



Test Report

Product Name	Eee PC
Model No	Eee PC X101
FCC ID.	MSQ-X101NB037H

Applicant	ASUSTeK COMPUTER INC.
Address	No. 15, Li-Te Rd., Peitou, Taipei, Taiwan, R.O.C.

Date of Receipt	June 07, 2011
Issue Date	July 12, 2011
Report No.	116149R-RFUSP42V01
Report Version	V1.0

The test results relate only to the samples tested.

The test report shall not be reproduced except in full without the written approval of Quietek Corporation.

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

Test Report Certification

Issue Date: July 12, 2011

Report No.: 116149R-RFUSP42V01



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

Product Name	Eee PC
Applicant	ASUSTeK COMPUTER INC.
Address	No. 15, Li-Te Rd., Peitou, Taipei, Taiwan, R.O.C.
Manufacturer	1. PEGATRON CORPORATION Taoyuan Mfg 2. Protek (Shanghai) Limited. 3. Tech-Com(Shanghai) Computer Co. Ltd.
Model No.	Eee PC X101
FCC ID.	MSQ-X101NB037H
EUT Rated Voltage	AC 100-240V, 50-60Hz
EUT Test Voltage	AC 120V/60Hz
Trade Name	ASUS
Applicable Standard	FCC CFR Title 47 Part 15 Subpart C: 2010 ANSI C63.4: 2009
Test Result	Complied



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

Documented By : *Rita Huang*

(Senior Adm. Specialist / Rita Huang)



Tested By : *Henk Huang*

(Engineer / Henk Huang)



Approved By : *Vincent Lin*

(Manager / Vincent Lin)

TABLE OF CONTENTS

Description	Page
1. GENERAL INFORMATION	5
1.1. EUT Description	5
1.2. Operational Description	7
1.3. Tested System Details	8
1.4. Configuration of Tested System	8
1.5. EUT Exercise Software	9
1.6. Test Facility	10
2. Conducted Emission.....	11
2.1. Test Equipment	11
2.2. Test Setup	11
2.3. Limits	12
2.4. Test Procedure	12
2.5. Uncertainty	12
2.6. Test Result of Conducted Emission.....	13
3. Peak Power Output	15
3.1. Test Equipment	15
3.2. Test Setup	15
3.3. Limits	15
3.4. Test Procedure	15
3.5. Uncertainty	15
3.6. Test Result of Peak Power Output	16
4. Radiated Emission.....	20
4.1. Test Equipment	20
4.2. Test Setup	21
4.3. Limits	22
4.4. Test Procedure	23
4.5. Uncertainty	23
4.6. Test Result of Radiated Emission.....	24
5. RF antenna conducted test.....	40
5.1. Test Equipment	40
5.2. Test Setup	40
5.3. Limits	40
5.4. Test Procedure	41
5.5. Uncertainty	41
5.6. Test Result of RF antenna conducted test.....	42
6. Band Edge	66
6.1. Test Equipment	66
6.2. Test Setup	67
6.3. Limits	67
6.4. Test Procedure	68
6.5. Uncertainty	68
6.6. Test Result of Band Edge	69

7.	Occupied Bandwidth.....	85
7.1.	Test Equipment.....	85
7.2.	Test Setup	85
7.3.	Limits	85
7.4.	Test Procedure	85
7.5.	Uncertainty	85
7.6.	Test Result of Occupied Bandwidth	86
8.	Power Density	98
8.1.	Test Equipment.....	98
8.2.	Test Setup	98
8.3.	Limits	98
8.4.	Test Procedure	98
8.5.	Uncertainty	98
8.6.	Test Result of Power Density	99
9.	EMI Reduction Method During Compliance Testing	111

Attachment 1: EUT Test Photographs

Attachment 2: EUT Detailed Photographs

1. GENERAL INFORMATION

1.1. EUT Description

Product Name	Eee PC
Trade Name	ASUS
Model No.	Eee PC X101
FCC ID.	MSQ-X101NB037H
Frequency Range	2412-2462MHz for 802.11b/g/n-20BW, 2422-2452MHz for 802.11n-40BW
Number of Channels	802.11b/g/n-20MHz: 11, n-40MHz: 7
Data Speed	802.11b: 1-11Mbps, 802.11g: 6-54Mbps, 802.11n: up to 150Mbps
Type of Modulation	802.11b:DSSS (DBPSK, DQPSK, CCK) 802.11g/n:OFDM (BPSK, QPSK, 16QAM, 64QAM)
Antenna Type	PIFA
Antenna Gain	Refer to the table "Antenna List"
Channel Control	Auto
Power Adapter	MFR: PI, M/N: AD820M0 Input: AC 100-240V, 50-60Hz, 0.8A Output: DC 19V, 1.58A Cable Out: Non-Shielded, 2.4m, with one ferrite core bonded.
Contain Module	Atheros / AR5B195 (AW-NB037H)

Antenna List

No.	Manufacturer	Part No.	Peak Gain
1	INPAQ	WA-P-LA-02-041	2.2dBi in 2.4 GHz
2	YAGEO	CAN4313WLAS05601	2.31dBi in 2.4 GHz

Note:

1. The antenna of EUT is conform to FCC 15.203
2. Only the higher gain antenna was tested and recorded in this report.

802.11b/g/n-20MHz Center Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 01:	2412 MHz	Channel 02:	2417 MHz	Channel 03:	2422 MHz	Channel 04:	2427 MHz
Channel 05:	2432 MHz	Channel 06:	2437 MHz	Channel 07:	2442 MHz	Channel 08:	2447 MHz
Channel 09:	2452 MHz	Channel 10:	2457 MHz	Channel 11:	2462 MHz		

802.11n-40MHz Center Frequency of Each Channel:

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 01:	2422 MHz	Channel 02:	2427 MHz	Channel 03:	2432 MHz	Channel 04:	2437 MHz
Channel 05:	2442 MHz	Channel 06:	2447 MHz	Channel 07:	2452 MHz		

Note:

1. The EUT is a Eee PC.
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 、 802.11g is 6Mbps 、 802.11n(20M-BW) is 7.2Mbps and 、 802.11n(40M-BW) is 15Mbps)
4. These tests are conducted on a sample for the purpose of demonstrating compliance of 802.11b/g/n transmitter with Part 15 Subpart C Paragraph 15.247 of spread spectrum devices.

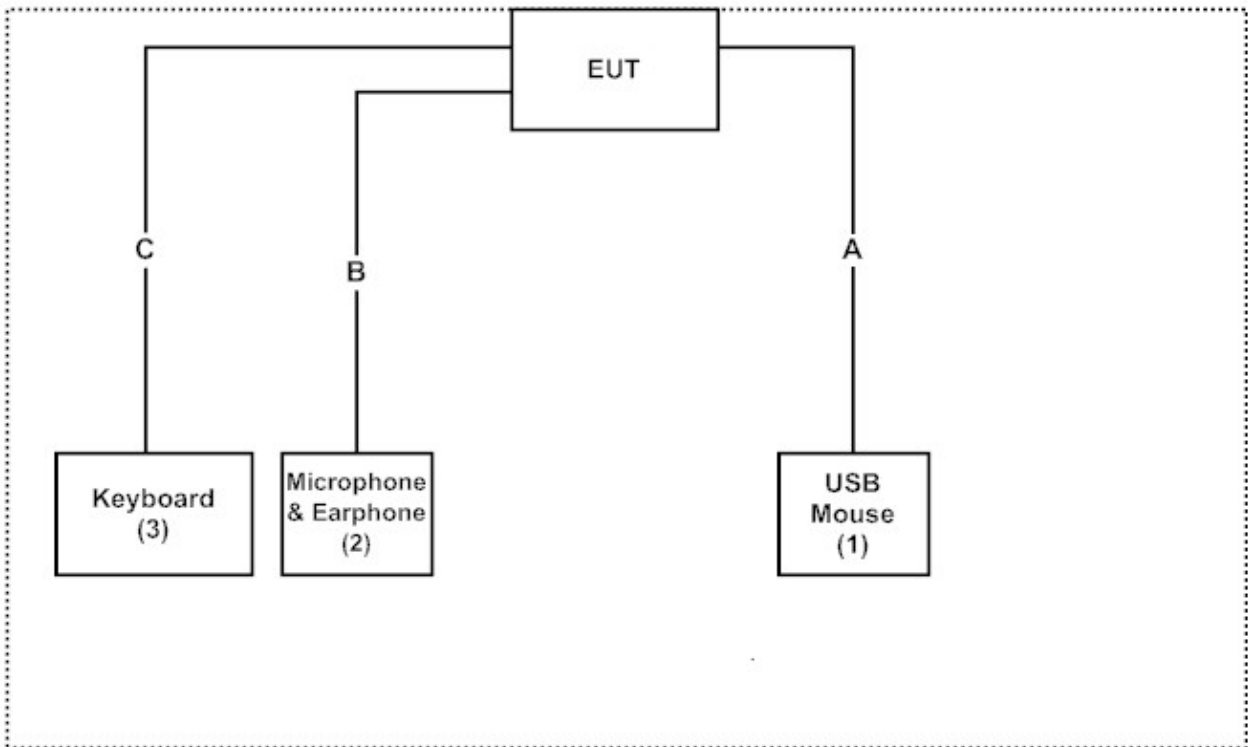
1.3. Tested System Details

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.	FCC ID	Power Cord
1 USB Mouse	DELL	M056U0A	F0Y01YEP	DoC	N/A
2 Microphone & Earphone	PCHOME	N/A	N/A	N/A	N/A
3 Keyboard	DELL	SK-8115	MY-0DJ325-7161 9-6A3-1917	DoC	N/A

Signal Cable Type	Signal cable Description
A USB Mouse Cable	Non-Shielded, 1.8m
B Microphone & Earphone Cable	Non-Shielded, 1.6m
C USB Keyboard Cable	Non-Shielded, 1.8m

1.4. Configuration of Tested System



1.5. EUT Exercise Software

- (1) Setup the EUT as shown in Section 1.4
- (2) Execute “ART.EXE” on the EUT.
- (3) Configure the test mode, the test channel, and the data rate to start the continuous transmit
- (4) 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

The related certificate for our laboratories about the test site and management system can be downloaded from

Quietek Corporation's Web Site: <http://www.quietek.com/tw/ctg/cts/accreditations.htm>

The address and introduction of Quietek Corporation's laboratories can be founded in our Web site:

<http://www.quietek.com/>

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, Ruishukeng,
 Linkou Dist. New Taipei City 24451,
 Taiwan, R.O.C.
 TEL: 886-2-8601-3788 / FAX : 886-2-8601-3789
 E-Mail : service@quietek.com

FCC Accreditation Number: TW1014



2. Conducted Emission

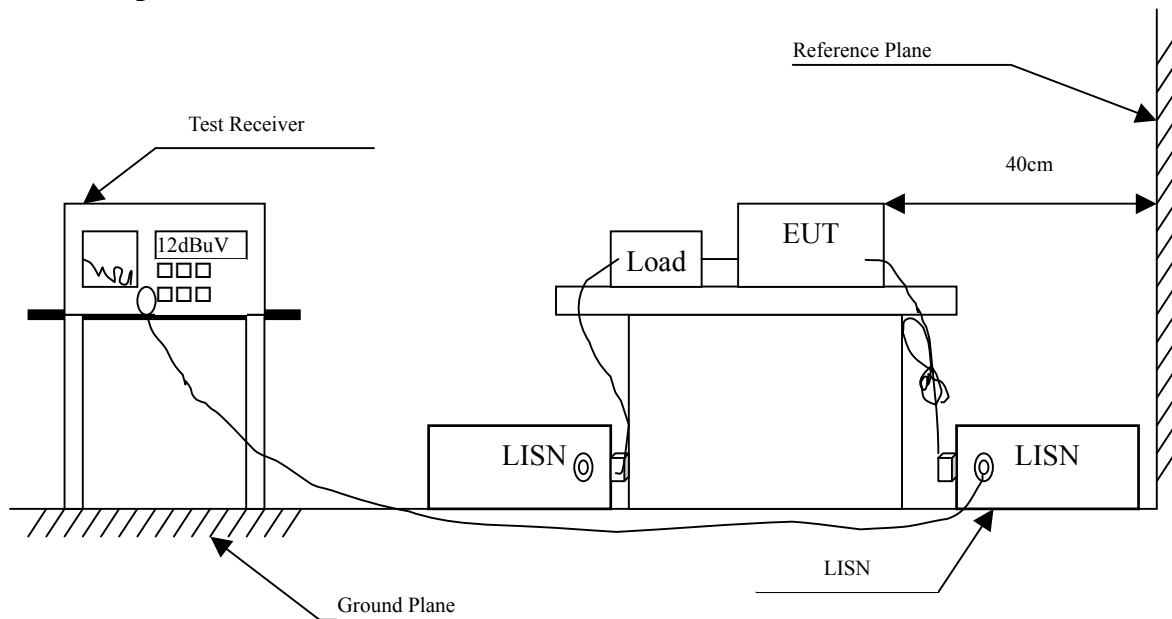
2.1. Test Equipment

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

Item	Instrument	Manufacturer	Type No./Serial No	Last Cal.	Remark
1	Test Receiver	R & S	ESCS 30/825442/17	May, 2011	
2	L.I.S.N.	R & S	ESH3-Z5/825016/6	May, 2011	EUT
3	L.I.S.N.	Kyoritsu	KNW-407/8-1420-3	May, 2011	Peripherals
4	Pulse Limiter	R & S	ESH3-Z2	May, 2011	
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	
	QP	AVG
0.15 - 0.50	66-56	56-46
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: 2009 on conducted measurement.

Conducted emissions were invested over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

2.5. Uncertainty

± 2.26 dB

2.6. Test Result of Conducted Emission

Product : Eee PC
 Test Item : Conducted Emission Test
 Power Line : Line 1
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2437MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
Line 1					
Quasi-Peak					
0.150	9.766	34.400	44.166	-21.834	66.000
0.177	9.730	36.250	45.979	-19.250	65.229
0.533	9.640	31.240	40.880	-15.120	56.000
0.595	9.635	32.290	41.925	-14.075	56.000
0.720	9.631	31.050	40.681	-15.319	56.000
0.990	9.670	29.870	39.540	-16.460	56.000
Average					
0.150	9.766	7.930	17.696	-38.304	56.000
0.177	9.730	12.690	22.419	-32.810	55.229
0.533	9.640	19.740	29.380	-16.620	46.000
0.595	9.635	21.080	30.715	-15.285	46.000
0.720	9.631	21.070	30.701	-15.299	46.000
0.990	9.670	18.850	28.520	-17.480	46.000

Note:

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

Product : Eee PC
 Test Item : Conducted Emission Test
 Power Line : Line 2
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2437MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV	Margin dB	Limit dBuV
Line 2					
Quasi-Peak					
0.181	9.732	36.960	46.692	-18.422	65.114
0.595	9.645	32.350	41.995	-14.005	56.000
0.615	9.650	31.540	41.190	-14.810	56.000
0.662	9.650	30.450	40.100	-15.900	56.000
0.709	9.650	30.180	39.830	-16.170	56.000
1.084	9.670	30.340	40.010	-15.990	56.000
Average					
0.181	9.732	31.930	41.662	-13.452	55.114
0.595	9.645	20.470	30.115	-15.885	46.000
0.615	9.650	20.890	30.540	-15.460	46.000
0.662	9.650	19.270	28.920	-17.080	46.000
0.709	9.650	16.250	25.900	-20.100	46.000
1.084	9.670	17.490	27.160	-18.840	46.000

Note:

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

3. Peak Power Output

3.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Power Meter	Anritsu	ML2495A/6K00003357	May, 2011
X	Power Sensor	Anritsu	MA2411B/0738448	Jun, 2011

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. The power combiner is used for measure 11n mode.

3.2. Test Setup

Conducted Measurement



3.3. Limits

The maximum peak power shall be less 1 Watt.

3.4. Test Procedure

The EUT was tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

3.5. Uncertainty

± 1.27 dB

3.6. Test Result of Peak Power Output

Product : Eee PC
 Test Item : Peak Power Output Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11b 1Mbps)

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)				Peak Power	Required Limit	Result
		1	2	5.5	11	1		
		Measurement Level (dBm)						
01	2412	17.03	--	--	--	19.27	<30dBm	Pass
06	2437	18.59	18.54	18.52	18.5	20.79	<30dBm	Pass
11	2462	16.85	--	--	--	19.00	<30dBm	Pass

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

Product : Eee PC
 Test Item : Peak Power Output Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11g 6Mbps)

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power	Required Limit	Result
		6	9	12	18	24	36	48	54			
		Measurement Level (dBm)										
01	2412	13.5	--	--	--	--	--	--	--	22.60	<30dBm	Pass
06	2437	19.08	19.06	19.04	19.02	19.00	18.98	18.96	18.94	25.19	<30dBm	Pass
11	2462	13.00	--	--	--	--	--	--	--	22.06	<30dBm	Pass

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

Product : Eee PC
 Test Item : Peak Power Output Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power	Required Limit	Result
		7.2	14.4	21.7	28.9	43.3	57.8	65	72.2			
		Measurement Level (dBm)										
01	2412	11.50	--	--	--	--	--	--	--	21.10	<30dBm	Pass
06	2437	18.89	18.87	18.85	18.84	18.83	18.81	18.8	18.79	24.56	<30dBm	Pass
11	2462	12.20	--	--	--	--	--	--	--	21.50	<30dBm	Pass

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

Product : Eee PC
 Test Item : Peak Power Output Data
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)

Channel No	Frequency (MHz)	Average Power For different Data Rate (Mbps)								Peak Power	Required Limit	Result
		15	30	45	60	90	120	135	150			
		Measurement Level (dBm)										
01	2422	10.9	--	--	--	--	--	--	--	20.40	<30dBm	Pass
04	2437	18.68	18.66	18.65	18.64	18.63	18.62	18.60	18.59	25.34	<30dBm	Pass
07	2452	11.60	--	--	--	--	--	--	--	21.07	<30dBm	Pass

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

4. Radiated Emission

4.1. Test Equipment

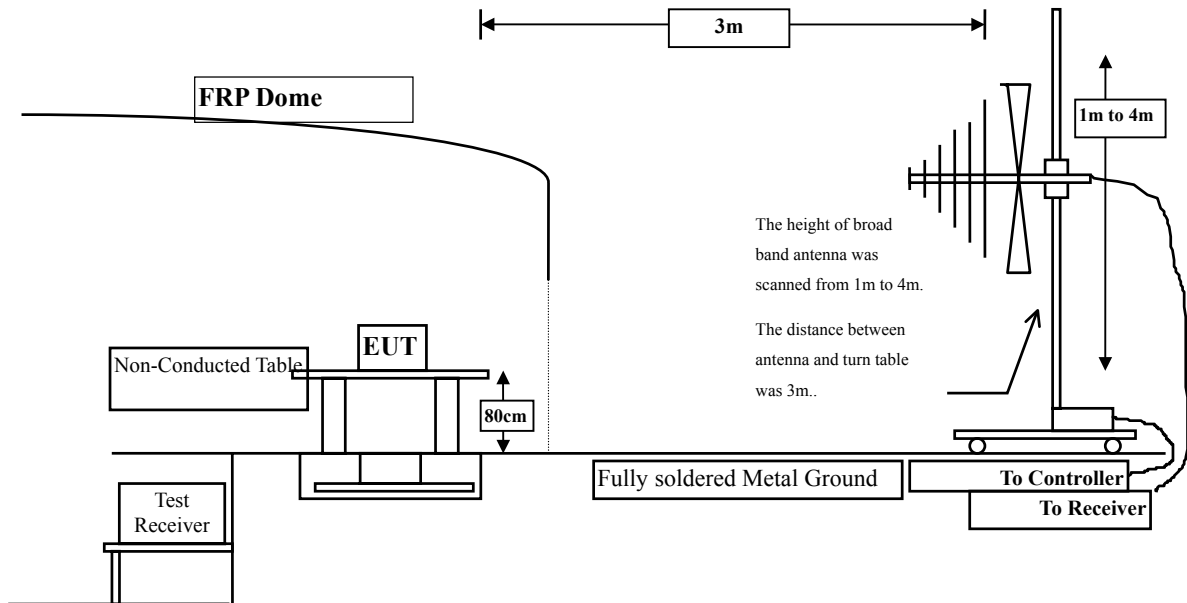
The following test equipment are used during the radiated emission test:

Test Site		Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒ Site # 3	X	Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2010
	X	Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2010
	X	Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2011
	X	Pre-Amplifier	Agilent	8447D/2944A09549	Sep., 2010
	X	Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2011
	X	Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2010
	X	Coaxial Cable	Quietek	QTK-CABLE/ CAB5	Feb., 2011
	X	Controller	Quietek	QTK-CONTROLLER/ CTRL3	N/A
	X	Coaxial Switch	Anritsu	MP59B/6200265729	N/A

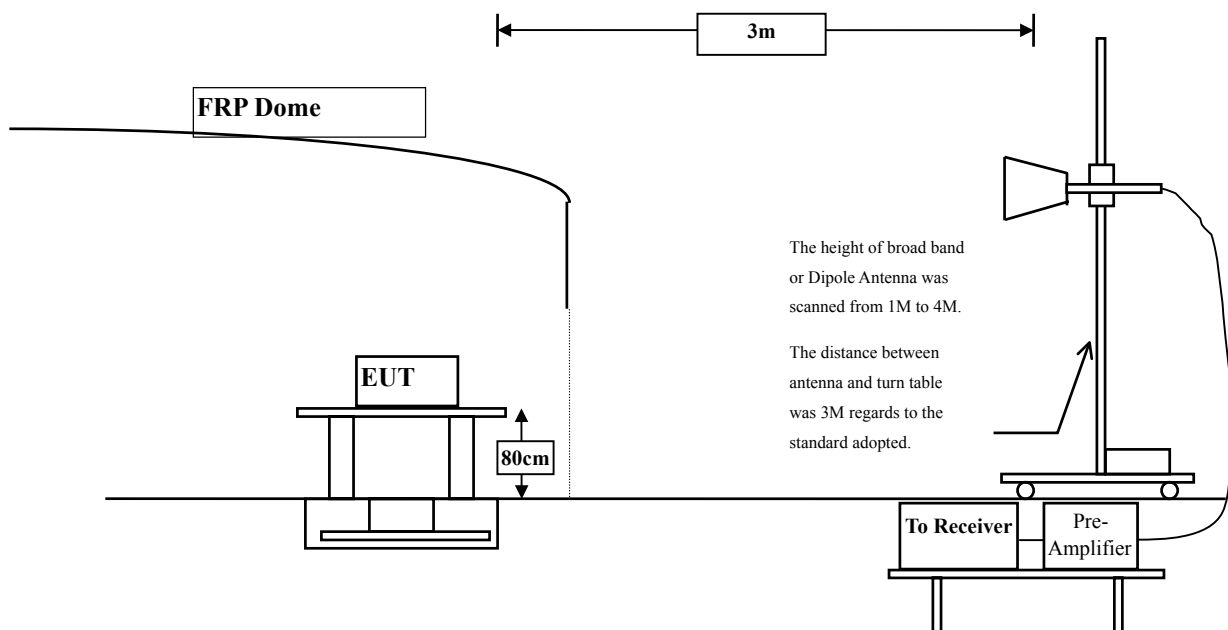
- Note:
1. All equipments are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.
 2. The test instruments marked with “X” are used to measure the final test results.

4.2. Test Setup

Radiated Emission Below 1GHz



Radiated Emission Above 1GHz



4.3. Limits

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

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

Remarks: E field strength (dBuV/m) = 20 log E field strength (uV/m)

4.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2009 and tested according to DTS test procedure of Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

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

The antenna is scanned between 1 meter and 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4:2009 on radiated measurement.

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

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

The measurement is divided into the Preliminary Measurement and the Final Measurement.

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

The worst radiated emission is measured in the Open Area Test Site on the Final Measurement.

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

4.5. Uncertainty

± 3.9 dB above 1GHz

± 3.8 dB below 1GHz

4.6. Test Result of Radiated Emission

Product : Eee PC
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (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	3.261	43.540	46.801	-27.199	74.000
7236.000	10.650	37.730	48.380	-25.620	74.000
9648.000	13.337	40.190	53.526	-20.474	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	6.421	43.560	49.981	-24.019	74.000
7236.000	11.495	36.670	48.165	-25.835	74.000
9648.000	13.807	43.050	56.856	-17.144	74.000
Average Detector:					
9648.000	13.807	37.810	51.616	-2.384	54.000

Note:

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. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Eee PC
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (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	3.038	47.040	50.077	-23.923	74.000
7311.000	11.795	36.270	48.064	-25.936	74.000
9748.000	12.635	42.090	54.725	-19.275	74.000
Average Detector:					
9748.000	12.635	36.870	49.505	-4.495	54.000
Vertical					
Peak Detector:					
4874.000	5.812	46.700	52.511	-21.489	74.000
7311.000	11.795	35.350	47.144	-26.856	74.000
9748.000	12.635	45.790	58.425	-15.575	74.000
Average Detector:					
9748.000	12.635	42.710	55.345	-31.255	*85.833

“*” The limit is 20dB down of fundamental

Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Correction Factor [dB/m]	Reading Level [dBuV]	Emission Level [dBuV/m]	Detector
Vertical	2437	31.120	74.713	105.833	Average

Note:

- All Readings below 1GHz are Quasi-Peak, above 1GHz are performed with peak and/or average measurements as necessary.
- Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
- Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
- Measurement Level = Reading Level + Correct Factor.
- Correct Factor = Antenna factor + Cable loss – Amplifier gain.
- The average measurement was not performed when the peak measured data under the limit of average detection.
- The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Eee PC
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11b 1Mbps) (2462 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
4924.000	2.858	47.930	50.787	-23.213	74.000
7386.000	13.254	35.010	48.264	-25.736	74.000
9848.000	13.367	39.080	52.447	-21.553	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4924.000	5.521	49.120	54.640	-19.360	74.000
7386.000	13.254	35.080	48.334	-25.666	74.000
9848.000	13.367	43.290	56.657	-17.343	74.000
Average Detector:					
4924.000	5.521	45.510	51.030	-2.970	54.000
9848.000	13.367	39.200	52.567	-1.433	54.000

Note:

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. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Eee PC
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2412MHz)

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

Horizontal

Peak Detector:

4824.000	3.261	38.740	42.001	-31.999	74.000
7236.000	10.650	36.200	46.850	-27.150	74.000
9648.000	13.337	36.780	50.116	-23.884	74.000

Average Detector:

--

Vertical

Peak Detector:

4824.000	6.421	39.480	45.901	-28.099	74.000
7236.000	11.495	35.910	47.405	-26.595	74.000
9648.000	13.807	36.020	49.826	-24.174	74.000

Average Detector:

--

Note:

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. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Eee PC
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
4874.000	3.038	56.430	59.467	-14.533	74.000
7311.000	11.795	36.370	48.164	-25.836	74.000
9748.000	12.635	40.000	52.635	-21.365	74.000
Average Detector:					
4874.000	3.038	40.380	43.417	-10.583	54.000
Peak Detector:					
4874.000	5.812	56.030	61.841	-12.159	74.000
7311.000	12.630	36.120	48.749	-25.251	74.000
9748.000	13.126	47.650	60.776	-13.224	74.000
Average Detector:					
4874.000	5.812	40.110	45.921	-8.079	54.000
9748.000	13.126	32.290	45.416	-8.584	54.000

Note:

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. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Eee PC
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11g 6Mbps) (2462 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
4924.000	2.858	54.420	57.277	-16.723	74.000
7386.000	12.127	34.890	47.018	-26.982	74.000
9848.000	12.852	36.910	49.763	-24.237	74.000
Average Detector:					
4924.000	2.858	39.310	42.167	-11.833	54.000
Vertical					
Peak Detector:					
4924.000	5.521	54.440	59.960	-14.040	74.000
7386.000	13.254	35.320	48.574	-25.426	74.000
9848.000	13.367	39.030	52.397	-21.603	74.000
Average Detector:					
4924.000	5.521	39.230	44.750	-9.250	54.000

Note:

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. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Eee PC
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)(2412MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
4824.000	3.261	38.300	41.561	-32.439	74.000
7236.000	10.650	36.240	46.890	-27.110	74.000
9648.000	13.337	36.160	49.496	-24.504	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4824.000	6.421	38.460	44.881	-29.119	74.000
7236.000	11.495	36.450	47.945	-26.055	74.000
9648.000	13.807	36.430	50.236	-23.764	74.000
Average Detector:					
--					

Note:

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. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Eee PC
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
4874.000	3.038	55.050	58.087	-15.913	74.000
7311.000	11.795	36.390	48.184	-25.816	74.000
9748.000	12.635	40.850	53.485	-20.515	74.000
Average Detector:					
4874.000	3.038	39.450	42.487	-11.513	54.000
Vertical					
Peak Detector:					
4874.000	5.812	55.200	61.011	-12.989	74.000
7311.000	12.630	35.460	48.089	-25.911	74.000
9748.000	13.126	47.920	61.046	-12.954	74.000
Average Detector:					
4874.000	5.812	39.600	45.411	-8.589	54.000
9748.000	13.126	31.600	44.726	-9.274	54.000

Note:

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. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Eee PC
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW) (2462 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
4924.000	2.858	51.330	54.187	-19.813	74.000
7386.000	12.127	34.860	46.988	-27.012	74.000
9848.000	12.852	37.010	49.863	-24.137	74.000
Average Detector:					
4924.000	2.858	35.730	38.587	-15.413	54.000
Vertical					
Peak Detector:					
4924.000	5.521	51.810	57.330	-16.670	74.000
7386.000	13.254	35.050	48.304	-25.696	74.000
9848.000	13.367	37.000	50.367	-23.633	74.000
Average Detector:					
4924.000	5.521	36.420	41.940	-12.060	54.000

Note:

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. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Eee PC
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)(2422MHz)

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

Horizontal

Peak Detector:

4844.000	3.171	39.660	42.831	-31.169	74.000
7266.000	11.162	35.580	46.742	-27.258	74.000
9688.000	12.964	36.190	49.155	-24.845	74.000

Average Detector:

--

Vertical

Peak Detector:

4844.000	6.178	39.710	45.888	-28.112	74.000
7266.000	11.982	35.410	47.392	-26.608	74.000
9688.000	13.507	36.720	50.228	-23.772	74.000

Average Detector:

--

Note:

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. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Eee PC
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW) (2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
4874.000	3.038	50.640	53.677	-20.323	74.000
7311.000	11.795	35.740	47.534	-26.466	74.000
9748.000	12.635	37.780	50.415	-23.585	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4874.000	5.812	51.160	56.971	-17.029	74.000
7311.000	12.630	35.520	48.149	-25.851	74.000
9748.000	13.126	43.210	56.336	-17.664	74.000
Average Detector:					
4874.000	5.812	37.110	42.921	-11.079	54.000
9748.000	13.126	29.510	42.636	-11.364	54.000

Note:

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. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Eee PC
 Test Item : Harmonic Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)(2452 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
Peak Detector:					
4904.000	2.914	48.210	51.125	-22.875	74.000
7356.000	11.995	35.670	47.664	-26.336	74.000
9808.000	12.475	36.200	48.675	-25.325	74.000
Average Detector:					
--					
Vertical					
Peak Detector:					
4904.000	5.530	49.120	54.651	-19.349	74.000
7356.000	13.005	35.110	48.114	-25.886	74.000
9808.000	12.901	36.510	49.411	-24.589	74.000
Average Detector:					
4904.000	5.530	35.080	40.611	-13.389	54.000

Note:

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. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Eee PC
 Test Item : General Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11b 1Mbps)(2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
34.850	1.340	33.367	34.707	-5.293	40.000
102.750	-6.670	36.799	30.129	-13.371	43.500
323.425	-6.805	40.101	33.296	-12.704	46.000
415.575	-1.470	36.759	35.289	-10.711	46.000
704.150	2.840	31.861	34.701	-11.299	46.000
927.250	4.460	32.721	37.181	-8.819	46.000
Vertical					
34.850	-7.050	42.781	35.731	-4.269	40.000
93.050	-8.340	46.861	38.521	-4.979	43.500
231.275	-3.365	41.892	38.527	-7.473	46.000
599.875	0.585	38.779	39.364	-6.636	46.000
704.150	1.150	39.600	40.750	-5.250	46.000
895.725	5.225	32.412	37.637	-8.363	46.000

Note:

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. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Eee PC
 Test Item : General Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11g 6Mbps)(2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
34.850	1.340	32.638	33.978	-6.022	40.000
100.325	-5.945	36.126	30.181	-13.319	43.500
323.425	-6.805	40.873	34.068	-11.932	46.000
432.550	-1.370	40.120	38.750	-7.250	46.000
709.000	2.910	30.674	33.584	-12.416	46.000
934.525	4.535	33.047	37.582	-8.418	46.000
Vertical					
34.850	-7.050	43.007	35.957	-4.043	40.000
100.325	-5.940	44.798	38.858	-4.642	43.500
228.850	-3.330	38.790	35.460	-10.540	46.000
599.875	0.585	38.753	39.338	-6.662	46.000
704.150	1.150	39.356	40.506	-5.494	46.000
890.875	5.090	34.355	39.445	-6.555	46.000

Note:

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. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Eee PC
 Test Item : General Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)(2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
37.275	0.925	33.716	34.641	-5.359	40.000
100.325	-5.945	36.135	30.190	-13.310	43.500
231.275	-10.030	42.177	32.147	-13.853	46.000
415.575	-1.470	37.528	36.058	-9.942	46.000
704.150	2.840	32.365	35.205	-10.795	46.000
949.075	4.685	34.482	39.167	-6.833	46.000
Vertical					
34.850	-7.050	41.807	34.757	-5.243	40.000
102.750	-6.460	44.249	37.789	-5.711	43.500
231.275	-3.365	40.717	37.352	-8.648	46.000
454.375	-2.270	36.822	34.552	-11.448	46.000
599.875	0.585	38.759	39.344	-6.656	46.000
704.150	1.150	40.067	41.217	-4.783	46.000

Note:

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. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product : Eee PC
 Test Item : General Radiated Emission Data
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)(2437 MHz)

Frequency MHz	Correct Factor dB	Reading Level dBuV	Measurement Level dBuV/m	Margin dB	Limit dBuV/m
Horizontal					
37.275	0.925	34.503	35.428	-4.572	40.000
100.325	-5.945	36.087	30.142	-13.358	43.500
323.425	-6.805	40.370	33.565	-12.435	46.000
454.375	-1.240	37.982	36.742	-9.258	46.000
789.025	4.190	32.027	36.217	-9.783	46.000
995.150	5.280	39.057	44.337	-9.663	54.000
Vertical					
34.850	-7.050	42.544	35.494	-4.506	40.000
100.325	-5.940	44.218	38.278	-5.222	43.500
231.275	-3.365	40.792	37.427	-8.573	46.000
599.875	0.585	39.857	40.442	-5.558	46.000
704.150	1.150	40.551	41.701	-4.299	46.000
929.675	5.450	32.676	38.126	-7.874	46.000

Note:

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. Measurement Level = Reading Level + Correct Factor.
5. Correct Factor = Antenna factor + Cable loss – Amplifier gain.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The emission levels of other frequencies are very lower than the limit and not show in test report.

5. RF antenna conducted test

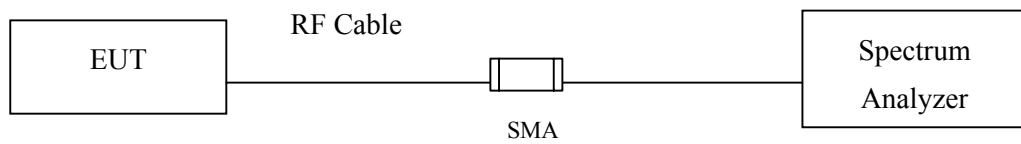
5.1. Test Equipment

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2011
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2011
	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2011
	8-WAY Power Divider	JFW	50PD-647 / 526770 0916	Apr., 2011

- 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. The power combiner is used for measure 11n mode.

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 Mar. 2005 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 100 kHz, Set VBW > RBW, scan up through 10th harmonic.

5.5. Uncertainty

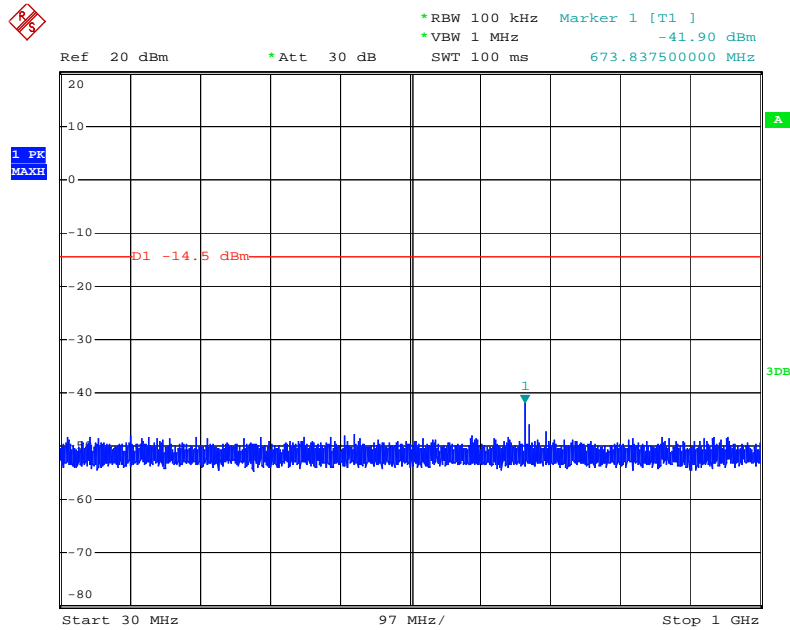
The measurement uncertainty

Conducted is defined as $\pm 1.27\text{dB}$

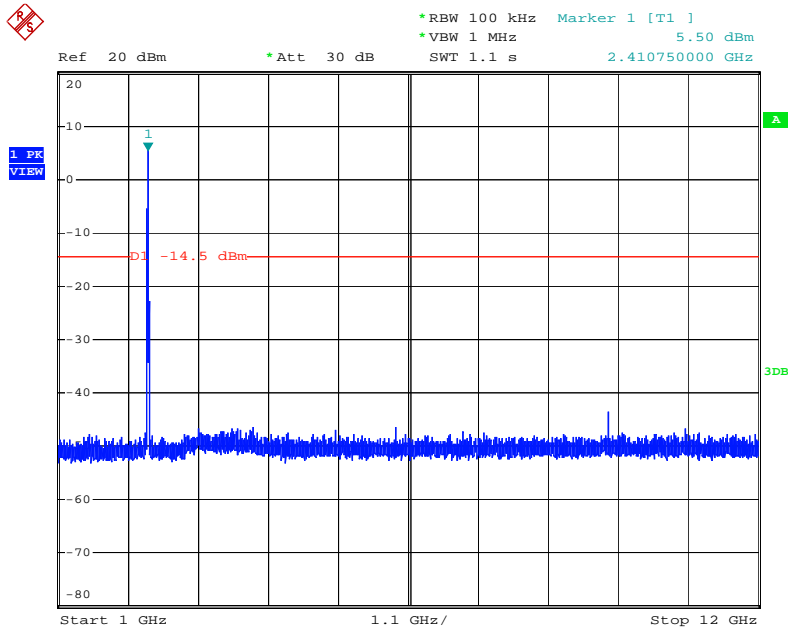
5.6. Test Result of RF antenna conducted test

Product : Eee PC
Test Item : RF antenna conducted test
Test Site : No.3 OATS
Test Mode : Mode 1: Transmit (802.11b 1Mbps)

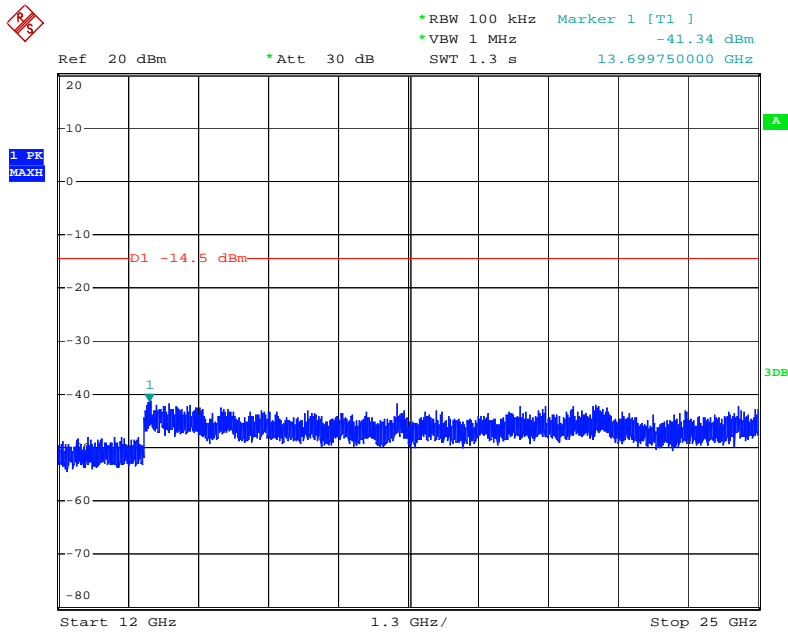
Channel 01 (2412MHz)



Date: 6.JUL.2011 19:23:11

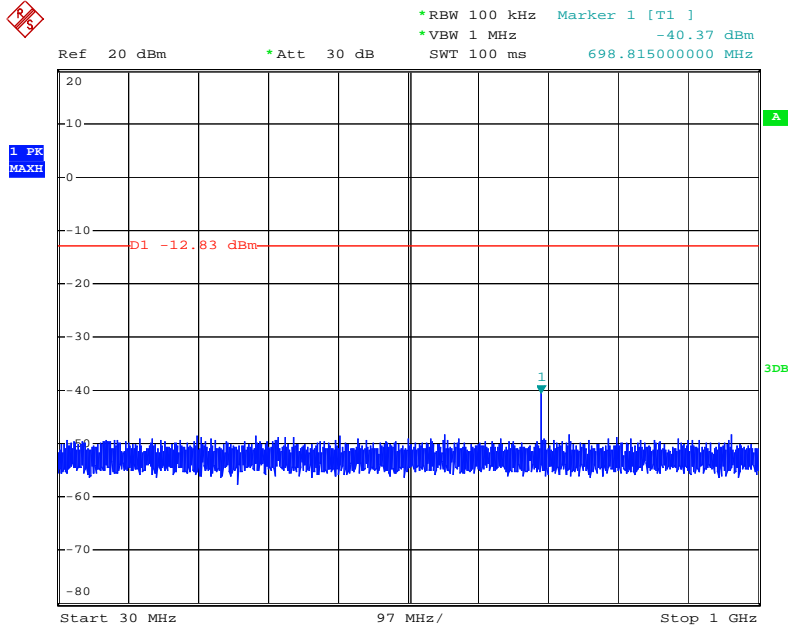


Date: 6.JUL.2011 19:22:30

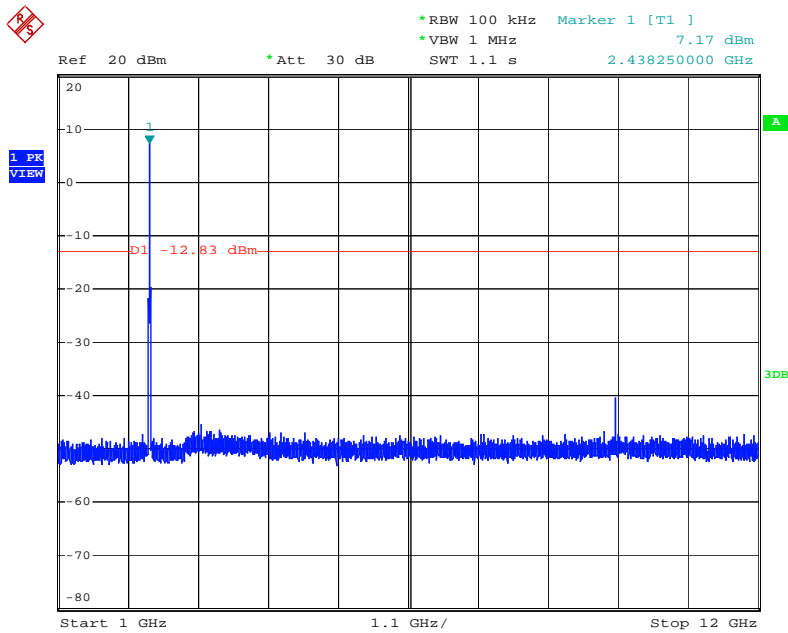


Date: 6.JUL.2011 19:23:33

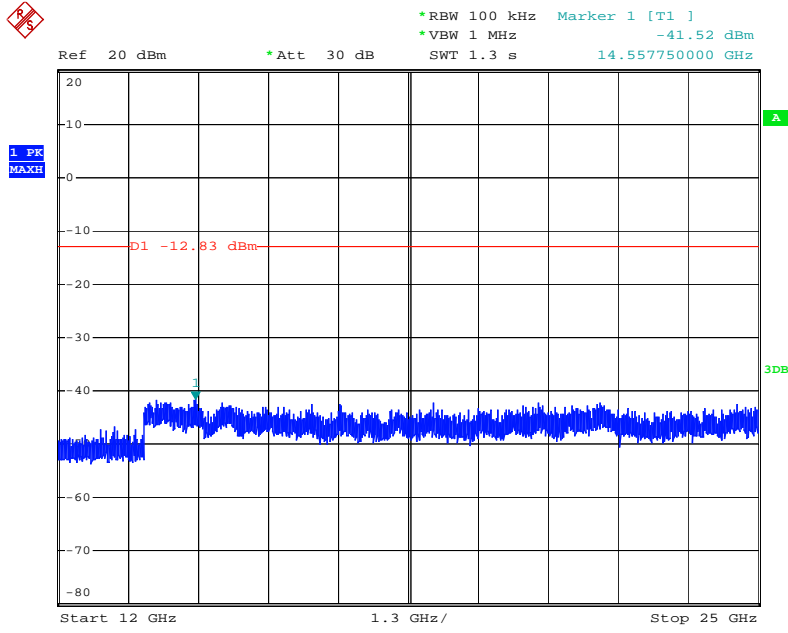
Channel 06 (2437MHz)



Date: 6.JUL.2011 19:25:20

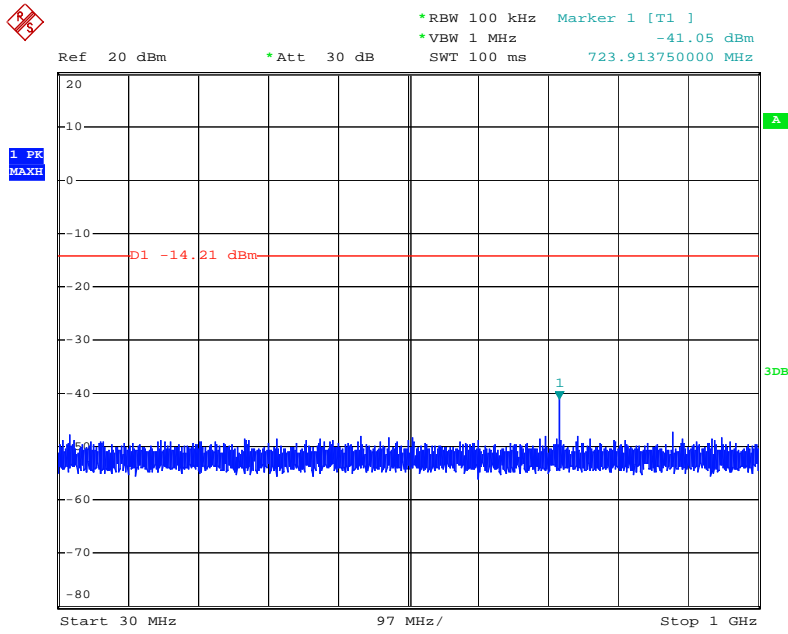


Date: 6.JUL.2011 19:24:51

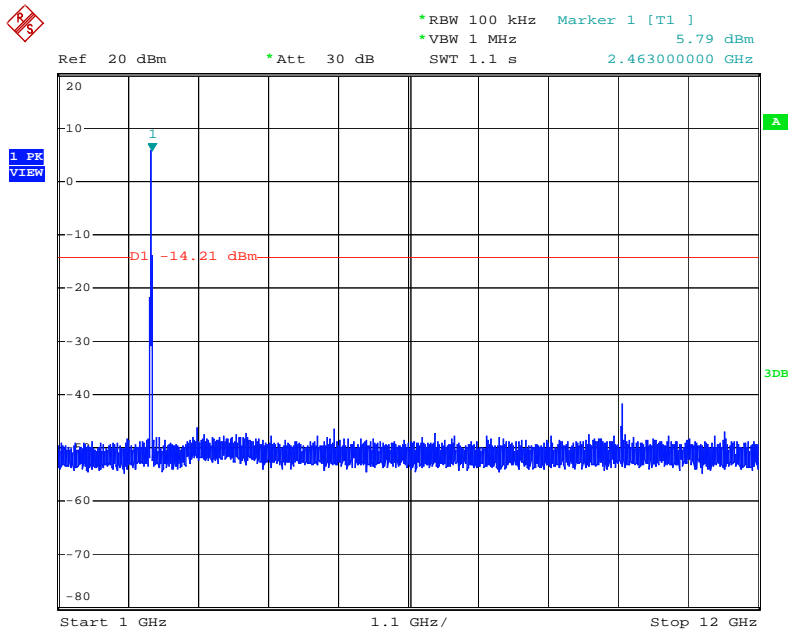


Date: 6.JUL.2011 19:25:39

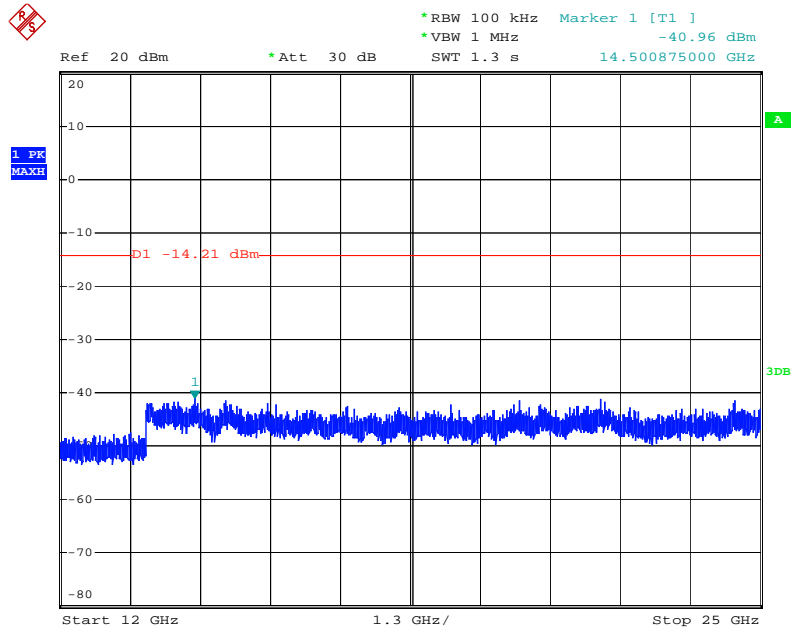
Channel 11 (2462MHz)



Date: 6.JUL.2011 19:26:48



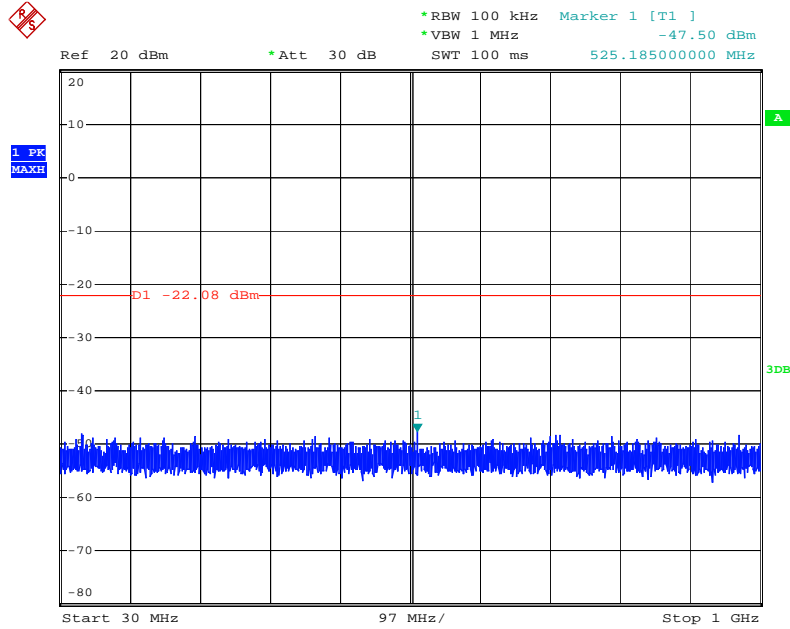
Date: 6.JUL.2011 19:26:25



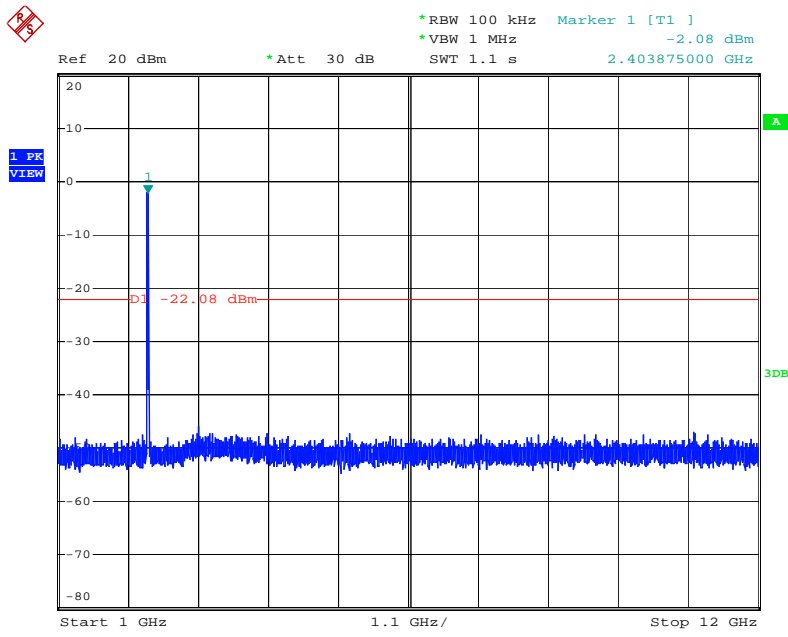
Date: 6.JUL.2011 19:27:14

Product : Eee PC
Test Item : RF Antenna Conducted Spurious
Test Site : No.3 OATS
Test Mode : Mode 2: Transmit (802.11g 6Mbps)

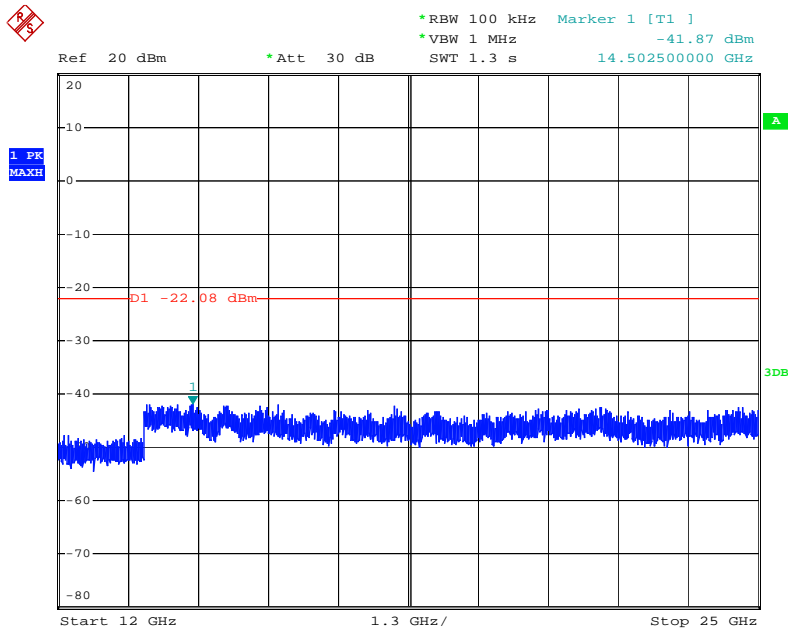
Channel 01 (2412MHz)



Date: 6.JUL.2011 19:29:18

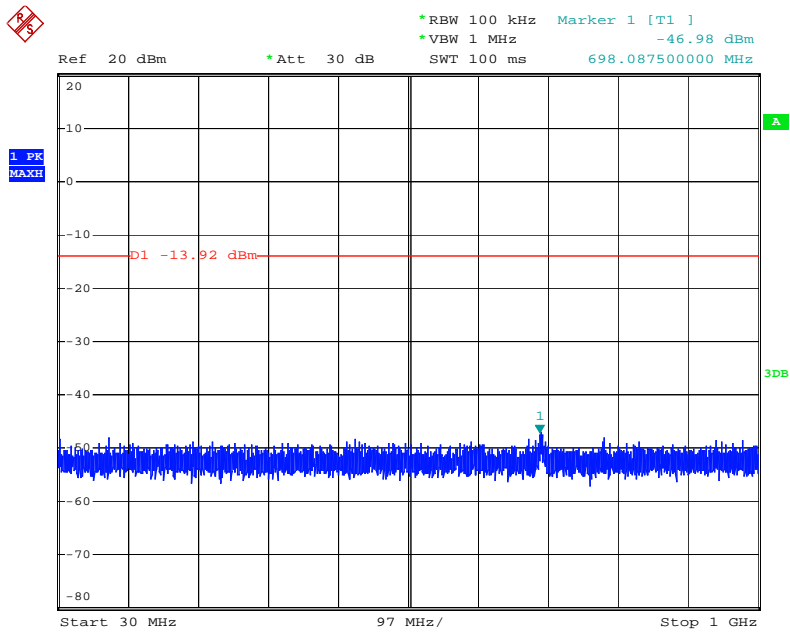


Date: 6.JUL.2011 19:28:55

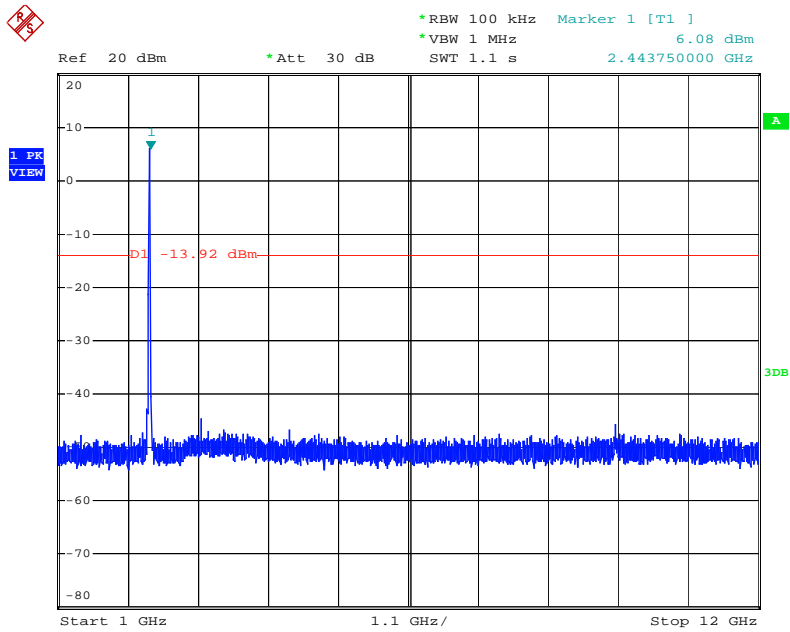


Date: 6.JUL.2011 19:29:35

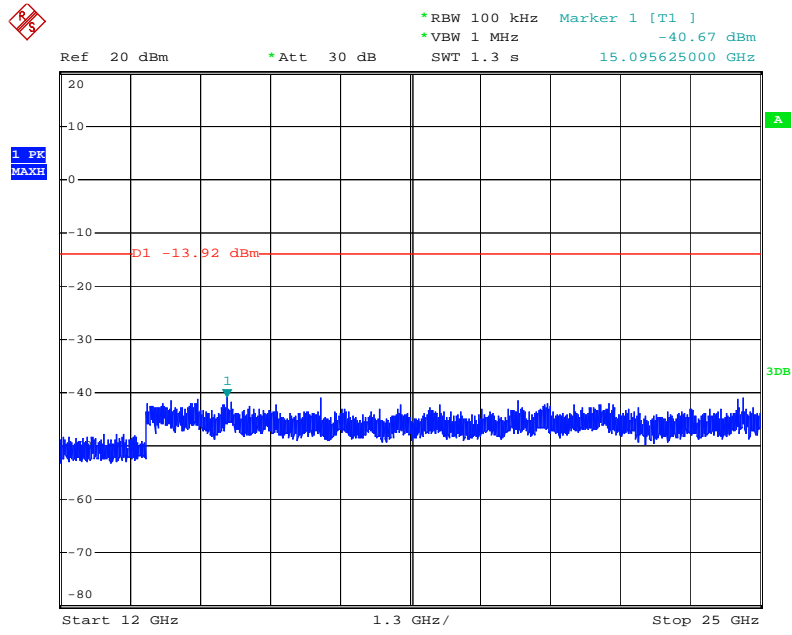
Channel 06 (2437MHz)



Date: 6.JUL.2011 19:31:38

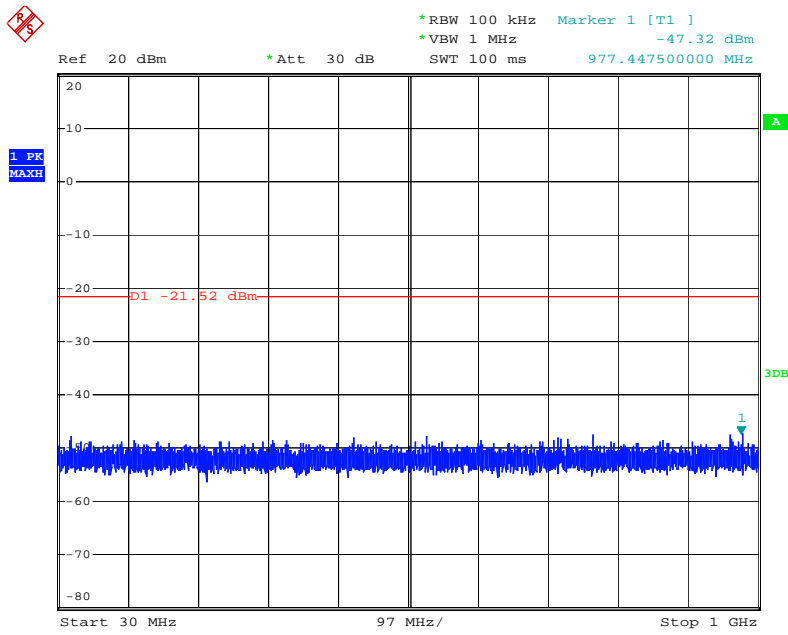


Date: 6.JUL.2011 19:31:11

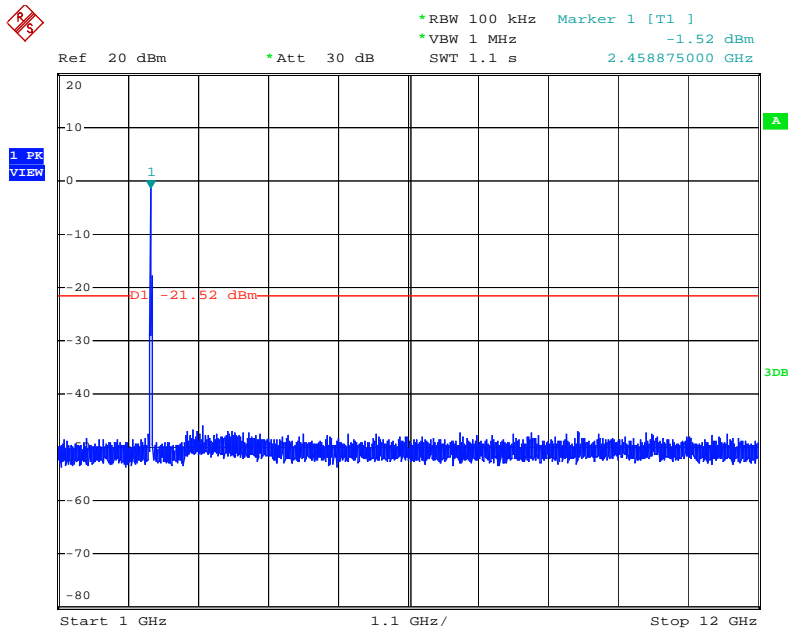


Date: 6.JUL.2011 19:32:00

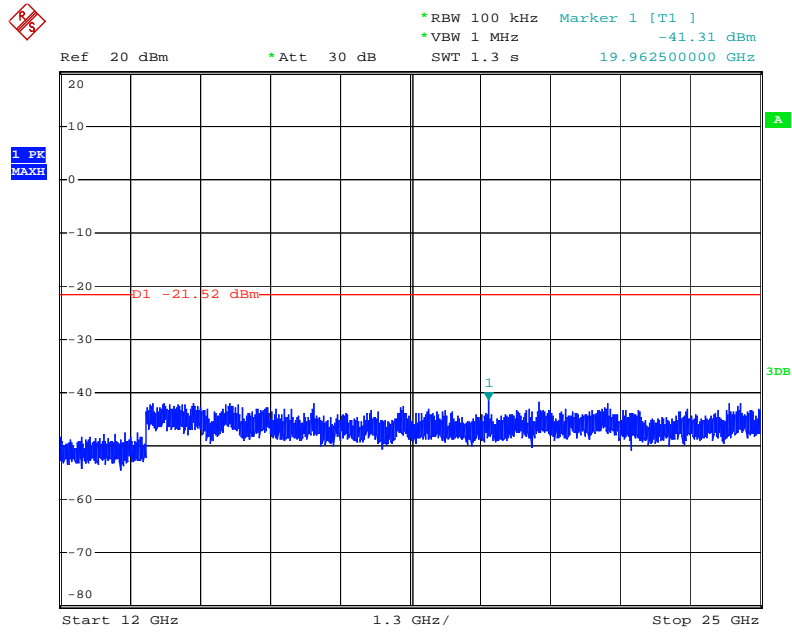
Channel 11 (2462MHz)



Date: 6.JUL.2011 19:33:17



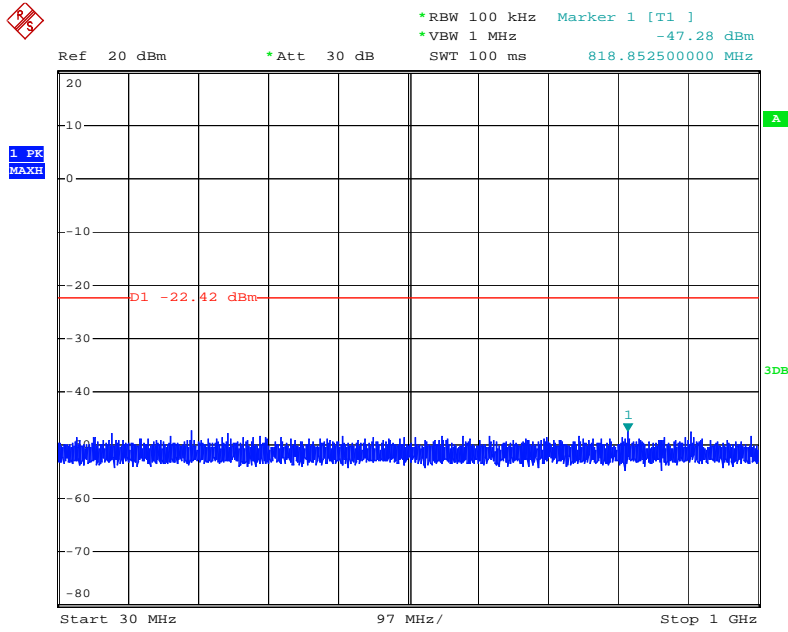
Date: 6.JUL.2011 19:32:49



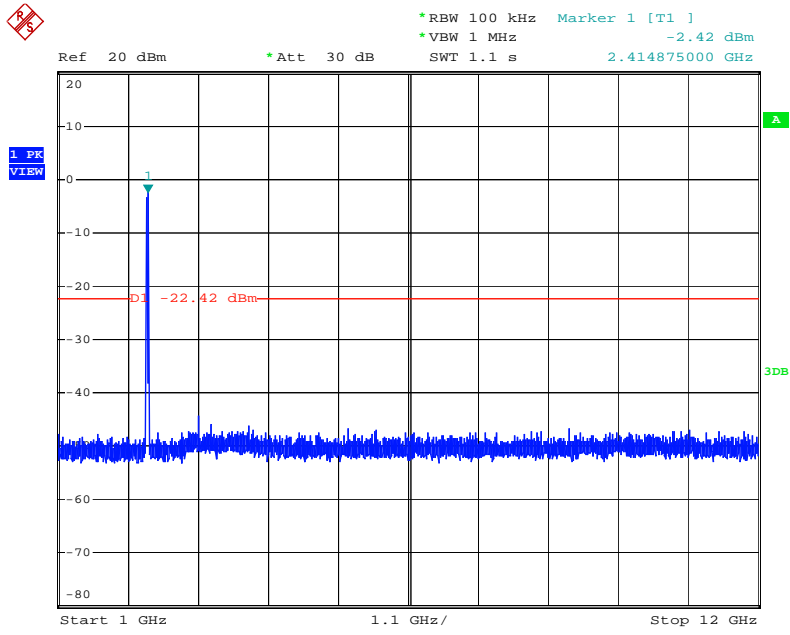
Date: 6.JUL.2011 19:33:31

Product : Eee PC
Test Item : RF Antenna Conducted Spurious
Test Site : No.3 OATS
Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

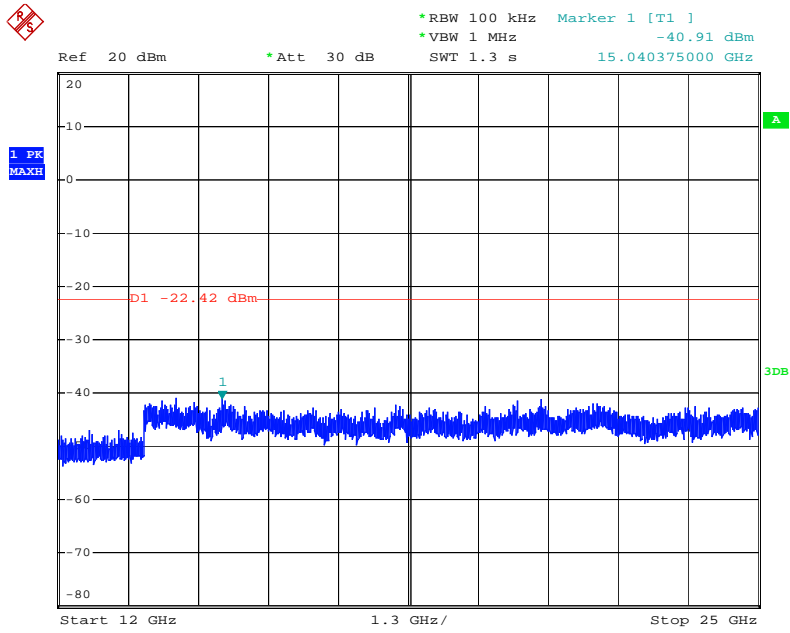
Channel 01 (2412MHz)



Date: 6.JUL.2011 19:35:43

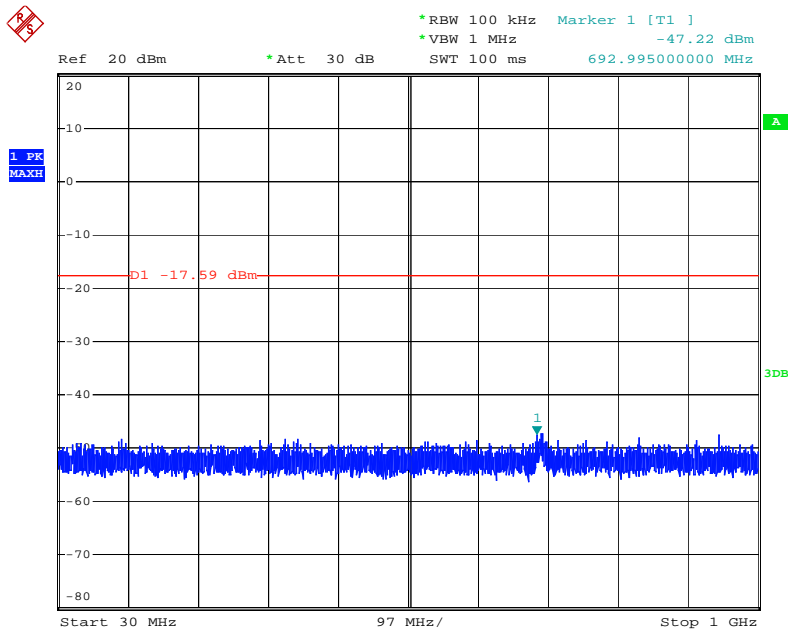


Date: 6.JUL.2011 19:35:10

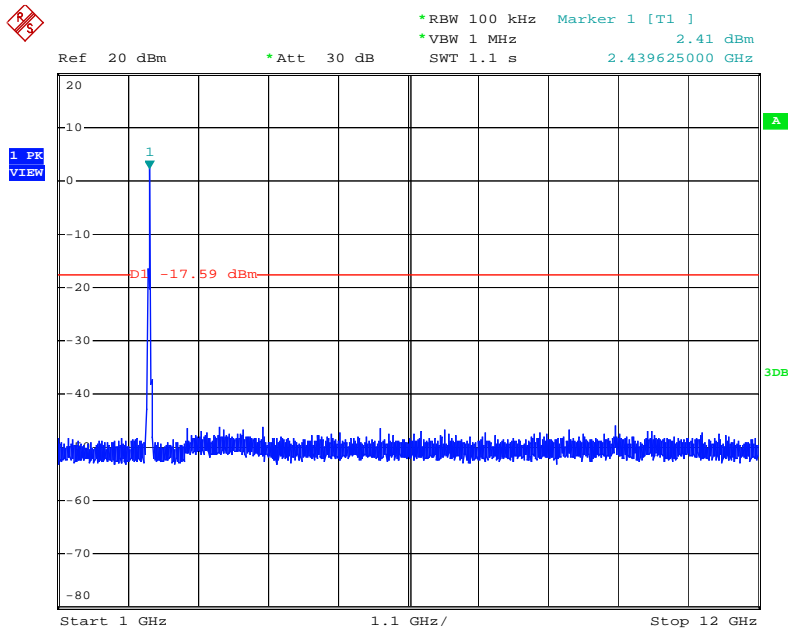


Date: 6.JUL.2011 19:36:05

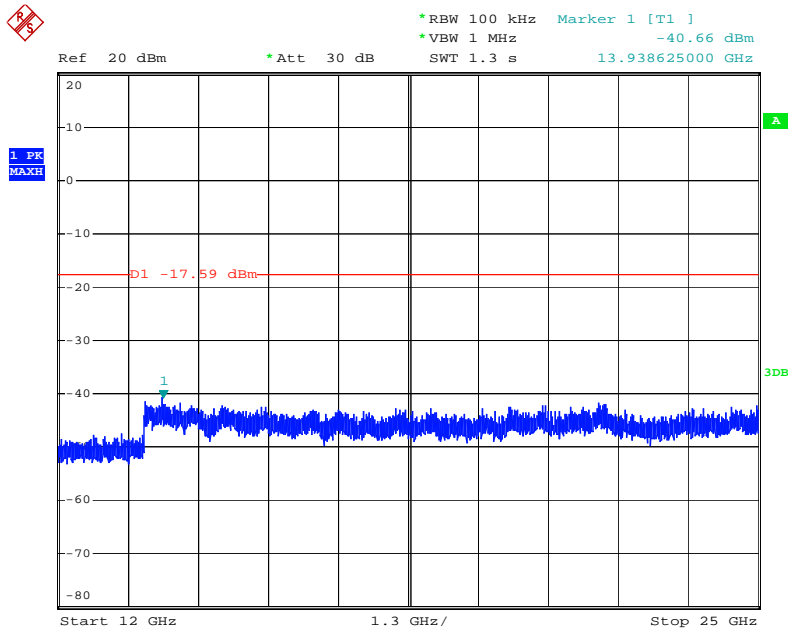
Channel 06 (2437MHz)



Date: 6.JUL.2011 19:38:02

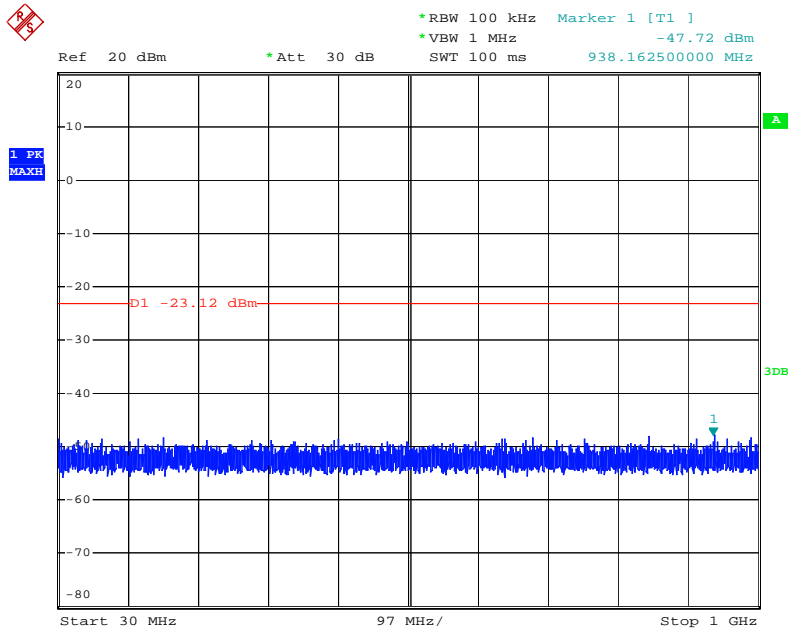


Date: 6.JUL.2011 19:37:39

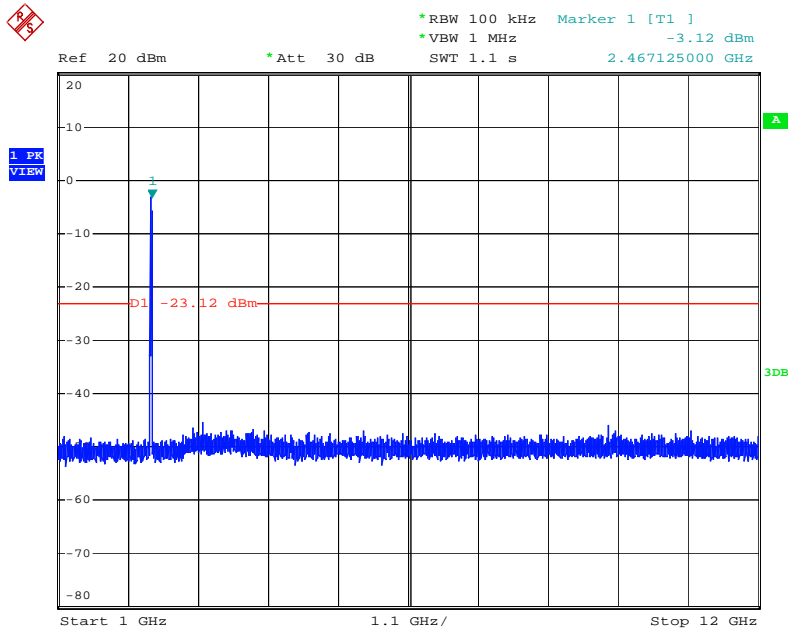


Date: 6.JUL.2011 19:38:25

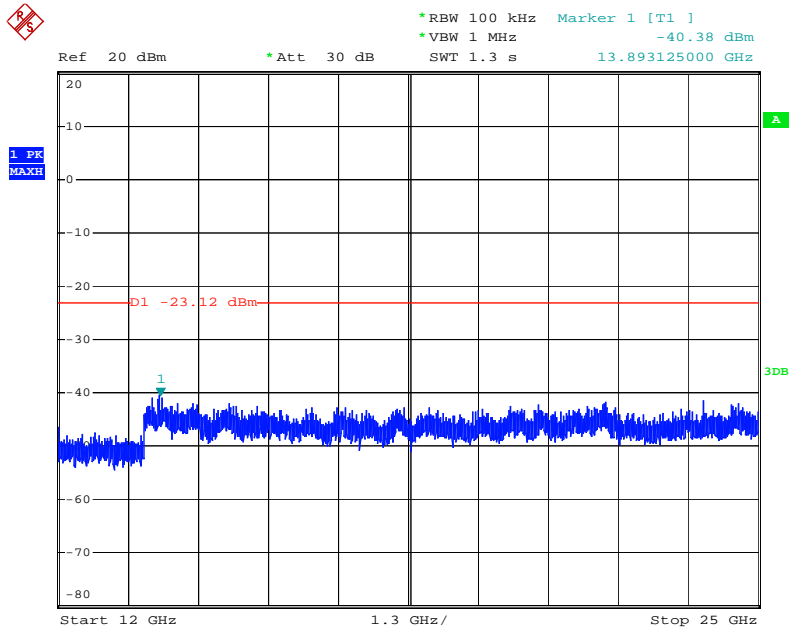
Channel 11 (2462MHz)



Date: 6.JUL.2011 19:40:01



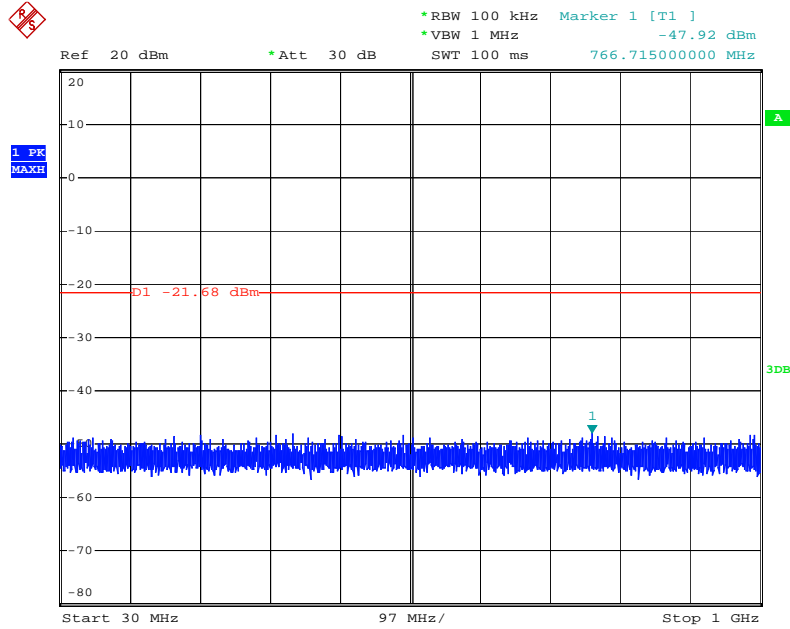
Date: 6.JUL.2011 19:39:36



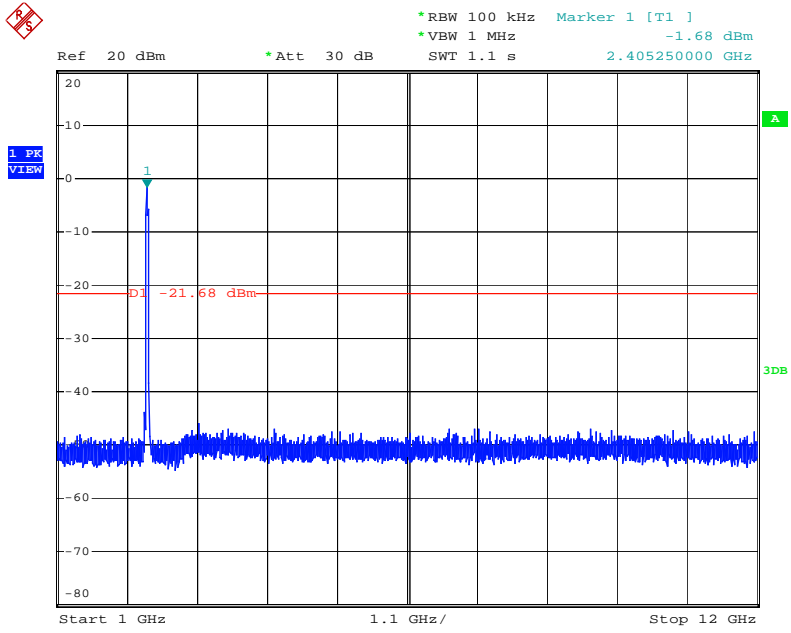
Date: 6.JUL.2011 19:40:17

Product : Eee PC
 Test Item : RF Antenna Conducted Spurious
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)

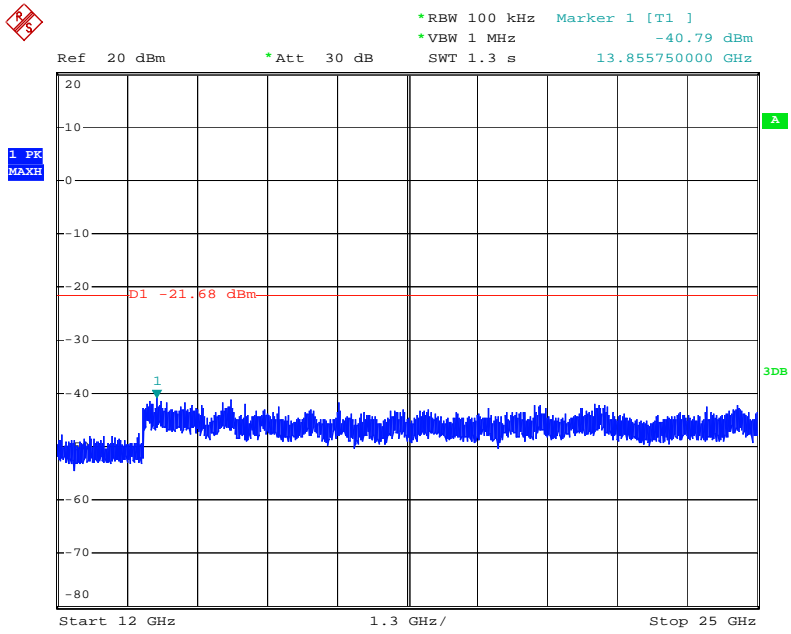
Channel 01 (2422MHz)



Date: 6.JUL.2011 19:42:02

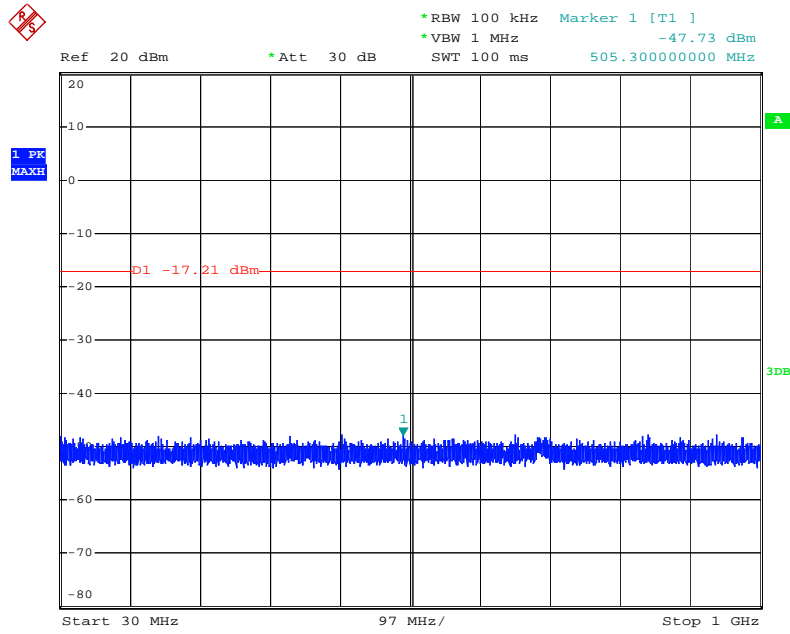


Date: 6.JUL.2011 19:41:35

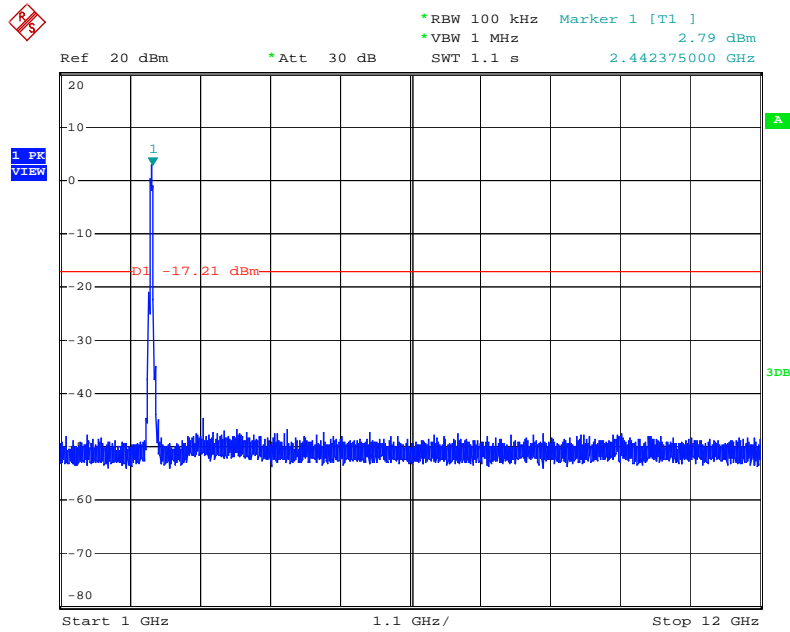


Date: 6.JUL.2011 19:42:18

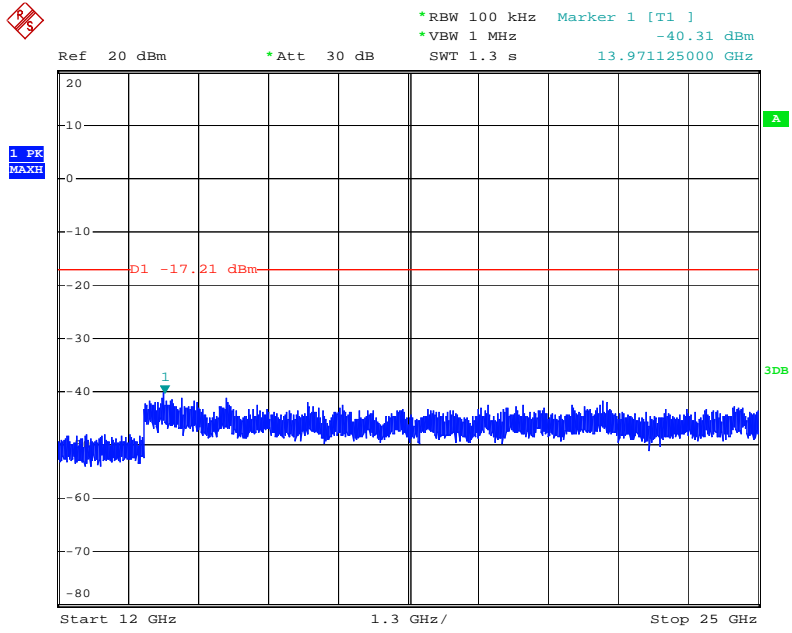
Channel 04 (2437MHz)



Date: 6.JUL.2011 19:44:31

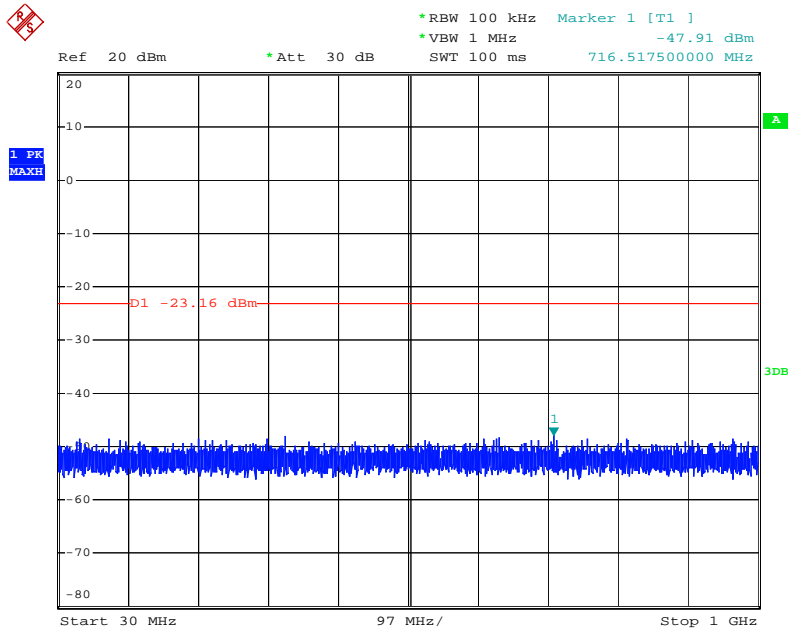


Date: 6.JUL.2011 19:43:17

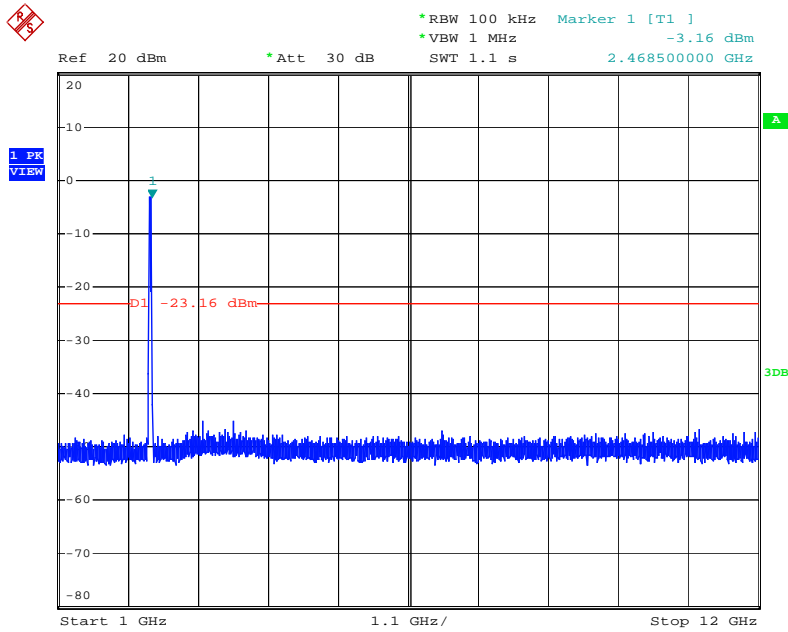


Date: 6.JUL.2011 19:44:46

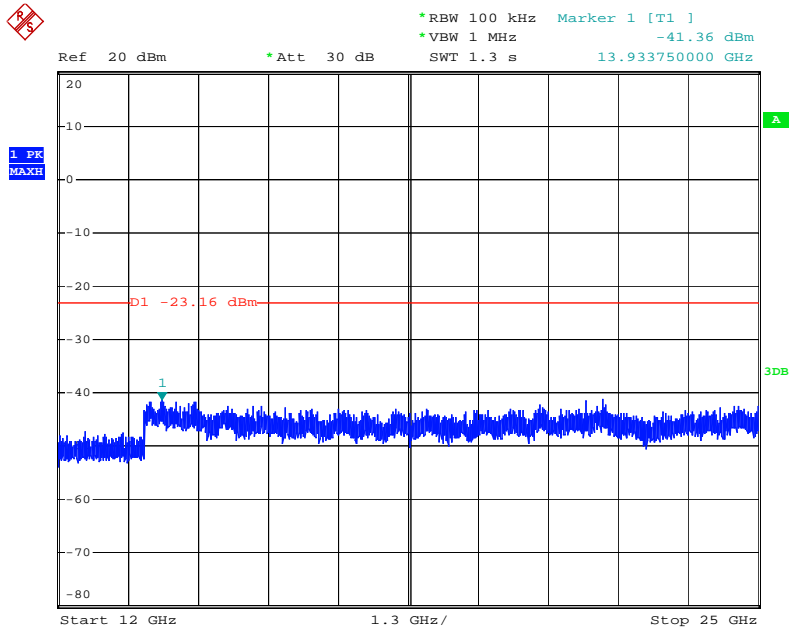
Channel 07 (2452MHz)



Date: 6.JUL.2011 19:46:03



Date: 6.JUL.2011 19:45:36



Date: 6.JUL.2011 19:46:26

6. Band Edge

6.1. Test Equipment

RF Conducted Measurement

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

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
	Spectrum Analyzer	R&S	FSP40 / 100170	Jun, 2011
	Spectrum Analyzer	Agilent	E4407B / US39440758	Jun, 2011
X	Spectrum Analyzer	Agilent	N9010A / MY48030495	Apr., 2011
	8-WAY Power Divider	JFW	50PD-647 / 526770 0916	Apr., 2011

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. The power combiner is used for measure 11n mode.

RF Radiated Measurement:

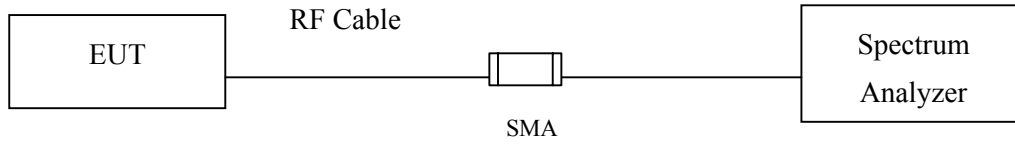
The following test equipments are used during the band edge tests:

Test Site	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
☒ Site # 3	Bilog Antenna	Schaffner Chase	CBL6112B/2673	Sep., 2010
	X Horn Antenna	Schwarzbeck	BBHA9120D/D305	Sep., 2010
	Horn Antenna	Schwarzbeck	BBHA9170/208	Jul., 2011
	X Pre-Amplifier	Agilent	8447D/2944A09549	Sep., 2010
	X Spectrum Analyzer	Agilent	E4407B / US39440758	May, 2011
	Test Receiver	R & S	ESCS 30/ 825442/018	Sep., 2010
	X Coaxial Cable	Quietek	QTK-CABLE/ CAB5	Feb., 2011
	X Controller	Quietek	QTK-CONTROLLER/ CTRL3	N/A
	X Coaxial Switch	Anritsu	MP59B/6200265729	N/A

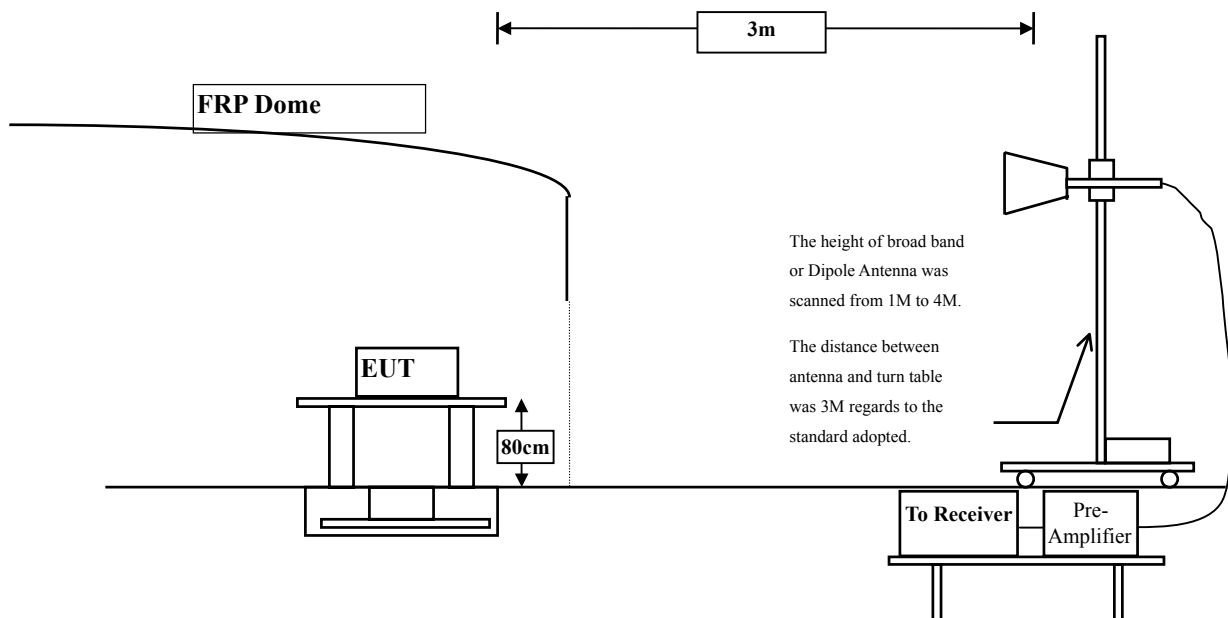
- Note:
1. All instruments are calibrated every one year.
 2. The test instruments marked by "X" are used to measure the final test results.

6.2. Test Setup

RF Conducted Measurement



RF Radiated Measurement:



6.3. Limits

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

6.4. Test Procedure

The EUT was setup according to ANSI C63.4, 2009 and tested according to DTS test procedure of Mar. 2005 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 C63.4:2009 on radiated measurement.

6.5. Uncertainty

± 3.9 dB above 1GHz

± 3.8 dB below 1GHz

6.6. Test Result of Band Edge

Product : Eee PC
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11b 1Mbps)

Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Correction Factor [dB/m]	Reading Level [dBuV]	Emission Level [dBuV/m]	Detector
Horizontal	2412	31.639	78.12	109.758	Peak
Horizontal	2412	31.639	74.13	105.768	Average
Vertical	2412	30.95	79.069	110.018	Peak
Vertical	2412	30.95	75.219	106.168	Average

Note: 1: Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	Δ (dB)	Band Edge Field Strength (dBuV/m)	Limit (dBuV/m)	Detector
Horizontal	2390	109.758	47.791	61.967	74.000	Peak
Horizontal	2390	105.768	56.824	48.944	54.000	Average
Vertical	2390	110.018	47.791	62.227	74.000	Peak
Vertical	2390	106.168	56.824	49.344	54.000	Average

Note:

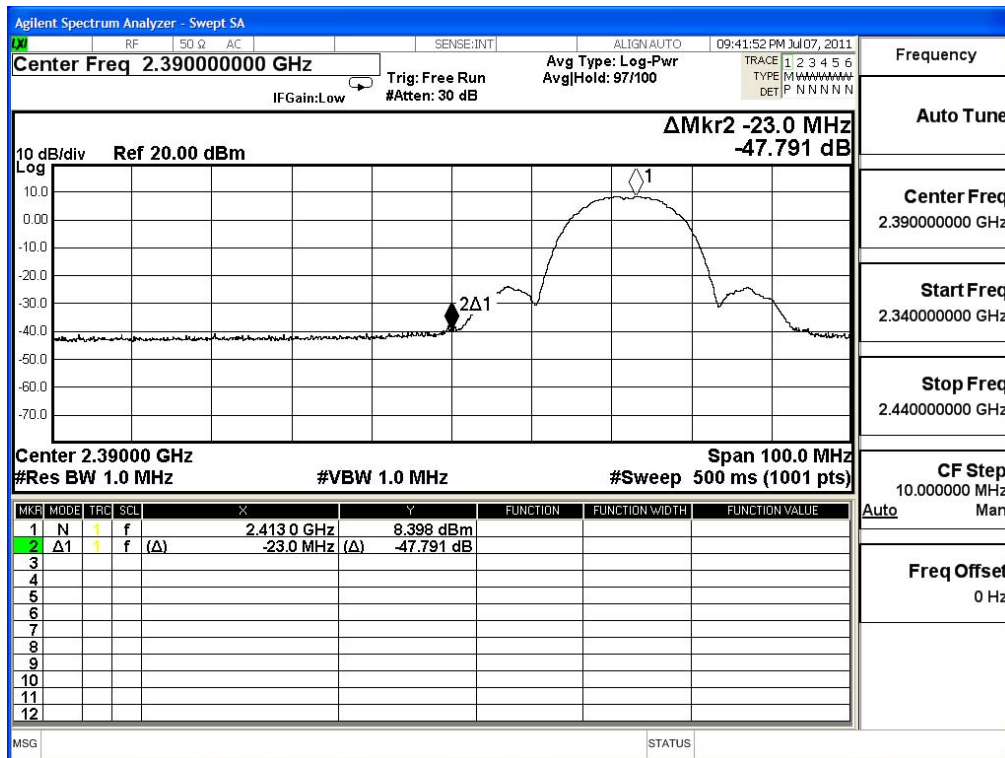
The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = F - Δ

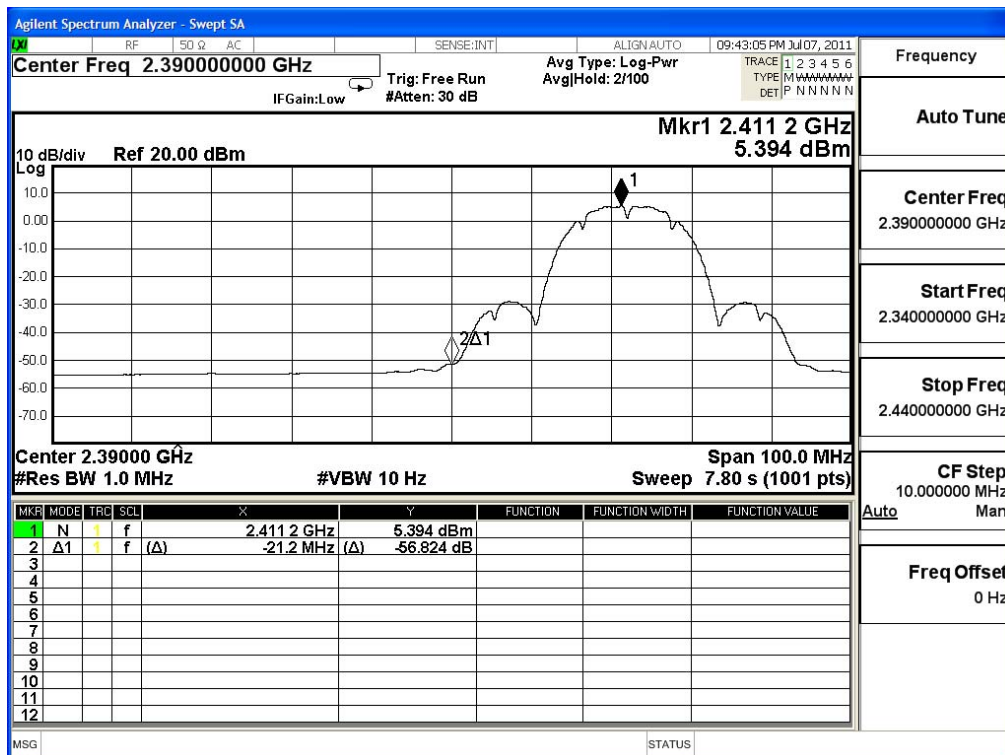
F = Fundamental field Strength (Peak or Average)

Δ = Conducted Band Edge Delta (Peak or Average)

Peak Detector of conducted Band Edge Delta



Average Detector of conducted Band Edge Delta



Product : Eee PC
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 1: Transmit (802.11b 1Mbps)

Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Correction Factor [dB/m]	Reading Level [dBuV]	Emission Level [dBuV/m]	Detector
Horizontal	2462	32.019	80.37	112.389	Peak
Horizontal	2462	32.019	72.23	104.249	Average
Vertical	2462	31.29	78.63	109.92	Peak
Vertical	2462	31.29	72.61	103.9	Average

Note: 1: Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	Δ (dB)	Band Edge Field Strength (dBuV/m)	Limit (dBuV/m)	Detector
Horizontal	2483.5	112.389	42.62	69.769	74.000	Peak
Horizontal	2483.5	104.249	51.179	53.07	54.000	Average
Vertical	2483.5	109.92	42.62	67.3	74.000	Peak
Vertical	2483.5	103.9	51.179	52.721	54.000	Average

Note:

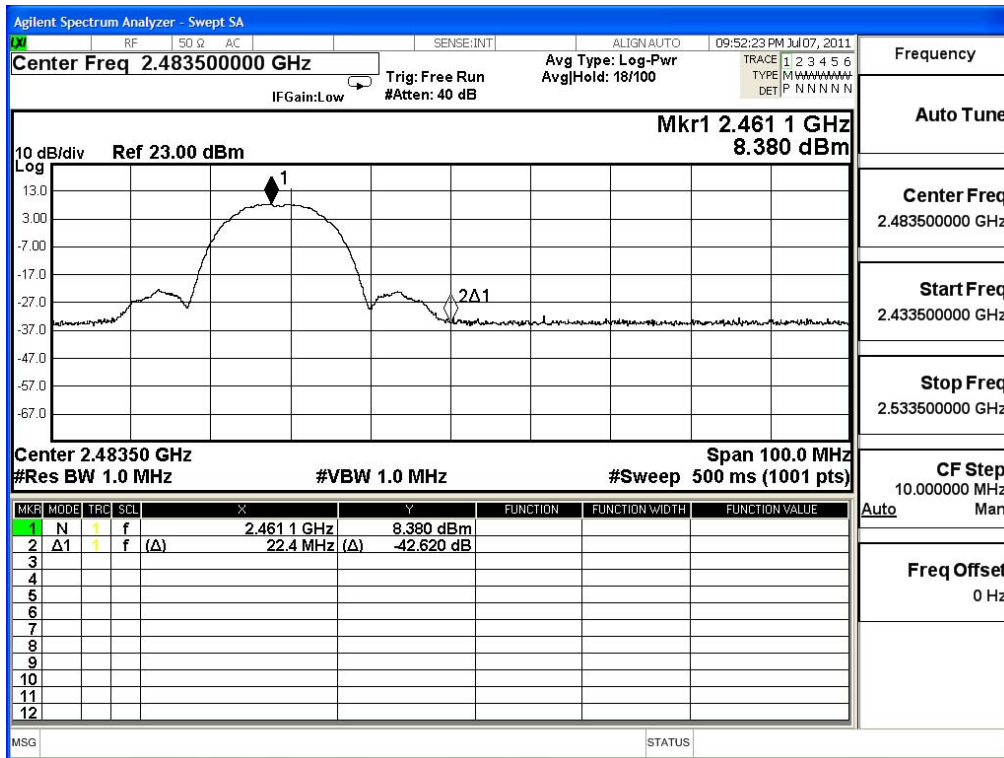
The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = F - Δ

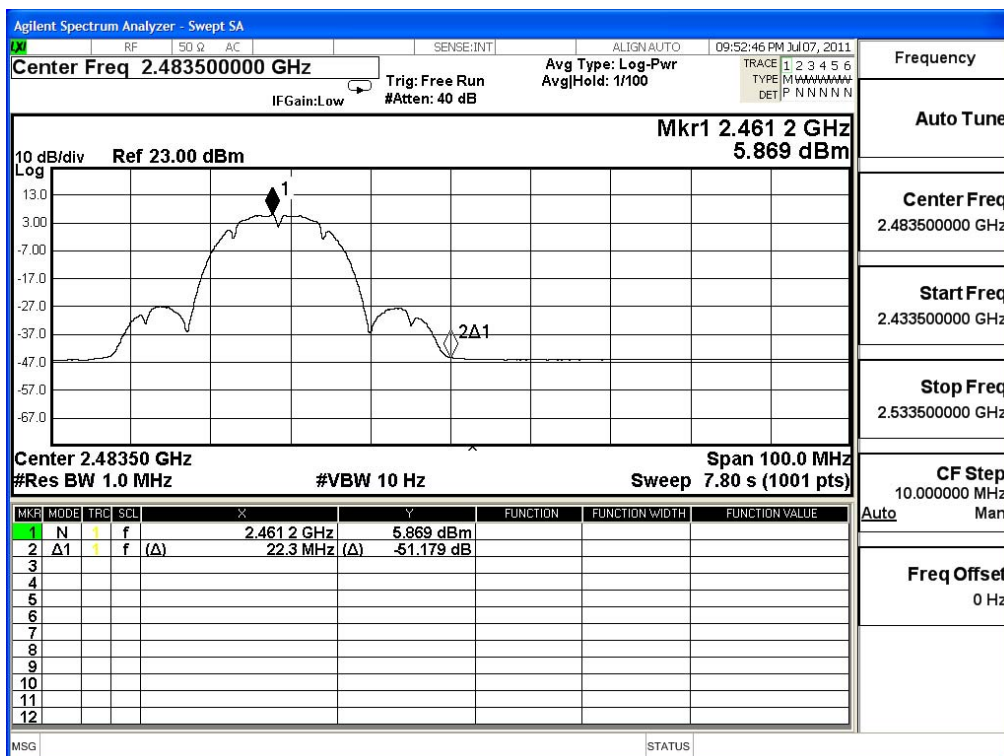
F = Fundamental field Strength (Peak or Average)

Δ = Conducted Band Edge Delta (Peak or Average)

Peak Detector of conducted Band Edge Delta



Average Detector of conducted Band Edge Delta



Product : Eee PC
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11g 6Mbps)

Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Correction Factor [dB/m]	Reading Level [dBuV]	Emission Level [dBuV/m]	Detector
Horizontal	2412	31.639	76.88	108.518	Peak
Horizontal	2412	31.639	64.71	96.348	Average
Vertical	2412	30.95	77.219	108.168	Peak
Vertical	2412	30.95	65.339	96.288	Average

Note: 1: Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	Δ (dB)	Band Edge Field Strength (dBuV/m)	Limit (dBuV/m)	Detector
Horizontal	2390	108.518	41.149	67.369	74.000	Peak
Horizontal	2390	96.348	42.701	53.647	54.000	Average
Vertical	2390	108.168	41.149	67.019	74.000	Peak
Vertical	2390	96.288	42.701	53.587	54.000	Average

Note:

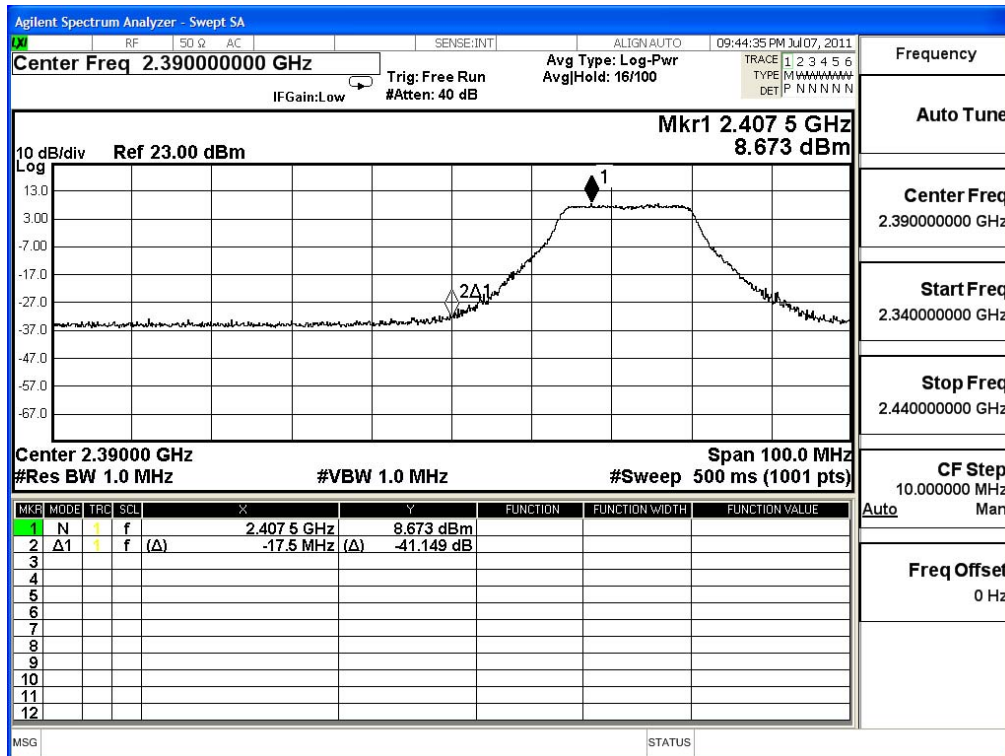
The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = F - Δ

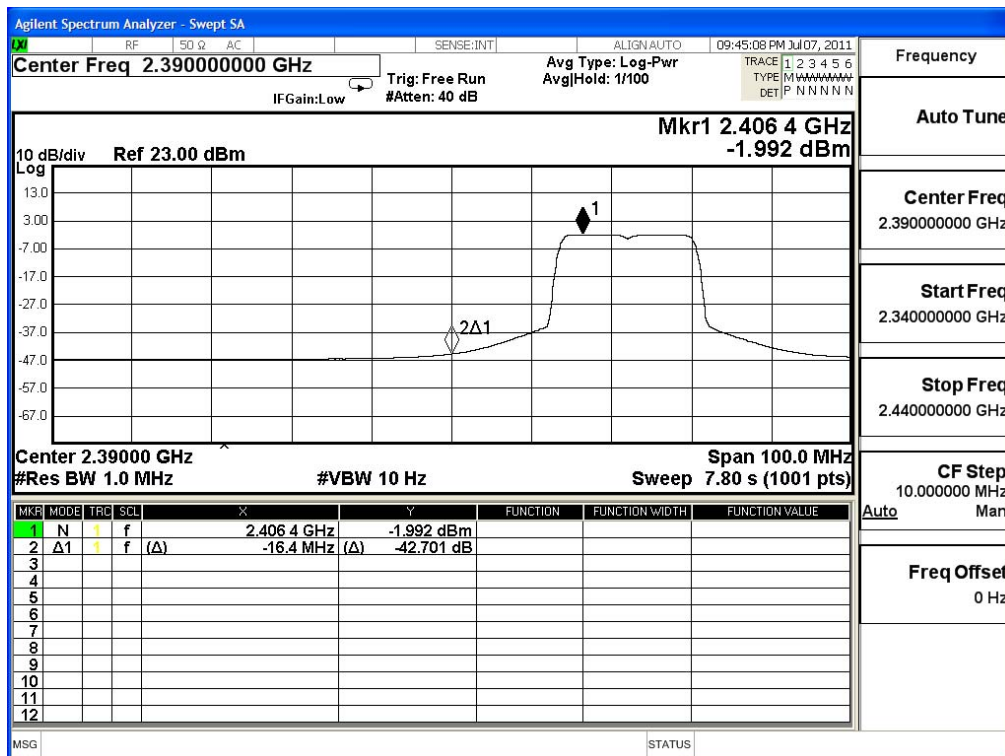
F = Fundamental field Strength (Peak or Average)

Δ = Conducted Band Edge Delta (Peak or Average)

Peak Detector of conducted Band Edge Delta



Average Detector of conducted Band Edge Delta



Product : Eee PC
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 2: Transmit (802.11g 6Mbps)

Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Correction Factor [dB/m]	Reading Level [dBuV]	Emission Level [dBuV/m]	Detector
Horizontal	2462	32.019	76.751	108.77	Peak
Horizontal	2462	32.019	63.321	95.34	Average
Vertical	2462	31.29	77.11	108.4	Peak
Vertical	2462	31.29	63.85	95.14	Average

Note: 1: Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	Δ (dB)	Band Edge Field Strength (dBuV/m)	Limit (dBuV/m)	Detector
Horizontal	2483.5	108.77	38.984	69.786	74.000	Peak
Horizontal	2483.5	95.34	42.929	52.411	54.000	Average
Vertical	2483.5	108.4	38.984	69.416	74.000	Peak
Vertical	2483.5	95.14	42.929	52.211	54.000	Average

Note:

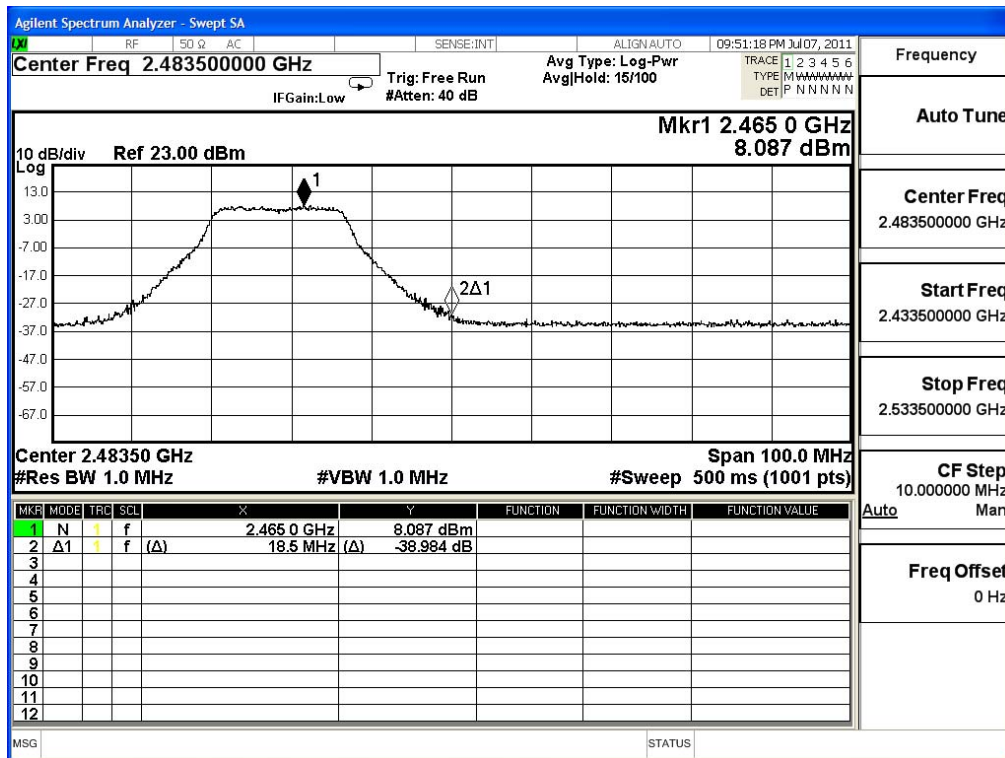
The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = F - Δ

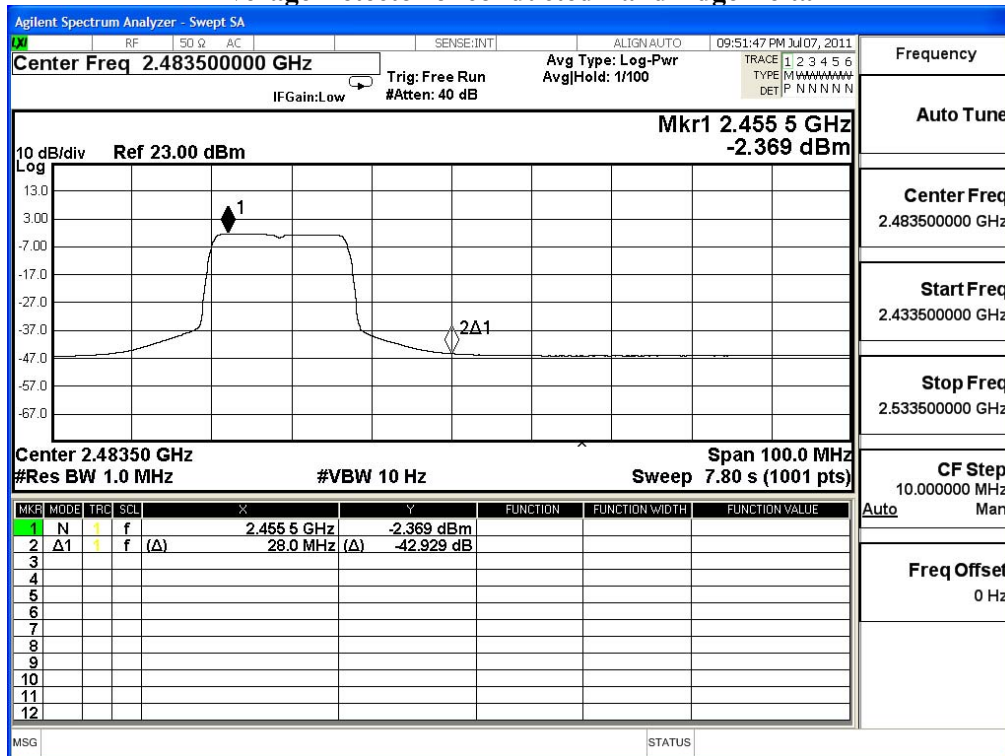
F = Fundamental field Strength (Peak or Average)

Δ = Conducted Band Edge Delta (Peak or Average)

Peak Detector of conducted Band Edge Delta



Average Detector of conducted Band Edge Delta



Product : Eee PC
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Correction Factor [dB/m]	Reading Level [dBuV]	Emission Level [dBuV/m]	Detector
Horizontal	2412	31.639	75.4	107.038	Peak
Horizontal	2412	31.639	63.32	94.958	Average
Vertical	2412	30.95	74.47	105.419	Peak
Vertical	2412	30.95	61.52	92.469	Average

Note: 1: Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	Δ (dB)	Band Edge Field Strength (dBuV/m)	Limit (dBuV/m)	Detector
Horizontal	2390	107.038	39.583	67.455	74.000	Peak
Horizontal	2390	94.958	41.397	53.561	54.000	Average
Vertical	2390	105.419	39.583	65.836	74.000	Peak
Vertical	2390	92.469	41.397	51.072	54.000	Average

Note:

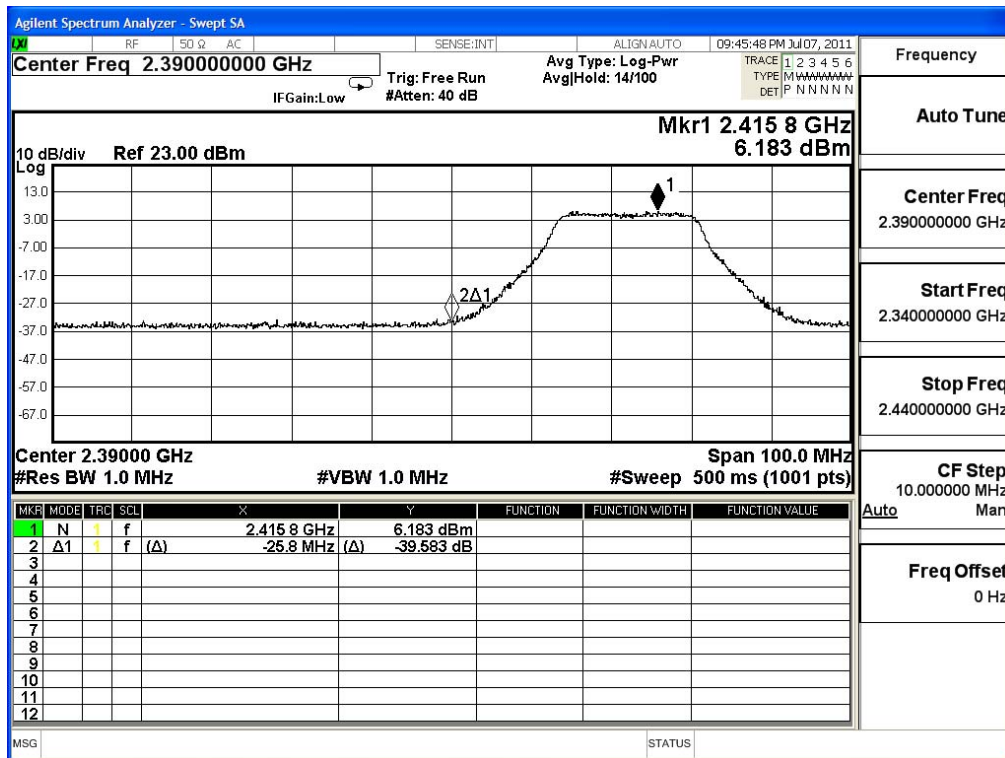
The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = F - Δ

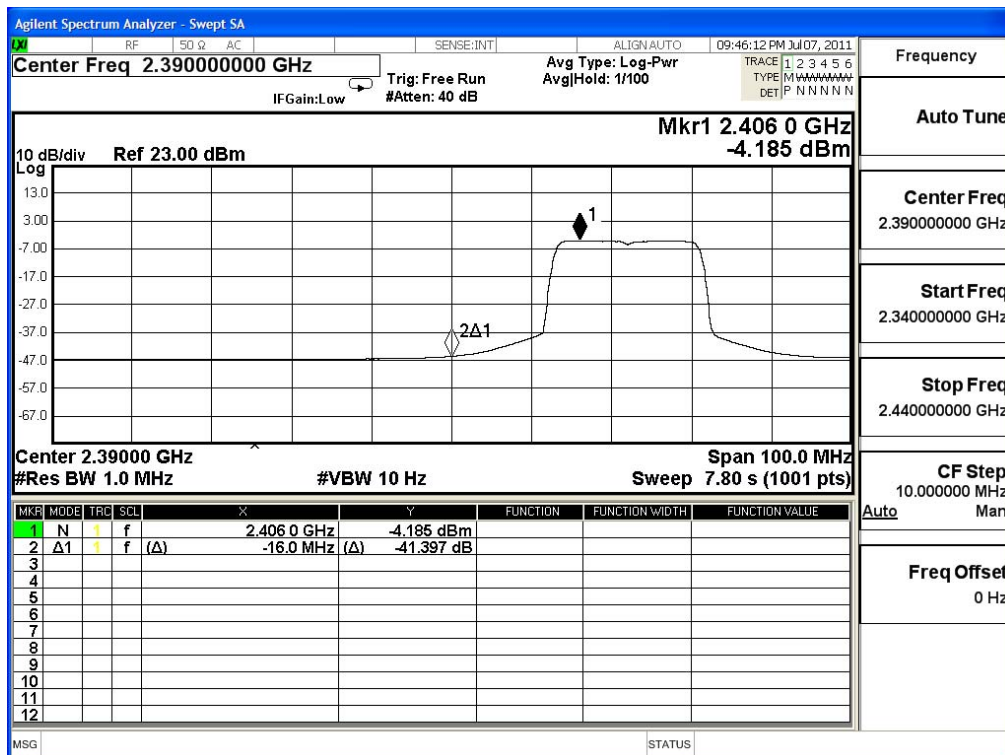
F = Fundamental field Strength (Peak or Average)

Δ = Conducted Band Edge Delta (Peak or Average)

Peak Detector of conducted Band Edge Delta



Average Detector of conducted Band Edge Delta



Product : Eee PC
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 3: Transmit (802.11n MCS0 7.2Mbps 20M-BW)

Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Correction Factor [dB/m]	Reading Level [dBuV]	Emission Level [dBuV/m]	Detector
Horizontal	2462	32.019	75.39	107.409	Peak
Horizontal	2462	32.019	60.49	92.509	Average
Vertical	2462	31.29	76.96	108.25	Peak
Vertical	2462	31.29	61.57	92.86	Average

Note: 1: Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	Δ (dB)	Band Edge Field Strength (dBuV/m)	Limit (dBuV/m)	Detector
Horizontal	2483.5	107.409	37.362	70.047	74.000	Peak
Horizontal	2483.5	92.509	39.984	52.525	54.000	Average
Vertical	2483.5	108.25	37.362	70.888	74.000	Peak
Vertical	2483.5	92.86	39.984	52.876	54.000	Average

Note:

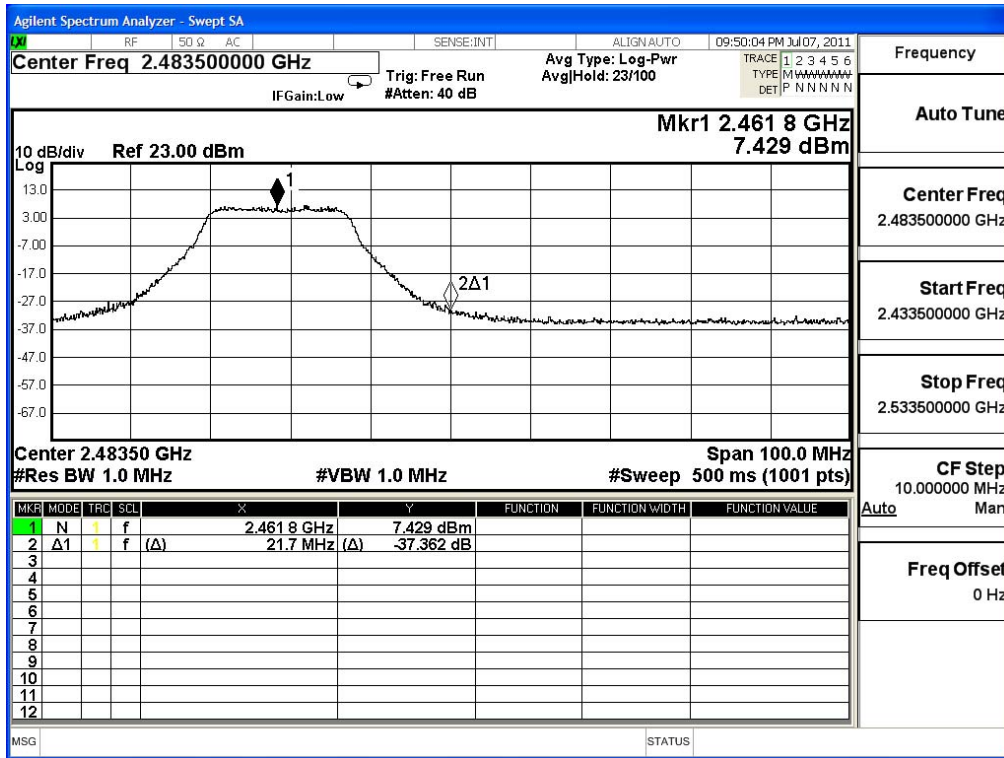
The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = F - Δ

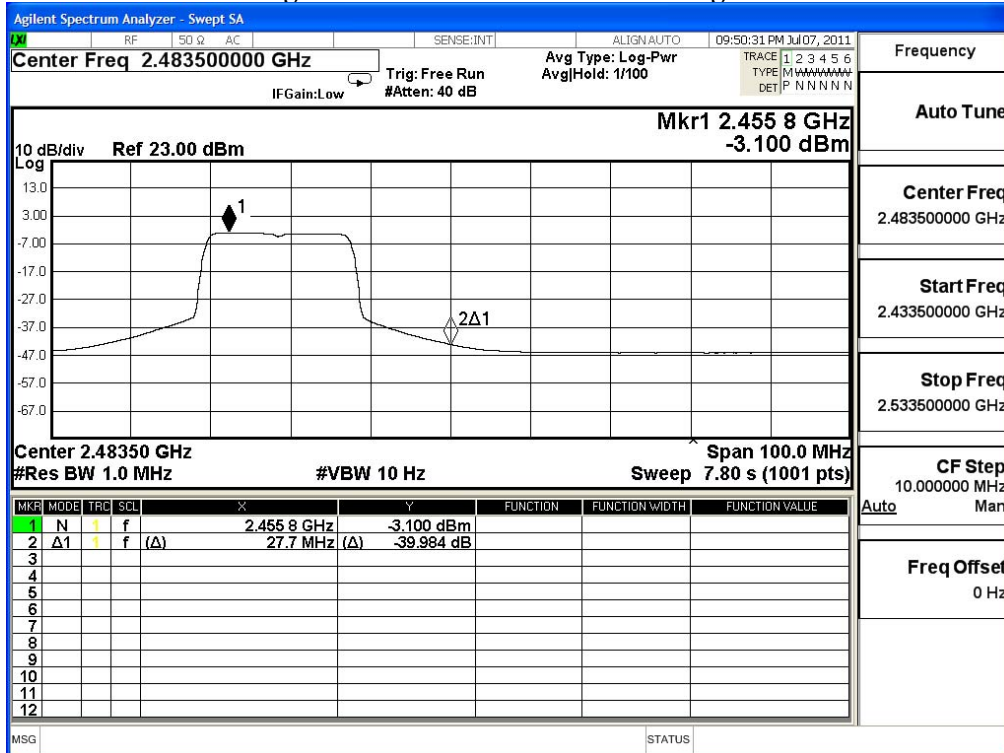
F = Fundamental field Strength (Peak or Average)

Δ = Conducted Band Edge Delta (Peak or Average)

Peak Detector of conducted Band Edge Delta



Average Detector of conducted Band Edge Delta



Product : Eee PC
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)

Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Correction Factor [dB/m]	Reading Level [dBuV]	Emission Level [dBuV/m]	Detector
Horizontal	2422	31.715	72.84	104.555	Peak
Horizontal	2422	31.715	58.32	90.035	Average
Vertical	2422	31.017	73.93	104.947	Peak
Vertical	2422	31.017	59.25	90.267	Average

Note: 1:Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	Δ (dB)	Band Edge Field Strength (dBuV/m)	Limit (dBuV/m)	Detector
Horizontal	2390	104.555	32.756	71.799	74.000	Peak
Horizontal	2390	90.035	36.579	53.456	54.000	Average
Vertical	2390	104.947	32.756	72.191	74.000	Peak
Vertical	2390	90.267	36.579	53.688	54.000	Average

Note:

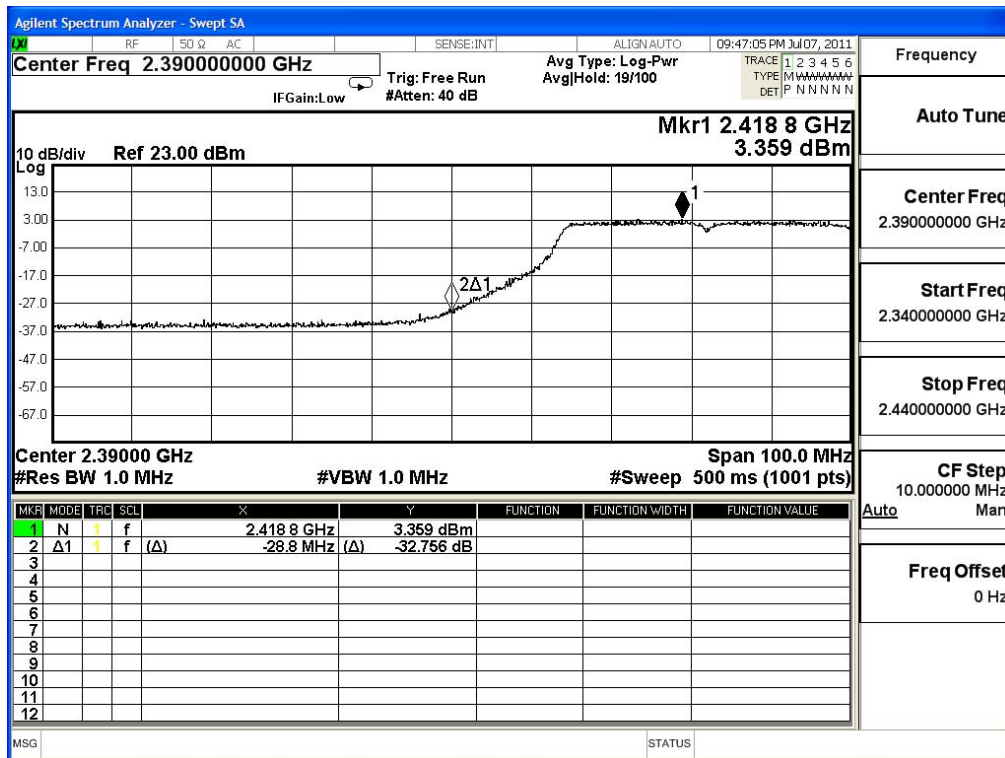
The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = F - Δ

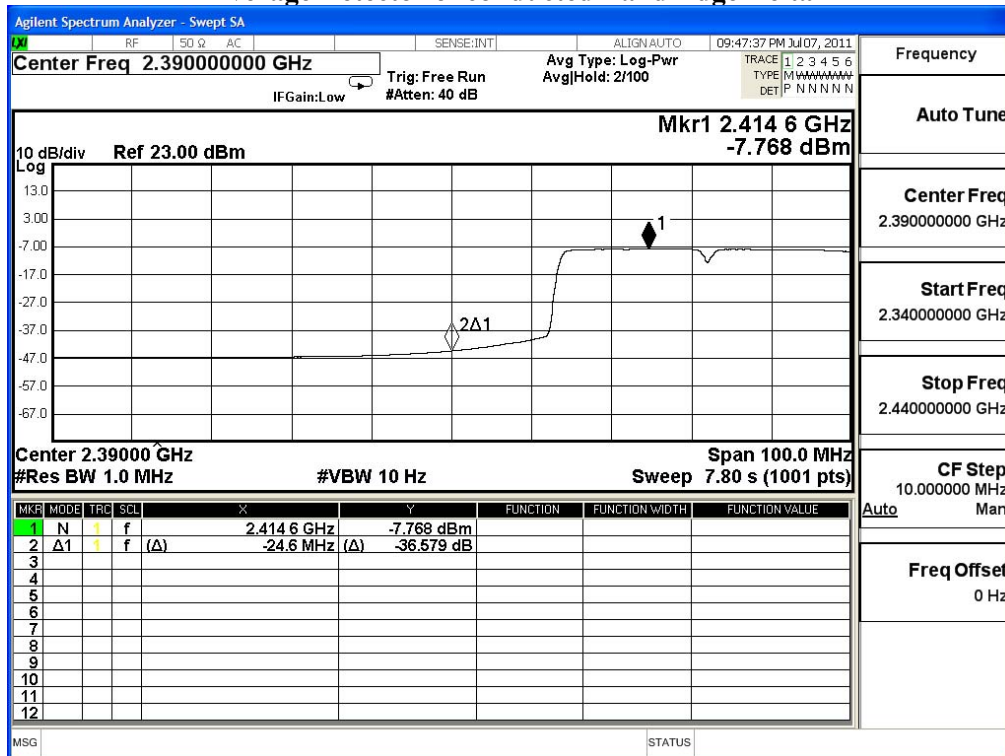
F = Fundamental field Strength (Peak or Average)

Δ = Conducted Band Edge Delta (Peak or Average)

Peak Detector of conducted Band Edge Delta



Average Detector of conducted Band Edge Delta



Product : Eee PC
 Test Item : Band Edge Data
 Test Site : No.3 OATS
 Test Mode : Mode 4: Transmit (802.11n MCS0 15Mbps 40M-BW)

Fundamental Filed Strength

Antenna Pole	Frequency [MHz]	Correction Factor [dB/m]	Reading Level [dBuV]	Emission Level [dBuV/m]	Detector
Horizontal	2452	31.944	73.08	105.024	Peak
Horizontal	2452	31.944	58.93	90.874	Average
Vertical	2452	31.222	74.25	105.472	Peak
Vertical	2452	31.222	59.5	90.722	Average

Note: 1: Spectrum Analyzer setting:

Peak detector: RBW=1MHz, VBW=1MHz

Average detector: RBW=1MHz, VBW=10Hz

Band Edge Test Data

Antenna Pole	Test Frequency (MHz)	Fundamental (dBuV/m)	Δ (dB)	Band Edge Field Strength (dBuV/m)	Limit (dBuV/m)	Detector
Horizontal	2483.5	105.024	32.724	72.3	74.000	Peak
Horizontal	2483.5	90.874	37.558	53.316	54.000	Average
Vertical	2483.5	105.472	32.724	72.748	74.000	Peak
Vertical	2483.5	90.722	37.558	53.164	54.000	Average

Note:

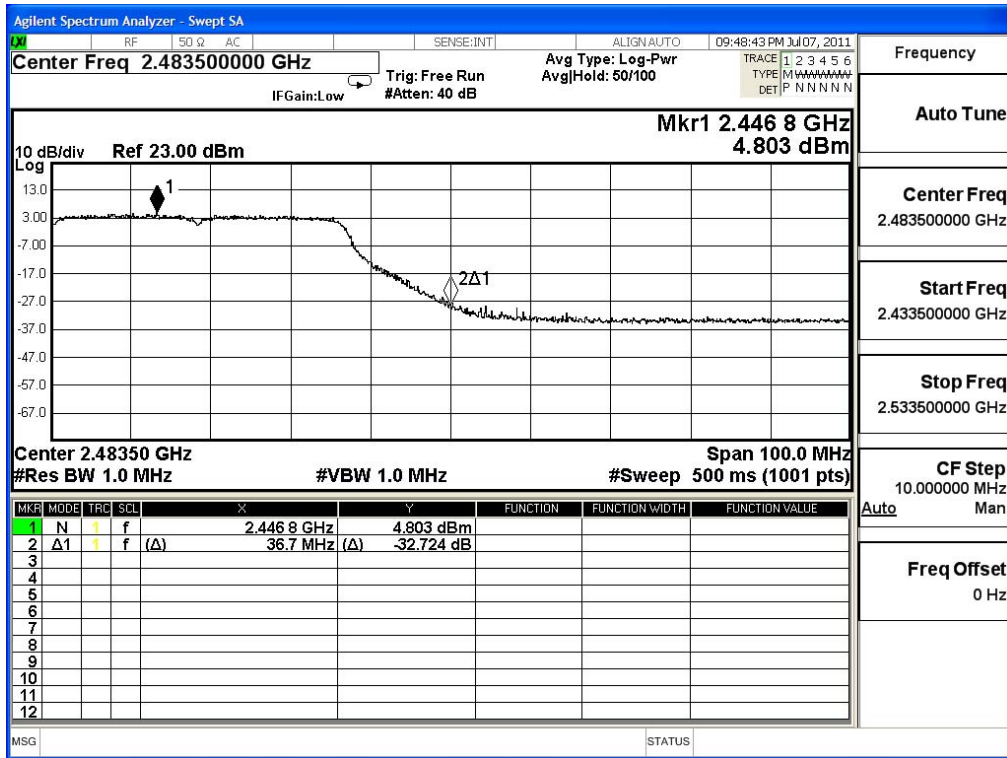
The Band Edge Field Strength was calculated using the Fundamental and Conducted Band Edge measurements per the Marker-Delta Method with the following formula:

Band Edge field Strength = F - Δ

F = Fundamental field Strength (Peak or Average)

Δ = Conducted Band Edge Delta (Peak or Average)

Peak Detector of conducted Band Edge Delta



Average Detector of conducted Band Edge Delta

