Silex Technology America, Inc.

ADDENDUM TO TEST REPORT 90303-11A

Wireless 802.11a/b/g SD Card Radio, SX-SDCAG

Tested To The Following Standards:

FCC Part 15 Subpart C Sections 15.207, 15.209, 15.247

Report No.: 90303-11B

Date of issue: March 19, 2010

ACCREDITED

TESTING
CERT #803.01, 803.02, 803.05, 803.06

This test report bears the accreditation symbol indicating that the testing performed herein meets the test and reporting requirements of ISO/IEC 17025 under the applicable scope of EMC testing for CKC Laboratories, Inc.

We strive to create long-term, trust based relationships by providing sound, adaptive, customer first testing services. We embrace each of our customers' unique EMC challenges, not as an interruption to set processes, but rather as the reason we are in business.

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ADMINISTRATIVE INFORMATION

Test Report Information

REPORT PREPARED FOR:

Silex Technology America, Inc.
15661 Red Hill Ave. Suite 120
Tustin, CA 92780

Representative: Ron Tozaki
Customer Reference Number: 3532

REPORT PREPARED BY:

Dianne Dudley
CKC Laboratories, Inc.
5046 Sierra Pines Drive
Mariposa, CA 95338

Project Number: 90303

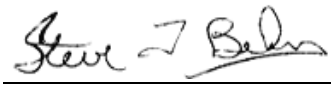
DATE OF EQUIPMENT RECEIPT: February 26, 2010
DATE(S) OF TESTING: February 26 – March 1, 2010

Revision History

Original Date of Issue: February 9, 2010
Addendum A: To add test results to support additional antenna configuration.
Addendum B: To correct an error in section 15.31(m) stating the EUT operates on a single channel. See revised section 15.31(m) for channel information.

Report Authorization

The test data contained in this report documents the observed testing parameters pertaining to and are relevant for only the sample equipment tested in the agreed upon operational mode(s) and configuration(s) as identified herein. Compliance assessment remains the client's responsibility. This report may not be used to claim product endorsement by A2LA or any government agencies. This test report has been authorized for release under quality control from CKC Laboratories, Inc.



Steve Behm
Director of Quality Assurance & Engineering Services
CKC Laboratories, Inc.

Test Facility Information

Our laboratories are configured to effectively test a wide variety of product types. CKC utilizes first class test equipment, anechoic chambers, data acquisition and information services to create accurate, repeatable and affordable test results.

TEST LOCATION(S):
CKC Laboratories, Inc.
110 Olinda Place
Brea, CA 92823

Site Registration & Accreditation Information

Location	Japan	Canada	FCC
Brea A	R-301, C-314 & T-1572	3082D-1	90473

SUMMARY OF RESULTS

Standard / Specification: FCC Part 15 .207, 15.209 & 15.247/RSS-210

Description	Test Procedure/Method	Results
Voltage Variations	15.31(e)	Pass
Conducted Emissions	FCC 15.207	Pass
6dB Bandwidth	FCC15.247(a)	Pass
RF Power Output	FCC 15.247(b)	Pass
Radiated Spurious Emissions	FCC 15.247(d)/15.209 /15.205	Pass
Power Spectral Density	FCC 15.247 (e)	Pass
Band Edge	ITU-R 55/1 and DA 00-705	Pass
99% Bandwidth	RSS-210 Version 7	Pass

Conditions During Testing

This list is a summary of the conditions noted for or modifications made to the equipment during testing.

Summary of Conditions
None

EQUIPMENT UNDER TEST (EUT)

EQUIPMENT UNDER TEST

Wireless 802.11a/b/g SD Card Radio
Manuf: Silex Technology America, Inc.
Model: SX-SDCAG
Serial: E1

PERIPHERAL DEVICES

The EUT was tested with the following peripheral device(s):

Evaluator Board
Manuf: Silex Technology America, Inc.
Model: SX-560-6900
Serial: NA

Power Supply
Manuf: Condor
Model: HK-CH13-A05
Serial: NA

802.11 a/b/g Wireless Access Point
Manuf: 3-Com
Model: WL-526
Serial: NA

Laptop
Manuf: Sony
Model: PCG-982L
Serial: 8323330

Serial Server
Manuf: Silex Technology America, Inc.
Model: SX-560
Serial: SL004545

FCC PART 15 SUBPART C

This report contains EMC emissions test results under United States Federal Communications Commission (FCC) 47 CRF 15C requirements for Unlicensed Radio Frequency Devices, Subpart C - Intentional Radiators.

Temperature And Humidity During Testing
The temperature during testing was within +15°C and + 35°C.
The relative humidity was between 20% and 75%.

15.31(e) Voltage Variations
15.31(e) The 5V DC supply voltage was varied + - 15 %, no variation in output power was observed.

15.31(m) Number Of Channels
2400-2483.5MHz = channels 1-11
5150 - 5250MHz = channels 36, 40, 44, 48
5725 - 5825MHz = channels 149, 153, 157, 161, 165

15.33(a) Frequency Ranges Tested
15.207 Conducted Emissions: 150 kHz – 30 MHz
15.209/15.225/15.247 Radiated Emissions: 9 kHz – 25GHz

15.203 Antenna Requirements
The antenna is an integral part of the EUT and is non-removable; therefore the EUT complies with Section 15.203 of the FCC rules.

EUT Operating Frequency
The EUT was operating at 2412MHz – 2462MHz

15.207 AC Conducted Emissions

Test Data Sheets

Test Location: CKC Laboratories, Inc. •110. N. Olinda Place. • Brea, CA 92821 • (714) 993-6112

Customer:	**Silex Technology, America, Inc.**		
Specification:	**FCC 15.207 COND [AVE]**		
Work Order #:	**90303**	Date:	2/2/2010
Test Type:	**Conducted Emissions**	Time:	14:29:33
Equipment:	**Wireless 802.11a/b/g SD Card Radio**	Sequence#:	6
Manufacturer:	Silex Technology America, Inc.	Tested By:	E. Wong
Model:	SX-SDCAG		110V 60Hz
S/N:	E1		

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Spectrum Analyzer	US44300438	07/23/2008	07/23/2010	02672
LISN	1104	12/09/2008	12/09/2010	00847
6dB Attenuator	None	11/16/2009	11/16/2011	P05886
Conducted Emission Cable	Cable #21	05/12/2008	05/12/2010	P04358
150kHz HPF	G7755	11/16/2009	11/16/2011	02610

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Wireless 802.11a/b/g SD Card Radio*	Silex Technology America, Inc.	SX-SDCAG	E1

Support Devices:

Function	Manufacturer	Model #	S/N
Evaluator Board	Silex Technology America, Inc.	SX-560-6900	NA
Power Supply	Condor	HK-CH13-A05	NA
802.11 a/b/g Wireless Access Point	3-Com	WL-526	NA
Laptop	Sony	PCG-982L	8323330
Serial Server	Silex Technology America, Inc.	SX-560	SL004545

Test Conditions / Notes:

The EUT and support evaluation board are placed on the wooden table. The EUT seeking modular approval is extended beyond the perimeter of the evaluation board via an extender card.

The support laptop sends data to the EUT via a support WiFi hub. The EUT receives processes and returns the data to the support computer via a support wireless hub.

Serial port of the support evaluation board is connected to the suppler laptop via a serial cable and all other ports are left unpopulated.

Freq: 2412- 2462MHz

Tx Frequency: 2437MHz
Ch 6
Modulation: 802.11g(54Mpbs)
Firmware setting: 18
Power :17.5dBm (0.0562W)

Antenna Manufacturer : Ethertronics
Antenna Gain: 2.5dBi @2.5GHz
Antenna Gain: 3.5dBi @5.0GHz
Transmit via Antenna #1

13°C, 58% Relative Humidity

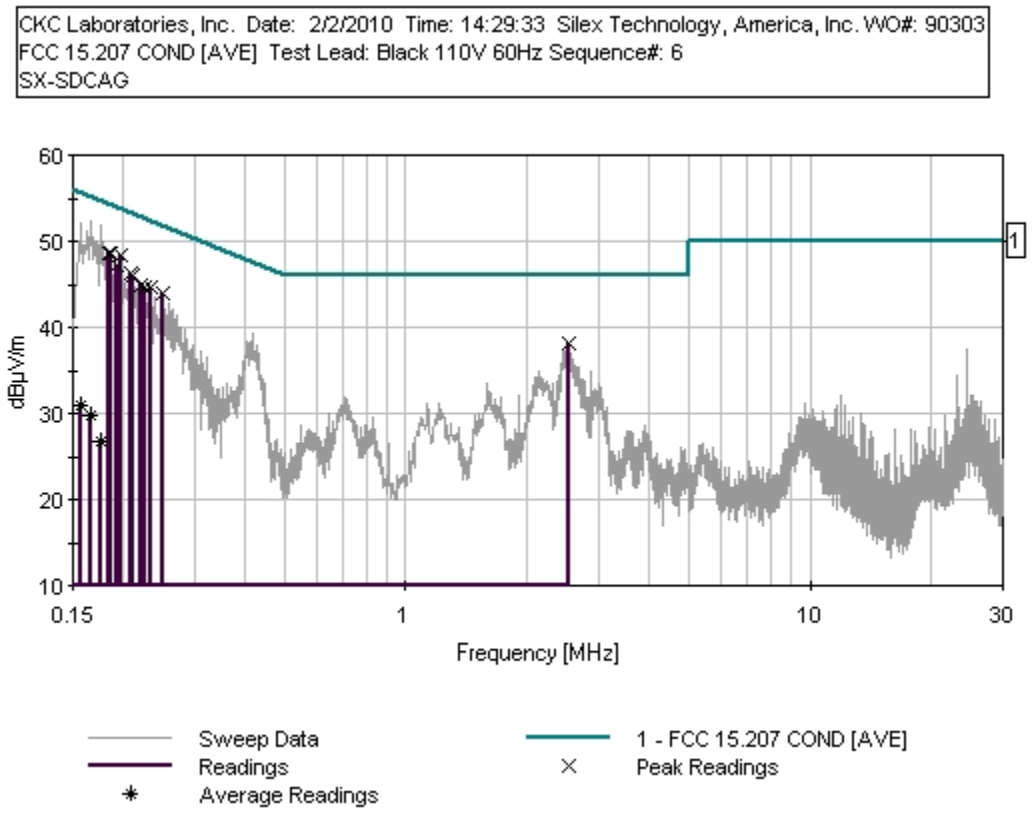
Transducer Legend:

T1=150kHz HPF AN02610_111611	T2=6dB atten-P05886-101410.TRN
T3=Cable #21 -P04358- Site A 05/12/10	T4=L1 Insertion Loss AN00847_120910

Measurement Data: Reading listed by margin. Test Lead: Black

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	196.541k	42.0	+0.3	+6.1	+0.0	+0.0	+0.0	48.4	53.8	-5.4	Black
2	185.633k	42.2	+0.2	+6.1	+0.0	+0.0	+0.0	48.5	54.2	-5.7	Black
3	184.179k	42.2	+0.2	+6.1	+0.0	+0.0	+0.0	48.5	54.3	-5.8	Black
4	192.905k	40.9	+0.2	+6.1	+0.0	+0.0	+0.0	47.2	53.9	-6.7	Black
5	208.177k	39.9	+0.3	+6.1	+0.0	+0.0	+0.0	46.3	53.3	-7.0	Black
6	211.085k	39.6	+0.3	+6.1	+0.0	+0.0	+0.0	46.0	53.2	-7.2	Black
7	234.356k	38.2	+0.3	+6.1	+0.0	+0.0	+0.0	44.6	52.3	-7.7	Black
8	221.993k	38.5	+0.3	+6.1	+0.0	+0.0	+0.0	44.9	52.7	-7.8	Black
9	251.082k	37.5	+0.3	+6.1	+0.0	+0.0	+0.0	43.9	51.7	-7.8	Black
10	2.536M	31.7	+0.1	+6.1	+0.1	+0.1	+0.0	38.1	46.0	-7.9	Black

11	226.357k	38.2	+0.3	+6.1	+0.0	+0.0	+0.0	44.6	52.6	-8.0	Black
12	157.272k Ave	23.9	+0.9	+6.1	+0.0	+0.0	+0.0	30.9	55.6	-24.7	Black
^	157.272k	45.1	+0.9	+6.1	+0.0	+0.0	+0.0	52.1	55.6	-3.5	Black
14	166.726k Ave	23.2	+0.4	+6.1	+0.0	+0.0	+0.0	29.7	55.1	-25.4	Black
^	166.726k	45.9	+0.4	+6.1	+0.0	+0.0	+0.0	52.4	55.1	-2.7	Black
^	162.363k	44.7	+0.4	+6.1	+0.0	+0.0	+0.0	51.2	55.3	-4.1	Black
17	176.907k Ave	20.4	+0.3	+6.1	+0.0	+0.0	+0.0	26.8	54.6	-27.8	Black
^	176.907k	45.5	+0.3	+6.1	+0.0	+0.0	+0.0	51.9	54.6	-2.7	Black



Test Location: CKC Laboratories, Inc. •110. N. Olinda Place. • Brea, CA 92821 • (714) 993-6112

Customer:	**Silex Technology, America, Inc.**		
Specification:	**FCC 15.207 COND [AVE]**		
Work Order #:	**90303**	Date:	2/2/2010
Test Type:	**Conducted Emissions**	Time:	2:30:38 PM
Equipment:	**Wireless 802.11a/b/g SD Card Radio**	Sequence#:	7
Manufacturer:	Silex Technology America, Inc.	Tested By:	E. Wong
Model:	SX-SDCAG		110V 60Hz
S/N:	E1		

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Spectrum Analyzer	US44300438	07/23/2008	07/23/2010	02672
LISN	1104	12/09/2008	12/09/2010	00847
6dB Attenuator	None	11/16/2009	11/16/2011	P05886
Conducted Emission Cable	Cable #21	05/12/2008	05/12/2010	P04358
150kHz HPF	G7755	11/16/2009	11/16/2011	02610

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Wireless 802.11a/b/g SD Card Radio*	Silex Technology America, Inc.	SX-SDCAG	E1

Support Devices:

Function	Manufacturer	Model #	S/N
Evaluator Board	Silex Technology America, Inc.	SX-560-6900	NA
Power Supply	Condor	HK-CH13-A05	NA
802.11 a/b/g Wireless Access Point	3-Com	WL-526	NA
Laptop	Sony	PCG-982L	8323330
Serial Server	Silex Technology America, Inc.	SX-560	SL004545

Test Conditions / Notes:

The EUT and support evaluation board are placed on the wooden table.
The EUT seeking modular approval is extended beyond the perimeter of the evaluation board via an extender card.

The support laptop sends data to the EUT via a support WiFi hub. The EUT receives processes and returns the data to the support computer via a support wireless hub.

Serial port of the support evaluation board is connected to the suppler laptop via a serial cable and all other ports are left unpopulated.

Tx Frequency: 2437MHz Ch 6
Modulation: 802.11g(54Mpbs)
Firmware setting: 18
Power:17.5dBm (0.0562W)

Antenna Manufacturer : Ethertronics
Antenna Gain: 2.5dBi @2.5GHz
Antenna Gain: 3.5dBi @5.0GHz
Transmit via Antenna #1

13°C, 58% Relative Humidity

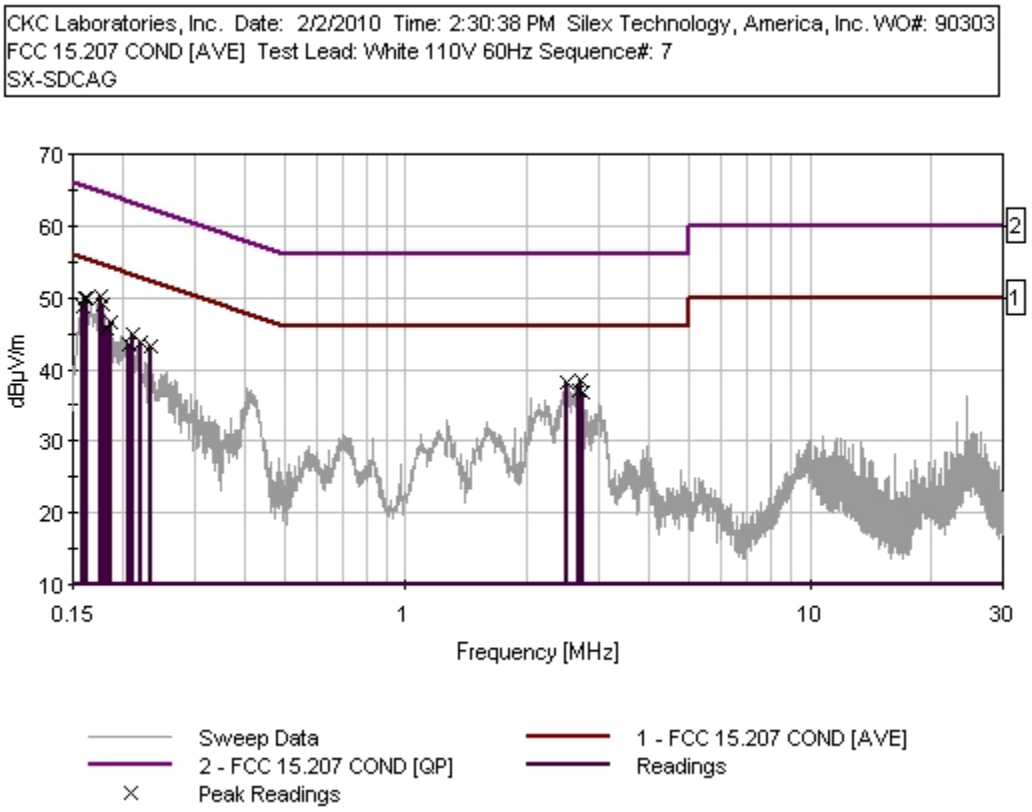
Transducer Legend:

T1=150kHz HPF AN02610_111611	T2=6dB atten-P05886-101410.TRN
T3=Cable #21 -P04358- Site A 05/12/10	T4=L2 Insertion Loss AN00847_120910

Measurement Data: Reading listed by margin. Test Lead: White

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	175.452k	43.7	+0.3	+6.1	+0.0	+0.1	+0.0	50.2	54.7	-4.5	White
2	162.363k	43.5	+0.4	+6.1	+0.0	+0.0	+0.0	50.0	55.3	-5.3	White
3	160.908k	43.3	+0.4	+6.1	+0.0	+0.0	+0.0	49.8	55.4	-5.6	White
4	177.634k	42.6	+0.2	+6.1	+0.0	+0.1	+0.0	49.0	54.6	-5.6	White
5	158.727k	42.2	+0.6	+6.1	+0.0	+0.0	+0.0	48.9	55.5	-6.6	White
6	2.710M	32.1	+0.1	+6.1	+0.1	+0.2	+0.0	38.6	46.0	-7.4	White
7	186.360k	40.2	+0.2	+6.1	+0.0	+0.1	+0.0	46.6	54.2	-7.6	White
8	2.497M	31.7	+0.1	+6.1	+0.1	+0.2	+0.0	38.2	46.0	-7.8	White
9	211.085k	38.3	+0.3	+6.1	+0.0	+0.1	+0.0	44.8	53.2	-8.4	White
10	182.724k	39.4	+0.2	+6.1	+0.0	+0.1	+0.0	45.8	54.4	-8.6	White
11	2.689M	30.7	+0.1	+6.1	+0.1	+0.2	+0.0	37.2	46.0	-8.8	White

12	219.812k	37.3	+0.3	+6.1	+0.0	+0.1	+0.0	43.8	52.8	-9.0	White
13	233.629k	36.8	+0.3	+6.1	+0.0	+0.1	+0.0	43.3	52.3	-9.0	White
14	2.736M	30.3	+0.1	+6.1	+0.1	+0.2	+0.0	36.8	46.0	-9.2	White
15	206.722k	37.0	+0.3	+6.1	+0.0	+0.1	+0.0	43.5	53.3	-9.8	White



Test Setup Photos

Test Setup Using Antenna Manufacture: Ethertronics

Test Setup Using Antenna Manufacture: Ethertronics

15.247(a)(2)6dB Bandwidth

Test Data Sheets

Test Setup: The EUT is placed on the test bench. The device is set in continuous transmit mode, the emission profile is measured at the antenna port.

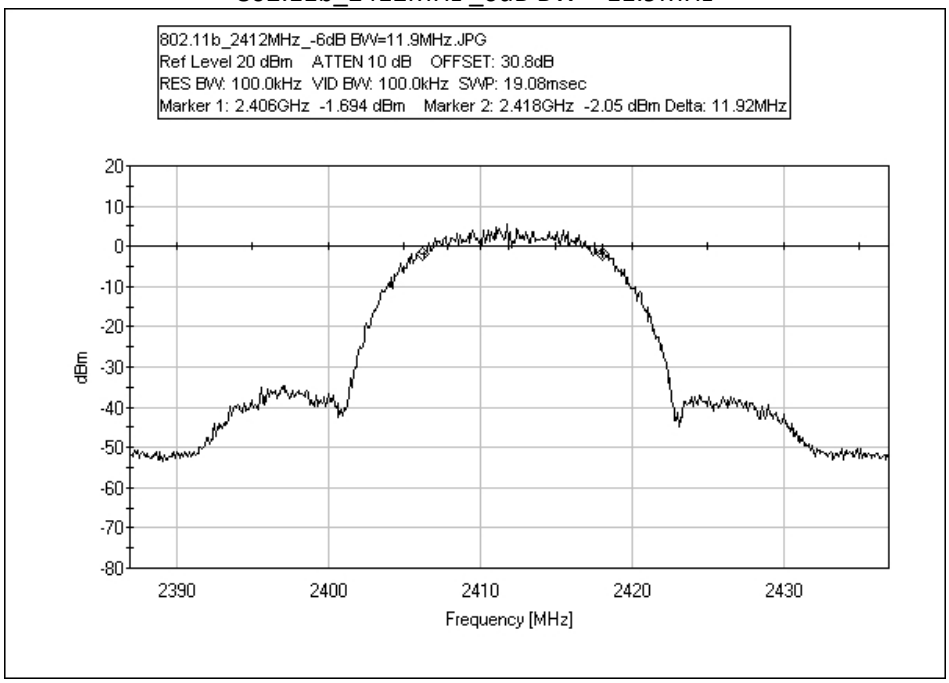
Test Conditions: Freq : 2.412- 2462MHz
Tx Frequency: 2412 MHz, 2437MHz, 2462MHz
Modulation: 802.11 b (11 Mbps), Ch 1, 6, 11
Firmware Power setting: 16 ,16, 18
Power= 15.5dBm (0.0355W), 15.6dBm (0.0363W), 16.6dBm (0.0457W)
Modulation: 802.11 g (54Mpbs) Ch 1, 6, 11
Firmware Power setting: 16, 18, 13
Power = 15.6 dBm(0.0363 W), 17.5dBm (0.0562W), 12.6dBm (0.0182W)
13°C, 58% Relative Humidity

Test Engineer: E. Wong

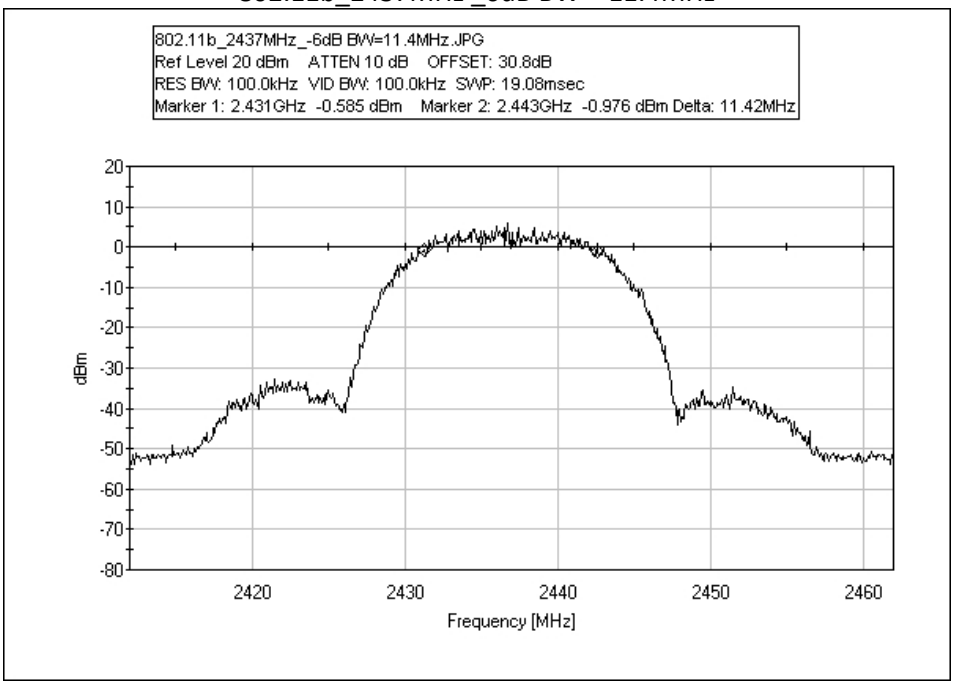
Test Equipment				
Equipment	**Serial**	**Cal Date**	**Cal Due**	**Asset**
Spectrum Analyzer	US44300438	07/23/2008	07/23/2010	02672
3'-40GHz cable	NA	09/14/2009	09/14/2011	P02946

Test Data Sheets

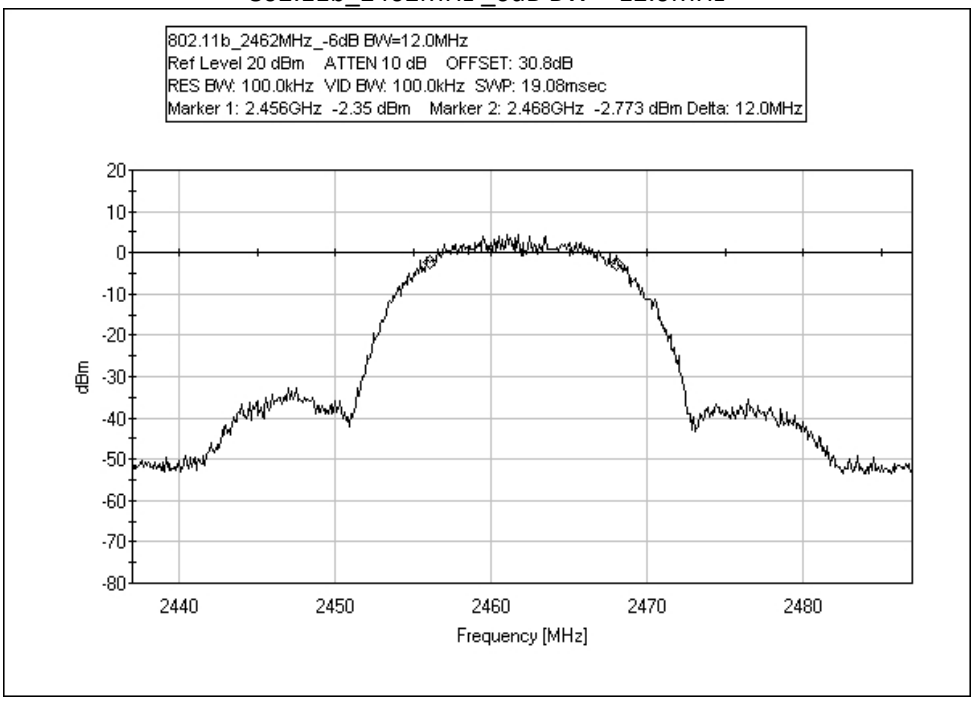
802.11b_2412MHz _6dB BW = 11.9MHz



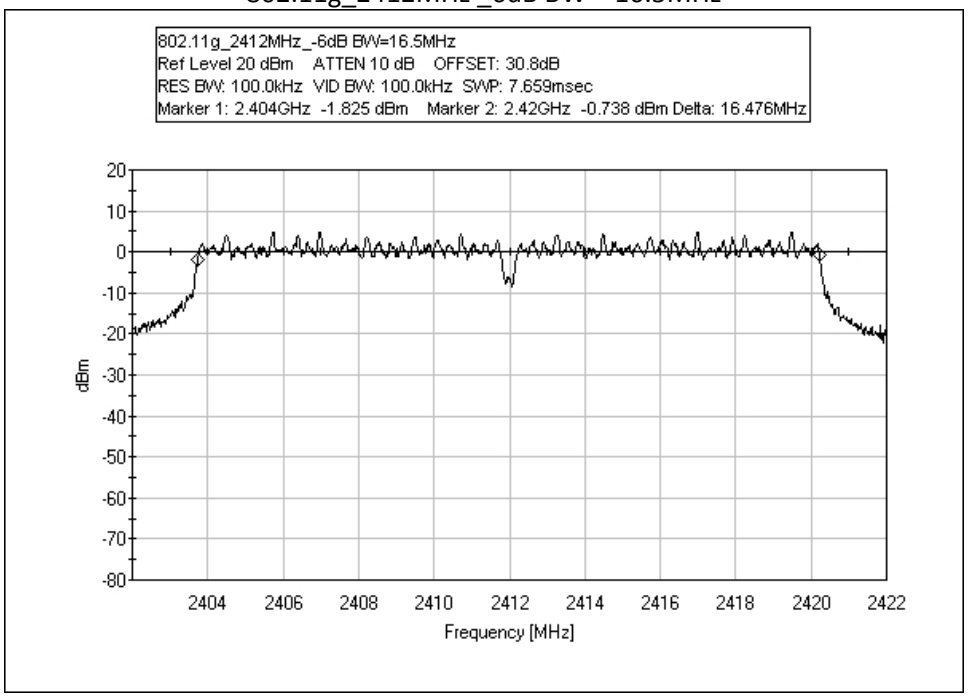
802.11b_2437MHz _6dB BW = 11.4MHz



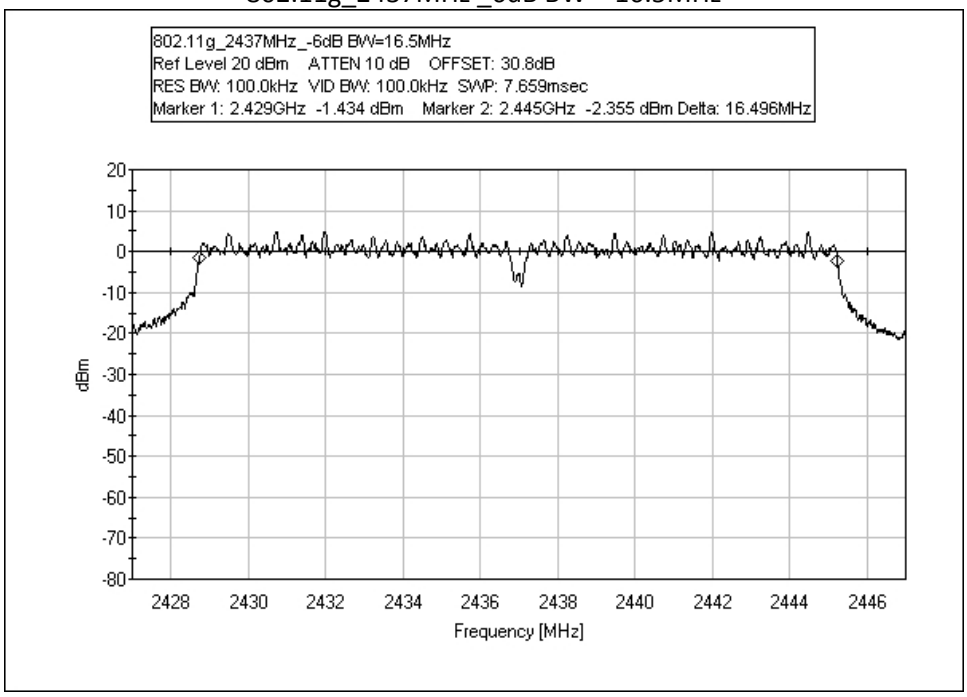
802.11b_2462MHz _6dB BW = 12.0MHz



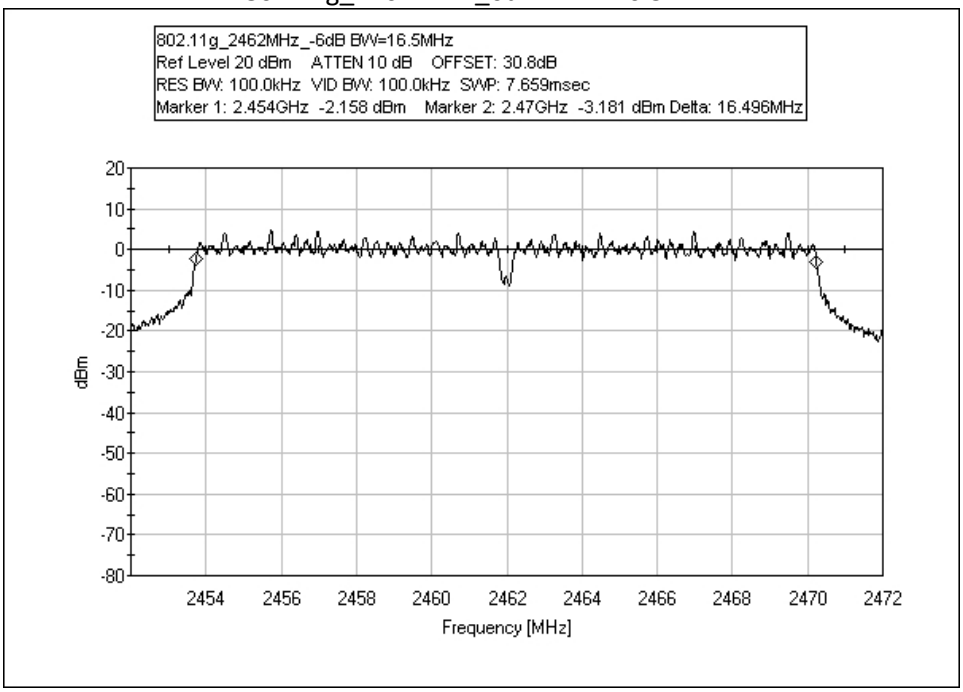
802.11g_2412MHz _6dB BW = 16.5MHz



802.11g_2437MHz _6dB BW = 16.5MHz



802.11g_2462MHz _6dB BW = 16.5MHz



Test Setup Photos

Test Setup Using Antenna Manufacture: Ethertronics

15.247(b)(3) RF Power Output

Test Setup: The EUT is placed on the test bench. The device is set in continuous transmit mode, the RF output power is measure at the antenna port in accordance with KDB Publication No. 558074, Power option 2, Method #1.

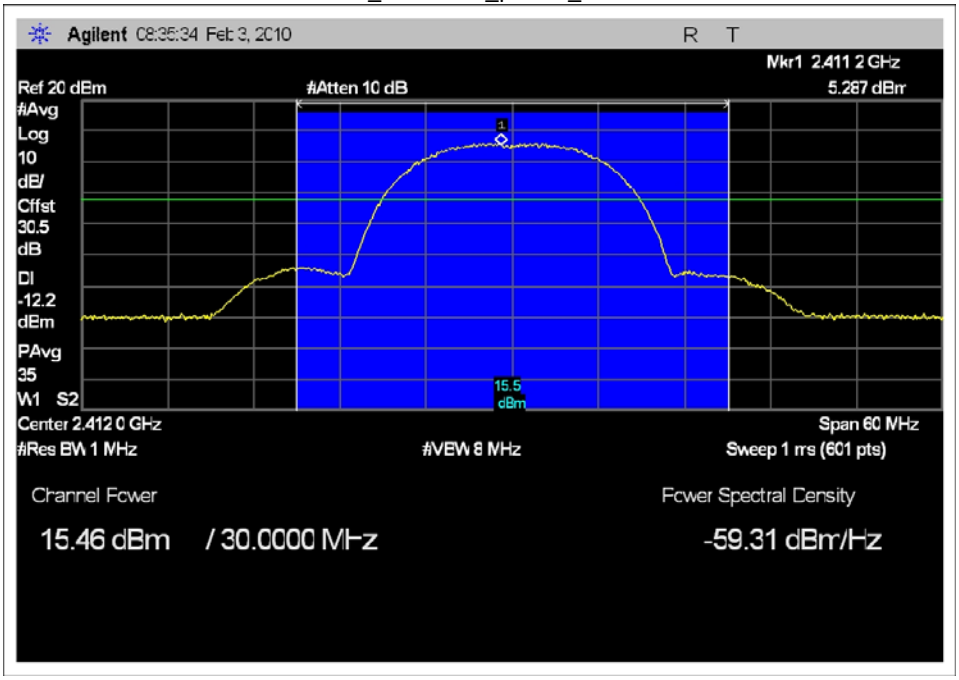
Test Engineer: E. Wong

Test Equipment				
Equipment	**Serial**	**Cal Date**	**Cal Due**	**Asset**
Spectrum Analyzer	US44300438	07/23/2008	07/23/2010	02672
3'-40GHz cable	NA	09/14/2009	09/14/2011	P02946
Power Supply	988614	10/14/2009	10/14/2010	1438

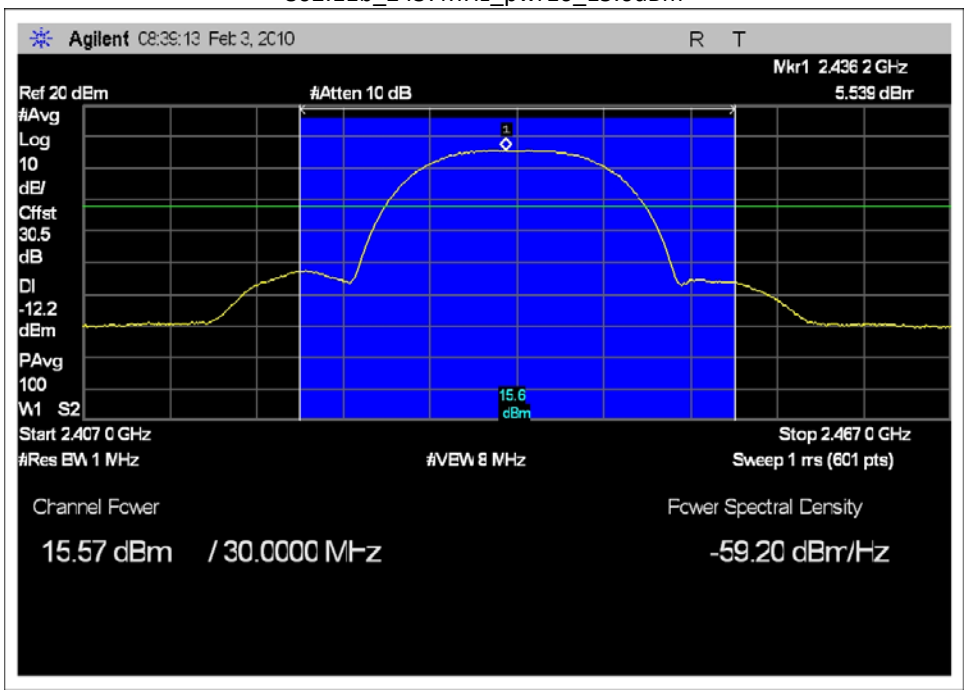
Test Data

Modulation	Frequency (MHz)	Channel	Firmware setting	Power (dBm)	Power (W)
802.11b	2412	1	16	15.5	0.0355
802.11b	2437	6	16	15.6	0.0363
802.11b	2462	11	18	16.6	0.0457
802.11g	2412	1	13	12.9	0.0195
802.11g	2437	6	18	17.5	0.0562
802.11g	2462	11	13	12.6	0.0182

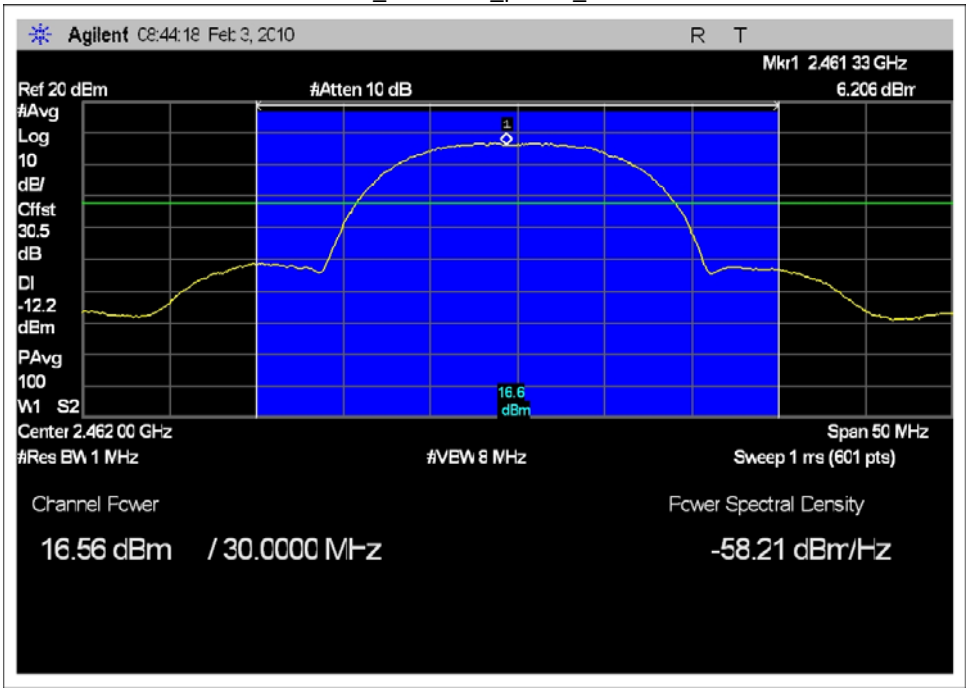
802.11b_2412MHz_pwr16_15.5dBm



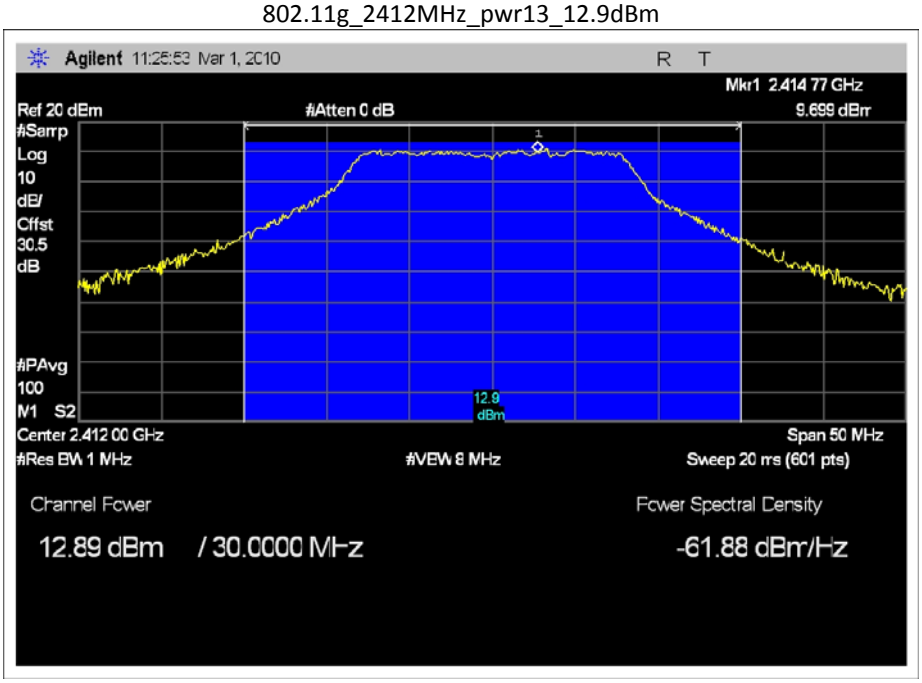
802.11b_2437MHz_pwr16_15.6dBm



802.11b_2437MHz_pwr18_16.6dBm



802.11g_2412MHz_pwr13_12.9dBm



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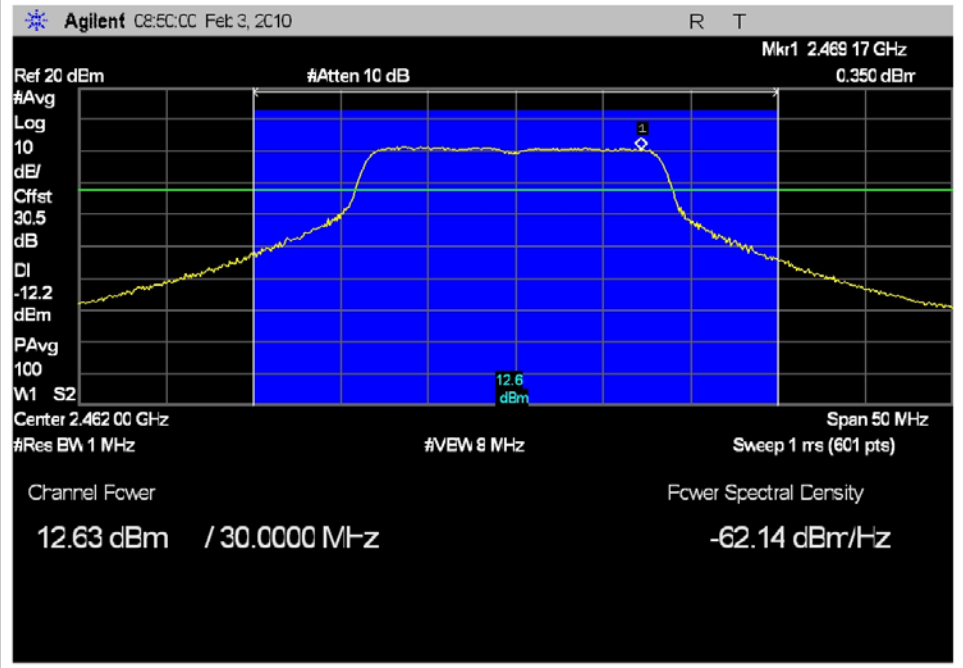
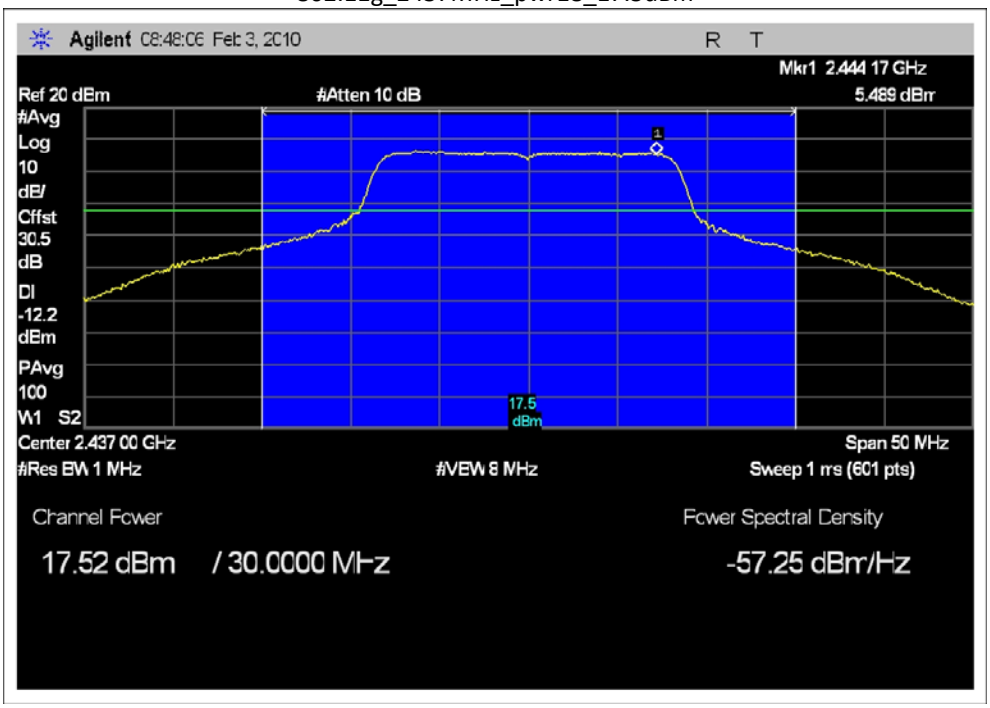


802.11g_2437MHz_pwr18_17.5dBm



Test Setup Photos

Test Setup Using Antenna Manufacture: Ethertronics

15.247(d)/15.209/15.205 Radiated Spurious Emissions

Test Data Sheets

Test Location: CKC Laboratories, Inc. •110. N. Olinda Place. • Brea, CA 92821 • (714) 993-6112

Customer: **Silex Technology, America, Inc.**
Specification: **FCC 15.247 (d) (FCC 15.209)**
Work Order #: **90303** Date: 1/29/2010
Test Type: **Radiated Scan** Time: 15:59:50
Equipment: **Wireless 802.11a/b/g SD Card Radio** Sequence#: 8
Manufacturer: Silex Technology America, Inc. Tested By: E. Wong
Model: SX-SDCAG
S/N: E1

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Bicon Antenna	220	10/22/2009	10/22/2011	306
Log Antenna	331	10/22/2009	10/22/2011	300
Spectrum Analyzer	US44300438	07/23/2008	07/23/2010	02672
Pre amp to SA Cable	Cable #10	04/16/2009	04/16/2011	P05050
Cable	Cable15	01/05/2009	01/05/2011	P05198
Pre Amp	1937A02548	05/02/2008	05/02/2010	00309
Horn Antenna	6246	06/06/2008	06/06/2010	00849
Microwave Pre-amp	3123A00281	07/28/2008	07/28/2010	00786
Heliax Antenna Cable	P5565	09/04/2008	09/04/2010	P05565
18-26GHz Horn	942126-003	11/12/2008	11/12/2010	01413
3.0 GHz HPF	1	03/25/2008	03/25/2010	02744
Loop Antenna	2014	06/16/2008	06/16/2010	00314
3'-40GHz cable	NA	09/14/2009	09/14/2011	P02946
2'-40GHz cable	NA	09/21/2009	09/21/2011	P2948

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Wireless 802.11a/b/g SD Card Radio*	Silex Technology America, Inc.	SX-SDCAG	E1

Support Devices:

Function	Manufacturer	Model #	S/N
Evaluator Board	Silex Technology America, Inc.	SX-560-6900	NA
Power Supply	Condor	HK-CH13-A05	NA
802.11 a/b/g Wireless Access Point	3-Com	WL-526	NA
Laptop	Sony	PCG-982L	8323330
Serial Server	Silex Technology America, Inc.	SX-560	SL004545

Test Conditions / Notes:

The EUT and support evaluation board are placed on the wooden table lined with a Styrofoam surface of 5 cm thickness. The EUT seeking modular approval is extended beyond the perimeter of the evaluation board via an extender card.

The support laptop sends data to the EUT via a support WiFi hub, the EUT receives processes and returns the data to the support computer via a support wireless hub.

Serial port of the support evaluation board is connected to the support laptop via a serial cable and all other ports are left unpopulated.

Freq: 2.412- 2462MHz

Tx Frequency: 2412 MHz, 2437MHz, 2462MHz
Modulation: 802.11 b (11 Mbps),
Ch 1, 6, 11
Firmware Power setting: 16 ,16, 18
Power= 15.5dBm (0.0355W), 15.6dBm (0.0363W), 16.6dBm (0.0457W)

Modulation: 802.11 g (54Mpbs)
Ch 1, 6, 11
Firmware Power setting: 16, 18, 13
Power = 15.6 dBm(0.0363 W), 17.5dBm (0.0562W), 12.6dBm (0.0182W)

Antenna Manufacturer : Ethertronics
Antenna Gain:: 2.5dBi @2.5GHz
Antenna Gain:: 3.5dBi @5.0GHz
Transmit via Antenna #1

13ºC, 58% Relative Humidity

Emission profile of the EUT and antennas rotated along the three orthogonal axis was investigated.

Frequency range of measurement = 9 kHz- 25 GHz.
Frequency 9 kHz - 150 kHz RBW=200 Hz, VBW=200 Hz; 150 kHz- 30 MHz RBW=9 kHz, VBW=9 kHz; 30 MHz- 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz- 26000 MHz RBW=1 MHz, VBW=1 MHz

Transducer Legend:

T1=Bico AN00306_102211	T2=Log AN00300_102211
T3=Cable #10 ANP05050 041611	T4=Cable #15_05198_ Site A, 010511
T5=Pre_amp_HP8447D-AN00309-050210	T6=Heliax Cable 54' ANP05565 090410
T7=HF_pre AMP-1-26GHz_AN00786-072810.TRN	T8=Hi Freq_40GHz_2ft-AN02948-092111
T9=Horn Ant AN00849 060610	T10=HPF_3GHz-AN02744-032510

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5 T9	T2 T6 T10	T3 T7	T4 T8	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	4873.833M Ave	49.8	+0.0 +0.0 +33.4	+0.0 +5.9 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	53.6	54.0 Z_802.11b	-0.4	Horiz
^	4873.833M	61.4	+0.0 +0.0 +33.4	+0.0 +5.9 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	65.2	54.0 Z_802.11b	+11.2	Horiz
3	4823.917M Ave	50.0	+0.0 +0.0 +33.3	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	53.6	54.0 X_802.11b	-0.4	Horiz
^	4824.000M	61.7	+0.0 +0.0 +33.3	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	65.3	54.0 Z_802.11b_power 16	+11.3	Horiz
^	4823.917M	61.6	+0.0 +0.0 +33.3	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	65.2	54.0 X_802.11b	+11.2	Horiz
6	4924.000M Ave	49.7	+0.0 +0.0 +33.5	+0.0 +5.9 +0.5	+0.0 -36.7	+0.0 +0.7	+0.0	53.6	54.0 X_802.11b	-0.4	Horiz
^	4924.000M	61.1	+0.0 +0.0 +33.5	+0.0 +5.9 +0.5	+0.0 -36.7	+0.0 +0.7	+0.0	65.0	54.0 X_802.11b	+11.0	Horiz
^	4924.000M	57.9	+0.0 +0.0 +33.5	+0.0 +5.9 +0.5	+0.0 -36.7	+0.0 +0.7	+0.0	61.8	54.0 Z_802.11b	+7.8	Horiz
^	4924.000M	55.6	+0.0 +0.0 +33.5	+0.0 +5.9 +0.5	+0.0 -36.7	+0.0 +0.7	+0.0	59.5	54.0 Y_802.11b	+5.5	Horiz
10	4824.000M Ave	49.8	+0.0 +0.0 +33.3	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	53.4	54.0 Z_802.11b_power 16	-0.6	Horiz
11	4874.000M Ave	49.4	+0.0 +0.0 +33.4	+0.0 +5.9 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	53.2	54.0 Y_802.11b	-0.8	Vert
12	4874.083M Ave	49.4	+0.0 +0.0 +33.4	+0.0 +5.9 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	53.2	54.0 X-802.11b_power 16	-0.8	Horiz
^	4874.083M	60.5	+0.0 +0.0 +33.4	+0.0 +5.9 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	64.3	54.0 X-802.11b_power 16	+10.3	Horiz

^	4874.000M	54.7	+0.0 +0.0 +33.4	+0.0 +5.9 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	58.5	54.0 Z_802.11g	+4.5	Horiz
15	2483.500M Ave	58.5	+0.0 +0.0 +28.2	+0.0 +3.8 +0.0	+0.0 -37.9	+0.0 +0.5	+0.0	53.1	54.0 Y_Bandedge_high_ worse case	-0.9	Vert
^	2483.500M	73.5	+0.0 +0.0 +28.2	+0.0 +3.8 +0.0	+0.0 -37.9	+0.0 +0.5	+0.0	68.1	54.0 Y_Bandedge_high_ worse case	+14.1	Vert
17	4823.833M Ave	48.4	+0.0 +0.0 +33.3	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	52.0	54.0 Y_802.11b	-2.0	Vert
^	4823.833M	60.4	+0.0 +0.0 +33.3	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	64.0	54.0 Y_802.11b	+10.0	Vert
19	4824.000M Ave	47.8	+0.0 +0.0 +33.3	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	51.4	54.0 Z_802.11b	-2.6	Vert
20	9648.000M Ave	40.2	+0.0 +0.0 +37.6	+0.0 +8.4 +0.4	+0.0 -36.5	+0.0 +1.0	+0.0	51.1	54.0 Y_802.11b	-2.9	Horiz
^	9648.000M	45.9	+0.0 +0.0 +37.6	+0.0 +8.4 +0.4	+0.0 -36.5	+0.0 +1.0	+0.0	56.8	54.0 Y_802.11b	+2.8	Horiz
22	9648.116M Ave	39.3	+0.0 +0.0 +37.6	+0.0 +8.4 +0.4	+0.0 -36.5	+0.0 +1.0	+0.0	50.2	54.0 Y_802.11b	-3.8	Vert
^	9648.116M	44.8	+0.0 +0.0 +37.6	+0.0 +8.4 +0.4	+0.0 -36.5	+0.0 +1.0	+0.0	55.7	54.0 Y_802.11b	+1.7	Vert
24	4924.000M Ave	46.0	+0.0 +0.0 +33.5	+0.0 +5.9 +0.5	+0.0 -36.7	+0.0 +0.7	+0.0	49.9	54.0 Z_802.11b	-4.1	Horiz
25	9748.000M Ave	39.1	+0.0 +0.0 +37.7	+0.0 +8.4 +0.3	+0.0 -36.6	+0.0 +1.0	+0.0	49.9	54.0 Y_802.11b	-4.1	Horiz
^	9748.000M	45.0	+0.0 +0.0 +37.7	+0.0 +8.4 +0.3	+0.0 -36.6	+0.0 +1.0	+0.0	55.8	54.0 Y_802.11b	+1.8	Horiz
27	4873.833M Ave	46.1	+0.0 +0.0 +33.4	+0.0 +5.9 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	49.9	54.0 Z_802.11b	-4.1	Vert
28	4822.833M Ave	46.3	+0.0 +0.0 +33.3	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	49.9	54.0 X-802.11g	-4.1	Horiz
^	4822.833M	57.0	+0.0 +0.0 +33.3	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	60.6	54.0 X-802.11g	+6.6	Horiz

30	4923.500M Ave	45.9	+0.0 +0.0 +33.5	+0.0 +5.9 +0.5	+0.0 -36.7	+0.0 +0.7	+0.0	49.8	54.0 Y_802.11b	-4.2	Vert
^	4923.500M	57.0	+0.0 +0.0 +33.5	+0.0 +5.9 +0.5	+0.0 -36.7	+0.0 +0.7	+0.0	60.9	54.0 Y_802.11b	+6.9	Vert
32	4820.667M Ave	46.2	+0.0 +0.0 +33.3	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	49.8	54.0 Z_802.11g	-4.2	Horiz
^	4820.667M	59.1	+0.0 +0.0 +33.3	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	62.7	54.0 Z_802.11g	+8.7	Horiz
34	9848.067M	38.8	+0.0 +0.0 +37.8	+0.0 +8.4 +0.3	+0.0 -36.7	+0.0 +1.0	+0.0	49.6	54.0 Y_802.11b	-4.4	Vert
35	800.000M QP	40.4	+0.0 -27.2 +0.0	+22.5 +0.0 +0.0	+0.4 +0.0	+5.3 +0.0	+0.0	41.4	46.0	-4.6	Vert
^	800.000M	42.3	+0.0 -27.2 +0.0	+22.5 +0.0 +0.0	+0.4 +0.0	+5.3 +0.0	+0.0	43.3	46.0	-2.7	Vert
^	799.998M	37.6	+0.0 -27.2 +0.0	+22.5 +0.0 +0.0	+0.4 +0.0	+5.3 +0.0	+0.0	38.6	46.0	-7.4	Vert
^	799.993M	37.1	+0.0 -27.2 +0.0	+22.5 +0.0 +0.0	+0.4 +0.0	+5.3 +0.0	+0.0	38.1	46.0	-7.9	Vert
39	800.000M QP	40.4	+0.0 -27.2 +0.0	+22.5 +0.0 +0.0	+0.4 +0.0	+5.3 +0.0	+0.0	41.4	46.0	-4.6	Horiz
^	800.000M	42.4	+0.0 -27.2 +0.0	+22.5 +0.0 +0.0	+0.4 +0.0	+5.3 +0.0	+0.0	43.4	46.0	-2.6	Horiz
^	800.000M	42.1	+0.0 -27.2 +0.0	+22.5 +0.0 +0.0	+0.4 +0.0	+5.3 +0.0	+0.0	43.1	46.0	-2.9	Horiz
42	9843.250M	38.6	+0.0 +0.0 +37.7	+0.0 +8.4 +0.3	+0.0 -36.7	+0.0 +1.0	+0.0	49.3	54.0 Y_802.11g	-4.7	Vert
43	9748.700M	38.3	+0.0 +0.0 +37.7	+0.0 +8.4 +0.3	+0.0 -36.6	+0.0 +1.0	+0.0	49.1	54.0 Y_802.11g	-4.9	Vert
44	259.020M	46.1	+19.5 -27.7 +0.0	+0.0 +0.0 +0.0	+0.3 +0.0	+2.8 +0.0	+0.0	41.0	46.0	-5.0	Horiz

45	550.000M QP	45.5	+0.0 -27.6 +0.0	+18.4 +0.0 +0.0	+0.4 +0.0	+4.3 +0.0	+0.0	41.0	46.0	-5.0	Horiz
^	550.000M	46.7	+0.0 -27.6 +0.0	+18.4 +0.0 +0.0	+0.4 +0.0	+4.3 +0.0	+0.0	42.2	46.0	-3.8	Horiz
^	550.000M	46.7	+0.0 -27.6 +0.0	+18.4 +0.0 +0.0	+0.4 +0.0	+4.3 +0.0	+0.0	42.2	46.0	-3.8	Horiz
48	4924.417M Ave	45.1	+0.0 +0.0 +33.5	+0.0 +5.9 +0.5	+0.0 -36.7	+0.0 +0.7	+0.0	49.0	54.0 Y_802.11g	-5.0	Vert
^	4924.417M	57.1	+0.0 +0.0 +33.5	+0.0 +5.9 +0.5	+0.0 -36.7	+0.0 +0.7	+0.0	61.0	54.0 Y_802.11g	+7.0	Vert
50	4924.000M Ave	44.8	+0.0 +0.0 +33.5	+0.0 +5.9 +0.5	+0.0 -36.7	+0.0 +0.7	+0.0	48.7	54.0 Z_802.11b	-5.3	Vert
51	800.000M QP	39.6	+0.0 -27.2 +0.0	+22.5 +0.0 +0.0	+0.4 +0.0	+5.3 +0.0	+0.0	40.6	46.0	-5.4	Horiz
52	7228.800M	41.5	+0.0 +0.0 +35.6	+0.0 +6.7 +0.3	+0.0 -36.5	+0.0 +0.8	+0.0	48.4	54.0 Y_802.11g	-5.6	Vert
53	7386.000M	40.9	+0.0 +0.0 +35.9	+0.0 +6.8 +0.3	+0.0 -36.4	+0.0 +0.8	+0.0	48.3	54.0 Y_802.11b	-5.7	Horiz
54	550.017M QP	44.8	+0.0 -27.6 +0.0	+18.4 +0.0 +0.0	+0.4 +0.0	+4.3 +0.0	+0.0	40.3	46.0	-5.7	Vert
^	550.017M	49.4	+0.0 -27.6 +0.0	+18.4 +0.0 +0.0	+0.4 +0.0	+4.3 +0.0	+0.0	44.9	46.0	-1.1	Vert
^	549.993M	43.4	+0.0 -27.6 +0.0	+18.4 +0.0 +0.0	+0.4 +0.0	+4.3 +0.0	+0.0	38.9	46.0	-7.1	Vert
^	550.000M	40.9	+0.0 -27.6 +0.0	+18.4 +0.0 +0.0	+0.4 +0.0	+4.3 +0.0	+0.0	36.4	46.0	-9.6	Vert
58	4924.500M Ave	44.4	+0.0 +0.0 +33.5	+0.0 +5.9 +0.5	+0.0 -36.7	+0.0 +0.7	+0.0	48.3	54.0 X-802.11g	-5.7	Horiz
^	4924.500M	57.1	+0.0 +0.0 +33.5	+0.0 +5.9 +0.5	+0.0 -36.7	+0.0 +0.7	+0.0	61.0	54.0 X-802.11g	+7.0	Horiz
^	4924.417M	52.1	+0.0 +0.0 +33.5	+0.0 +5.9 +0.5	+0.0 -36.7	+0.0 +0.7	+0.0	56.0	54.0 Y_802.11g	+2.0	Horiz

61	749.997M	38.3	+0.0 -27.0 +0.0	+23.0 +0.0 +0.0	+0.4 +0.0	+5.1 +0.0	+0.0	39.8	46.0	-6.2	Vert
62	4870.667M Ave	44.1	+0.0 +0.0 +33.4	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	47.8	54.0 Y_802.11g	-6.2	Vert
^	4870.667M	57.0	+0.0 +0.0 +33.4	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	60.7	54.0 Y_802.11g	+6.7	Vert
64	4924.000M Ave	43.7	+0.0 +0.0 +33.5	+0.0 +5.9 +0.5	+0.0 -36.7	+0.0 +0.7	+0.0	47.6	54.0 Y_802.11b	-6.4	Horiz
65	7310.750M	40.3	+0.0 +0.0 +35.8	+0.0 +6.7 +0.3	+0.0 -36.4	+0.0 +0.8	+0.0	47.5	54.0 Z_802.11b	-6.5	Vert
66	7237.333M	40.6	+0.0 +0.0 +35.6	+0.0 +6.7 +0.3	+0.0 -36.5	+0.0 +0.8	+0.0	47.5	54.0 Y_802.11b	-6.5	Vert
67	62.267M	51.4	+8.7 -28.0 +0.0	+0.0 +0.0 +0.0	+0.1 +0.0	+1.2 +0.0	+0.0	33.4	40.0	-6.6	Vert
68	550.000M QP	43.7	+0.0 -27.6 +0.0	+18.4 +0.0 +0.0	+0.4 +0.0	+4.3 +0.0	+0.0	39.2	46.0	-6.8	Horiz
69	4874.000M Ave	43.4	+0.0 +0.0 +33.4	+0.0 +5.9 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	47.2	54.0 Z_802.11g	-6.8	Horiz
^	4873.967M	53.6	+0.0 +0.0 +33.4	+0.0 +5.9 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	57.4	54.0 Y_802.11b	+3.4	Horiz
71	325.067M	42.8	+0.0 -27.8 +0.0	+20.7 +0.0 +0.0	+0.3 +0.0	+3.2 +0.0	+0.0	39.2	46.0	-6.8	Vert
72	7386.067M	39.7	+0.0 +0.0 +35.9	+0.0 +6.8 +0.3	+0.0 -36.4	+0.0 +0.8	+0.0	47.1	54.0 Y_802.11b	-6.9	Vert
73	7310.650M	39.9	+0.0 +0.0 +35.8	+0.0 +6.7 +0.3	+0.0 -36.4	+0.0 +0.8	+0.0	47.1	54.0 X_802.11b	-6.9	Vert
74	4824.300M Ave	43.4	+0.0 +0.0 +33.3	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	47.0	54.0 Y_802.11g	-7.0	Vert
^	4824.300M	57.0	+0.0 +0.0 +33.3	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	60.6	54.0 Y_802.11g	+6.6	Vert
76	7311.000M	39.8	+0.0 +0.0 +35.8	+0.0 +6.7 +0.3	+0.0 -36.4	+0.0 +0.8	+0.0	47.0	54.0 Y_802.11b	-7.0	Vert

77	7286.300M	39.8	+0.0 +0.0 +35.7	+0.0 +6.7 +0.3	+0.0 -36.4	+0.0 +0.8	+0.0	46.9	54.0 Y_802.11g	-7.1	Horiz
78	900.030M	35.8	+0.0 -27.2 +0.0	+23.8 +0.0 +0.0	+0.7 +0.0	+5.7 +0.0	+0.0	38.8	46.0	-7.2	Vert
79	4873.917M Ave	42.7	+0.0 +0.0 +33.4	+0.0 +5.9 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	46.5	54.0 X_802.11b	-7.5	Vert
^	4874.000M	61.2	+0.0 +0.0 +33.4	+0.0 +5.9 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	65.0	54.0 Y_802.11b	+11.0	Vert
^	4873.833M	57.9	+0.0 +0.0 +33.4	+0.0 +5.9 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	61.7	54.0 Z_802.11b	+7.7	Vert
^	4873.917M	54.8	+0.0 +0.0 +33.4	+0.0 +5.9 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	58.6	54.0 X_802.11b	+4.6	Vert
^	4874.000M	52.2	+0.0 +0.0 +33.4	+0.0 +5.9 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	56.0	54.0 Z_802.11g	+2.0	Vert
84	9843.080M	35.7	+0.0 +0.0 +37.7	+0.0 +8.4 +0.3	+0.0 -36.7	+0.0 +1.0	+0.0	46.4	54.0 Y_802.11g	-7.6	Horiz
85	4923.817M Ave	42.5	+0.0 +0.0 +33.5	+0.0 +5.9 +0.5	+0.0 -36.7	+0.0 +0.7	+0.0	46.4	54.0 Z_802.11g	-7.6	Horiz
^	4923.817M	53.5	+0.0 +0.0 +33.5	+0.0 +5.9 +0.5	+0.0 -36.7	+0.0 +0.7	+0.0	57.4	54.0 Z_802.11g	+3.4	Horiz
87	7236.000M	39.4	+0.0 +0.0 +35.6	+0.0 +6.7 +0.3	+0.0 -36.5	+0.0 +0.8	+0.0	46.3	54.0 Y_802.11b	-7.7	Horiz
88	4870.333M Ave	42.6	+0.0 +0.0 +33.4	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	46.3	54.0 X-802.11g	-7.7	Horiz
^	4870.333M	57.3	+0.0 +0.0 +33.4	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	61.0	54.0 X-802.11g	+7.0	Horiz
90	7383.670M	38.9	+0.0 +0.0 +35.9	+0.0 +6.8 +0.3	+0.0 -36.4	+0.0 +0.8	+0.0	46.3	54.0 Y_802.11g	-7.7	Horiz
91	224.991M	45.4	+17.9 -27.9 +0.0	+0.0 +0.0 +0.0	+0.3 +0.0	+2.6 +0.0	+0.0	38.3	46.0	-7.7	Vert
92	255.015M	43.9	+19.0 -27.7 +0.0	+0.0 +0.0 +0.0	+0.3 +0.0	+2.8 +0.0	+0.0	38.3	46.0	-7.7	Horiz

93	4823.667M Ave	42.5	+0.0 +0.0 +33.3	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	46.1	54.0 Y_802.11b	-7.9	Horiz
^	4823.667M	54.3	+0.0 +0.0 +33.3	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	57.9	54.0 Y_802.11b	+3.9	Horiz
95	450.017M	45.1	+0.0 -27.8 +0.0	+16.6 +0.0 +0.0	+0.3 +0.0	+3.8 +0.0	+0.0	38.0	46.0	-8.0	Vert
96	399.990M QP	45.9	+0.0 -27.8 +0.0	+15.7 +0.0 +0.0	+0.4 +0.0	+3.6 +0.0	+0.0	37.8	46.0	-8.2	Vert
^	399.990M	48.4	+0.0 -27.8 +0.0	+15.7 +0.0 +0.0	+0.4 +0.0	+3.6 +0.0	+0.0	40.3	46.0	-5.7	Vert
98	4873.967M Ave	41.7	+0.0 +0.0 +33.4	+0.0 +5.9 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	45.5	54.0 Y_802.11b	-8.5	Horiz
99	4924.000M Ave	41.5	+0.0 +0.0 +33.5	+0.0 +5.9 +0.5	+0.0 -36.7	+0.0 +0.7	+0.0	45.4	54.0 X_802.11b	-8.6	Vert
100	4823.983M Ave	41.5	+0.0 +0.0 +33.3	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	45.1	54.0 X_802.11b	-8.9	Vert
^	4824.000M	59.7	+0.0 +0.0 +33.3	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	63.3	54.0 Z_802.11b	+9.3	Vert
^	4823.983M	53.3	+0.0 +0.0 +33.3	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	56.9	54.0 X_802.11b	+2.9	Vert
103	247.000M	43.3	+18.4 -27.7 +0.0	+0.0 +0.0 +0.0	+0.3 +0.0	+2.8 +0.0	+0.0	37.1	46.0	-8.9	Horiz
104	475.917M	43.4	+0.0 -27.8 +0.0	+17.0 +0.0 +0.0	+0.4 +0.0	+4.0 +0.0	+0.0	37.0	46.0	-9.0	Vert
105	500.000M	42.8	+0.0 -27.8 +0.0	+17.4 +0.0 +0.0	+0.4 +0.0	+4.1 +0.0	+0.0	36.9	46.0	-9.1	Vert
106	247.033M	42.5	+18.4 -27.7 +0.0	+0.0 +0.0 +0.0	+0.3 +0.0	+2.8 +0.0	+0.0	36.3	46.0	-9.7	Horiz
107	4874.000M Ave	40.3	+0.0 +0.0 +33.4	+0.0 +5.9 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	44.1	54.0 Z_802.11g	-9.9	Vert
108	700.017M	34.4	+0.0 -27.3 +0.0	+23.5 +0.0 +0.0	+0.5 +0.0	+4.9 +0.0	+0.0	36.0	46.0	-10.0	Vert

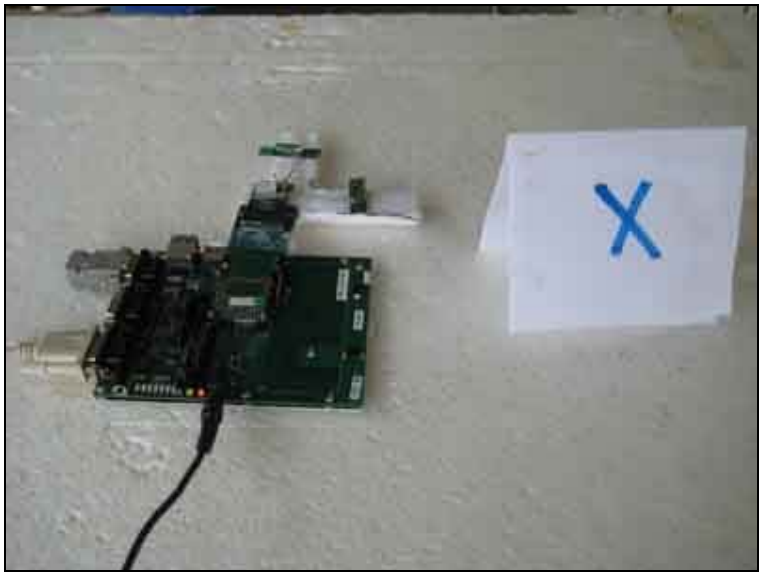
109	230.980M	42.6	+18.1 -27.9 +0.0	+0.0 +0.0 +0.0	+0.3 +0.0	+2.6 +0.0	+0.0	35.7	46.0	-10.3	Vert
110	4820.667M Ave	40.0	+0.0 +0.0 +33.3	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	43.6	54.0 Z_802.11g	-10.4	Vert
^	4820.667M	52.3	+0.0 +0.0 +33.3	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	55.9	54.0 Z_802.11g	+1.9	Vert
112	239.975M	42.0	+18.3 -27.8 +0.0	+0.0 +0.0 +0.0	+0.3 +0.0	+2.7 +0.0	+0.0	35.5	46.0	-10.5	Vert
113	227.030M	42.5	+18.0 -27.9 +0.0	+0.0 +0.0 +0.0	+0.3 +0.0	+2.6 +0.0	+0.0	35.5	46.0	-10.5	Vert
114	246.967M	41.7	+18.4 -27.7 +0.0	+0.0 +0.0 +0.0	+0.3 +0.0	+2.8 +0.0	+0.0	35.5	46.0	-10.5	Horiz
115	4924.417M Ave	39.4	+0.0 +0.0 +33.5	+0.0 +5.9 +0.5	+0.0 -36.7	+0.0 +0.7	+0.0	43.3	54.0 Y_802.11g	-10.7	Horiz
116	749.983M	33.1	+0.0 -27.0 +0.0	+23.0 +0.0 +0.0	+0.4 +0.0	+5.1 +0.0	+0.0	34.6	46.0	-11.4	Vert
117	4821.500M Ave	39.0	+0.0 +0.0 +33.3	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	42.6	54.0 Y_802.11g	-11.4	Horiz
^	4821.500M	49.3	+0.0 +0.0 +33.3	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	52.9	54.0 Y_802.11g	-1.1	Horiz
119	7385.633M Ave	35.0	+0.0 +0.0 +35.9	+0.0 +6.8 +0.3	+0.0 -36.4	+0.0 +0.8	+0.0	42.4	54.0 Z_802.11g	-11.6	Horiz
^	7385.633M	47.3	+0.0 +0.0 +35.9	+0.0 +6.8 +0.3	+0.0 -36.4	+0.0 +0.8	+0.0	54.7	54.0 Z_802.11g	+0.7	Horiz
121	425.107M	42.0	+0.0 -27.8 +0.0	+16.2 +0.0 +0.0	+0.3 +0.0	+3.7 +0.0	+0.0	34.4	46.0	-11.6	Vert
122	4923.817M Ave	38.4	+0.0 +0.0 +33.5	+0.0 +5.9 +0.5	+0.0 -36.7	+0.0 +0.7	+0.0	42.3	54.0 Z_802.11g	-11.7	Vert
^	4923.817M	49.9	+0.0 +0.0 +33.5	+0.0 +5.9 +0.5	+0.0 -36.7	+0.0 +0.7	+0.0	53.8	54.0 Z_802.11g	-0.2	Vert

124	7311.000M Ave	35.0	+0.0 +0.0 +35.8	+0.0 +6.7 +0.3	+0.0 -36.4	+0.0 +0.8	+0.0	42.2	54.0 Z_802.11g	-11.8	Horiz
	^ 7311.000M	46.3	+0.0 +0.0 +35.8	+0.0 +6.7 +0.3	+0.0 -36.4	+0.0 +0.8	+0.0	53.5	54.0 Z_802.11g	-0.5	Horiz
126	651.783M	34.5	+0.0 -27.2 +0.0	+21.6 +0.0 +0.0	+0.5 +0.0	+4.7 +0.0	+0.0	34.1	46.0	-11.9	Vert
127	233.020M	40.8	+18.1 -27.8 +0.0	+0.0 +0.0 +0.0	+0.3 +0.0	+2.7 +0.0	+0.0	34.1	46.0	-11.9	Vert
128	699.983M	32.4	+0.0 -27.3 +0.0	+23.5 +0.0 +0.0	+0.5 +0.0	+4.9 +0.0	+0.0	34.0	46.0	-12.0	Vert
129	7307.000M Ave	34.8	+0.0 +0.0 +35.7	+0.0 +6.7 +0.3	+0.0 -36.4	+0.0 +0.8	+0.0	41.9	54.0 Y_802.11g	-12.1	Vert
	^ 7307.000M	49.2	+0.0 +0.0 +35.7	+0.0 +6.7 +0.3	+0.0 -36.4	+0.0 +0.8	+0.0	56.3	54.0 Y_802.11g	+2.3	Vert
131	7383.833M Ave	34.5	+0.0 +0.0 +35.9	+0.0 +6.8 +0.3	+0.0 -36.4	+0.0 +0.8	+0.0	41.9	54.0 Y_802.11g	-12.1	Vert
	^ 7383.833M	46.9	+0.0 +0.0 +35.9	+0.0 +6.8 +0.3	+0.0 -36.4	+0.0 +0.8	+0.0	54.3	54.0 Y_802.11g	+0.3	Vert
133	4872.833M Ave	38.2	+0.0 +0.0 +33.4	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	41.9	54.0 X-802.11g	-12.1	Vert
	^ 4872.833M	50.2	+0.0 +0.0 +33.4	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	53.9	54.0 X-802.11g	-0.1	Vert
135	4820.417M Ave	38.2	+0.0 +0.0 +33.3	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	41.8	54.0 X-802.11g	-12.2	Vert
	^ 4820.417M	51.3	+0.0 +0.0 +33.3	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	54.9	54.0 X-802.11g	+0.9	Vert
137	520.930M	39.0	+0.0 -27.7 +0.0	+17.8 +0.0 +0.0	+0.4 +0.0	+4.2 +0.0	+0.0	33.7	46.0	-12.3	Vert
138	4870.833M Ave	38.0	+0.0 +0.0 +33.4	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	41.7	54.0 Y_802.11g	-12.3	Horiz
	^ 4870.833M	49.9	+0.0 +0.0 +33.4	+0.0 +5.8 +0.6	+0.0 -36.8	+0.0 +0.7	+0.0	53.6	54.0 Y_802.11g	-0.4	Horiz

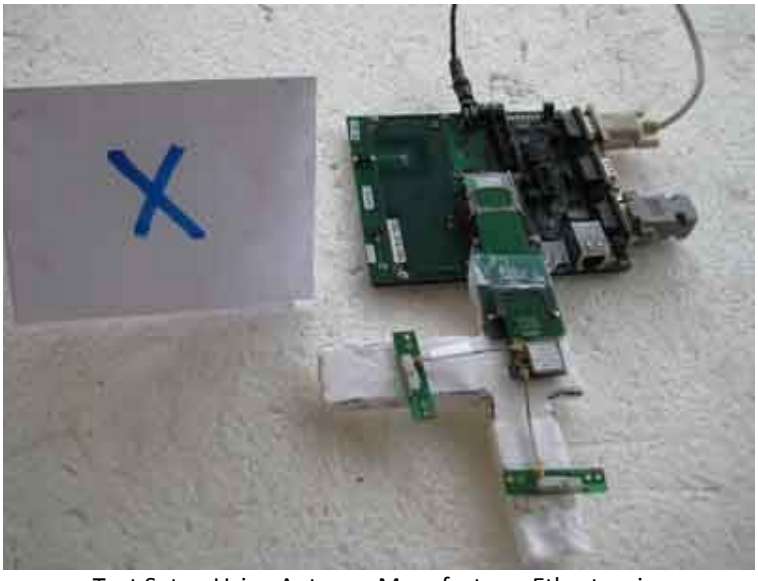
140	4924.000M Ave	37.7	+0.0 +0.0 +33.5	+0.0 +5.9 +0.5	+0.0 -36.7	+0.0 +0.7	+0.0	41.6	54.0 X-802.11g	-12.4	Vert
	^ 4924.000M	56.5	+0.0 +0.0 +33.5	+0.0 +5.9 +0.5	+0.0 -36.7	+0.0 +0.7	+0.0	60.4	54.0 Z_802.11b	+6.4	Vert
	^ 4924.000M	53.7	+0.0 +0.0 +33.5	+0.0 +5.9 +0.5	+0.0 -36.7	+0.0 +0.7	+0.0	57.6	54.0 X_802.11b	+3.6	Vert
	^ 4924.000M	48.1	+0.0 +0.0 +33.5	+0.0 +5.9 +0.5	+0.0 -36.7	+0.0 +0.7	+0.0	52.0	54.0 X-802.11g	-2.0	Vert
144	429.730M	41.0	+0.0 -27.8 +0.0	+16.2 +0.0 +0.0	+0.3 +0.0	+3.7 +0.0	+0.0	33.4	46.0	-12.6	Vert
145	545.033M	37.9	+0.0 -27.6 +0.0	+18.3 +0.0 +0.0	+0.4 +0.0	+4.3 +0.0	+0.0	33.3	46.0	-12.7	Vert
146	126.183M	40.4	+16.2 -27.9 +0.0	+0.0 +0.0 +0.0	+0.2 +0.0	+1.8 +0.0	+0.0	30.7	43.5	-12.8	Horiz
147	481.070M	39.4	+0.0 -27.8 +0.0	+17.1 +0.0 +0.0	+0.4 +0.0	+4.0 +0.0	+0.0	33.1	46.0	-12.9	Vert
148	133.260M	38.8	+17.1 -27.9 +0.0	+0.0 +0.0 +0.0	+0.2 +0.0	+1.9 +0.0	+0.0	30.1	43.5	-13.4	Horiz
149	160.020M	36.8	+18.8 -27.9 +0.0	+0.0 +0.0 +0.0	+0.3 +0.0	+2.1 +0.0	+0.0	30.1	43.5	-13.4	Horiz
150	424.150M	40.0	+0.0 -27.8 +0.0	+16.1 +0.0 +0.0	+0.4 +0.0	+3.7 +0.0	+0.0	32.4	46.0	-13.6	Vert
151	238.990M	38.9	+18.3 -27.8 +0.0	+0.0 +0.0 +0.0	+0.3 +0.0	+2.7 +0.0	+0.0	32.4	46.0	-13.6	Vert
152	375.700M	38.9	+0.0 -27.8 +0.0	+17.2 +0.0 +0.0	+0.4 +0.0	+3.5 +0.0	+0.0	32.2	46.0	-13.8	Vert
153	293.025M	33.0	+22.9 -27.8 +0.0	+0.0 +0.0 +0.0	+0.3 +0.0	+3.0 +0.0	+0.0	31.4	46.0	-14.6	Vert
154	780.100M	30.1	+0.0 -27.1 +0.0	+22.7 +0.0 +0.0	+0.4 +0.0	+5.2 +0.0	+0.0	31.3	46.0	-14.7	Vert
155	466.070M	37.9	+0.0 -27.8 +0.0	+16.9 +0.0 +0.0	+0.3 +0.0	+3.9 +0.0	+0.0	31.2	46.0	-14.8	Vert

156	434.850M	38.5	+0.0 -27.8 +0.0	+16.3 +0.0 +0.0	+0.3 +0.0	+3.7 +0.0	+0.0	31.0	46.0	-15.0	Vert
157	398.270M	38.8	+0.0 -27.8 +0.0	+15.8 +0.0 +0.0	+0.4 +0.0	+3.6 +0.0	+0.0	30.8	46.0	-15.2	Vert
158	384.017M	37.9	+0.0 -27.8 +0.0	+16.7 +0.0 +0.0	+0.4 +0.0	+3.5 +0.0	+0.0	30.7	46.0	-15.3	Vert
159	361.230M	36.5	+0.0 -27.8 +0.0	+18.2 +0.0 +0.0	+0.3 +0.0	+3.4 +0.0	+0.0	30.6	46.0	-15.4	Vert
160	220.980M	37.8	+17.8 -27.9 +0.0	+0.0 +0.0 +0.0	+0.3 +0.0	+2.6 +0.0	+0.0	30.6	46.0	-15.4	Horiz
161	7386.500M Ave	30.9	+0.0 +0.0 +35.9	+0.0 +6.8 +0.3	+0.0 -36.4	+0.0 +0.8	+0.0	38.3	54.0 X-802.11g	-15.7	Horiz
^	7386.500M	43.8	+0.0 +0.0 +35.9	+0.0 +6.8 +0.3	+0.0 -36.4	+0.0 +0.8	+0.0	51.2	54.0 X-802.11g	-2.8	Horiz
163	436.230M	37.2	+0.0 -27.8 +0.0	+16.4 +0.0 +0.0	+0.3 +0.0	+3.7 +0.0	+0.0	29.8	46.0	-16.2	Vert
164	377.830M	36.6	+0.0 -27.8 +0.0	+17.1 +0.0 +0.0	+0.4 +0.0	+3.5 +0.0	+0.0	29.8	46.0	-16.2	Vert
165	363.800M	35.2	+0.0 -27.8 +0.0	+18.0 +0.0 +0.0	+0.3 +0.0	+3.4 +0.0	+0.0	29.1	46.0	-16.9	Vert
166	375.371M	35.8	+0.0 -27.8 +0.0	+17.2 +0.0 +0.0	+0.4 +0.0	+3.5 +0.0	+0.0	29.1	46.0	-16.9	Vert
167	243.050M	35.5	+18.3 -27.8 +0.0	+0.0 +0.0 +0.0	+0.3 +0.0	+2.7 +0.0	+0.0	29.0	46.0	-17.0	Vert
168	395.033M	36.2	+0.0 -27.8 +0.0	+16.0 +0.0 +0.0	+0.4 +0.0	+3.6 +0.0	+0.0	28.4	46.0	-17.6	Vert
169	7312.833M Ave	29.2	+0.0 +0.0 +35.8	+0.0 +6.7 +0.3	+0.0 -36.4	+0.0 +0.8	+0.0	36.4	54.0 Y_802.11g	-17.6	Horiz
^	7312.833M	42.7	+0.0 +0.0 +35.8	+0.0 +6.7 +0.3	+0.0 -36.4	+0.0 +0.8	+0.0	49.9	54.0 Y_802.11g	-4.1	Horiz
171	409.067M	35.3	+0.0 -27.8 +0.0	+15.9 +0.0 +0.0	+0.4 +0.0	+3.6 +0.0	+0.0	27.4	46.0	-18.6	Vert
172	385.130M	34.1	+0.0 -27.8 +0.0	+16.6 +0.0 +0.0	+0.4 +0.0	+3.5 +0.0	+0.0	26.8	46.0	-19.2	Vert

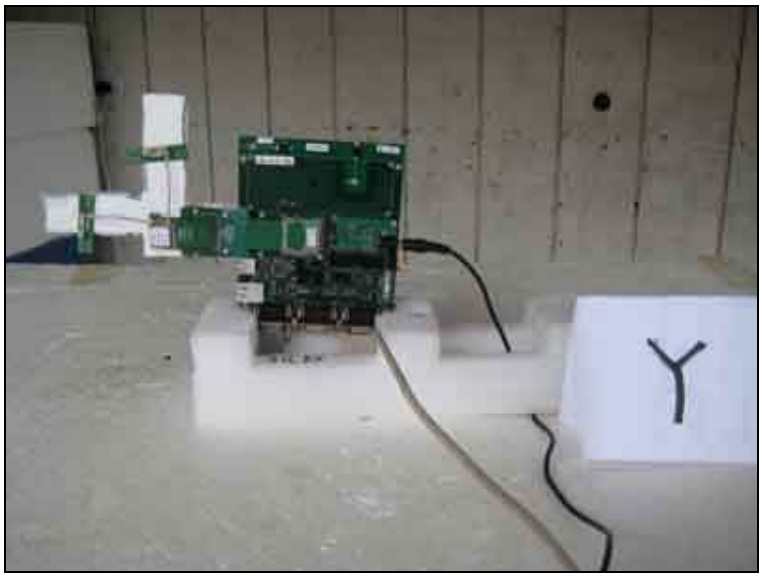
Test Setup Photos



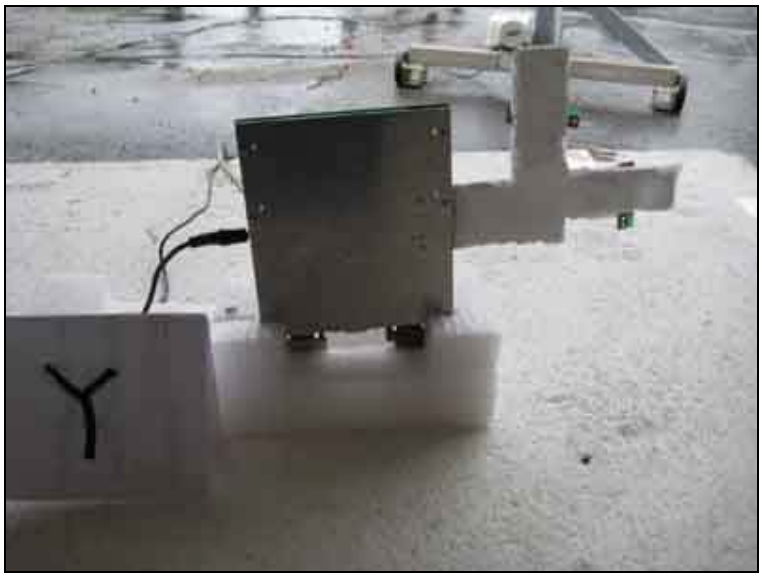
Test Setup Using Antenna Manufacture: Ethertronics



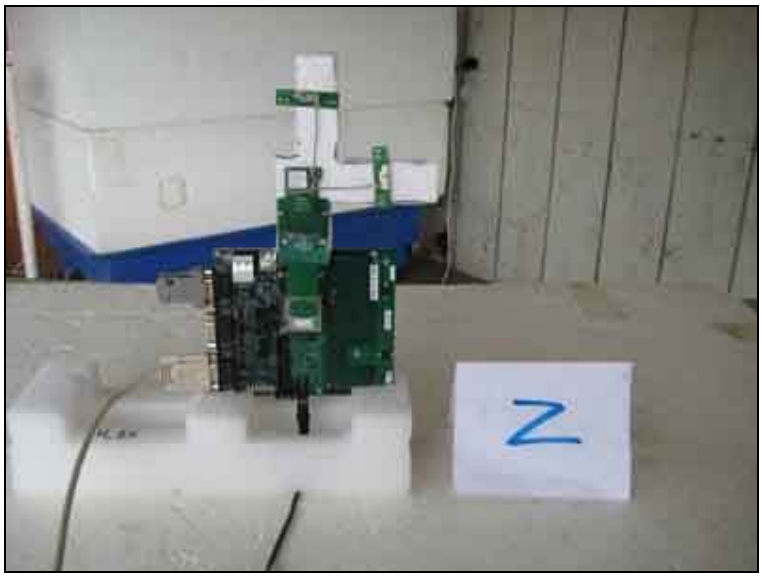
Test Setup Using Antenna Manufacture: Ethertronics



Test Setup Using Antenna Manufacture: Ethertronics



Test Setup Using Antenna Manufacture: Ethertronics



Test Setup Using Antenna Manufacture: Ethertronics

Test Setup Using Antenna Manufacture: Ethertronics

FCC 15.247 (d) (FCC 15.205 Restricted Band) Additional Testing 2/26/2010

Test Data Sheets

Test Location: CKC Laboratories, Inc. •110. N. Olinda Place. • Brea, CA 92821 • (714) 993-6112

Customer:	**Silex Technology, America, Inc.**		
Specification:	**FCC 15.247 (d) (FCC 15.205 restricted band)**		
Work Order #:	**90303**	Date:	2/26/2010
Test Type:	**Radiated Scan**	Time:	16:39:54
Equipment:	**Wireless 802.11a/b/g SD Card Radio**	Sequence#:	52
Manufacturer:	Silex Technology America, Inc.	Tested By:	E. Wong
Model:	SX-SDCAG		
S/N:	ED		

***Test Equipment*:**

Function	S/N	Calibration Date	Cal Due Date	Asset #
Bicon Antenna	220	10/22/2009	10/22/2011	306
Log Antenna	331	10/22/2009	10/22/2011	300
Spectrum Analyzer	US44300438	07/23/2008	07/23/2010	02672
Pre amp to SA Cable	Cable #10	04/16/2009	04/16/2011	P05050
Cable	Cable15	01/05/2009	01/05/2011	P05198
Pre Amp	1937A02548	05/02/2008	05/02/2010	00309
Horn Antenna	6246	06/06/2008	06/06/2010	00849
Microwave Pre-amp	3123A00281	07/28/2008	07/28/2010	00786
Heliax Antenna Cable	P5565	09/04/2008	09/04/2010	P05565
18-26GHz Horn	942126-003	11/12/2008	11/12/2010	01413
3.0 GHz HPF	1	03/25/2008	03/25/2010	02744
Loop Antenna	2014	06/16/2008	06/16/2010	00314
3'-40GHz cable	NA	09/14/2009	09/14/2011	P02946
2'-40GHz cable	NA	09/21/2009	09/21/2011	P2948

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Wireless 802.11a/b/g SD Card Radio*	Silex Technology America, Inc.	SX-SDCAG	ED

Support Devices:

Function	Manufacturer	Model #	S/N
Evaluator Board	Silex Technology America, Inc.	SX-560-6900	NA
Power Supply	Condor	HK-CH13-A05	NA
802.11 a/b/g Wireless Access Point	3-Com	WL-526	NA
Laptop	Sony	PCG-982L	8323330
Serial Server	Silex Technology America, Inc.	SX-560	SL004545

Test Conditions / Notes:

The EUT and support evaluation board are placed on the wooden table lined with a Styrofoam surface of 5 cm thickness. The EUT seeking modular approval is extended beyond the perimeter of the evaluation board via an extender card.

The support laptop sends data to the EUT via a support WiFi hub, the EUT receives processes and returns the data to the support computer via a support wireless hub.

Serial port of the support evaluation board is connected to the support laptop via a serial cable and all other ports are left unpopulated.

Freq: 2.412- 2462MHz

Tx Frequency: 2412 MHz, 2437MHz, 2462MHz
Modulation: 802.11 b (11 Mbps),
Ch 1, 6, 11
Firmware Power setting: 16 ,16, 18
Power= 15.5dBm (0.0355W), 15.6dBm (0.0363W), 16.6dBm (0.0457W)

Modulation: 802.11 g (54Mpbs)
Ch 1, 6, 11
Firmware Power setting: 13, 18, 13
Power = 15.6 dBm(0.0363 W), 17.5dBm (0.0562W), 12.6dBm (0.0182W)

Antenna Manufacturer : Pulse
Antenna Gain:: 3.2dBi @2.5GHz
Antenna Gain:: 4.2dBi @5.0GHz
Transmit via Antenna #1

17°C, 41% Relative Humidity

Emission profile of the EUT and antennas rotated along the three orthogonal axis was investigated.
Frequency range of measurement = 9 kHz- 25 GHz.
Frequency 9 kHz - 150 kHz RBW=200 Hz, VBW=200 Hz; 150 kHz- 30 MHz RBW=9 kHz, VBW=9 kHz; 30 MHz- 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz- 26000 MHz RBW=1 MHz, VBW=1 MHz

Transducer Legend:

T1=Heliax Cable 54' ANP05565 090410	T2=HF_pre AMP-1-26GHz_AN00786-072810.TRN
T3=Hi Freq_40GHz_2ft-AN02948-092111	T4=Horn Ant AN00849 060610
T5=HPF_3GHz-AN02744-032510	

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq	Rdng	T1 T5	T2	T3	T4	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	4923.967M Ave	44.5	+5.9 +0.5	-36.7	+0.7	+33.5	+0.0	48.4	54.0 Y_802.11b	-5.6	Vert
2	7386.317M	40.0	+6.8 +0.3	-36.4	+0.8	+35.9	+0.0	47.4	54.0 Y_802.11b	-6.6	Horiz
3	4823.917M Ave	43.1	+5.8 +0.6	-36.8	+0.7	+33.3	+0.0	46.7	54.0 Y_802.11b	-7.3	Vert

4	7310.860M	39.4	+6.7 +0.3	-36.4	+0.8	+35.8	+0.0	46.6	54.0 X_802.11g	-7.4	Vert
5	4821.900M	43.0	+5.8 +0.6	-36.8	+0.7	+33.3	+0.0	46.6	54.0 X_802.11g	-7.4	Vert
6	4924.067M Ave	42.6	+5.9 +0.5	-36.7	+0.7	+33.5	+0.0	46.5	54.0 Z_802.11b	-7.5	Horiz
7	7386.400M	39.0	+6.8 +0.3	-36.4	+0.8	+35.9	+0.0	46.4	54.0 Z_802.11b	-7.6	Horiz
8	7386.217M	38.6	+6.8 +0.3	-36.4	+0.8	+35.9	+0.0	46.0	54.0 X_802.11b	-8.0	Horiz
9	7310.850M	38.8	+6.7 +0.3	-36.4	+0.8	+35.8	+0.0	46.0	54.0 Y_802.11b	-8.0	Vert
10	4923.817M Ave	42.0	+5.9 +0.5	-36.7	+0.7	+33.5	+0.0	45.9	54.0 Y_802.11b	-8.1	Horiz
^	4923.817M	53.9	+5.9 +0.5	-36.7	+0.7	+33.5	+0.0	57.8	54.0 Y_802.11b	+3.8	Horiz
12	7310.850M	38.5	+6.7 +0.3	-36.4	+0.8	+35.8	+0.0	45.7	54.0 Y_802.11b	-8.3	Horiz
13	7310.500M	38.5	+6.7 +0.3	-36.4	+0.8	+35.8	+0.0	45.7	54.0 Y_802.11g	-8.3	Horiz
14	7386.650M	38.2	+6.8 +0.3	-36.4	+0.8	+35.9	+0.0	45.6	54.0 Z_802.11b	-8.4	Vert
15	7386.500M	38.0	+6.8 +0.3	-36.4	+0.8	+35.9	+0.0	45.4	54.0 X_802.11b	-8.6	Vert
16	4874.017M Ave	41.5	+5.9 +0.6	-36.8	+0.7	+33.4	+0.0	45.3	54.0 Y_802.11b	-8.7	Vert
17	4823.850M Ave	41.6	+5.8 +0.6	-36.8	+0.7	+33.3	+0.0	45.2	54.0 Z_802.11b	-8.8	Horiz
^	4823.850M	53.2	+5.8 +0.6	-36.8	+0.7	+33.3	+0.0	56.8	54.0 Z_802.11b	+2.8	Horiz
19	7386.300M	37.7	+6.8 +0.3	-36.4	+0.8	+35.9	+0.0	45.1	54.0 Y_802.11b	-8.9	Vert
20	4873.967M Ave	41.3	+5.9 +0.6	-36.8	+0.7	+33.4	+0.0	45.1	54.0 Z_802.11b	-8.9	Horiz
21	4824.033M Ave	41.5	+5.8 +0.6	-36.8	+0.7	+33.3	+0.0	45.1	54.0 X_802.11b	-8.9	Horiz
22	7310.860M	37.9	+6.7 +0.3	-36.4	+0.8	+35.8	+0.0	45.1	54.0 X_802.11g	-8.9	Horiz
23	4924.250M Ave	41.0	+5.9 +0.5	-36.7	+0.7	+33.5	+0.0	44.9	54.0 X_802.11b	-9.1	Horiz
^	4924.250M	52.5	+5.9 +0.5	-36.7	+0.7	+33.5	+0.0	56.4	54.0 X_802.11b	+2.4	Horiz
25	4877.160M Ave	40.7	+5.9 +0.6	-36.8	+0.7	+33.4	+0.0	44.5	54.0 Y_802.11g	-9.5	Vert
^	4877.160M	58.6	+5.9 +0.6	-36.8	+0.7	+33.4	+0.0	62.4	54.0 Y_802.11g	+8.4	Vert

27	7310.880M	37.0	+6.7 +0.3	-36.4	+0.8	+35.8	+0.0	44.2	54.0 Z_802.11b	-9.8	Vert
28	4923.833M Ave	40.3	+5.9 +0.5	-36.7	+0.7	+33.5	+0.0	44.2	54.0 X_802.11b	-9.8	Vert
^	4923.833M	51.9	+5.9 +0.5	-36.7	+0.7	+33.5	+0.0	55.8	54.0 X_802.11b	+1.8	Vert
30	4824.017M Ave	40.5	+5.8 +0.6	-36.8	+0.7	+33.3	+0.0	44.1	54.0 Z_802.11b	-9.9	Vert
^	4823.917M	54.7	+5.8 +0.6	-36.8	+0.7	+33.3	+0.0	58.3	54.0 Y_802.11b	+4.3	Vert
^	4824.017M	52.8	+5.8 +0.6	-36.8	+0.7	+33.3	+0.0	56.4	54.0 Z_802.11b	+2.4	Vert
33	7311.900M	36.9	+6.7 +0.3	-36.4	+0.8	+35.8	+0.0	44.1	54.0 X_802.11b	-9.9	Horiz
34	4924.317M Ave	40.1	+5.9 +0.5	-36.7	+0.7	+33.5	+0.0	44.0	54.0 Z_802.11b	-10.0	Vert
^	4924.317M	52.2	+5.9 +0.5	-36.7	+0.7	+33.5	+0.0	56.1	54.0 Z_802.11b	+2.1	Vert
36	7310.800M	36.8	+6.7 +0.3	-36.4	+0.8	+35.8	+0.0	44.0	54.0 Z_802.11b	-10.0	Horiz
37	4823.967M Ave	39.9	+5.8 +0.6	-36.8	+0.7	+33.3	+0.0	43.5	54.0 Y_802.11b	-10.5	Horiz
38	4874.017M Ave	39.5	+5.9 +0.6	-36.8	+0.7	+33.4	+0.0	43.3	54.0 Y_802.11b	-10.7	Horiz
39	7310.850M	36.0	+6.7 +0.3	-36.4	+0.8	+35.8	+0.0	43.2	54.0 X_802.11b	-10.8	Vert
40	4874.017M Ave	38.9	+5.9 +0.6	-36.8	+0.7	+33.4	+0.0	42.7	54.0 X_802.11b	-11.3	Horiz
^	4873.967M	53.4	+5.9 +0.6	-36.8	+0.7	+33.4	+0.0	57.2	54.0 Z_802.11b	+3.2	Horiz
^	4874.017M	52.3	+5.9 +0.6	-36.8	+0.7	+33.4	+0.0	56.1	54.0 Y_802.11b	+2.1	Horiz
^	4874.017M	51.3	+5.9 +0.6	-36.8	+0.7	+33.4	+0.0	55.1	54.0 X_802.11b	+1.1	Horiz
44	4874.050M Ave	38.2	+5.9 +0.6	-36.8	+0.7	+33.4	+0.0	42.0	54.0 Z_802.11b	-12.0	Vert
45	4877.360M Ave	37.9	+5.9 +0.6	-36.8	+0.7	+33.4	+0.0	41.7	54.0 Z_802.11g	-12.3	Horiz
^	4877.360M	55.7	+5.9 +0.6	-36.8	+0.7	+33.4	+0.0	59.5	54.0 Z_802.11g	+5.5	Horiz
47	4823.200M Ave	37.6	+5.8 +0.6	-36.8	+0.7	+33.3	+0.0	41.2	54.0 Y_802.11g	-12.8	Vert
^	4823.200M	49.4	+5.8 +0.6	-36.8	+0.7	+33.3	+0.0	53.0	54.0 Y_802.11g	-1.0	Vert
49	4873.860M Ave	37.0	+5.9 +0.6	-36.8	+0.7	+33.4	+0.0	40.8	54.0 X_802.11g	-13.2	Horiz
^	4873.860M	54.9	+5.9 +0.6	-36.8	+0.7	+33.4	+0.0	58.7	54.0 X_802.11g	+4.7	Horiz

51	4924.800M Ave	36.5	+5.9 +0.5	-36.7	+0.7	+33.5	+0.0	40.4	54.0 Z_802.11g	-13.6	Horiz
^	4924.800M	49.6	+5.9 +0.5	-36.7	+0.7	+33.5	+0.0	53.5	54.0 Z_802.11g	-0.5	Horiz
53	4873.967M Ave	36.3	+5.9 +0.6	-36.8	+0.7	+33.4	+0.0	40.1	54.0 X_802.11b	-13.9	Vert
^	4874.017M	53.5	+5.9 +0.6	-36.8	+0.7	+33.4	+0.0	57.3	54.0 Y_802.11b	+3.3	Vert
^	4874.050M	50.2	+5.9 +0.6	-36.8	+0.7	+33.4	+0.0	54.0	54.0 Z_802.11b	+0.0	Vert
56	4825.400M Ave	36.1	+5.8 +0.6	-36.8	+0.7	+33.3	+0.0	39.7	54.0 Z_802.11g	-14.3	Horiz
^	4825.400M	49.4	+5.8 +0.6	-36.8	+0.7	+33.3	+0.0	53.0	54.0 Z_802.11g	-1.0	Horiz
58	4873.460M Ave	35.7	+5.9 +0.6	-36.8	+0.7	+33.4	+0.0	39.5	54.0 Y_802.11g	-14.5	Horiz
^	4873.460M	51.1	+5.9 +0.6	-36.8	+0.7	+33.4	+0.0	54.9	54.0 Y_802.11g	+0.9	Horiz
60	4823.400M Ave	35.7	+5.8 +0.6	-36.8	+0.7	+33.3	+0.0	39.3	54.0 X_802.11g	-14.7	Horiz
^	4823.400M	48.5	+5.8 +0.6	-36.8	+0.7	+33.3	+0.0	52.1	54.0 X_802.11g	-1.9	Horiz
62	4924.800M Ave	35.1	+5.9 +0.5	-36.7	+0.7	+33.5	+0.0	39.0	54.0 Y_802.11g	-15.0	Vert
63	4825.400M Ave	35.2	+5.8 +0.6	-36.8	+0.7	+33.3	+0.0	38.8	54.0 Z_802.11g	-15.2	Vert
^	4825.400M	48.0	+5.8 +0.6	-36.8	+0.7	+33.3	+0.0	51.6	54.0 Z_802.11g	-2.4	Vert
65	4877.360M Ave	34.8	+5.9 +0.6	-36.8	+0.7	+33.4	+0.0	38.6	54.0 Z_802.11g	-15.4	Vert
^	4877.360M	53.0	+5.9 +0.6	-36.8	+0.7	+33.4	+0.0	56.8	54.0 Z_802.11g	+2.8	Vert
67	4924.000M Ave	34.5	+5.9 +0.5	-36.7	+0.7	+33.5	+0.0	38.4	54.0 Y_802.11g	-15.6	Horiz
^	4924.067M	54.9	+5.9 +0.5	-36.7	+0.7	+33.5	+0.0	58.8	54.0 Z_802.11b	+4.8	Horiz
^	4924.000M	47.4	+5.9 +0.5	-36.7	+0.7	+33.5	+0.0	51.3	54.0 Y_802.11g	-2.7	Horiz
^	4924.000M	46.3	+5.9 +0.5	-36.7	+0.7	+33.5	+0.0	50.2	54.0 X_802.11g	-3.8	Horiz
71	4924.000M Ave	34.3	+5.9 +0.5	-36.7	+0.7	+33.5	+0.0	38.2	54.0 X_802.11g	-15.8	Horiz
72	4924.800M Ave	34.2	+5.9 +0.5	-36.7	+0.7	+33.5	+0.0	38.1	54.0 Z_802.11g	-15.9	Vert
^	4924.800M	49.1	+5.9 +0.5	-36.7	+0.7	+33.5	+0.0	53.0	54.0 Z_802.11g	-1.0	Vert
^	4924.800M	48.3	+5.9 +0.5	-36.7	+0.7	+33.5	+0.0	52.2	54.0 Y_802.11g	-1.8	Vert

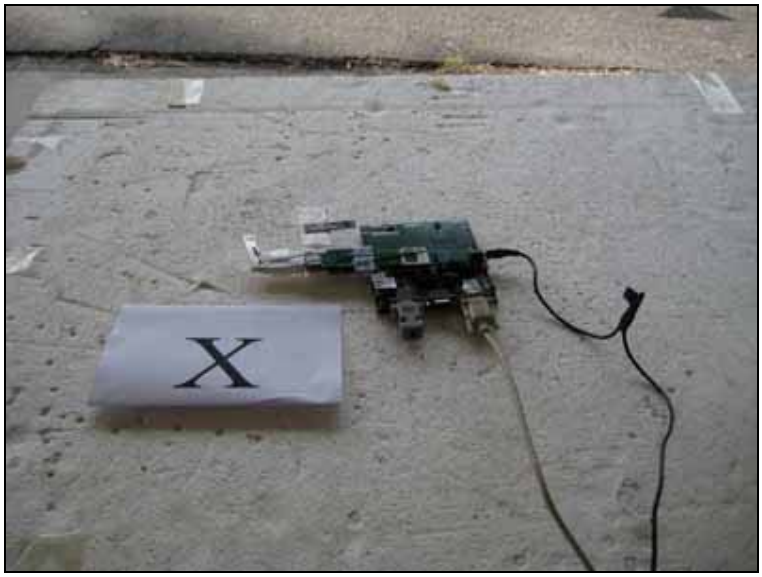
75	4824.000M Ave	34.3	+5.8 +0.6	-36.8	+0.7	+33.3	+0.0	37.9	54.0 Y_802.11g	-16.1	Horiz
^	4824.033M	53.2	+5.8 +0.6	-36.8	+0.7	+33.3	+0.0	56.8	54.0 X_802.11b	+2.8	Horiz
^	4823.967M	52.1	+5.8 +0.6	-36.8	+0.7	+33.3	+0.0	55.7	54.0 Y_802.11b	+1.7	Horiz
^	4824.000M	47.0	+5.8 +0.6	-36.8	+0.7	+33.3	+0.0	50.6	54.0 Y_802.11g	-3.4	Horiz
79	4873.900M Ave	33.6	+5.9 +0.6	-36.8	+0.7	+33.4	+0.0	37.4	54.0 X_802.11g	-16.6	Vert
^	4873.967M	48.5	+5.9 +0.6	-36.8	+0.7	+33.4	+0.0	52.3	54.0 X_802.11b	-1.7	Vert
^	4873.900M	48.4	+5.9 +0.6	-36.8	+0.7	+33.4	+0.0	52.2	54.0 X_802.11g	-1.8	Vert
82	4824.117M Ave	33.4	+5.8 +0.6	-36.8	+0.7	+33.3	+0.0	37.0	54.0 X_802.11b	-17.0	Vert
^	4824.117M	48.3	+5.8 +0.6	-36.8	+0.7	+33.3	+0.0	51.9	54.0 X_802.11b	-2.1	Vert
84	4924.000M Ave	30.3	+5.9 +0.5	-36.7	+0.7	+33.5	+0.0	34.2	54.0 X_802.11g	-19.8	Vert
^	4923.967M	56.3	+5.9 +0.5	-36.7	+0.7	+33.5	+0.0	60.2	54.0 Y_802.11b	+6.2	Vert
^	4924.000M	43.6	+5.9 +0.5	-36.7	+0.7	+33.5	+0.0	47.5	54.0 X_802.11g	-6.5	Vert
87	7236.250M	38.8	+6.7 +0.3	-36.5	+0.8	+35.6	+0.0	45.7	74.0 Y_802.11g	-28.3	Vert
88	9848.083M Ave	32.8	+8.4 +0.3	-36.7	+1.0	+37.8	+0.0	43.6	95.0 Z_802.11b	-51.4	Vert
89	9848.033M Ave	32.3	+8.4 +0.3	-36.7	+1.0	+37.8	+0.0	43.1	95.0 Z_802.11b	-51.9	Horiz
90	9847.934M Ave	31.8	+8.4 +0.3	-36.7	+1.0	+37.8	+0.0	42.6	95.0 Y_802.11b	-52.4	Horiz
91	9647.850M Ave	30.5	+8.4 +0.4	-36.5	+1.0	+37.6	+0.0	41.4	95.0 Z_802.11b	-53.6	Vert
^	9647.850M	40.7	+8.4 +0.4	-36.5	+1.0	+37.6	+0.0	51.6	95.0 Z_802.11b	-43.4	Vert
93	9848.267M Ave	28.9	+8.4 +0.3	-36.7	+1.0	+37.8	+0.0	39.7	95.0 Y_802.11b	-55.3	Vert
^	9848.267M	39.6	+8.4 +0.3	-36.7	+1.0	+37.8	+0.0	50.4	95.0 Y_802.11b	-44.6	Vert
95	9643.800M Ave	28.8	+8.4 +0.4	-36.5	+1.0	+37.5	+0.0	39.6	95.0 X_802.11g	-55.4	Vert
^	9643.800M	39.6	+8.4 +0.4	-36.5	+1.0	+37.5	+0.0	50.4	95.0 X_802.11g	-44.6	Vert
97	9645.300M Ave	28.7	+8.4 +0.4	-36.5	+1.0	+37.5	+0.0	39.5	95.0 X_802.11g	-55.5	Horiz
^	9645.300M	38.3	+8.4 +0.4	-36.5	+1.0	+37.5	+0.0	49.1	95.0 X_802.11g	-45.9	Horiz

99	9651.367M Ave	28.6	+8.4 +0.4	-36.5	+1.0	+37.6	+0.0	39.5	95.0 X_802.11b	-55.5	Horiz
^	9651.366M	38.5	+8.4 +0.4	-36.5	+1.0	+37.6	+0.0	49.4	95.0 X_802.11b	-45.6	Horiz
101	9747.860M Ave	28.7	+8.4 +0.3	-36.6	+1.0	+37.7	+0.0	39.5	95.0 X_802.11g	-55.5	Horiz
^	9747.860M	38.9	+8.4 +0.3	-36.6	+1.0	+37.7	+0.0	49.7	95.0 X_802.11g	-45.3	Horiz
103	9645.900M Ave	28.7	+8.4 +0.4	-36.5	+1.0	+37.5	+0.0	39.5	95.0 Y_802.11g	-55.5	Horiz
^	9645.900M	39.1	+8.4 +0.4	-36.5	+1.0	+37.5	+0.0	49.9	95.0 Y_802.11g	-45.1	Horiz
105	9847.833M Ave	27.8	+8.4 +0.3	-36.7	+1.0	+37.8	+0.0	38.6	95.0 X_802.11b	-56.4	Vert
^	9847.833M	40.5	+8.4 +0.3	-36.7	+1.0	+37.8	+0.0	51.3	95.0 X_802.11b	-43.7	Vert
107	9848.434M Ave	27.5	+8.4 +0.3	-36.7	+1.0	+37.8	+0.0	38.3	95.0 X_802.11b	-56.7	Horiz
^	9848.434M	38.1	+8.4 +0.3	-36.7	+1.0	+37.8	+0.0	48.9	95.0 X_802.11b	-46.1	Horiz
109	9848.820M Ave	27.5	+8.4 +0.3	-36.7	+1.0	+37.8	+0.0	38.3	95.0 Z_802.11g	-56.7	Vert
^	9848.800M	39.6	+8.4 +0.3	-36.7	+1.0	+37.8	+0.0	50.4	95.0 Z_802.11g	-44.6	Vert
^	9848.800M	38.6	+8.4 +0.3	-36.7	+1.0	+37.8	+0.0	49.4	95.0 Z_802.11g	-45.6	Vert
^	9848.800M	37.9	+8.4 +0.3	-36.7	+1.0	+37.8	+0.0	48.7	95.0 Y_802.11g	-46.3	Vert
113	9651.233M Ave	27.1	+8.4 +0.4	-36.5	+1.0	+37.6	+0.0	38.0	95.0 X_802.11b	-57.0	Vert
^	9651.233M	40.3	+8.4 +0.4	-36.5	+1.0	+37.6	+0.0	51.2	95.0 X_802.11b	-43.8	Vert
115	9747.700M Ave	27.1	+8.4 +0.3	-36.6	+1.0	+37.7	+0.0	37.9	95.0 X_802.11b	-57.1	Vert
^	9747.700M	39.4	+8.4 +0.3	-36.6	+1.0	+37.7	+0.0	50.2	95.0 X_802.11b	-44.8	Vert
^	9747.717M	38.9	+8.4 +0.3	-36.6	+1.0	+37.7	+0.0	49.7	95.0 Z_802.11b	-45.3	Vert
^	9747.684M	38.6	+8.4 +0.3	-36.6	+1.0	+37.7	+0.0	49.4	95.0 Y_802.11b	-45.6	Vert
119	9747.684M Ave	26.8	+8.4 +0.3	-36.6	+1.0	+37.7	+0.0	37.6	95.0 Y_802.11b	-57.4	Horiz
^	9747.684M	40.1	+8.4 +0.3	-36.6	+1.0	+37.7	+0.0	50.9	95.0 Y_802.11b	-44.1	Horiz
^	9747.717M	39.3	+8.4 +0.3	-36.6	+1.0	+37.7	+0.0	50.1	95.0 Z_802.11b	-44.9	Horiz
122	9848.000M Ave	26.8	+8.4 +0.3	-36.7	+1.0	+37.8	+0.0	37.6	95.0 X_802.11g	-57.4	Horiz

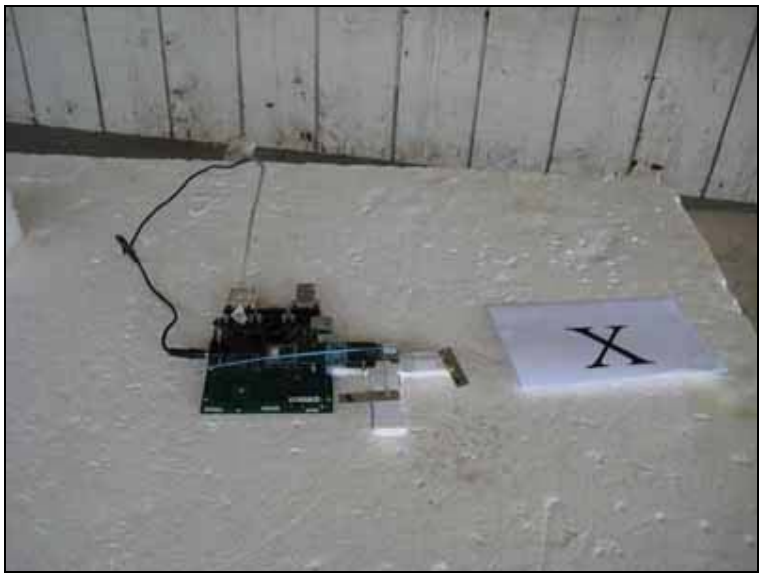
123	9747.717M Ave	26.6	+8.4 +0.3	-36.6	+1.0	+37.7	+0.0	37.4	95.0 Z_802.11b	-57.6	Horiz
124	9651.500M Ave	26.4	+8.4 +0.4	-36.5	+1.0	+37.6	+0.0	37.3	95.0 Z_802.11g	-57.7	Horiz
^	9651.500M	38.5	+8.4 +0.4	-36.5	+1.0	+37.6	+0.0	49.4	95.0 Z_802.11g	-45.6	Horiz
126	9651.500M Ave	26.3	+8.4 +0.4	-36.5	+1.0	+37.6	+0.0	37.2	95.0 Z_802.11g	-57.8	Vert
^	9651.500M	38.2	+8.4 +0.4	-36.5	+1.0	+37.6	+0.0	49.1	95.0 Z_802.11g	-45.9	Vert
128	9650.750M Ave	26.3	+8.4 +0.4	-36.5	+1.0	+37.6	+0.0	37.2	95.0 Z_802.11b	-57.8	Horiz
^	9650.750M	38.0	+8.4 +0.4	-36.5	+1.0	+37.6	+0.0	48.9	95.0 Z_802.11b	-46.1	Horiz
130	9848.800M Ave	26.4	+8.4 +0.3	-36.7	+1.0	+37.8	+0.0	37.2	95.0 Z_802.11g	-57.8	Vert
131	9649.330M Ave	26.3	+8.4 +0.4	-36.5	+1.0	+37.6	+0.0	37.2	95.0 Y_802.11g	-57.8	Vert
^	9649.300M	37.9	+8.4 +0.4	-36.5	+1.0	+37.6	+0.0	48.8	95.0 Y_802.11g	-46.2	Vert
133	9650.867M Ave	26.2	+8.4 +0.4	-36.5	+1.0	+37.6	+0.0	37.1	95.0 Y_802.11b	-57.9	Vert
^	9650.817M	38.4	+8.4 +0.4	-36.5	+1.0	+37.6	+0.0	49.3	95.0 Y_802.11b	-45.7	Vert
135	9747.860M Ave	26.3	+8.4 +0.3	-36.6	+1.0	+37.7	+0.0	37.1	95.0 X_802.11g	-57.9	Vert
^	9747.860M	38.3	+8.4 +0.3	-36.6	+1.0	+37.7	+0.0	49.1	95.0 X_802.11g	-45.9	Vert
137	9751.360M Ave	26.2	+8.4 +0.3	-36.6	+1.0	+37.7	+0.0	37.0	95.0 Z_802.11g	-58.0	Vert
^	9751.360M	38.9	+8.4 +0.3	-36.6	+1.0	+37.7	+0.0	49.7	95.0 Z_802.11g	-45.3	Vert
139	9848.000M Ave	26.2	+8.4 +0.3	-36.7	+1.0	+37.8	+0.0	37.0	95.0 X_802.11g	-58.0	Vert
^	9848.083M	41.6	+8.4 +0.3	-36.7	+1.0	+37.8	+0.0	52.4	95.0 Z_802.11b	-42.6	Vert
^	9848.000M	38.3	+8.4 +0.3	-36.7	+1.0	+37.8	+0.0	49.1	95.0 X_802.11g	-45.9	Vert
142	9650.866M Ave	26.1	+8.4 +0.4	-36.5	+1.0	+37.6	+0.0	37.0	95.0 Y_802.11b	-58.0	Horiz
^	9650.866M	37.3	+8.4 +0.4	-36.5	+1.0	+37.6	+0.0	48.2	95.0 Y_802.11b	-46.8	Horiz
144	9747.460M Ave	26.1	+8.4 +0.3	-36.6	+1.0	+37.7	+0.0	36.9	95.0 Y_802.11g	-58.1	Horiz
^	9747.460M	38.4	+8.4 +0.3	-36.6	+1.0	+37.7	+0.0	49.2	95.0 Y_802.11g	-45.8	Horiz
146	9747.684M Ave	26.1	+8.4 +0.3	-36.6	+1.0	+37.7	+0.0	36.9	95.0 Y_802.11b	-58.1	Vert

147	9751.160M Ave	26.1	+8.4 +0.3	-36.6	+1.0	+37.7	+0.0	36.9	95.0 Y_802.11g	-58.1	Vert
^	9751.160M	38.0	+8.4 +0.3	-36.6	+1.0	+37.7	+0.0	48.8	95.0 Y_802.11g	-46.2	Vert
149	9747.717M Ave	26.0	+8.4 +0.3	-36.6	+1.0	+37.7	+0.0	36.8	95.0 Z_802.11b	-58.2	Vert
150	9751.360M Ave	25.9	+8.4 +0.3	-36.6	+1.0	+37.7	+0.0	36.7	95.0 Z_802.11g	-58.3	Horiz
^	9751.360M	36.3	+8.4 +0.3	-36.6	+1.0	+37.7	+0.0	47.1	95.0 Z_802.11g	-47.9	Horiz
152	9748.733M Ave	25.9	+8.4 +0.3	-36.6	+1.0	+37.7	+0.0	36.7	95.0 X_802.11b	-58.3	Horiz
^	9748.733M	38.3	+8.4 +0.3	-36.6	+1.0	+37.7	+0.0	49.1	95.0 X_802.11b	-45.9	Horiz
154	9848.000M Ave	25.5	+8.4 +0.3	-36.7	+1.0	+37.8	+0.0	36.3	95.0 Y_802.11g	-58.7	Horiz
^	9847.934M	42.7	+8.4 +0.3	-36.7	+1.0	+37.8	+0.0	53.5	95.0 Y_802.11b	-41.5	Horiz
^	9848.033M	41.3	+8.4 +0.3	-36.7	+1.0	+37.8	+0.0	52.1	95.0 Z_802.11b	-42.9	Horiz
^	9848.000M	39.9	+8.4 +0.3	-36.7	+1.0	+37.8	+0.0	50.7	95.0 Y_802.11g	-44.3	Horiz
^	9848.000M	39.7	+8.4 +0.3	-36.7	+1.0	+37.8	+0.0	50.5	95.0 X_802.11g	-44.5	Horiz
159	9848.800M Ave	25.3	+8.4 +0.3	-36.7	+1.0	+37.8	+0.0	36.1	95.0 Y_802.11g	-58.9	Vert

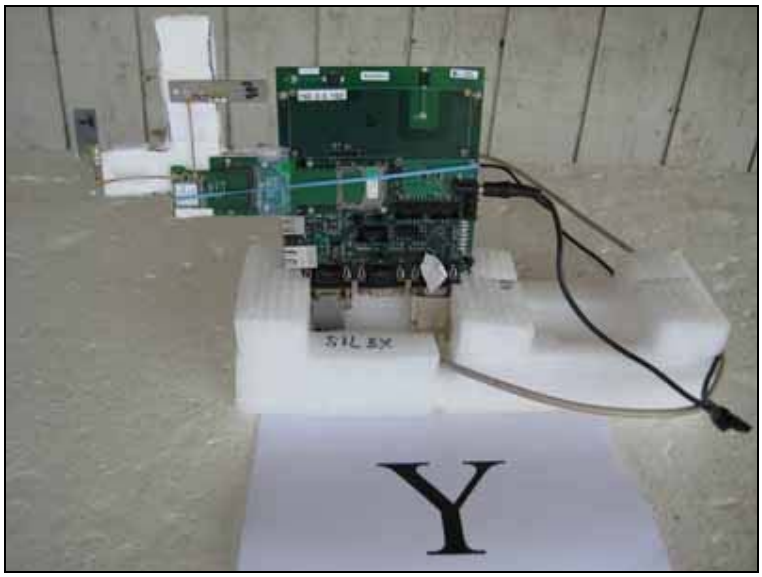
Test Set Up Photos



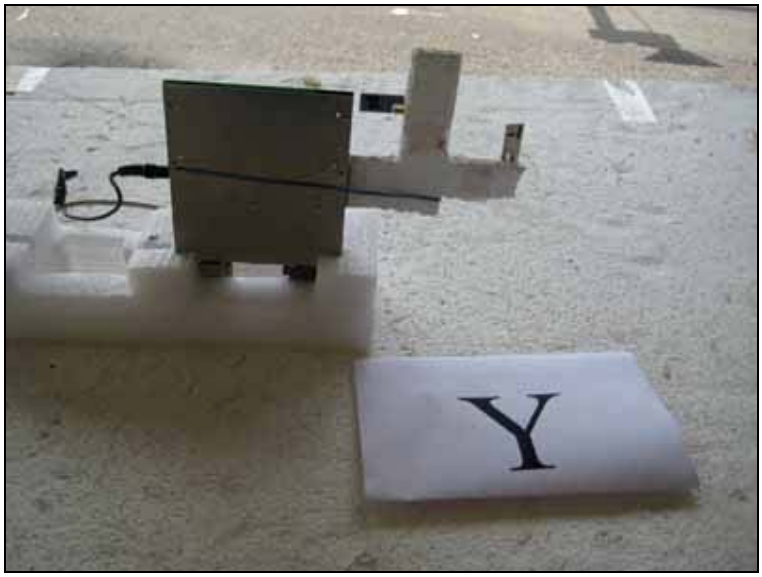
Test Setup Using Antenna Manufacture: Pulse



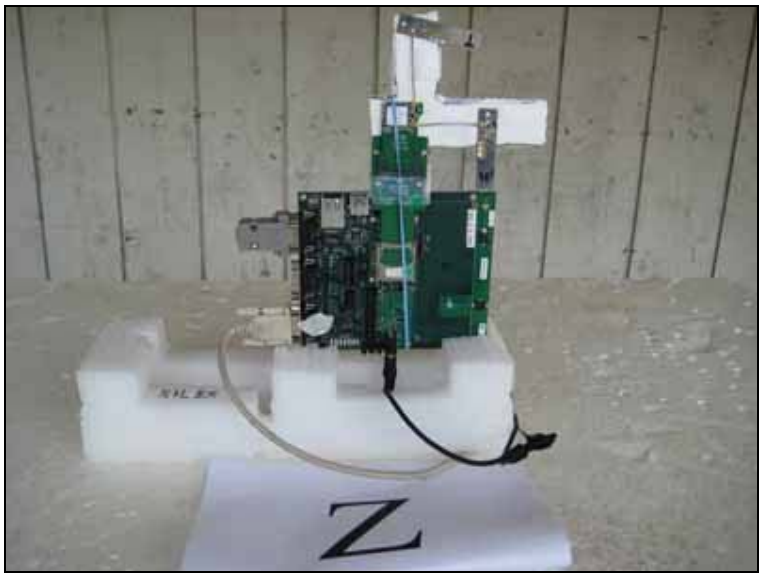
Test Setup Using Antenna Manufacture: Pulse



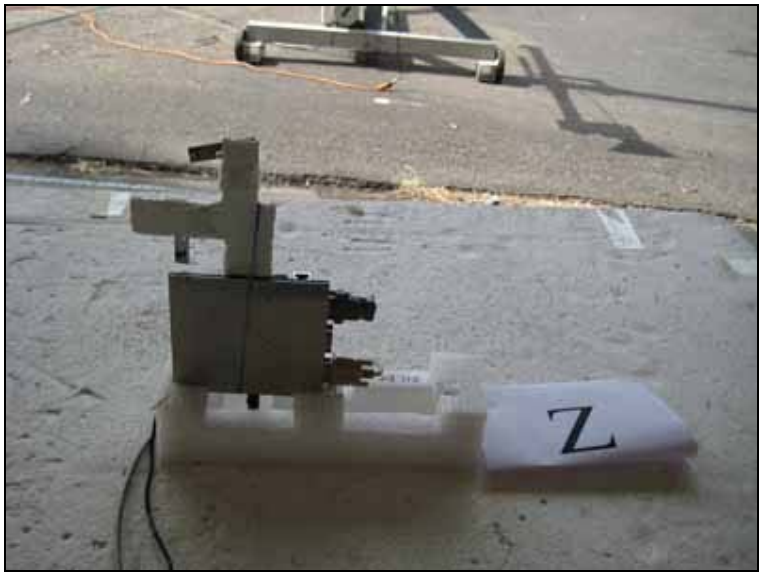
Test Setup Using Antenna Manufacture: Pulse



Test Setup Using Antenna Manufacture: Pulse



Test Setup Using Antenna Manufacture: Pulse



Test Setup Using Antenna Manufacture: Pulse

15.247(e) Power Spectral Density

Test Setup: The EUT is placed on the test bench. The device is set in continuous transmit mode, the RF output power is measure at the antenna port in accordance with KDB Publication No. 558074, PSD option 2.

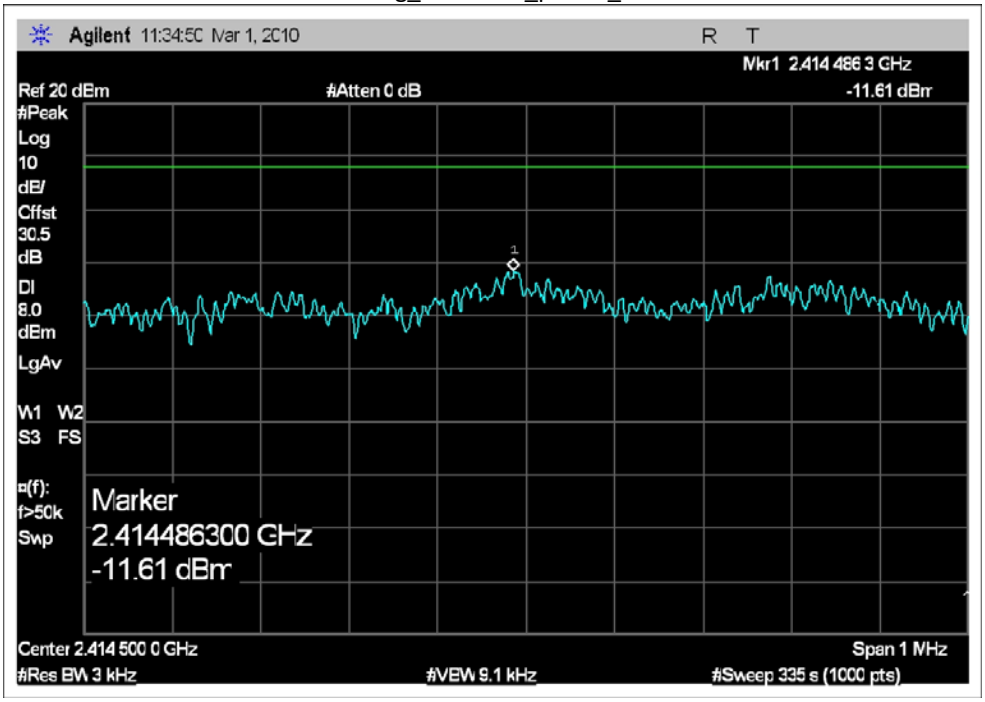
Test Conditions: Freq: 2412- 2462MHz
Tx Frequency: 2412 MHz, 2437MHz, 2462MHz
Modulation: 802.11 b (11 Mbps), Ch 1, 6, 11
Firmware Power setting: 16 ,16, 18
Power= 15.5dBm (0.0355W), 15.6dBm (0.0363W), 16.6dBm (0.0457W)
Modulation: 802.11 g (54Mpbs) Ch 1, 6, 11
Firmware Power setting: 16, 18, 13
Power = 15.6 dBm(0.0363 W), 17.5dBm (0.0562W), 12.6dBm (0.0182W)
13°C, 58% Relative Humidity

Engineer Name: E. Wong

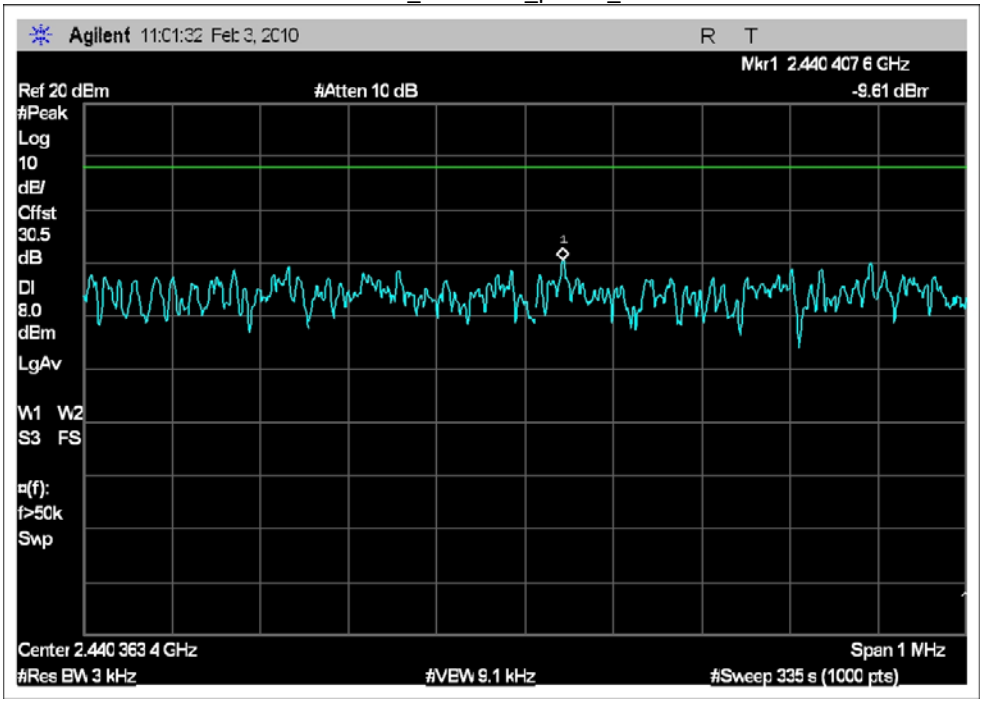
Test Equipment				
Equipment	**Serial**	**Cal Date**	**Cal Due**	**Asset**
Spectrum Analyzer	US44300438	07/23/2008	07/23/2010	02672
3'-40GHz cable	NA	09/14/2009	09/14/2011	P02946

Test Data

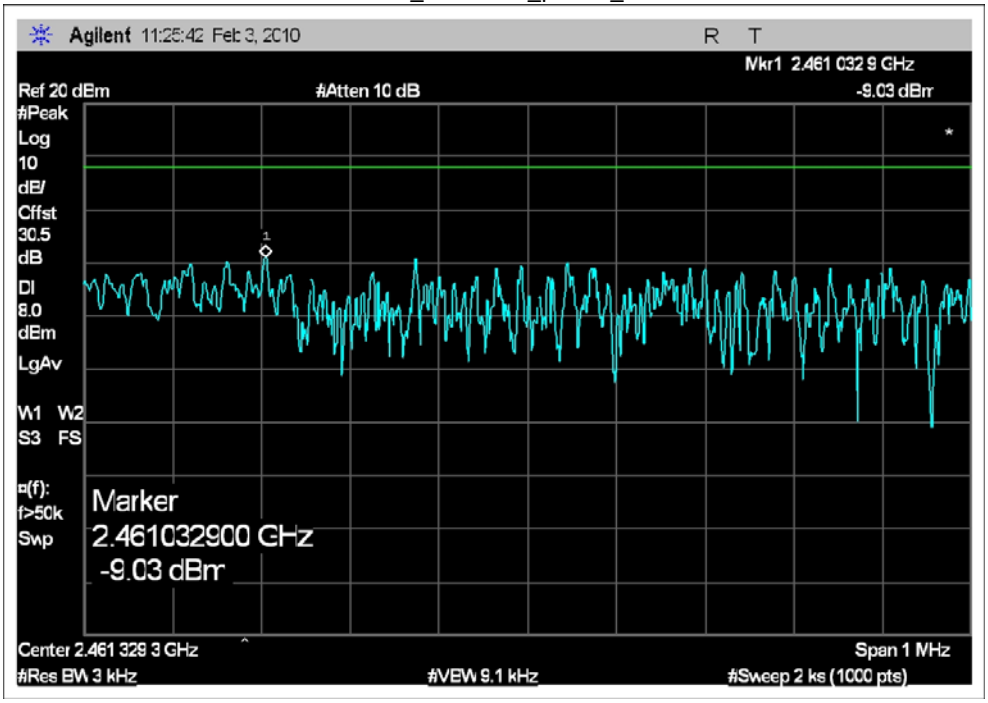
802.11g_2412MHz_pwr13_PSD



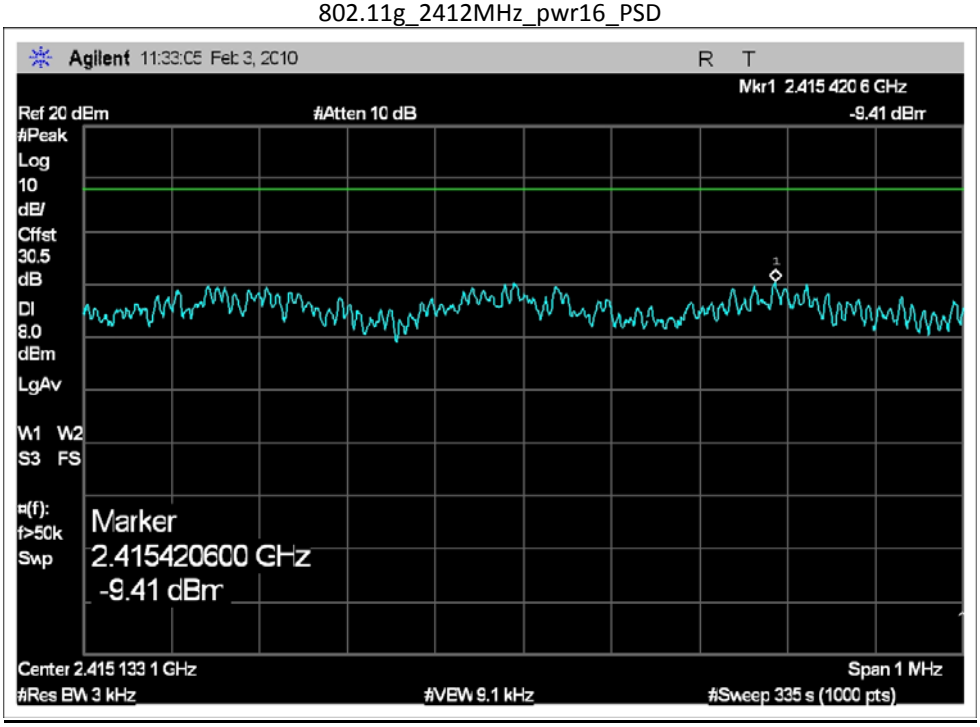
802.11b_2437MHz_pwr16_PSD



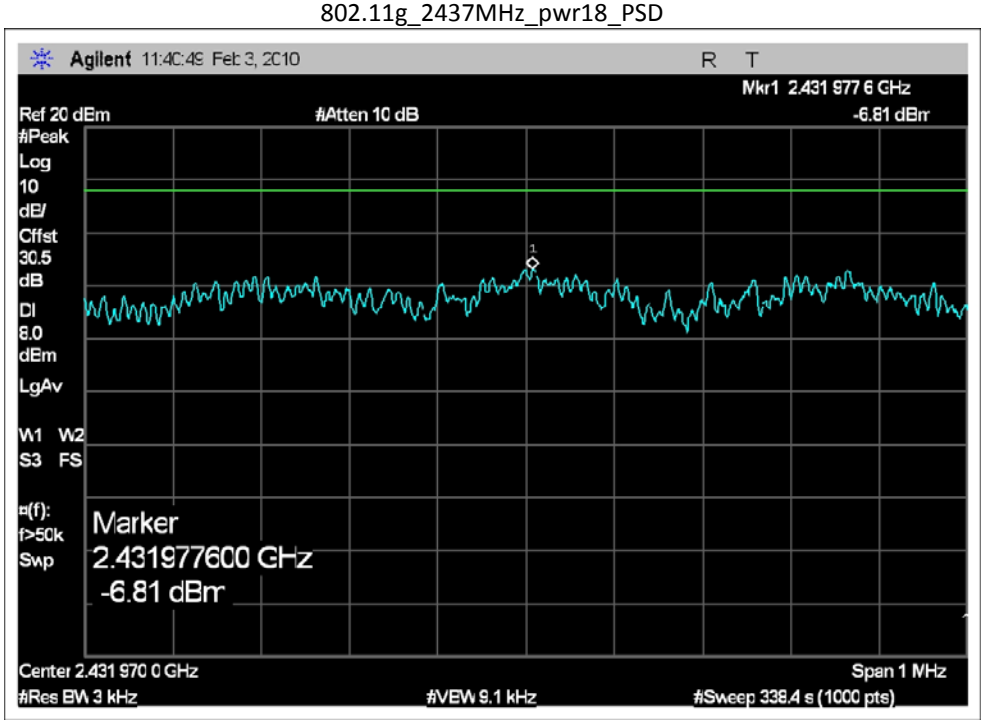
802.11b_2462MHz_pwr18_PSD



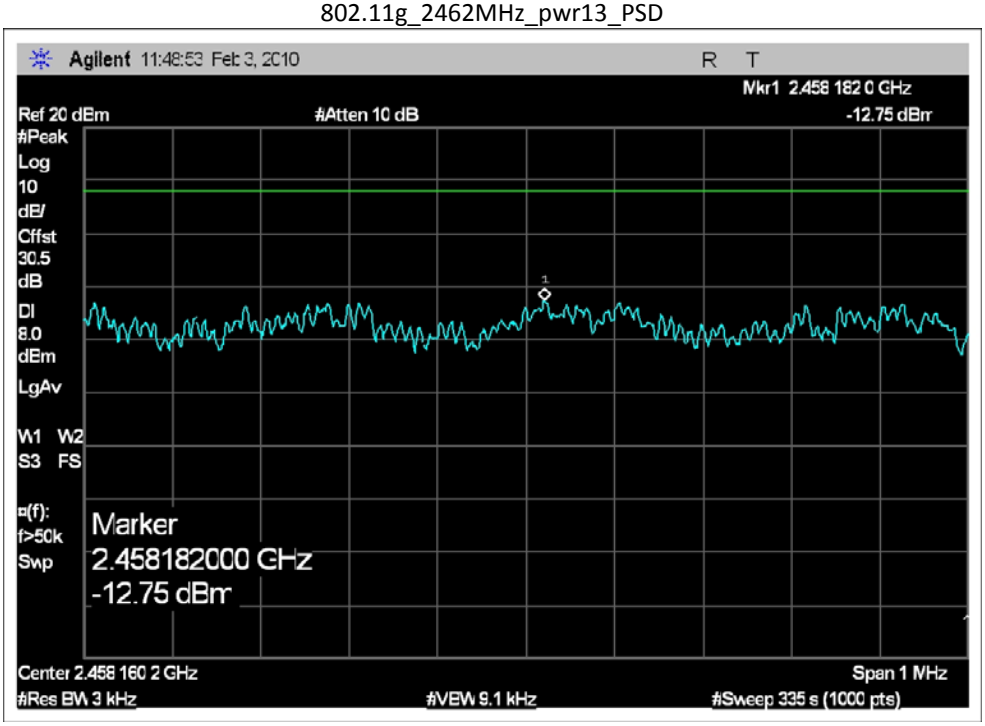
802.11g_2412MHz_pwr16_PSD



802.11g_2437MHz_pwr18_PSD



802.11g_2462MHz_pwr13_PSD



Test Setup Photos

Test Setup Using Antenna Manufacture: Ethertronics

Band Edge

Test Setup: The EUT is placed on the test bench. The device is set in continuous transmit mode, the emission profile is measured at the antenna port.

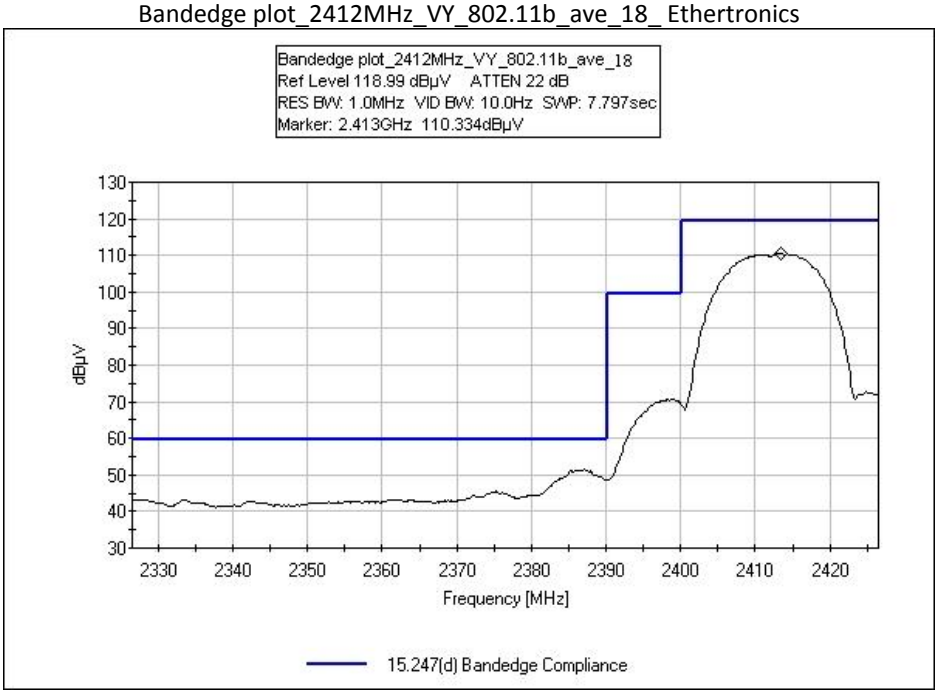
Test Conditions: Freq: 2412- 2462MHz
Tx Frequency: 2412 MHz, 2437MHz, 2462MHz
Modulation: 802.11 b (11 Mbps), Ch 1, 6, 11
Firmware Power setting: 16 , 16, 18
Power= 15.5dBm (0.0355W), 15.6dBm (0.0363W), 16.6dBm (0.0457W)
Modulation: 802.11 g (54Mpbs) Ch 1, 6, 11
Firmware Power setting: 16, 18, 13
Power = 15.6 dBm(0.0363 W), 17.5dBm (0.0562W), 12.6dBm (0.0182W)
13°C, 58% Relative Humidity

Engineer Name: E. Wong

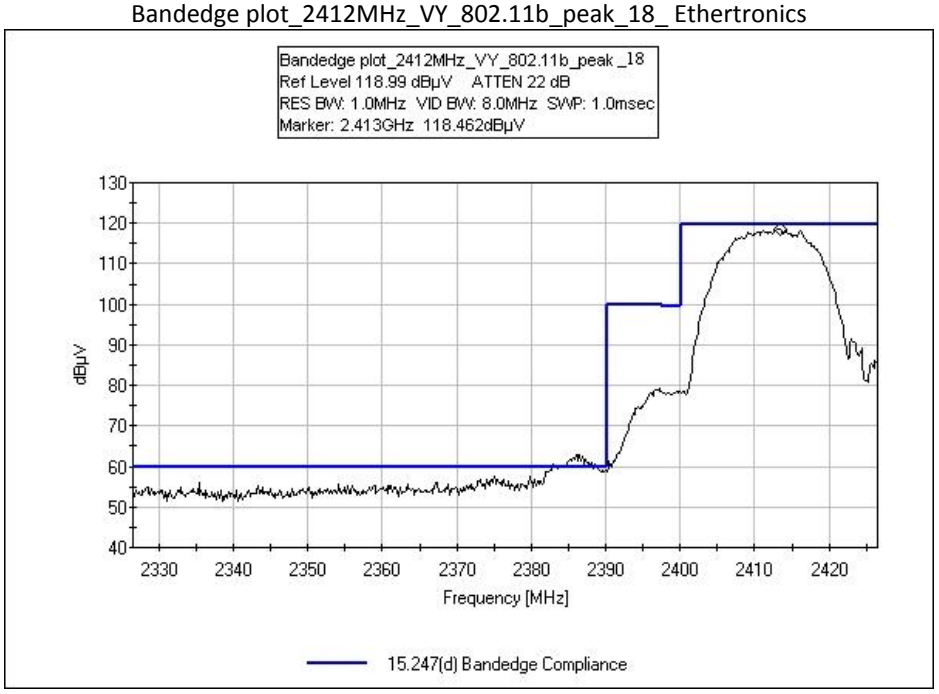
Test Equipment				
Equipment	**Serial**	**Cal Date**	**Cal Due**	**Asset**
Spectrum Analyzer	US44300438	07/23/2008	07/23/2010	02672
Horn Antenna	6246	06/06/2008	06/06/2010	00849
Microwave Pre-amp	3123A00281	07/28/2008	07/28/2010	00786
Heliax Antenna Cable	P5565	09/04/2008	09/04/2010	P05565
18-26GHz Horn	942126-003	11/12/2008	11/12/2010	01413
2'-40GHz cable	NA	09/14/2009	09/14/2011	P02947

Test Plots

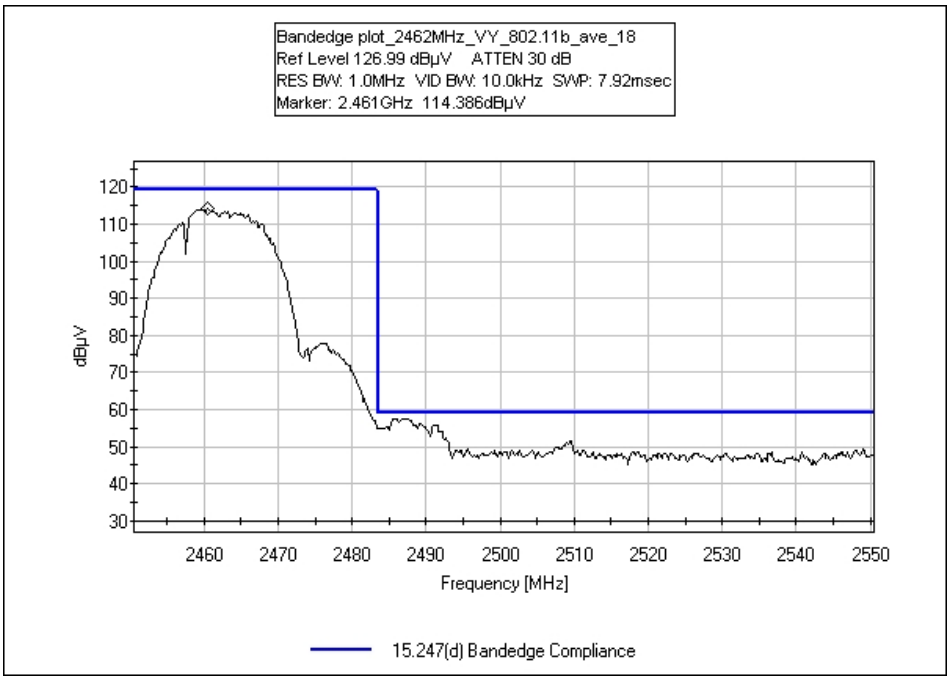
Bandedge plot_2412MHz_VY_802.11b_ave_18_ Ethertronics



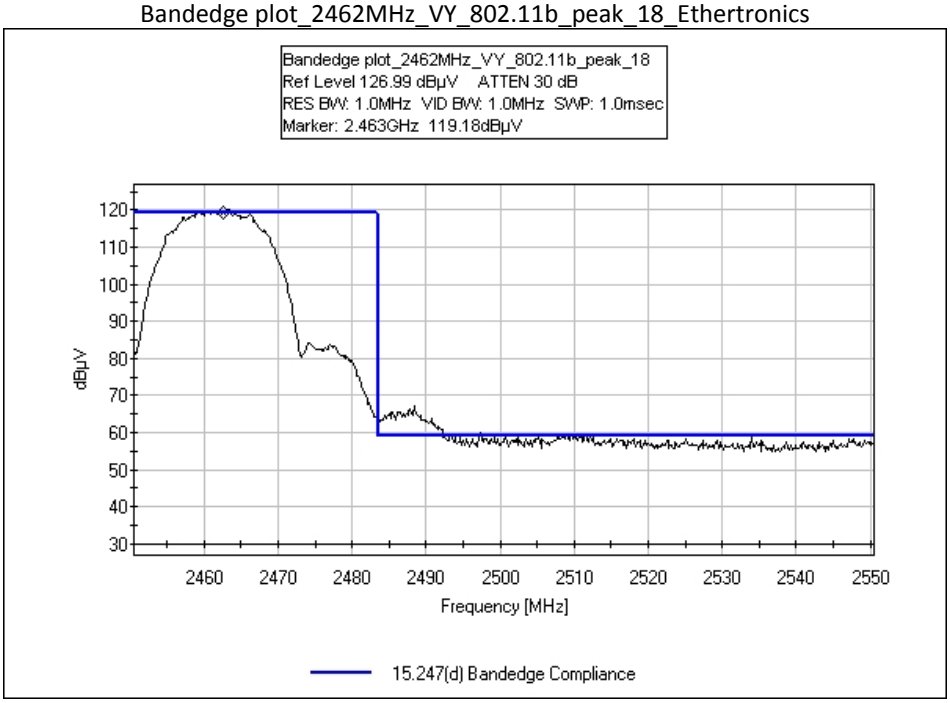
Bandedge plot_2412MHz_VY_802.11b_peak_18_ Ethertronics



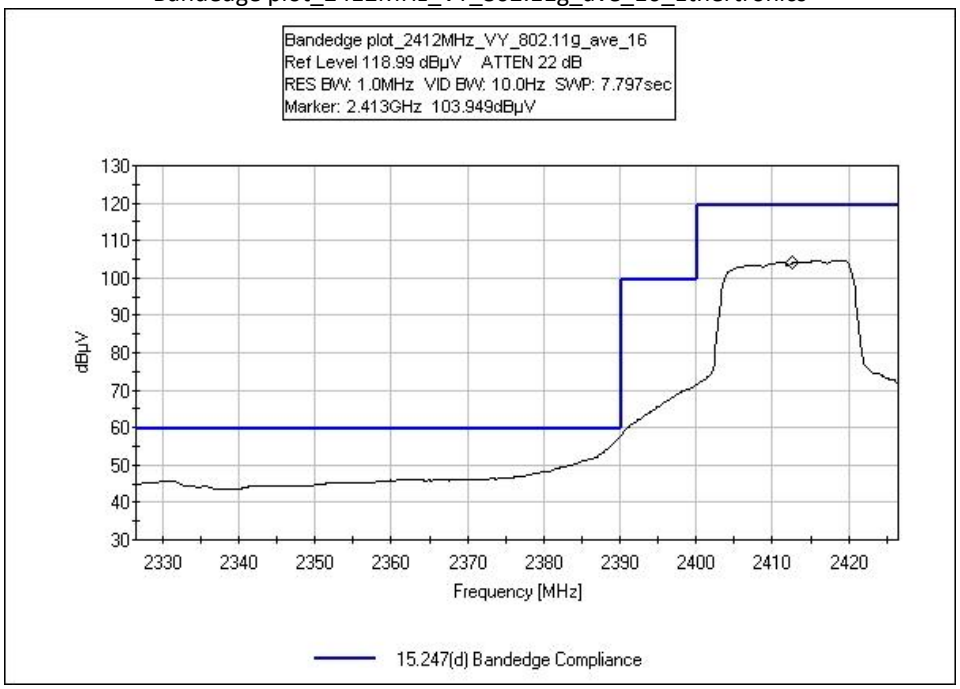
Bandedge plot_2462MHz_VY_802.11b_ave_18_ Ethertronics



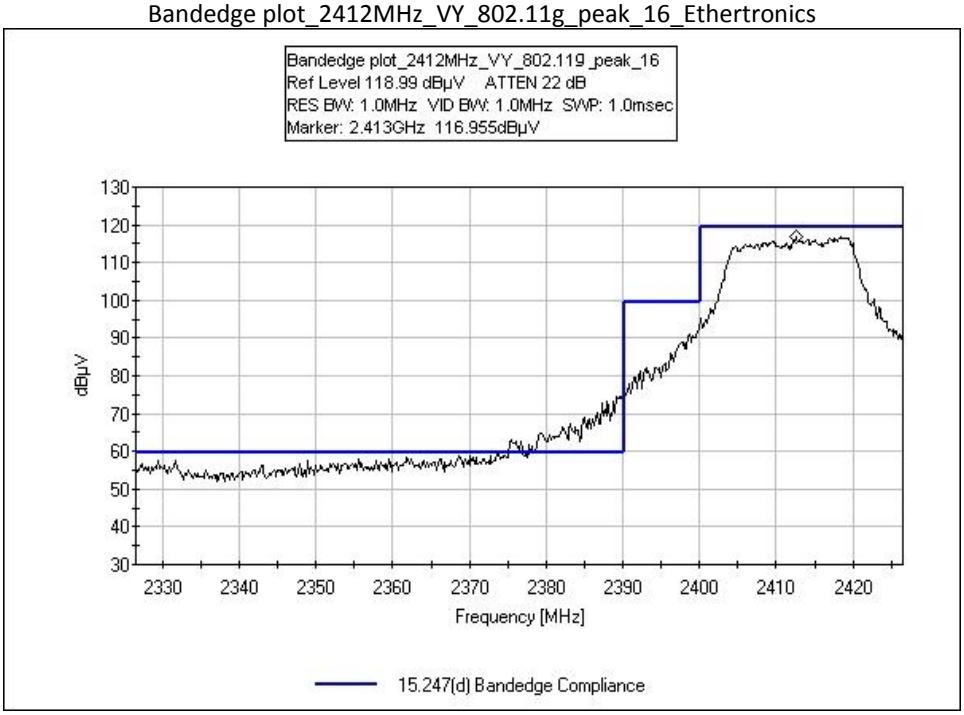
Bandedge plot_2462MHz_VY_802.11b_peak_18_Ethertronics



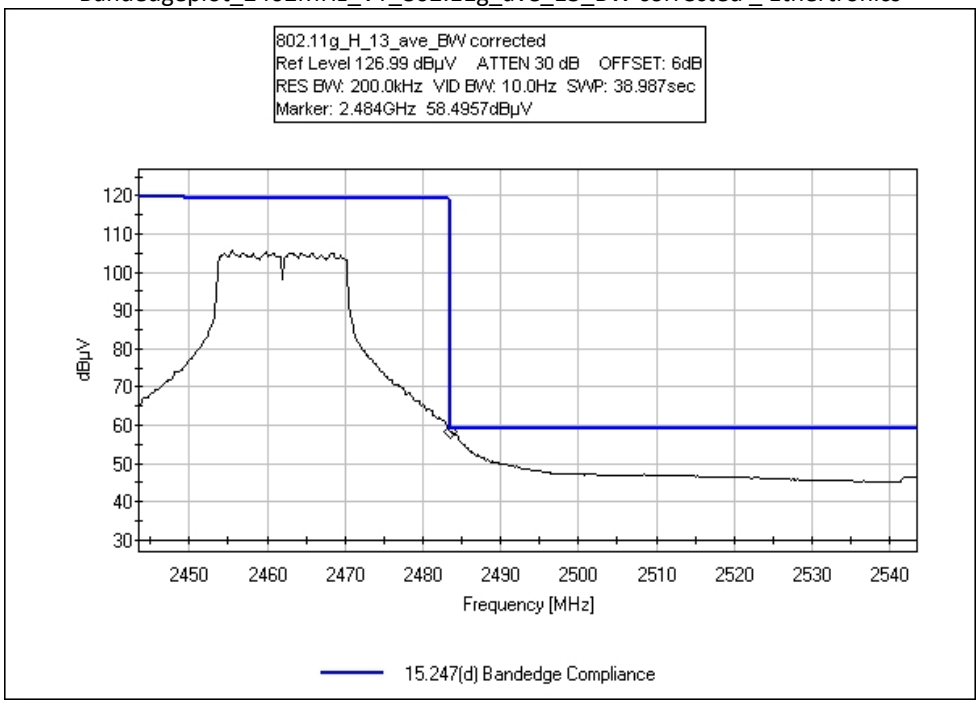
Bandedge plot_2412MHz_VY_802.11g_ave_16_Ethertronics



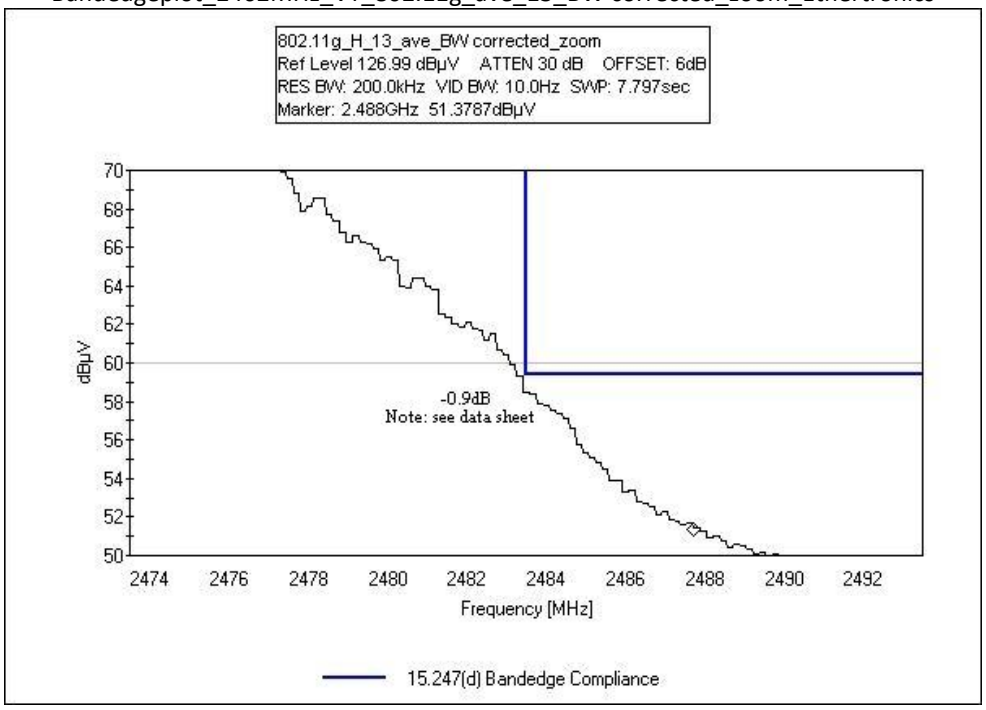
Bandedge plot_2412MHz_VY_802.11g_peak_16_Ethertronics



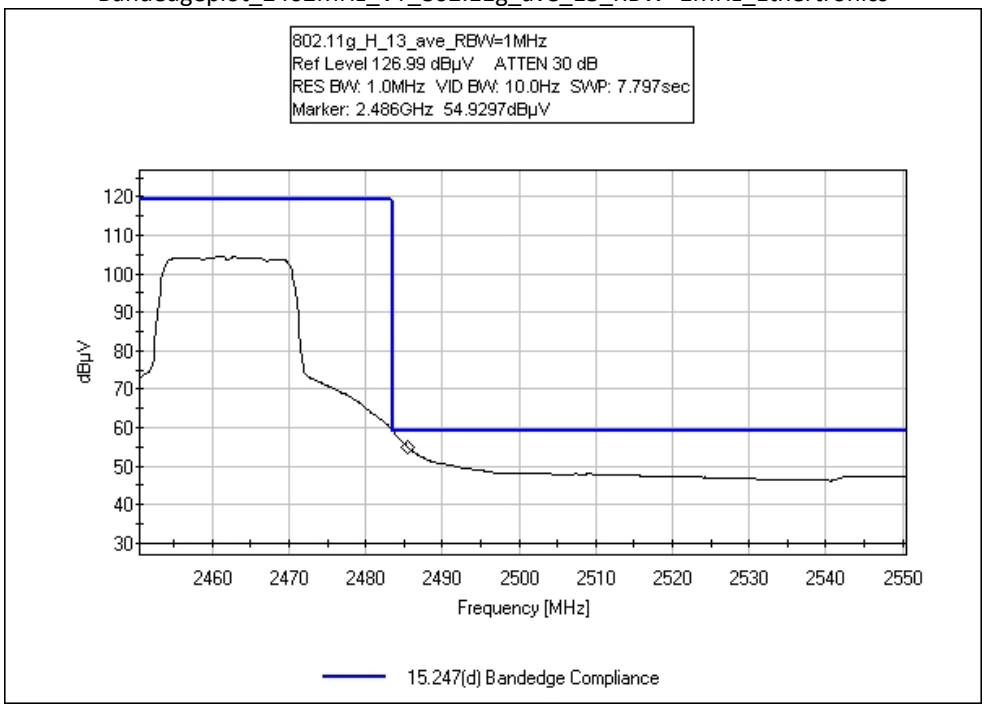
Bandedgeplot_2462MHz_VY_802.11g_ave_13_BW corrected _ Ethertronics



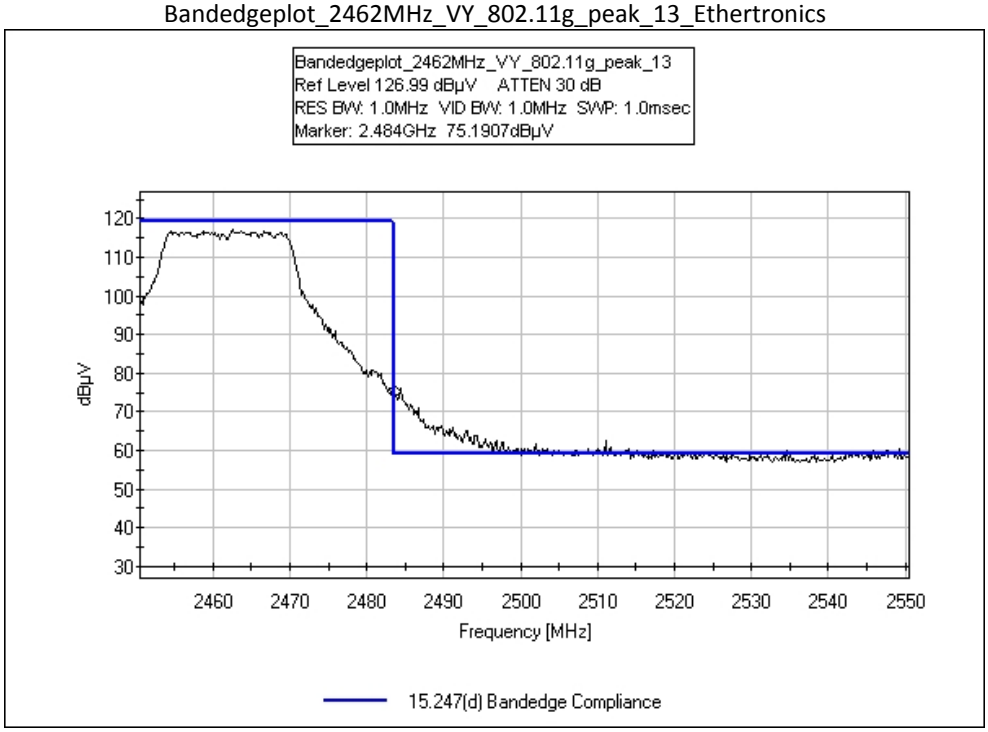
Bandedgeplot_2462MHz_VY_802.11g_ave_13_BW corrected_zoom_Ethertronics



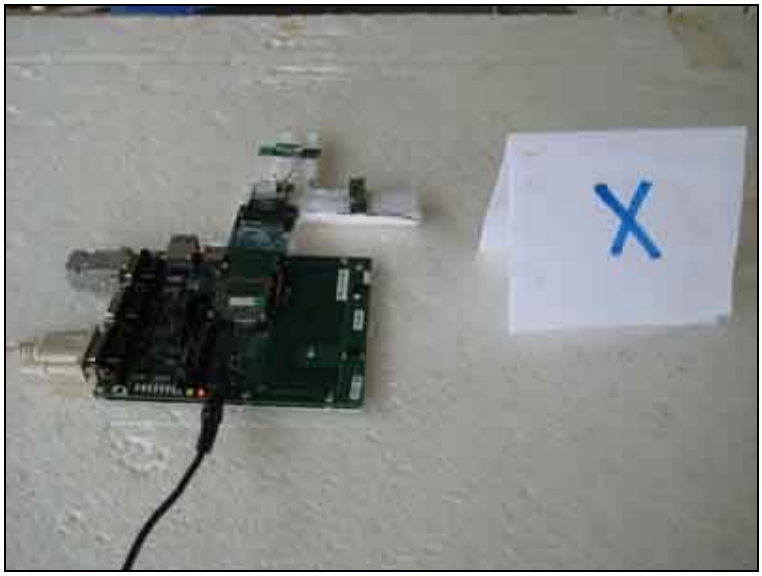
Bandedgeplot_2462MHz_VY_802.11g_ave_13_RBW=1MHz_Ethertronics



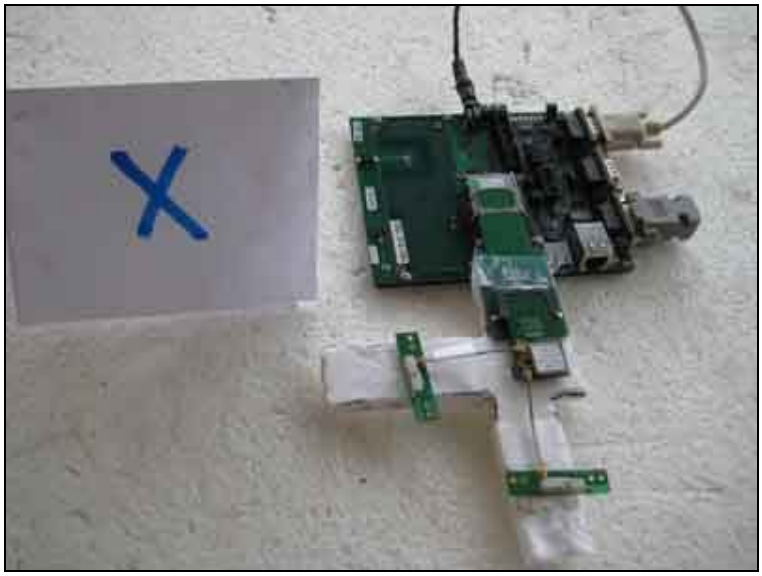
Bandedgeplot_2462MHz_VY_802.11g_peak_13_Ethertronics



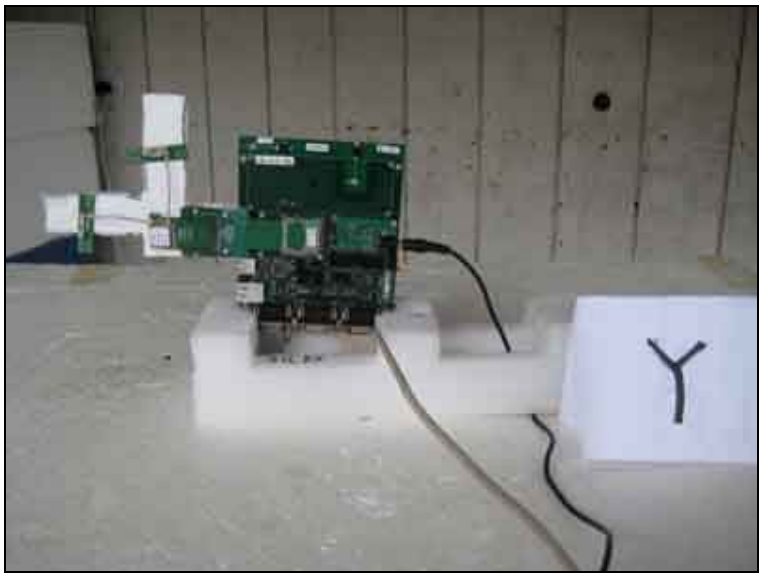
Test Setup Photos



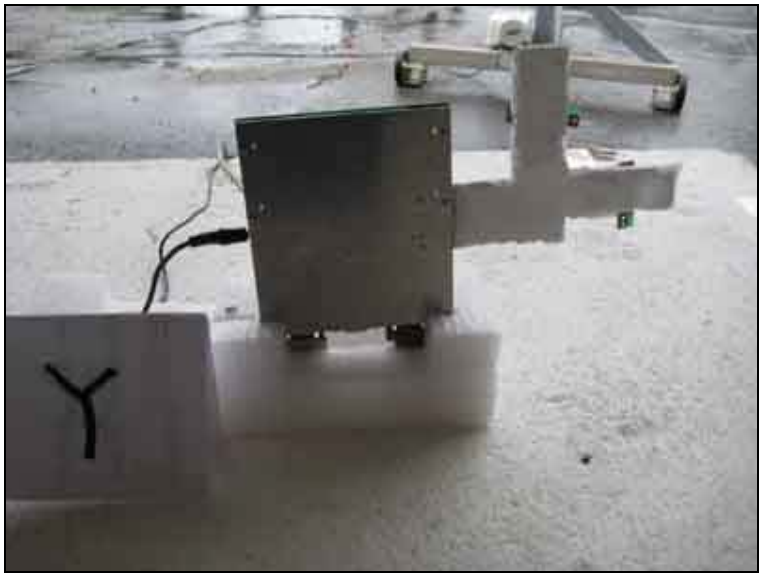
Test Setup Using Antenna Manufacture: Ethertronics



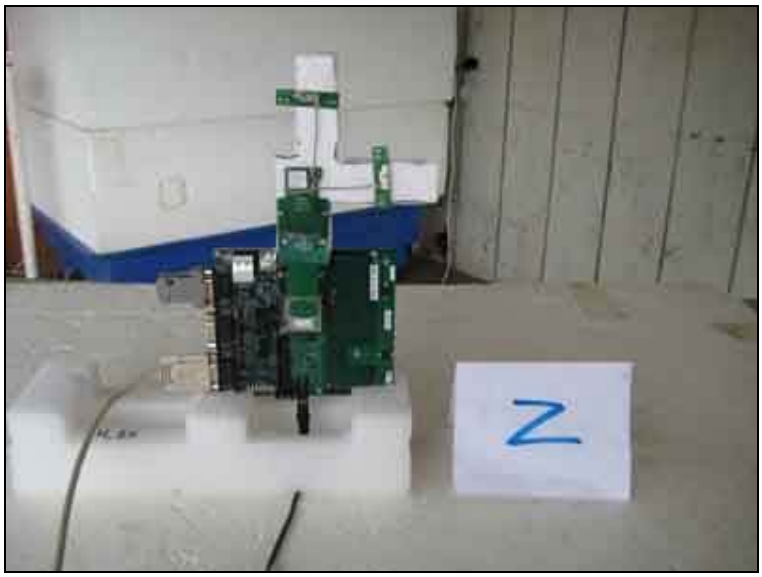
Test Setup Using Antenna Manufacture: Ethertronics



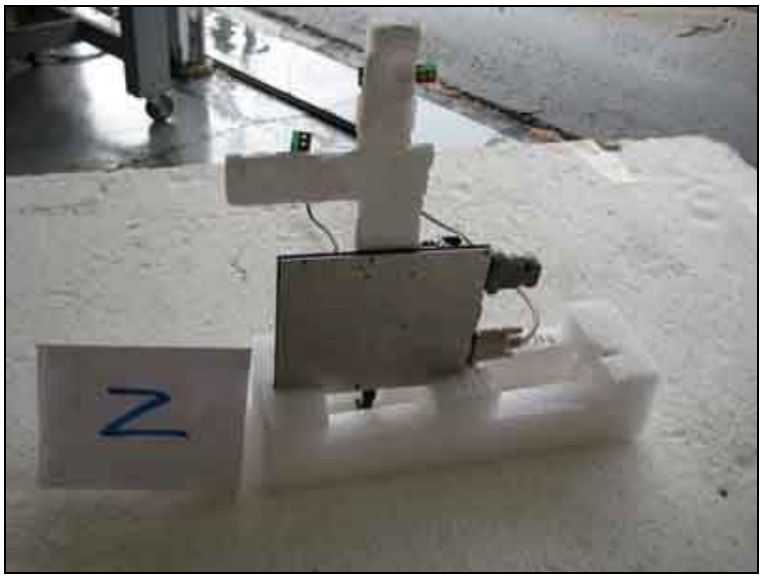
Test Setup Using Antenna Manufacture: Ethertronics



Test Setup Using Antenna Manufacture: Ethertronics



Test Setup Using Antenna Manufacture: Ethertronics

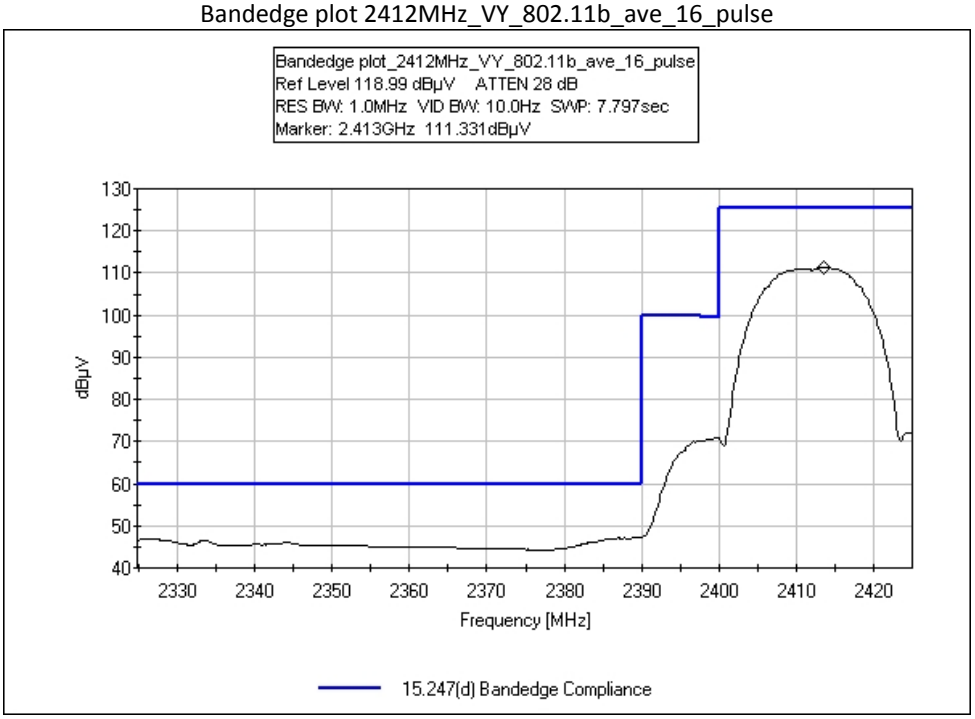


Test Setup Using Antenna Manufacture: Ethertronics

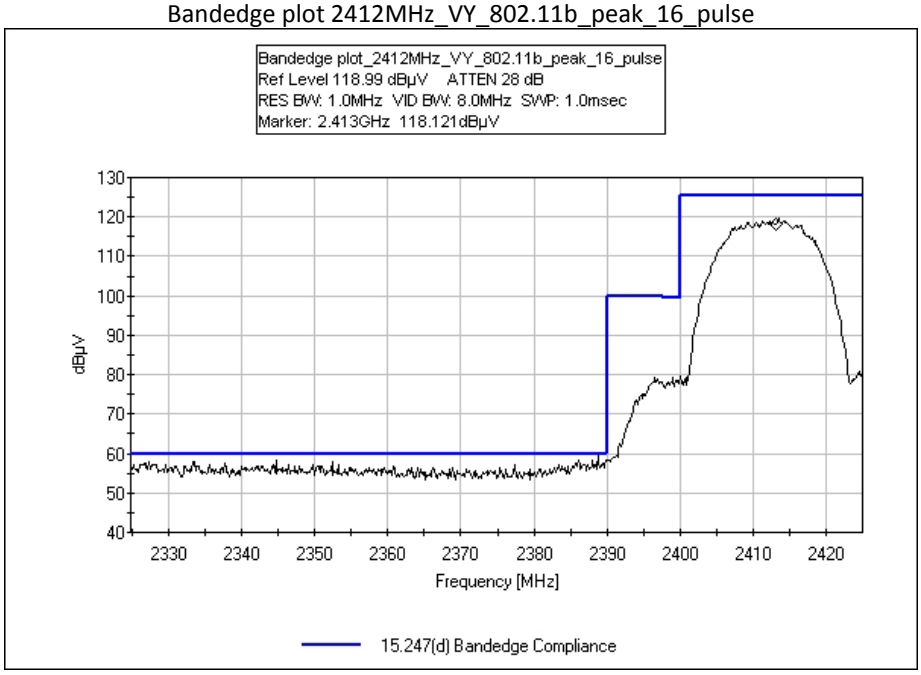
Band Edge Additional Testing 2/26/2010

Test Data

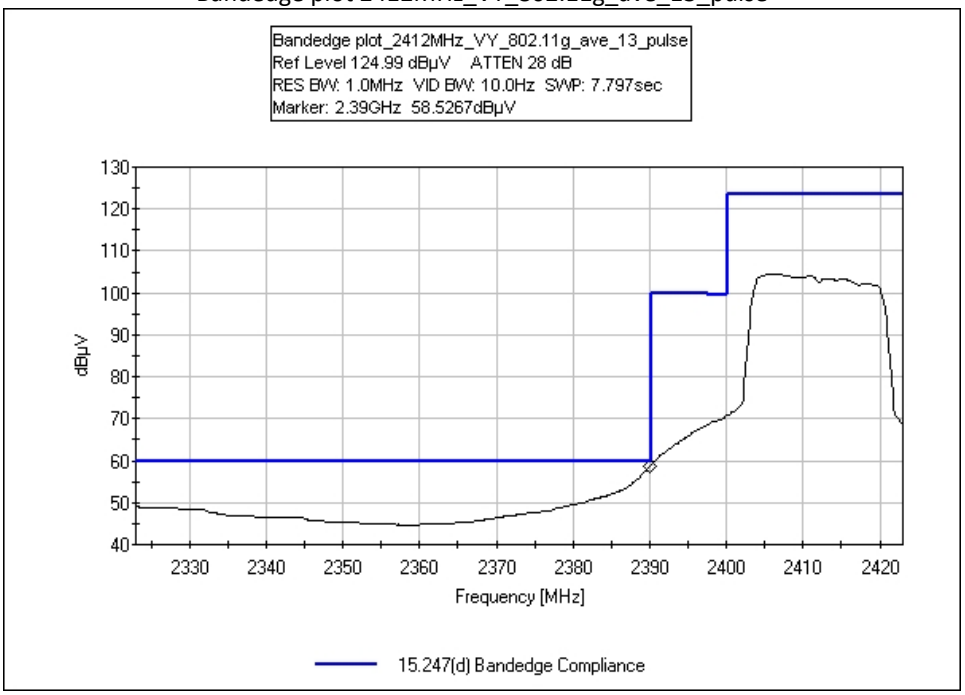
Bandedge plot 2412MHz_VY_802.11b_ave_16_pulse



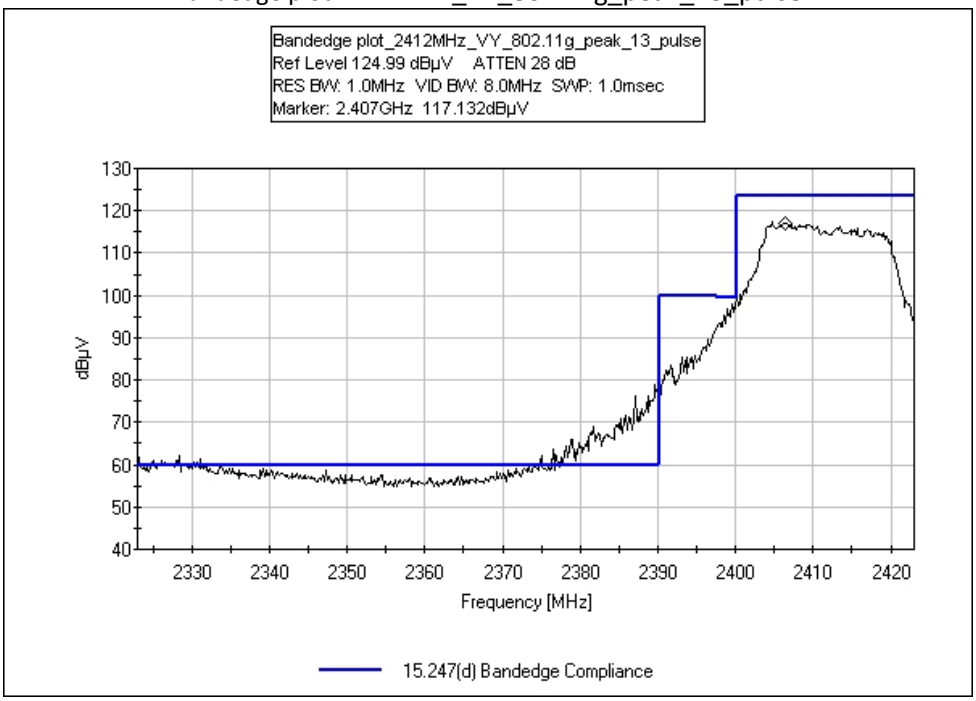
Bandedge plot 2412MHz_VY_802.11b_peak_16_pulse



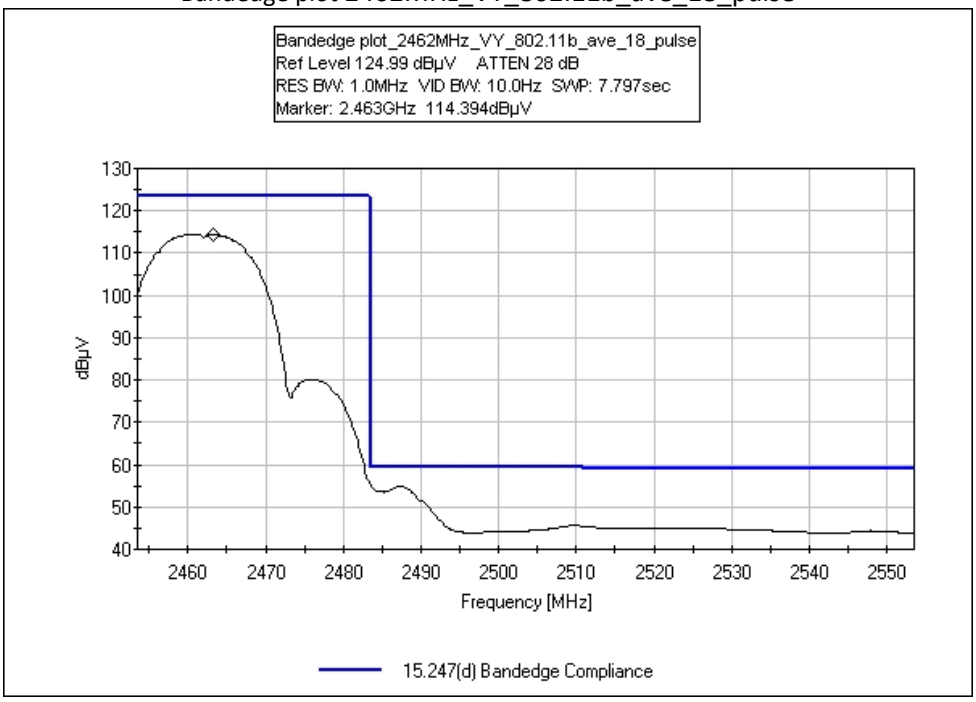
Bandedge plot 2412MHz_VY_802.11g_ave_13_pulse



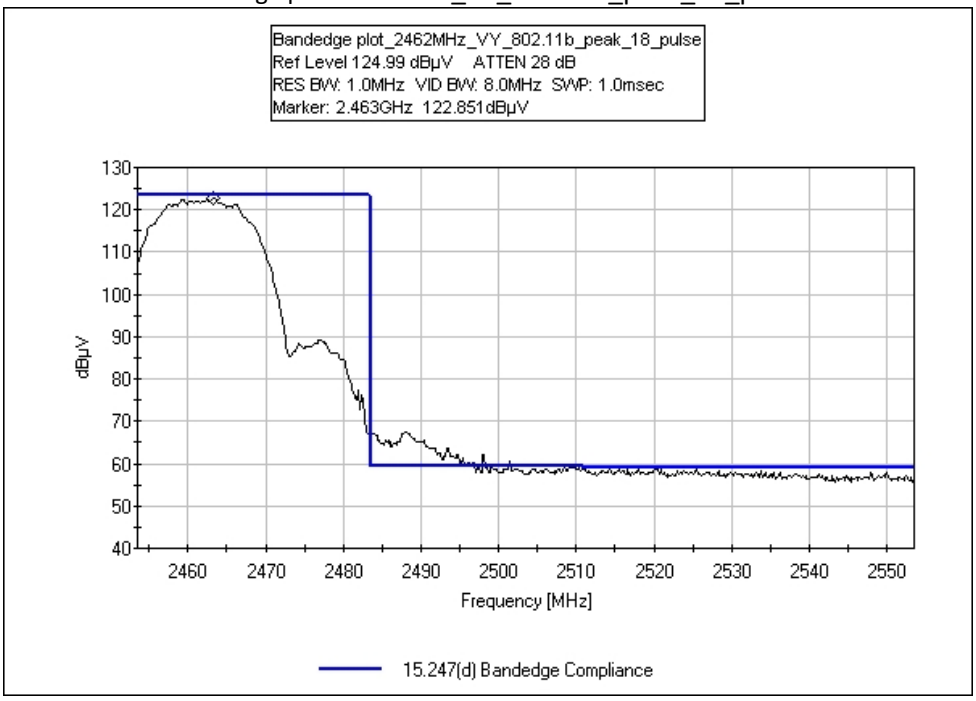
Bandedge plot 2412MHz_VY_802.11g_peak_13_pulse



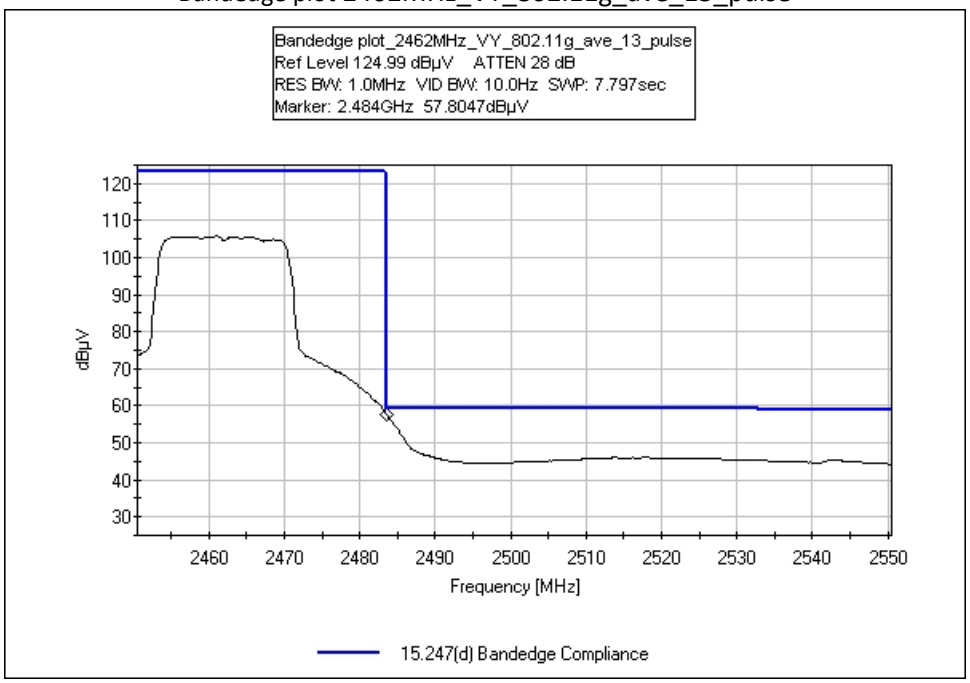
Bandedge plot 2462MHz_VY_802.11b_ave_18_pulse



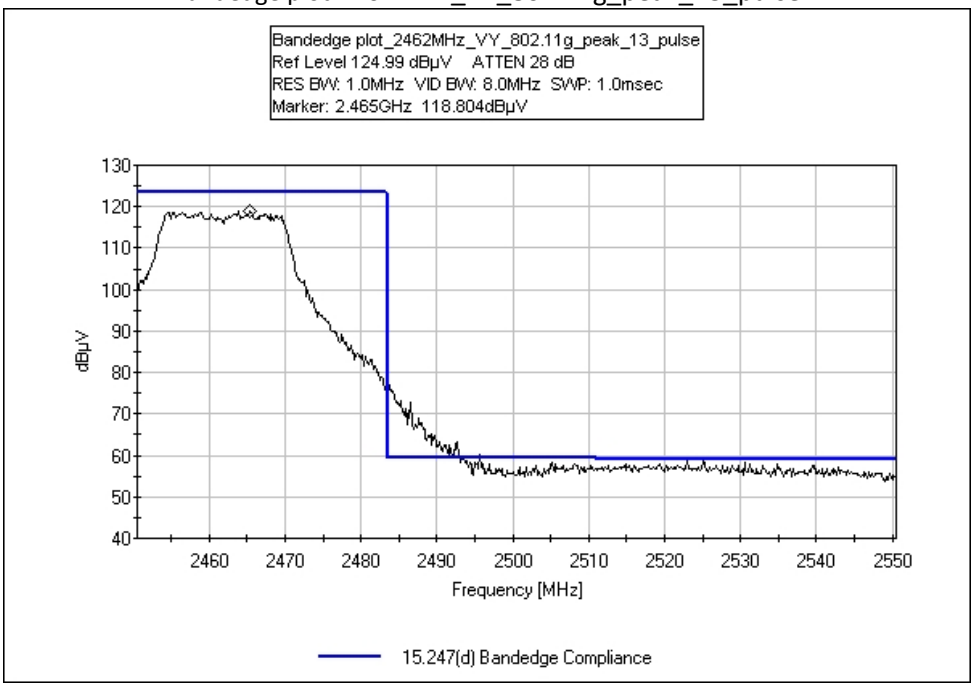
Bandedge plot 2462MHz_VY_802.11b_peak_18_pulse



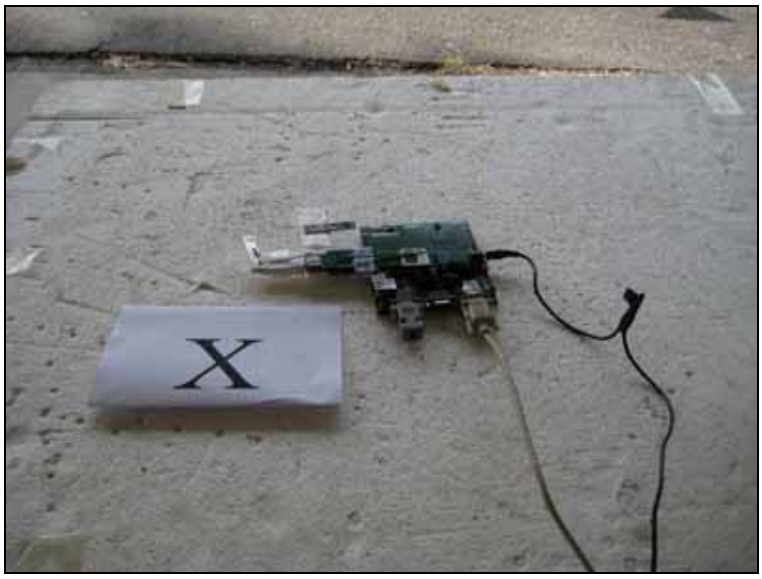
Bandedge plot 2462MHz_VY_802.11g_ave_13_pulse



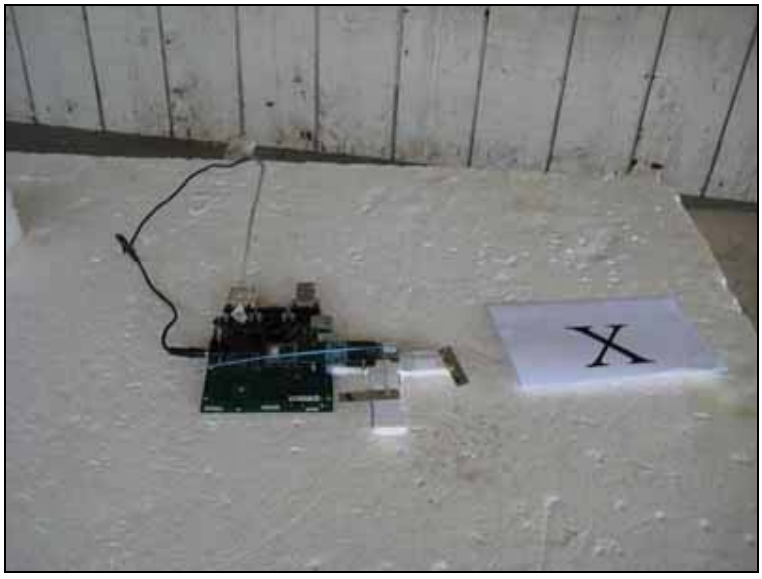
Bandedge plot 2462MHz_VY_802.11g_peak_13_pulse



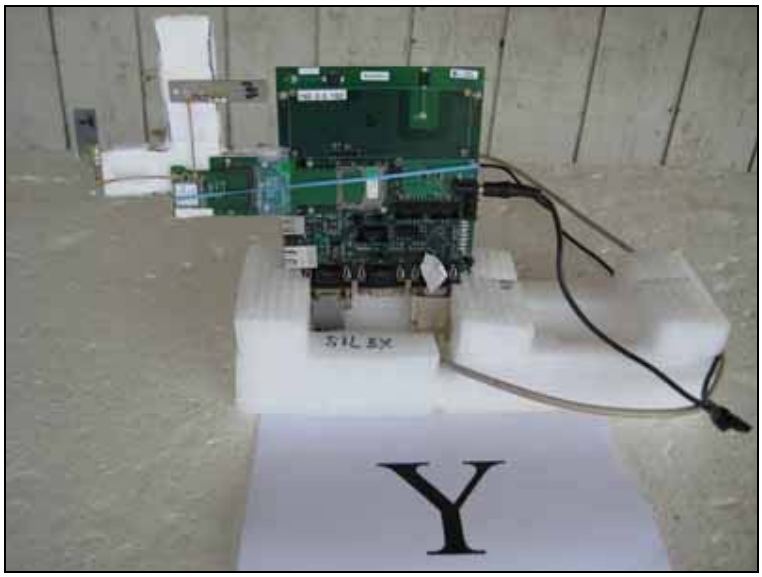
Test Set up Photos



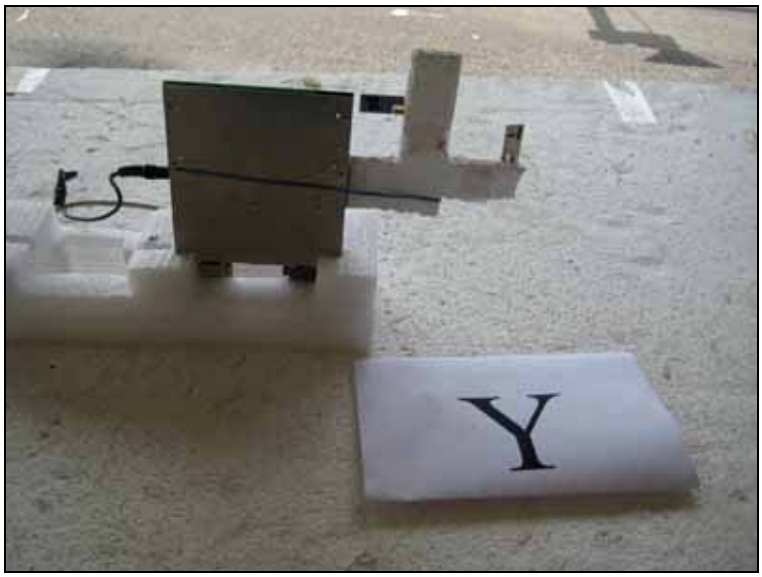
Test Setup Using Antenna Manufacture: Pulse



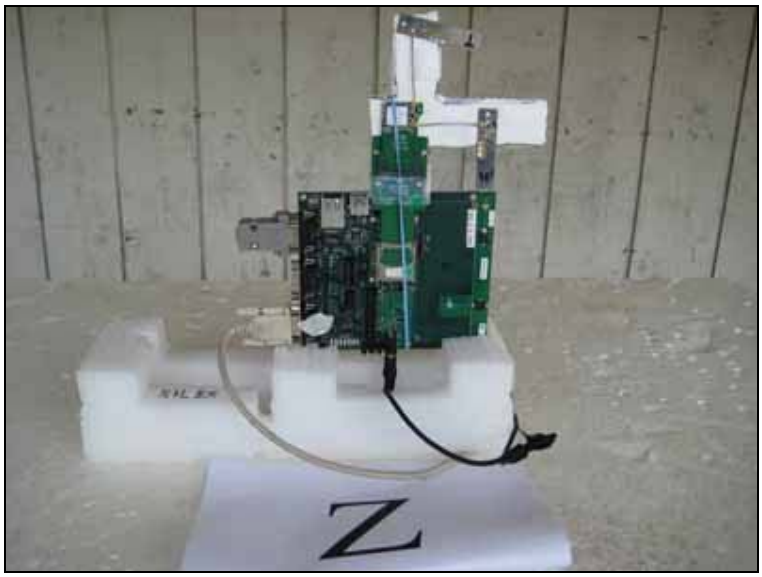
Test Setup Using Antenna Manufacture: Pulse



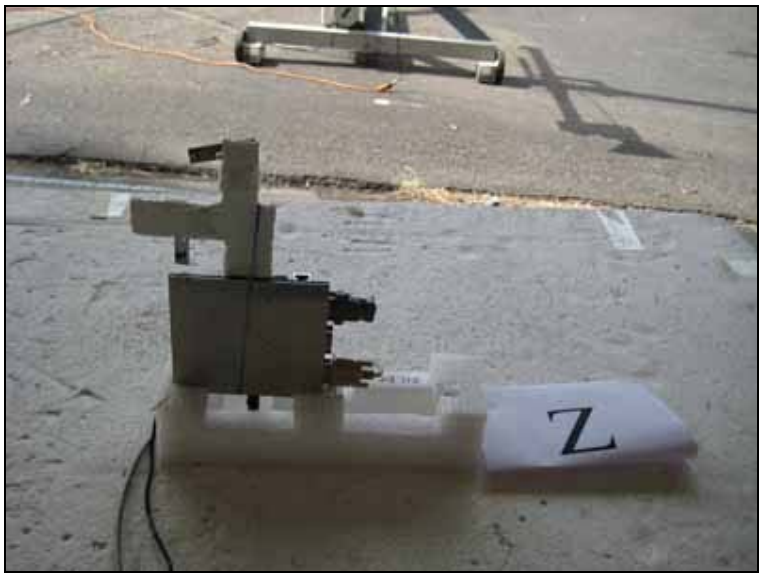
Test Setup Using Antenna Manufacture: Pulse



Test Setup Using Antenna Manufacture: Pulse



Test Setup Using Antenna Manufacture: Pulse



Test Setup Using Antenna Manufacture: Pulse

99% Bandwidth / RSS-210

Test Setup: The EUT is placed on the test bench. The device is set in continuous transmit mode, the emission profile is measured at the antenna port

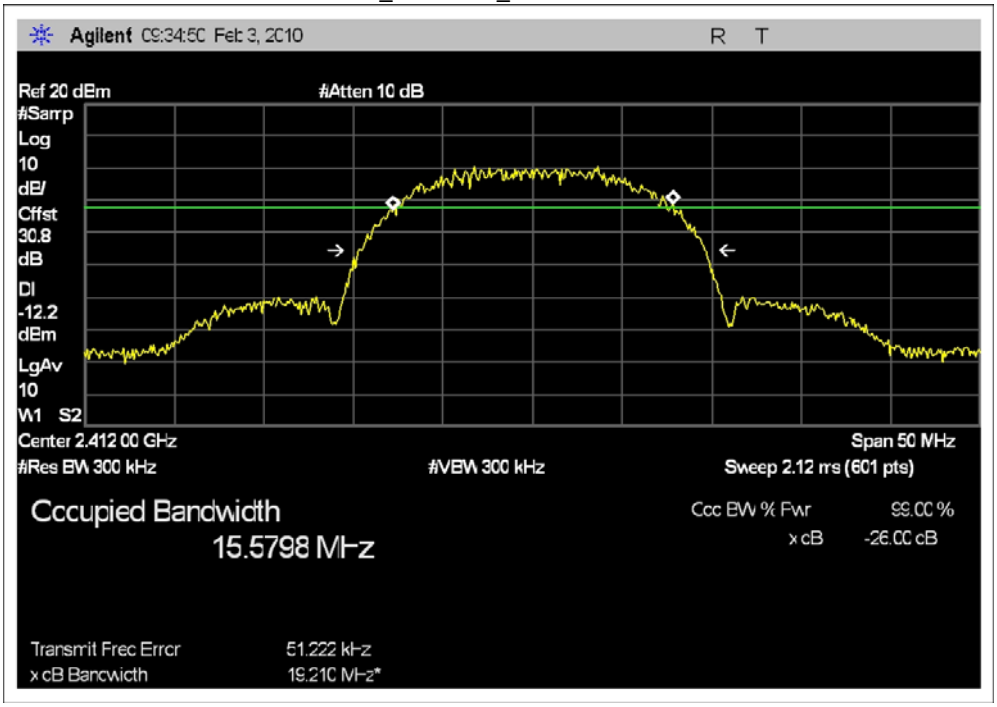
Test Conditions: Freq : 2.412- 2462MHz
Tx Frequency: 2412 MHz, 2437MHz, 2462MHz
Modulation: 802.11 b (11 Mbps), Ch 1, 6, 11
Firmware Power setting: 16 , 16, 18
Power= 15.5dBm (0.0355W), 15.6dBm (0.0363W), 16.6dBm (0.0457W)
Modulation: 802.11 g (54Mpbs) Ch 1, 6, 11
Firmware Power setting: 16, 18, 13
Power = 15.6 dBm(0.0363 W), 17.5dBm (0.0562W), 12.6dBm (0.0182W)
13°C, 58% Relative Humidity

Engineer Name: E. Wong

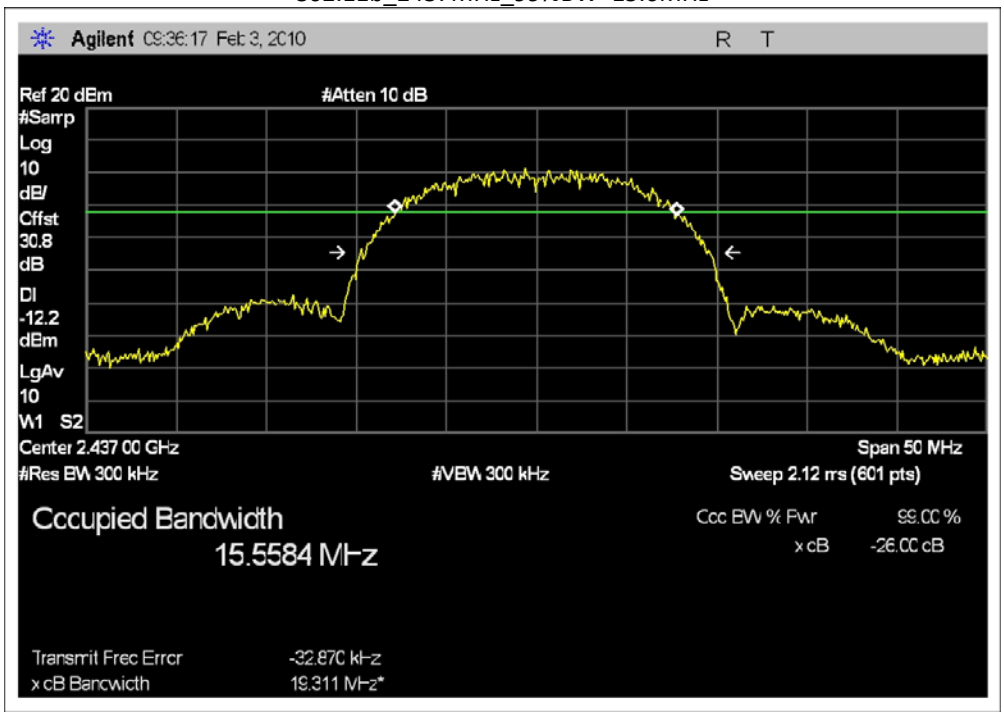
Test Equipment				
Equipment	**Serial**	**Cal Date**	**Cal Due**	**Asset**
Spectrum Analyzer	US44300438	07/23/2008	07/23/2010	02672
3'-40GHz cable	NA	09/14/2009	09/14/2011	P02946

Test Data

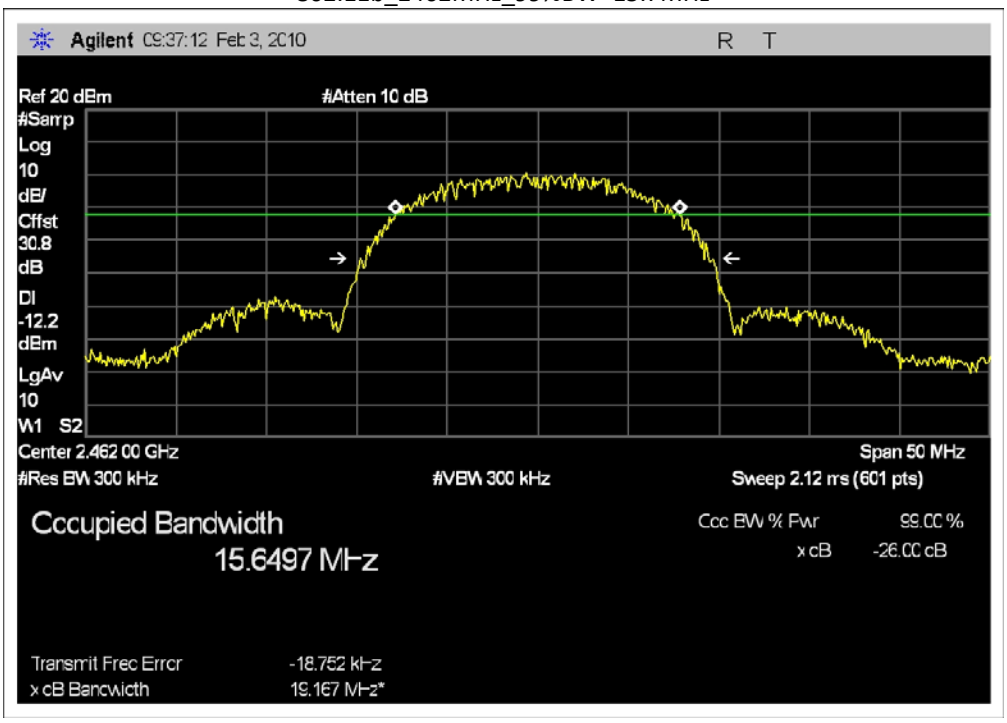
802.11b_2412MHz_99%BW=15.6MHz



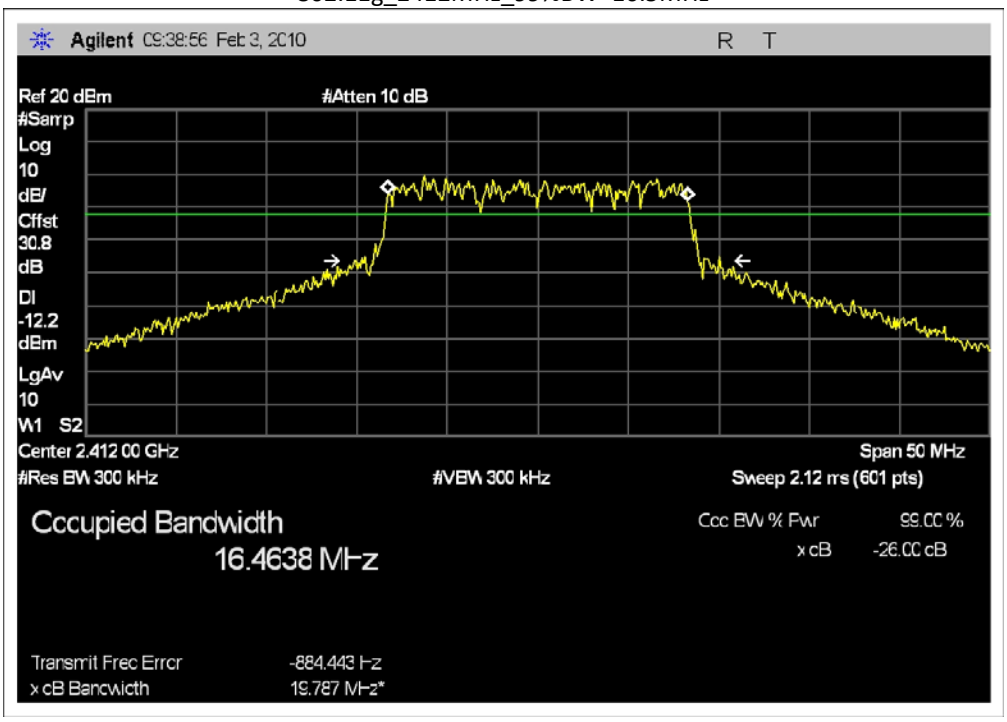
802.11b_2437MHz_99%BW=15.6MHz



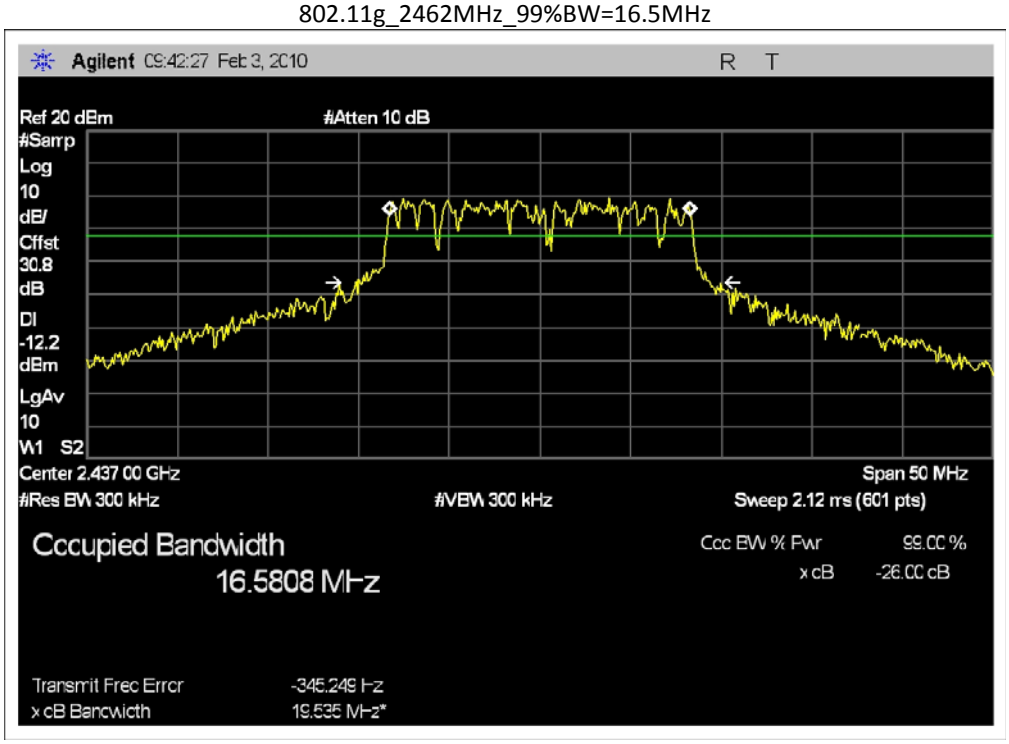
802.11b_2462MHz_99%BW=15.7MHz



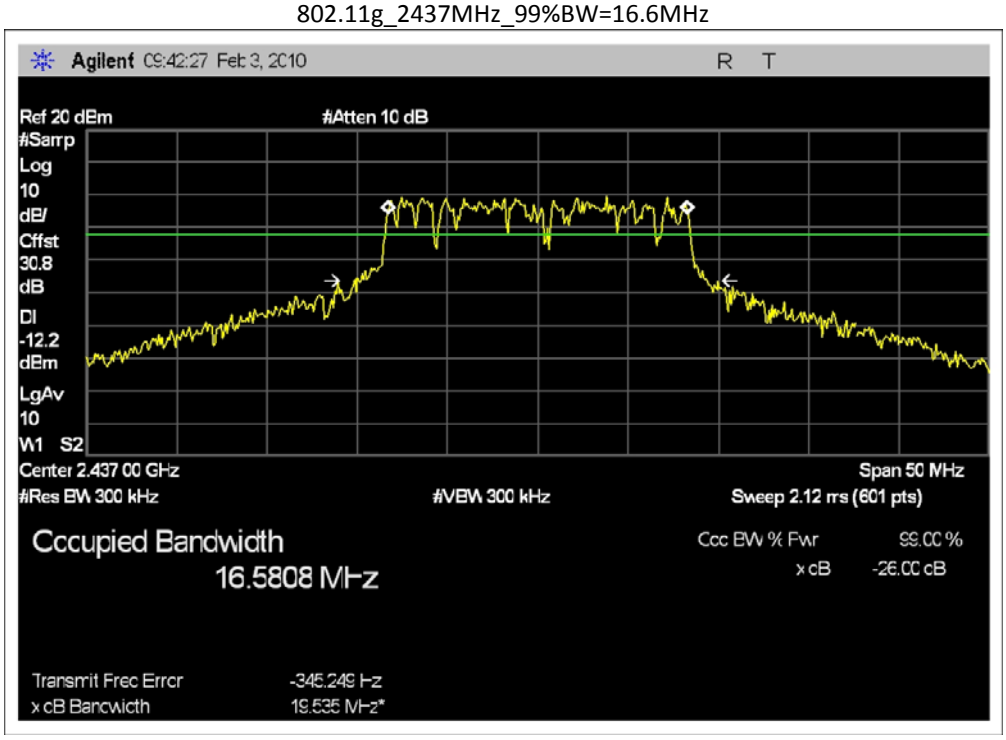
802.11g_2412MHz_99%BW=16.5MHz



802.11g_2462MHz_99%BW=16.5MHz



802.11g_2437MHz_99%BW=16.6MHz



Test Setup Photos

Test Setup Using Antenna Manufacture: Ethertronics

SUPPLEMENTAL INFORMATION

Measurement Uncertainty

Uncertainty Value	Parameter
4.73 dB	Radiated Emissions
3.34 dB	Mains Conducted Emissions
3.30 dB	Disturbance Power

The reported measurement uncertainties are calculated based on the worst case of all laboratory environments from CKC Laboratories, Inc. test sites. Only those parameters which require estimation of measurement uncertainty are reported. The reported worst case measurement uncertainty is less than the maximum values derived in CISPR 16-4-2. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k=2. Compliance is deemed to occur provided measurements are below the specified limits.

Emissions Test Details

TESTING PARAMETERS

The cables were routed consistent with the typical application by varying the configuration of the test sample. Interface cables were connected to the available ports of the test unit. The effect of varying the position of the cables was investigated to find the configuration that produced maximum emissions. Cables were of the type and length specified in the individual requirements. The length of cable that produced maximum emissions was selected.

The equipment under test (EUT) was set up in a manner that represented its normal use, as shown in the setup photographs. Any special conditions required for the EUT to operate normally are identified in the comments that accompany the emissions tables.

The emissions data was taken with a spectrum analyzer or receiver. Incorporating the applicable correction factors for distance, antenna, cable loss and amplifier gain, the data was reduced as shown in the table below. The corrected data was then compared to the applicable emission limits. Preliminary and final measurements were taken in order to ensure that all emissions from the EUT were found and maximized.

CORRECTION FACTORS

The basic spectrum analyzer reading was converted using correction factors as shown in the highest emissions readings in the tables. For radiated emissions in dBµV/m, the spectrum analyzer reading in dBµV was corrected by using the following formula. This reading was then compared to the applicable specification limit.

SAMPLE CALCULATIONS		
	Meter reading	(dBµV)
+	Antenna Factor	(dB)
+	Cable Loss	(dB)
-	Distance Correction	(dB)
-	Preamplifier Gain	(dB)
=	Corrected Reading	(dBµV/m)

TEST INSTRUMENTATION AND ANALYZER SETTINGS

The test instrumentation and equipment listed were used to collect the emissions data. A spectrum analyzer or receiver was used for all measurements. The following table shows the measuring equipment bandwidth settings that were used in designated frequency bands. For testing emissions, an appropriate reference level and a vertical scale size of 10 dB per division were used. When conducted emissions testing was performed, a 10 dB external attenuator was used with internal offset correction in the analyzer.

MEASURING EQUIPMENT BANDWIDTH SETTINGS PER FREQUENCY RANGE			
TEST	BEGINNING FREQUENCY	ENDING FREQUENCY	BANDWIDTH SETTING
CONDUCTED EMISSIONS	150 kHz	30 MHz	9 kHz
RADIATED EMISSIONS	30 MHz	1000 MHz	120 kHz
RADIATED EMISSIONS	1000 MHz	>1 GHz	1 MHz

SPECTRUM ANALYZER/RECEIVER DETECTOR FUNCTIONS

The notes that accompany the measurements contained in the emissions tables indicate the type of detector function used to obtain the given readings. Unless otherwise noted, all readings were made in the "Peak" mode. Whenever a "Quasi-Peak" or "Average" reading is listed as one of the highest readings, this is indicated as a "QP" or an "Ave" on the appropriate rows of the data sheets. The following paragraphs describe in more detail the detector functions and when they were used to obtain the emissions data.

Peak

In this mode, the spectrum analyzer/receiver readings recorded all emissions at their peak value as the frequency band selected was scanned. By combining this function with another feature of the measuring device called "peak hold," the measuring device had the ability to measure transients or low duty cycle transient emission peak levels. In this mode the measuring device made a slow scan across the frequency band selected and measured the peak emission value found at each frequency across the band.

Quasi-Peak

When the true peak values exceeded or were within 2 dB of the specification limit, quasi-peak measurements were taken using the quasi-peak detector.

Average

For certain frequencies, average measurements may be made using the spectrum analyzer/receiver. To make these measurements, the test engineer reduces the video bandwidth on the measuring device until the modulation of the signal is filtered out. At this point the measuring device is set into the linear mode and the scan time is reduced.