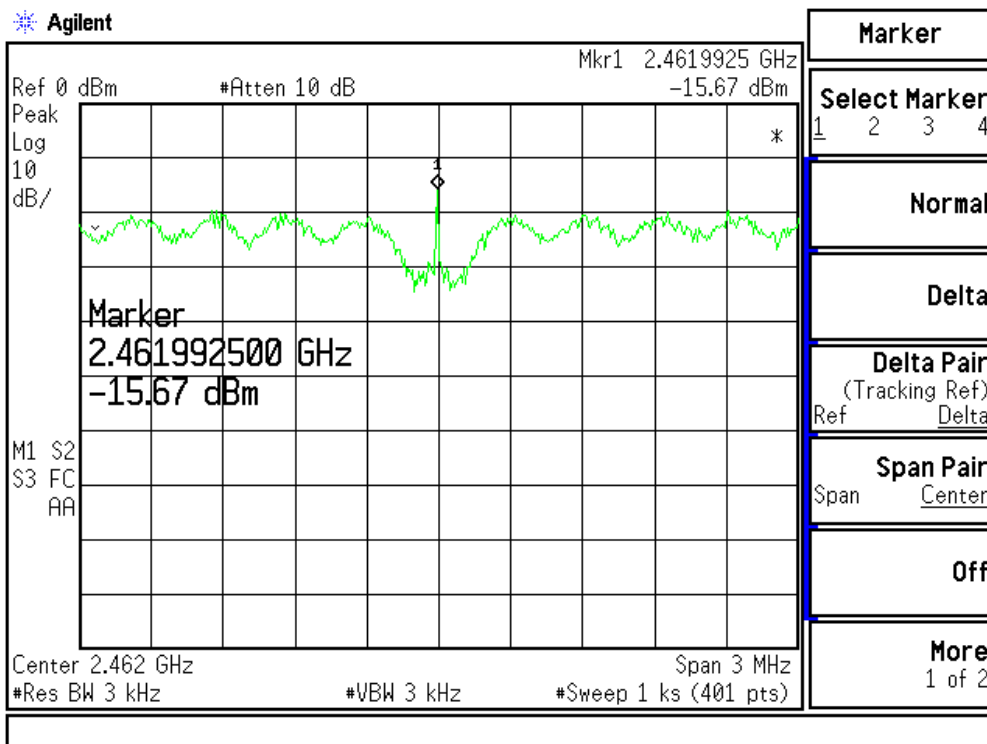


Product : Wireless Skype Phone
 Test Item : Density Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmitter (802.11g 6Mbps) (2462MHz)

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
11 (6 Mbps)	2462.00	-15.67	< 8dBm	Pass

Figure Channel 11:

6 Mbps



8. EMI Reduction Method During Compliance Testing

No modification was made during testing.