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Electromagnetic Emissions Test Report
and
Application for Grant of Equipment Authorization
Certification
pursuant to
Industry Canada RSS-Gen Issue 1 / RSS 210 Issue 7
FCC Part 15 Subpart C
on the
Ruckus Wireless
Transmitter
Model: 2231, 2232, 2241, 2242, 2252, 2292, 2932, 2942, 2952, 2962

UPN:	5912A-2XX2-XXX
FCC ID:	S9G2XX2-XXX
GRANTEE:	Ruckus Wireless 880 West Maude Ave. Suite 101 Sunnyvale, CA 94085
TEST SITE:	Elliott Laboratories, Inc. 684 W. Maude Ave Sunnyvale, CA 94086
REPORT DATE:	June 25, 2007
FINAL TEST DATE:	May 21, May 24, June 7, June 13 and June 14, 2007
AUTHORIZED SIGNATORY:	Juan Martinez Senior EMC Engineer

ACCREDITED
2016-01

REVISION HISTORY

Revision #	Date	Comments	Modified By
1	July 13, 2007	Initial Release	David Guidotti

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SCOPE

An electromagnetic emissions test has been performed on the Ruckus Wireless model 2942 pursuant to the following rules:

Industry Canada RSS-Gen Issue 1
RSS 210 Issue 7 "Low-power Licence-exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment"
FCC Part 15 Subpart C

Conducted and radiated emissions data has been collected, reduced, and analyzed within this report in accordance with measurement guidelines set forth in the following reference standards and as outlined in Elliott Laboratories test procedures:

ANSI C63.4:2003
RSS-212 Issue 1 Test Facilities and Test Methods for Radio Equipment

The intentional radiator above has been tested in a simulated typical installation to demonstrate compliance with the relevant Industry Canada performance and procedural standards.

Final system data was gathered in a mode that tended to maximize emissions by varying orientation of EUT, orientation of power and I/O cabling, antenna search height, and antenna polarization.

Every practical effort was made to perform an impartial test using appropriate test equipment of known calibration. All pertinent factors have been applied to reach the determination of compliance.

The test results recorded herein are based on a single type test of the Ruckus Wireless model 2942 and therefore apply only to the tested sample. The sample was selected and prepared by Craig Owens of Ruckus Wireless

OBJECTIVE

The primary objective of the manufacturer is compliance with the regulations outlined in the previous section.

Prior to marketing in the USA, all unlicensed transmitters and transceivers require certification. Receive-only devices operating between 30 MHz and 960 MHz are subject to either certification or a manufacturer's declaration of conformity, with all other receive-only devices exempt from the technical requirements.

Prior to marketing in Canada, Class I transmitters, receivers and transceivers require certification. Class II devices are required to meet the appropriate technical requirements but are exempt from certification requirements.

Certification is a procedure where the manufacturer submits test data and technical information to a certification body and receives a certificate or grant of equipment authorization upon successful completion of the certification body's review of the submitted documents. Once the equipment authorization has been obtained, the label indicating compliance must be attached to all identical units, which are subsequently manufactured.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product which may result in increased emissions should be checked to ensure compliance has been maintained (i.e., printed circuit board layout changes, different line filter, different power supply, harnessing or I/O cable changes, etc.).

STATEMENT OF COMPLIANCE

The tested sample of Ruckus Wireless model 2942 complied with the requirements of the following regulations:

Industry Canada RSS-Gen Issue 1
RSS 210 Issue 7 "Low-power Licence-exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment"
FCC Part 15 Subpart C

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product which may result in increased emissions should be checked to ensure compliance has been maintained (i.e., printed circuit board layout changes, different line filter, different power supply, harnessing or I/O cable changes, etc.).

TEST RESULTS SUMMARY

DIGITAL TRANSMISSION SYSTEMS (2400 – 2483.5MHz)

FCC Rule Part	RSS Rule Part	Description	Measured Value / Comments	Limit / Requirement	Result
15.247(a)	RSS 210 A8.2	Digital Modulation	Systems uses OFDM / DSSS techniques	-	Complies
15.247 (a) (2)	RSS 210 A8.2 (1)	6dB Bandwidth	16.7MHz (802.11g) 12.2MHz (802.11b)	>500kHz	Complies
	RSP100	99% Bandwidth	18.0MHz (802.11g) 16.3MHz (802.11b)	Information only	Complies
15.247 (b) (3)	RSS 210 A8.2 (4)	Output Power (multipoint systems)	23.1 dBm (.203 Watts) EIRP = 1.62 W Note 1	1Watt, EIRP limited to 4 Watts.	Complies
15.247(d)	RSS 210 A8.2 (2)	Power Spectral Density	0.67dBm/kHz	8dBm/3kHz	Complies
15.247(c)	RSS 210 A8.5	Antenna Port Spurious Emissions 30MHz – 25 GHz	Refer to data	< -30dBc Note 2	Complies
15.247(c) / 15.209	RSS 210 A8.5	Radiated Spurious Emissions 30MHz – 25 GHz	53.8dBµV/m (489.8µV/m) @ 2389.5MHz (-0.2dB)	15.207 in restricted bands, all others <-30dBc Note 2	Complies

Note 1: EIRP calculated using antenna gain of 9 dBi for the highest EIRP multi-point system.

Note 2: Limit of -30dBc used because the power was measured using the UNII test procedure (maximum power averaged over a transmission burst) / RMS averaging over a time interval, as permitted under RSS 210 section A8.4(4).

GENERAL REQUIREMENTS APPLICABLE TO ALL BANDS

FCC Rule Part	RSS Rule part	Description	Measured Value / Comments	Limit / Requirement	Result (margin)
15.203	-	RF Connector	Reverse polarized connector		Complies
15.109	RSS GEN 7.2.3 Table 1	Receiver spurious emissions	32.7dBµV/m (43.2µV/m) @ 12183.6MHz		Complies (-21.3dB)
15.207	RSS GEN Table 2	AC Conducted Emissions	38.8dBµV @ 0.804MHz	Refer to standard	Complies (-7.2dB)
15.247 (b) (5) 15.407 (f)	RSS 102	RF Exposure Requirements	Refer to MPE calculations in Exhibit 11, RSS 102 declaration and User Manual statements.	Refer to OET 65, FCC Part 1 and RSS 102	Complies
	RSP 100 RSS GEN 7.1.5	User Manual		Statement required regarding non-interference	
	RSP 100 RSS GEN 7.1.5	User Manual		Statement required regarding detachable antenna	

MEASUREMENT UNCERTAINTIES

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level and were calculated in accordance with UKAS document LAB 34.

Measurement Type	Frequency Range (MHz)	Calculated Uncertainty (dB)
Conducted Emissions	0.15 to 30	± 2.4
Radiated Emissions	0.015 to 30	± 3.0
Radiated Emissions	30 to 1000	± 3.6
Radiated Emissions	1000 to 40000	± 6.0

EQUIPMENT UNDER TEST (EUT) DETAILS

GENERAL

The Ruckus Wireless model 2942 is a 2.4GHz wireless bridge that is designed to provide wireless internet and networking services. Since the EUT would be placed on a tabletop during operation, the EUT was treated as table-top equipment during testing to simulate the end-user environment. The electrical rating of the EUT is 120 Volts, 60 Hz, 0.3 Amps.

The sample was received on May 21, 2007 and tested on May 21, May 24, June 7, June 13 and June 14, 2007. The EUT consisted of the following component(s):

Manufacturer	Model	Description	Serial Number	FCC ID
Ruckus	2942	2.4Ghz wireless bridge	-	

OTHER EUT DETAILS

Testing performed on the 2942 was considered representative of the 2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2952 and 2962. The models all use identical hardware

ANTENNA SYSTEM

The antenna system used with the Ruckus Wireless model 2942 consists of a patch, omni, and sectors. Connection are reverse polarity which meet 15.203 section.

ENCLOSURE

The EUT enclosure is primarily constructed of Plastic . The EUT enclosure measures approximately 19.43cm (L), 14.43cm (W), 10.16cm (H).

MODIFICATIONS

The EUT did not require modifications during testing in order to comply with emissions specifications.

SUPPORT EQUIPMENT

The following equipment was used as local support equipment for emissions testing:

Manufacturer	Model	Description	Serial Number	FCC ID
Dell	Inspiron 2650	Laptop	N/A	DoC

No remote support equipment was used during emissions testing.

EUT INTERFACE PORTS

The I/O cabling configuration during emissions testing was as follows:

Port	Connected To	Cable(s)		
		Description	Shielded or Unshielded	Length(m)
RF	Antenna	Coaxial	Shielded	0.5
Ethernet	Laptop	Cat5	Unshielded	1.0
EUT DC input	AC Mains	Multiwire	Unshielded	1.5

Note: The console port was not connected during testing. The manufacturer stated that these are for configuration purposes and therefore would not normally be connected.

EUT OPERATION

During Radio emissions testing the EUT was set to maximum power to produce CCK or OFDM modulation continuous transmission .

TEST SITE

GENERAL INFORMATION

Final test measurements were taken on May 21, May 24, June 7, June 13 and June 14, 2007 at the Elliott Laboratories Open Area Test Site located at 684 West Maude Avenue, Sunnyvale, California or 41039 Boyce Road, Fremont, California Pursuant to section 2.948 of the FCC's Rules and section 3.3 of RSP-100, construction, calibration, and equipment data has been filed with the Commission.

ANSI C63.4:2003 recommends that ambient noise at the test site be at least 6 dB below the allowable limits. Ambient levels are below this requirement with the exception of predictable local TV, radio, and mobile communications traffic. The test site contains separate areas for radiated and conducted emissions testing. Considerable engineering effort has been expended to ensure that the facilities conform to all pertinent requirements of ANSI C63.4:2003 and RSS 212.

CONDUCTED EMISSIONS CONSIDERATIONS

Conducted emissions testing is performed in conformance with ANSI C63.4:2003 and RSS 212. Measurements are made with the EUT connected to the public power network through a nominal, standardized RF impedance, which is provided by a line impedance stabilization network, known as a LISN. A LISN is inserted in series with each current-carrying conductor in the EUT power cord.

RADIATED EMISSIONS CONSIDERATIONS

The FCC has determined that radiation measurements made in a shielded enclosure are not suitable for determining levels of radiated emissions. Radiated measurements are performed in an open field environment or in a semi-anechoic chamber. The test sites are maintained free of conductive objects within the CISPR defined elliptical area incorporated in ANSI C63.4:2003 guidelines and meet the Normalized Site Attenuation (NSA) requirements of ANSI C63.4:2003 / RSS 212.

MEASUREMENT INSTRUMENTATION

RECEIVER SYSTEM

An EMI receiver as specified in CISPR 16-1 is used for emissions measurements. The receivers used can measure over the frequency range of 9 kHz up to 2000 MHz. These receivers allow both ease of measurement and high accuracy to be achieved. The receivers have Peak, Average, and CISPR (Quasi-peak) detectors built into their design so no external adapters are necessary. The receiver automatically sets the required bandwidth for the CISPR detector used during measurements. If the repetition frequency of the signal being measured is below 20Hz, peak measurements are made in lieu of Quasi-Peak measurements.

For measurements above the frequency range of the receivers, a spectrum analyzer is utilized because it provides visibility of the entire spectrum along with the precision and versatility required to support engineering analysis. Average measurements above 1000MHz are performed on the spectrum analyzer using the linear-average method with a resolution bandwidth of 1 MHz and a video bandwidth of 10 Hz, unless the signal is pulsed in which case the average (or video) bandwidth of the measuring instrument is reduced to onset of pulse desensitization and then increased.

INSTRUMENT CONTROL COMPUTER

The receivers utilize either a Rohde & Schwarz EZM Spectrum Monitor/Controller or contain an internal Spectrum Monitor/Controller to view and convert the receiver measurements to the field strength at an antenna or voltage developed at the LISN measurement port, which is then compared directly with the appropriate specification limit. This provides faster, more accurate readings by performing the conversions described under Sample Calculations within the Test Procedures section of this report. Results are printed in a graphic and/or tabular format, as appropriate. A personal computer is used to record all measurements made with the receivers.

The Spectrum Monitor provides a visual display of the signal being measured. In addition, the controller or a personal computer run automated data collection programs which control the receivers. This provides added accuracy since all site correction factors, such as cable loss and antenna factors are added automatically.

LINE IMPEDANCE STABILIZATION NETWORK (LISN)

Line conducted measurements utilize a fifty microhenry Line Impedance Stabilization Network as the monitoring point. The LISN used also contains a 250 uH CISPR adapter. This network provides for calibrated radio frequency noise measurements by the design of the internal low pass and high pass filters on the EUT and measurement ports, respectively.

FILTERS/ATTENUATORS

External filters and precision attenuators are often connected between the receiving antenna or LISN and the receiver. This eliminates saturation effects and non-linear operation due to high amplitude transient events.

ANTENNAS

A loop antenna is used below 30 MHz. For the measurement range 30 MHz to 1000 MHz either a combination of a biconical antenna and a log periodic or a bi-log antenna is used. Above 1000 MHz, horn antennas are used. The antenna calibration factors to convert the received voltage to an electric field strength are included with appropriate cable loss and amplifier gain factors to determine an overall site factor, which is then programmed into the test receivers or incorporated into the test software.

ANTENNA MAST AND EQUIPMENT TURNTABLE

The antennas used to measure the radiated electric field strength are mounted on a non-conductive antenna mast equipped with a motor-drive to vary the antenna height. Measurements below 30 MHz are made with the loop antenna at a fixed height of 1m above the ground plane.

ANSI C63.4:2003 and RSS 212 specify that the test height above ground for table mounted devices shall be 80 centimeters. Floor mounted equipment shall be placed on the ground plane if the device is normally used on a conductive floor or separated from the ground plane by insulating material from 3 to 12 mm if the device is normally used on a non-conductive floor. During radiated measurements, the EUT is positioned on a motorized turntable in conformance with this requirement.

INSTRUMENT CALIBRATION

All test equipment is regularly checked to ensure that performance is maintained in accordance with the manufacturer's specifications. All antennas are calibrated at regular intervals with respect to tuned half-wave dipoles. An exhibit of this report contains the list of test equipment used and calibration information.

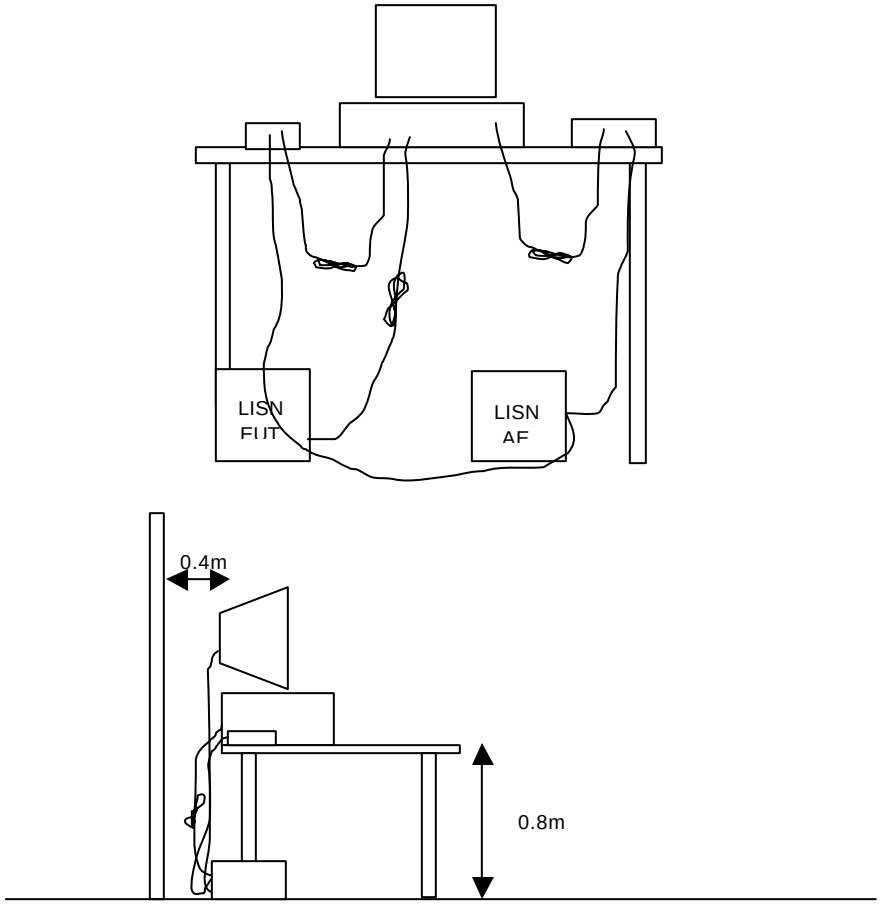
TEST PROCEDURES

EUT AND CABLE PLACEMENT

The regulations require that interconnecting cables be connected to the available ports of the unit and that the placement of the unit and the attached cables simulate the worst case orientation that can be expected from a typical installation, so far as practicable. To this end, the position of the unit and associated cabling is varied within the guidelines of ANSI C63.4:2003, and the worst-case orientation is used for final measurements.

CONDUCTED EMISSIONS

Conducted emissions are measured at the plug end of the power cord supplied with the EUT. Excess power cord length is wrapped in a bundle between 30 and 40 centimeters in length near the center of the cord. Preliminary measurements are made to determine the highest amplitude emission relative to the specification limit for all the modes of operation. Placement of system components and varying of cable positions are performed in each mode. A final peak mode scan is then performed in the position and mode for which the highest emission was noted on all current carrying conductors of the power cord.



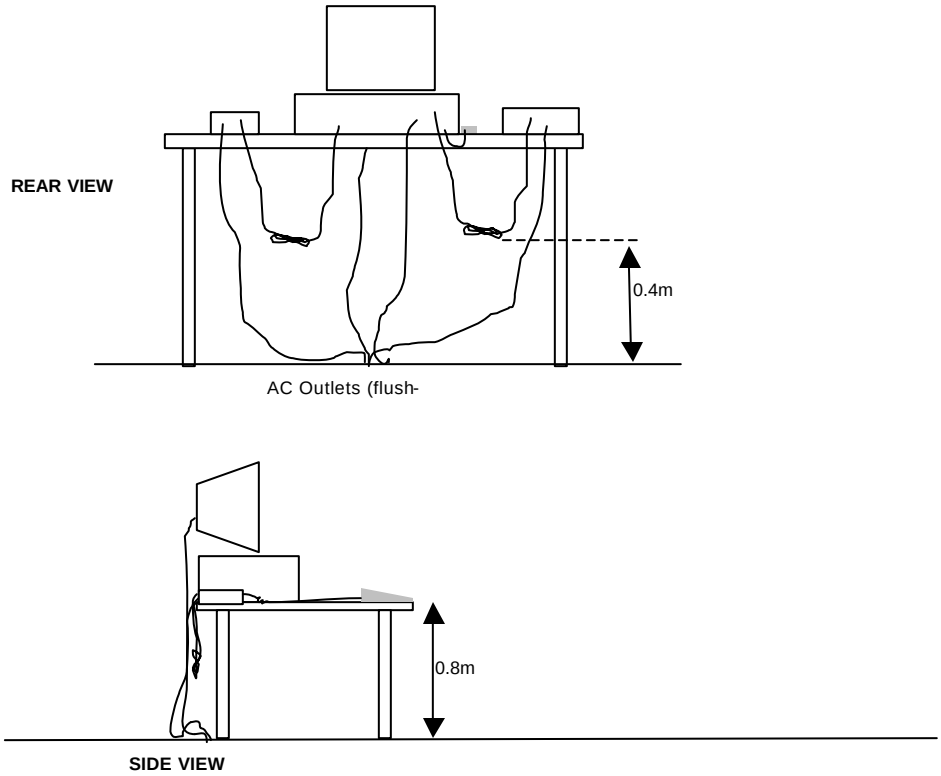
RADIATED EMISSIONS

A preliminary scan of the radiated emissions is performed in which all significant EUT frequencies are identified with the system in a nominal configuration. At least two scans are performed, one scan for each antenna polarization (horizontal and vertical; loop parallel and perpendicular to the EUT). During the preliminary scans, the EUT is rotated through 360°, the antenna height is varied (for measurements above 30 MHz) and cable positions are varied to determine the highest emission relative to the limit. Preliminary scans may be performed in a fully anechoic chamber for the purposes of identifying the frequencies of the highest emissions from the EUT.

A speaker is provided in the receiver to aid in discriminating between EUT and ambient emissions. Other methods used during the preliminary scan for EUT emissions involve scanning with near field magnetic loops, monitoring I/O cables with RF current clamps, and cycling power to the EUT.

Final maximization is a phase in which the highest amplitude emissions identified in the spectral search are viewed while the EUT azimuth angle is varied from 0 to 360 degrees relative to the receiving antenna. The azimuth, which results in the highest emission is then maintained while varying the antenna height from one to four meters (for measurements above 30 MHz, measurements below 30 MHz are made with the loop antenna at a fixed height of 1m). The result is the identification of the highest amplitude for each of the highest peaks. Each recorded level is corrected in the receiver using appropriate factors for cables, connectors, antennas, and preamplifier gain.

When testing above 18 GHz, the receive antenna is located at 1meter from the EUT and the antenna height is restricted to a maximum of 2.5 meters.



Typical Test Configuration for Radiated Field Strength Measurements

BANDWIDTH MEASUREMENTS

The 6dB, 20dB and/or 26dB signal bandwidth is measured in using the bandwidths recommended by ANSI C63.4. When required, the 99% bandwidth is measured using the methods detailed in RSS GEN.

SPECIFICATION LIMITS AND SAMPLE CALCULATIONS

The limits for conducted emissions are given in units of microvolts, and the limits for radiated emissions are given in units of microvolts per meter at a specified test distance. Data is measured in the logarithmic form of decibels relative to one microvolt, or dB microvolts (dBuV). For radiated emissions, the measured data is converted to the field strength at the antenna in dB microvolts per meter (dBuV/m). The results are then converted to the linear forms of uV and uV/m for comparison to published specifications.

For reference, converting the specification limits from linear to decibel form is accomplished by taking the base ten logarithm, then multiplying by 20. These limits in both linear and logarithmic form are as follows:

GENERAL TRANSMITTER RADIATED EMISSIONS SPECIFICATION LIMITS

The table below shows the limits for the spurious emissions from transmitters that fall in restricted bands[1] (with the exception of transmitters operating under FCC Part 15 Subpart D and RSS 210 Annex 9), the limits for all emissions from a low power device operating under the general rules of RSS 310 (tables 3 and 4), RSS 210 (table 2) and FCC Part 15 Subpart C section 15.209.

Frequency Range (MHz)	Limit (uV/m)	Limit (dBuV/m @ 3m)
0.009-0.490	$2400/F_{KHz}$ @ 300m	$67.6-20*\log_{10}(F_{KHz})$ @ 300m
0.490-1.705	$24000/F_{KHz}$ @ 30m	$87.6-20*\log_{10}(F_{KHz})$ @ 30m
1.705 to 30	30 @ 30m	29.5 @ 30m
30 to 88	100 @ 3m	40 @ 3m
88 to 216	150 @ 3m	43.5 @ 3m
216 to 960	200 @ 3m	46.0 @ 3m
Above 960	500 @ 3m	54.0 @ 3m

RECEIVER RADIATED SPURIOUS EMISSIONS SPECIFICATION LIMITS

The table below shows the limits for the spurious emissions from receivers as detailed in FCC Part 15.109, RSS 210 Table 2, RSS GEN Table 1 and RSS 310 Table 3. Note that receivers operating outside of the frequency range 30 MHz – 960 MHz are exempt from the requirements of 15.109.

Frequency Range (MHz)	Limit (uV/m @ 3m)	Limit (dBuV/m @ 3m)
30 to 88	100	40
88 to 216	150	43.5
216 to 960	200	46.0
Above 960	500	54.0

OUTPUT POWER LIMITS – DIGITAL TRANSMISSION SYSTEMS

[1] The restricted bands are detailed in FCC 15.203, RSS 210 Table 1 and RSS 310 Table 2

The table below shows the limits for output power and output power density. Where the signal bandwidth is less than 20 MHz the maximum output power is reduced to the power spectral density limit plus 10 times the log of the bandwidth (in MHz).

Operating Frequency (MHz)	Output Power	Power Spectral Density
902 – 928	1 Watt (30 dBm)	8 dBm/3kHz
2400 – 2483.5	1 Watt (30 dBm)	8 dBm/3kHz
5725 – 5850	1 Watt (30 dBm)	8 dBm/3kHz

The maximum permitted output power is reduced by 1dB for every dB the antenna gain exceeds 6dBi. Fixed point-to-point applications using the 5725 – 5850 MHz band are not subject to this restriction.

TRANSMIT MODE SPURIOUS RADIATED EMISSIONS LIMITS – FHSS and DTS SYSTEMS

The limits for unwanted (spurious) emissions from the transmitter falling in the restricted bands are those specified in the general limits sections of FCC Part 15 and RSS 210. All other unwanted (spurious) emissions shall be at least 20dB below the level of the highest in-band signal level (30dB if the power is measured using the sample detector/power averaging method).

SAMPLE CALCULATIONS - CONDUCTED EMISSIONS

Receiver readings are compared directly to the conducted emissions specification limit (decibel form) as follows:

$$R_r - S = M$$

where:

R_r = Receiver Reading in dBuV

S = Specification Limit in dBuV

M = Margin to Specification in +/- dB

SAMPLE CALCULATIONS - RADIATED EMISSIONS

Receiver readings are compared directly to the specification limit (decibel form). The receiver internally corrects for cable loss, preamplifier gain, and antenna factor. The calculations are in the reverse direction of the actual signal flow, thus cable loss is added and the amplifier gain is subtracted. The Antenna Factor converts the voltage at the antenna coaxial connector to the field strength at the antenna elements.

A distance factor, when used for electric field measurements above 30MHz, is calculated by using the following formula:

$$F_d = 20*LOG_{10} (D_m/D_s)$$

where:

F_d = Distance Factor in dB

D_m = Measurement Distance in meters

D_s = Specification Distance in meters

For electric field measurements below 30MHz the extrapolation factor is either determined by making measurements at multiple distances or a theoretical value is calculated using the formula:

$$F_d = 40*LOG_{10} (D_m/D_s)$$

Measurement Distance is the distance at which the measurements were taken and Specification Distance is the distance at which the specification limits are based. The antenna factor converts the voltage at the antenna coaxial connector to the field strength at the antenna elements.

The margin of a given emission peak relative to the limit is calculated as follows:

$$R_C = R_r + F_d$$

and

$$M = R_C - L_S$$

where:

R_r = Receiver Reading in dBuV/m

F_d = Distance Factor in dB

R_C = Corrected Reading in dBuV/m

L_S = Specification Limit in dBuV/m

M = Margin in dB Relative to Spec

SAMPLE CALCULATIONS - FIELD STRENGTH TO EIRP CONVERSION

Where the radiated electric field strength is expressed in terms of the equivalent isotropic radiated power (eirp), or where a field strength measurement of output power is made in lieu of a direct measurement, the following formula is used to convert between eirp and field strength at a distance of 3m from the equipment under test:

$$E = \frac{1000000 \text{ v } 30\ P}{3} \quad \text{microvolts per meter}$$

where P is the eirp (Watts)

EXHIBIT 1: Test Equipment Calibration Data

2 Pages

Conducted Emissions - AC Power and Telecommunications Ports, 18-Jun-07
Engineer: Juan Martinez

Manufacturer	Description	Model #	Asset #	Cal Due
Hewlett Packard	EMC Spectrum Analyzer, 9 kHz - 6.5 GHz	8595EM	787	21-Dec-07
Rohde& Schwarz	Pulse Limiter	ESH3 Z2	812	05-Feb-08
Fischer Custom Comm.	LISN, Freq. 0.9 -30 MHz,16 Amp	FCC-LISN-50/250-16-2	1079	13-Mar-08
Fischer Custom Comm.	ISN, 9 KHz -30 MHz, SV	FCC-TLISN-T4	1263	28-Feb-08
Fischer Custom Comm.	LCL Adapter 80/55 dB, RJ45-4, SV	ISNT4-EUT-RJ45-4-1	1268	28-Feb-08
Fischer Custom Comm.	ISN Adapter, RJ45-4, SV	ISNT4-AE-RJ45-4	1271	28-Feb-08
Rohde & Schwarz	Test Receiver, 9 kHz-2750 MHz	ESCS 30	1337	25-Jul-07

Radiated Emissions, 30 - 26,500 MHz, 01-Jun-07
Engineer: Rafael Varelas

Manufacturer	Description	Model #	Asset #	Cal Due
EMCO	Antenna, Horn, 1-18 GHz	3115	487	24-May-08
Hewlett Packard	Microwave Preamplifier, 1-26.5GHz	8449B	870	15-Nov-07
Hewlett Packard	SpecAn 9 kHz - 40 GHz, FMT (SA40) Blue	8564E (84125C)	1393	09-Jan-08
Hewlett Packard	High Pass filter, 3.5 GHz (Red System)	P/N 84300-80038 (84125C)	1403	09-Jun-07

Radiated Emissions, 1000 - 18,000 MHz, 13-Jun-07
Engineer: Joseph Cadigal

Manufacturer	Description	Model #	Asset #	Cal Due
EMCO	Antenna, Horn, 1-18 GHz	3115	487	24-May-08
Hewlett Packard	Microwave Preamplifier, 1-26.5GHz	8449B	870	15-Nov-07
Hewlett Packard	SpecAn 9 kHz - 40 GHz, FMT (SA40) Blue	8564E (84125C)	1393	09-Jan-08

Radio Antenna Port (Power and Spurious Emissions), 14-Jun-07
Engineer: Juan Martinez

Manufacturer	Description	Model #	Asset #	Cal Due
EMCO	Antenna, Horn, 1-18 GHz (SA40-Purple)	3115	1779	07-Feb-08

EXHIBIT 2: Test Measurement Data

T68062 - 100 Pages
T68277 – 16 Pages

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252,	Test-Log Number:	T68062
	2922, 2932, 2942, 2952, 2962	Project Manager:	Richard Gencev
Contact:	Craig Owens		
Emissions Spec:	15.247, RSS-210	Class:	Radio
Immunity Spec:	-	Environment:	-

EMC Test Data

For The

Ruckus Wireless

Model

2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962

Date of Last Test: 6/14/2007

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252,	Test-Log Number:	T68062
	2922, 2932, 2942, 2952, 2962	Project Manager:	Richard Gencev
Contact:	Craig Owens		
Emissions Spec:	15.247, RSS-210	Class:	Radio
Immunity Spec:	-	Environment:	-

EUT INFORMATION

The following information was collected during the test sessions(s).

General Description

The EUT is a 2.4GHz wireless bridge that is designed to provide wireless internet and networking services. Since the EUT would be placed on a table top during operation, the EUT was treated as table-top equipment during testing to simulate the end-user environment. The electrical rating of the EUT is 120 Volts , 60 Hz, 0.3 Amps.

Equipment Under Test

Manufacturer	Model	Description	Serial Number	FCC ID
Ruckus	2942	2.4Ghz wireless bridge	-	

Other EUT Details

Testing performed on the 2942 was considered representative of the 2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2952 and 2962. The models all use identical hardware

EUT Antenna (Intentional Radiators Only)

The EUT antenna is a patch, omni, and sectors. Connection are reverse polarity which meet 15.203 section.

EUT Enclosure

The EUT enclosure is primarily constructed of Plastic . The EUT enclosure measures approximately 19.43cm (L), 14.43cm (W), 10.16cm (H).

Modification History

Mod. #	Test	Date	Modification
1	-	-	None

Modifications applied are assumed to be used on subsequent tests unless otherwise stated as a further modification.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252,	T-Log Number:	T68062
	2922, 2932, 2942, 2952, 2962	Project Manager:	Richard Gencev
Contact:	Craig Owens		
Emissions Spec:	15.247, RSS-210	Class:	Radio
Immunity Spec:	-	Environment:	-

Test Configuration #1

The following information was collected during the test sessions(s).

Local Support Equipment

Manufacturer	Model	Description	Serial Number	FCC ID
Dell	Inspiron 2650	Laptop	N/A	DoC

Remote Support Equipment

Manufacturer	Model	Description	Serial Number	FCC ID
-	-	-	-	-

Cabling and Ports

Port	Connected To	Cable(s)		
		Description	Shielded or Unshielded	Length(m)
RF	Antenna	Coaxial	Shielded	0.5
Ethernet	Laptop	Cat5	Unshielded	1.0
EUT DC input	AC Mains	Multiwire	Unshielded	1.5

Note: The console port was not connected during testing. The manufacturer stated that these are for configuration purposes and therefore would not normally be connected.

EUT Operation During Radio Emissions Tests

During Radio emissions testing the EUT was set to maximum power to produce CCK or OFDM modulation continous transmission .

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

RSS 210 and FCC 15.247 (DTS) Antenna Port Measurements
Power, Bandwidth and Spurious Emissions (802.11g)

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Date of Test: 6/14/2007
Test Engineer: Juan Martinez
Test Location: Fremont EMC Lab
Config. Used: 1
Config Change: None
EUT Voltage: 120V/60Hz

General Test Configuration

The EUT was connected to the spectrum analyzer or power meter via a suitable attenuator. All measurements were made on a single chain.

All measurements have been corrected to allow for the external attenuators used.

Ambient Conditions:

Temperature: 24.1 °C
Rel. Humidity: 43 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Output Power	15.247(b)	Pass	22.4 dBm
2	Power spectral Density (PSD)	15.247(d)	Pass	-1.3dBm/kHz
3	6dB Bandwidth	15.247(a)	Pass	16.67 MHz
3	99% Bandwidth	RSS GEN	-	18 MHz
4	Spurious emissions	15.247(b)	Pass	Refer to run

Modifications Made During Testing:

No modifications were made to the EUT during testing

Deviations From The Standard

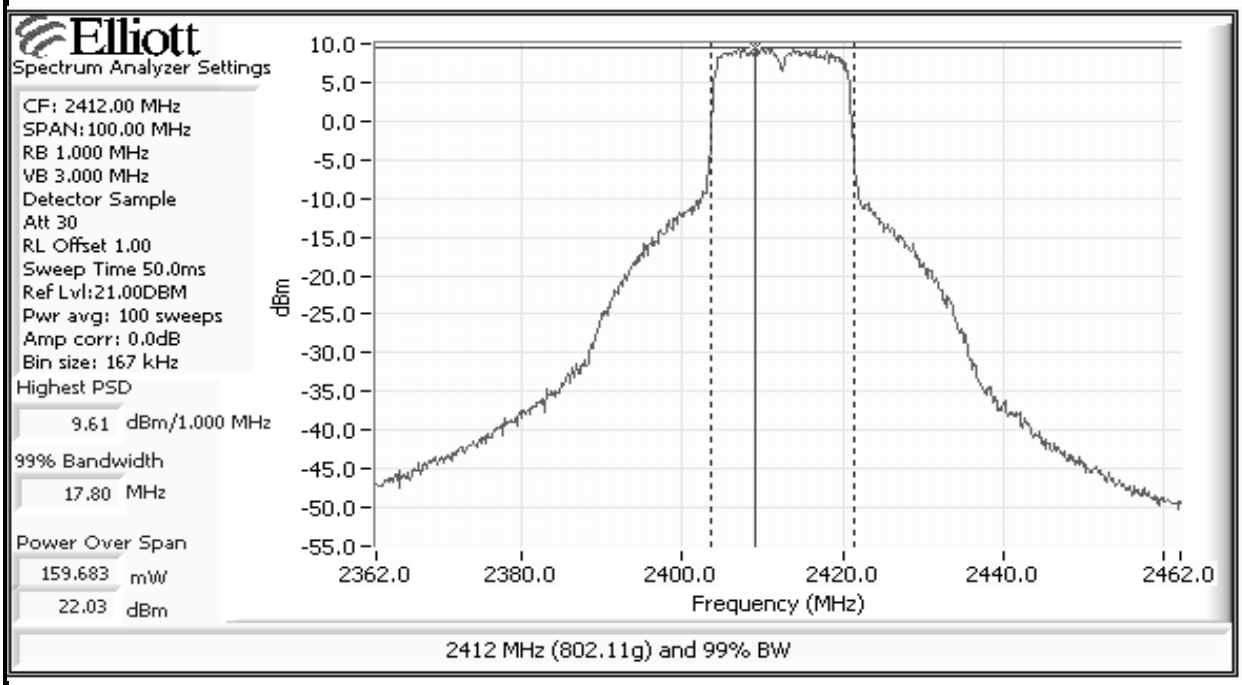
No deviations were made from the requirements of the standard.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

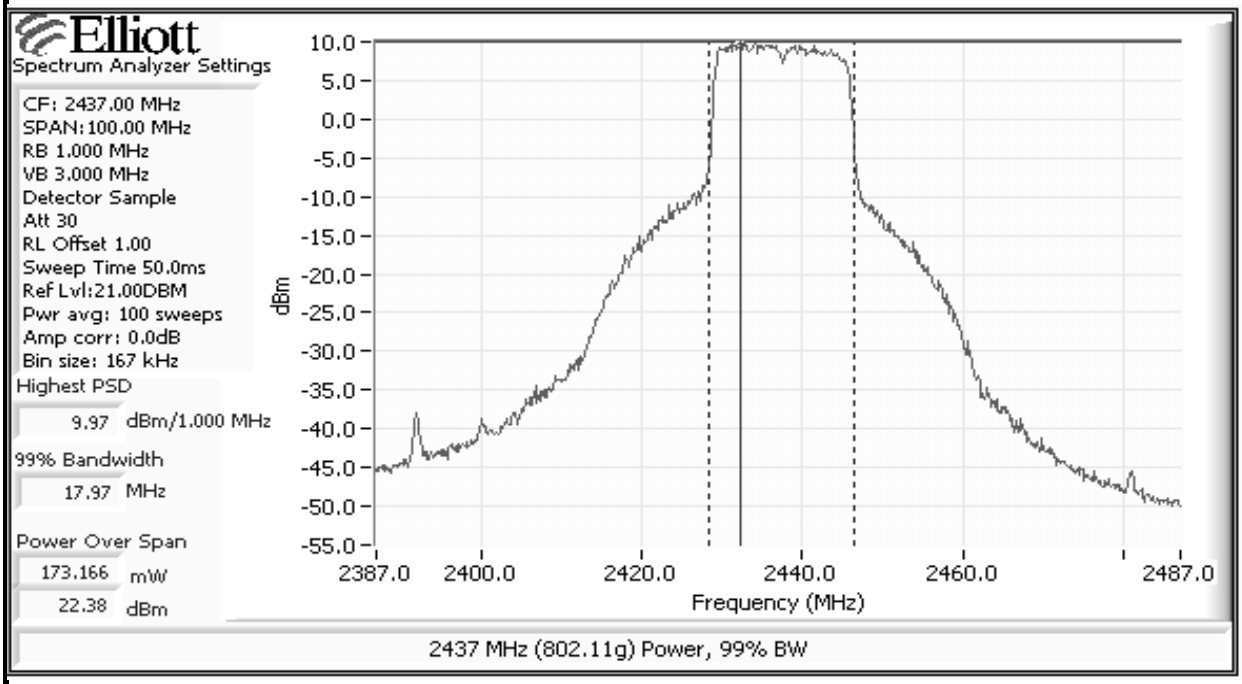
Run #1: Output Power

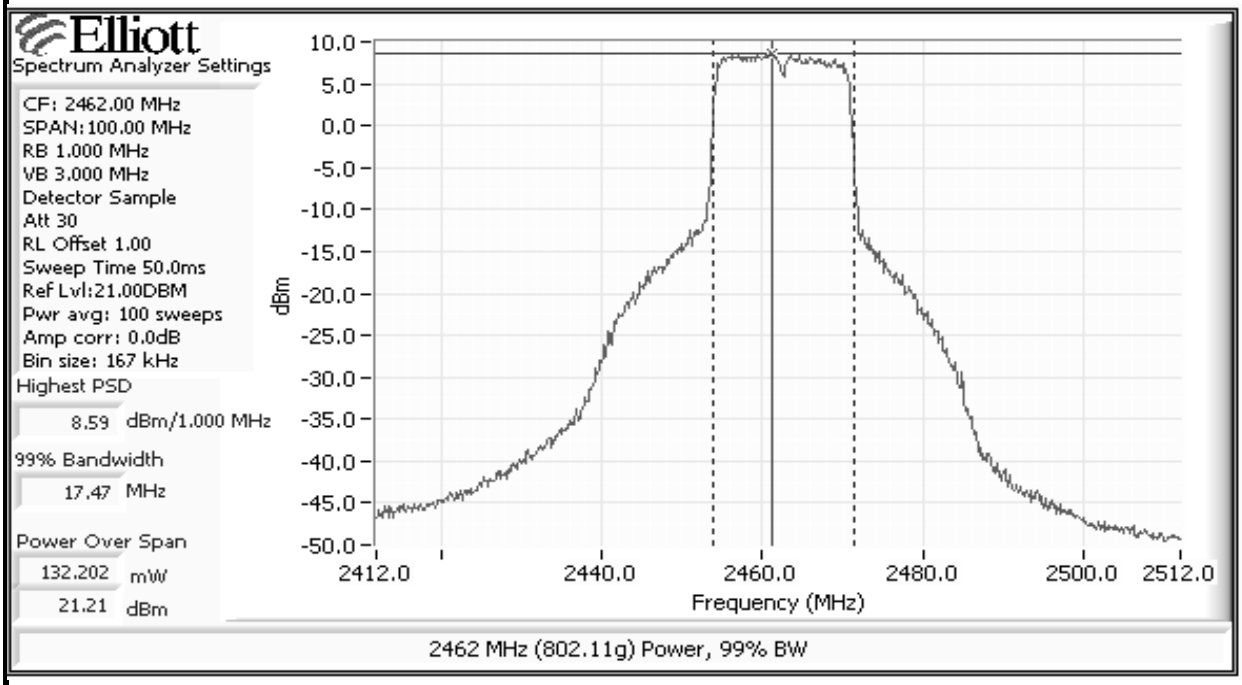
Power Setting[2]	Frequency (MHz)	Output Power (dBm)[1]	Output Power mW	Antenna Gain (dBi)	Result	EIRP[Note 2] dBm	EIRP[Note 2] W	Output Power (dBm)[3]	Output Power mW
23	2412	22.0	159.6	9.0	Pass	31.0	1.268		
23	2437	22.4	173.0	9.0	Pass	31.4	1.374		
23	2462	21.2	132.1	9.0	Pass	30.2	1.050		

Note 1:	Output power measured using a spectrum analyzer (see plots below): RBW=1MHz, VB=3 MHz, sample detector, power averaging on (transmitted signal was continuous) and power integration over 100 MHz The output power limit is 30dBm
Note 2:	Power setting - the software power setting used during testing, included for reference only.



Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



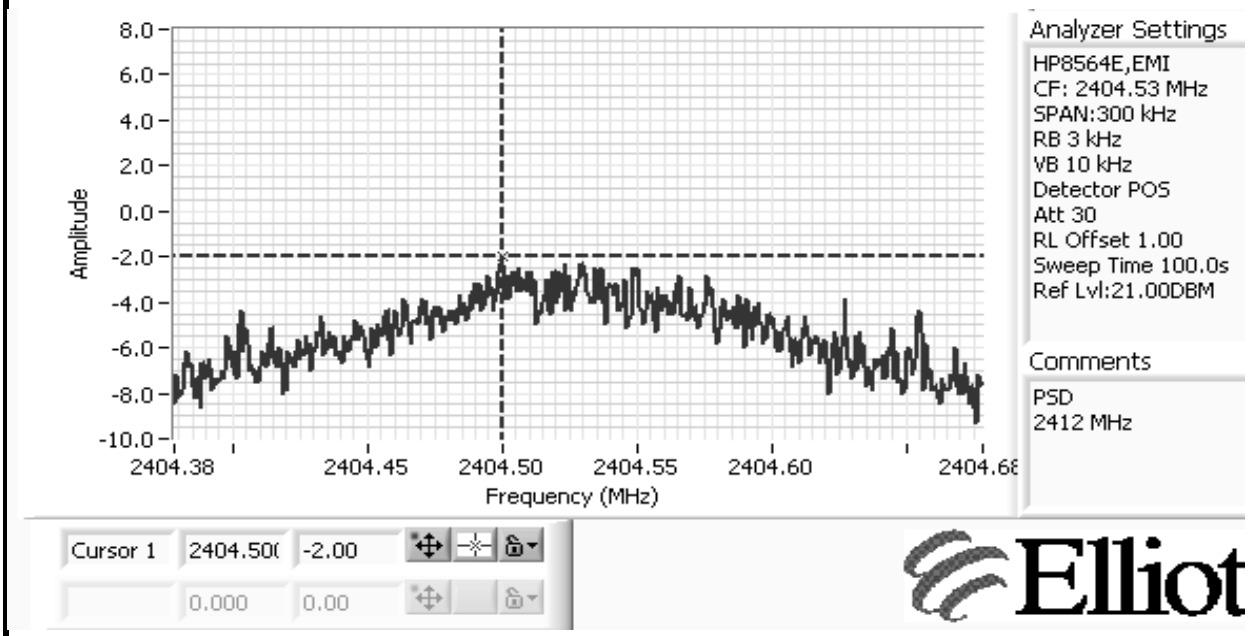


Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

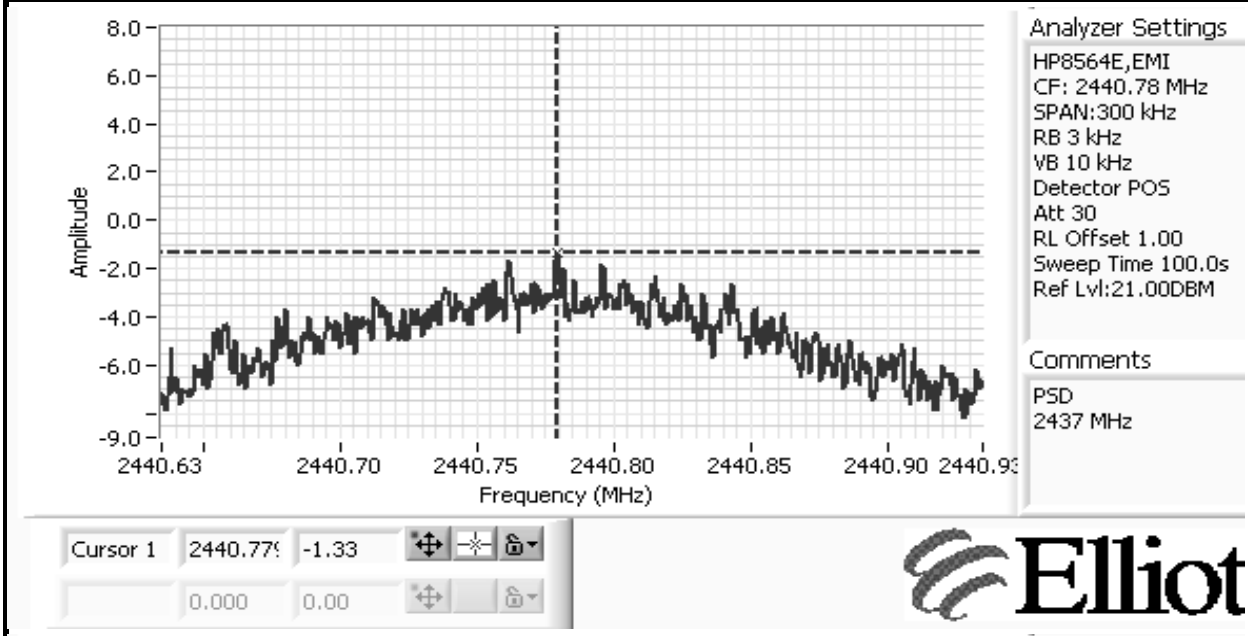
Run #2: Power spectral Density

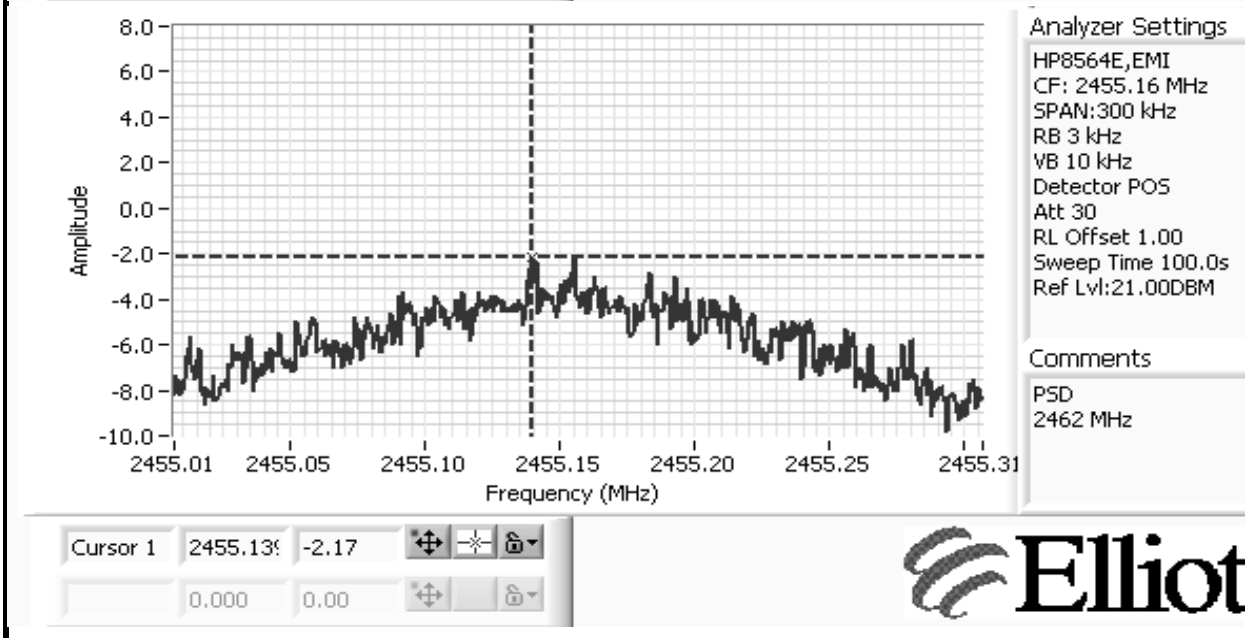
Power Setting	Frequency (MHz)	PSD (dBm/3kHz) Note 1	Limit dBm/3kHz	Result
23	2412	-2.0	8.0	Pass
23	2437	-1.3	8.0	Pass
23	2462	-2.2	8.0	Pass

Note 1:	Power spectral density measured using RB=3 kHz, VB=10kHz, analyzer with peak detector and with a sweep time set to ensure a dwell time of at least 1 second per 3kHz. The measurement is made at the frequency of PPSD determined from preliminary scans using RB=3kHz using multiple sweeps at a faster rate over the 6dB bandwidth of the signal.



Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



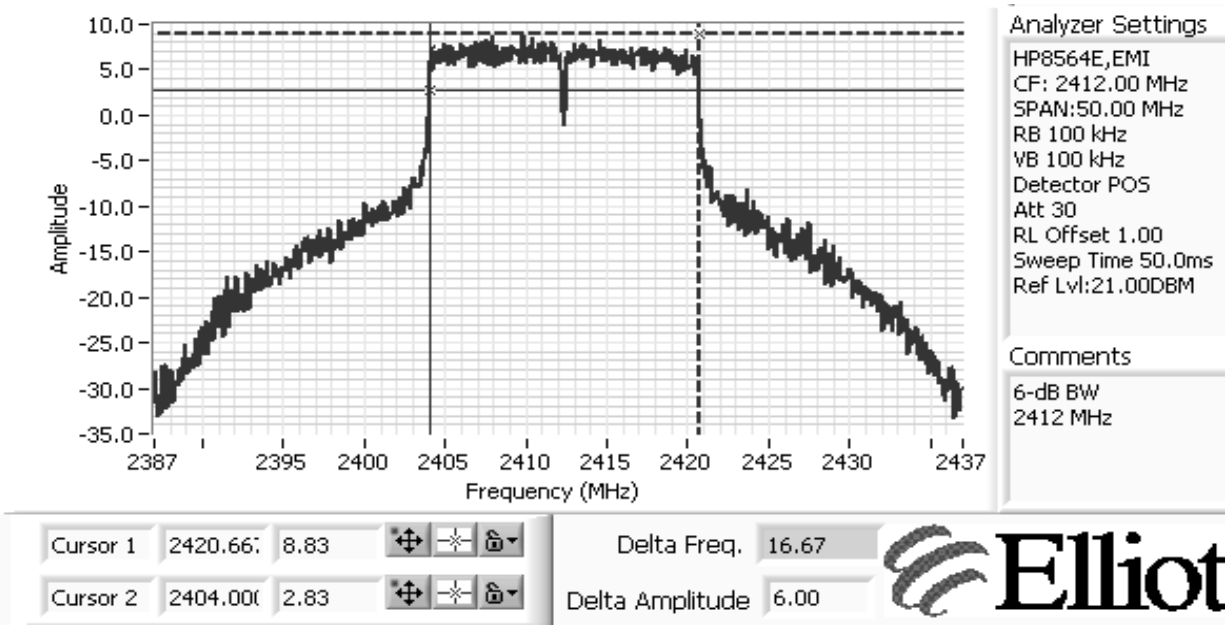


Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

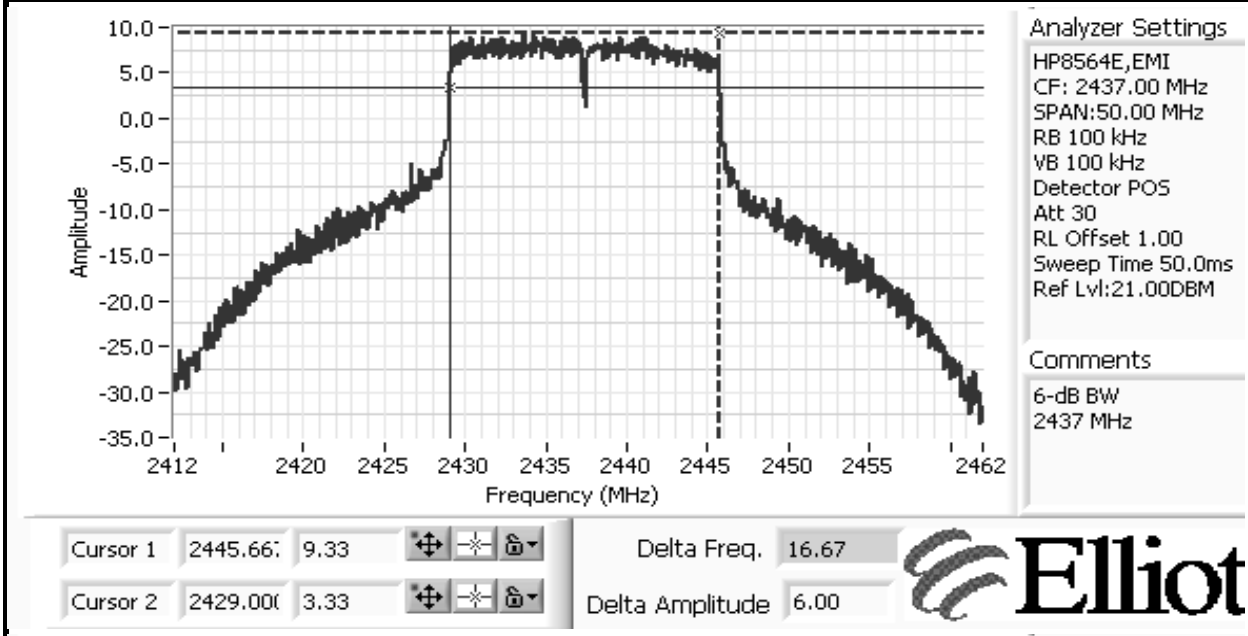
Run #3: Signal Bandwidth

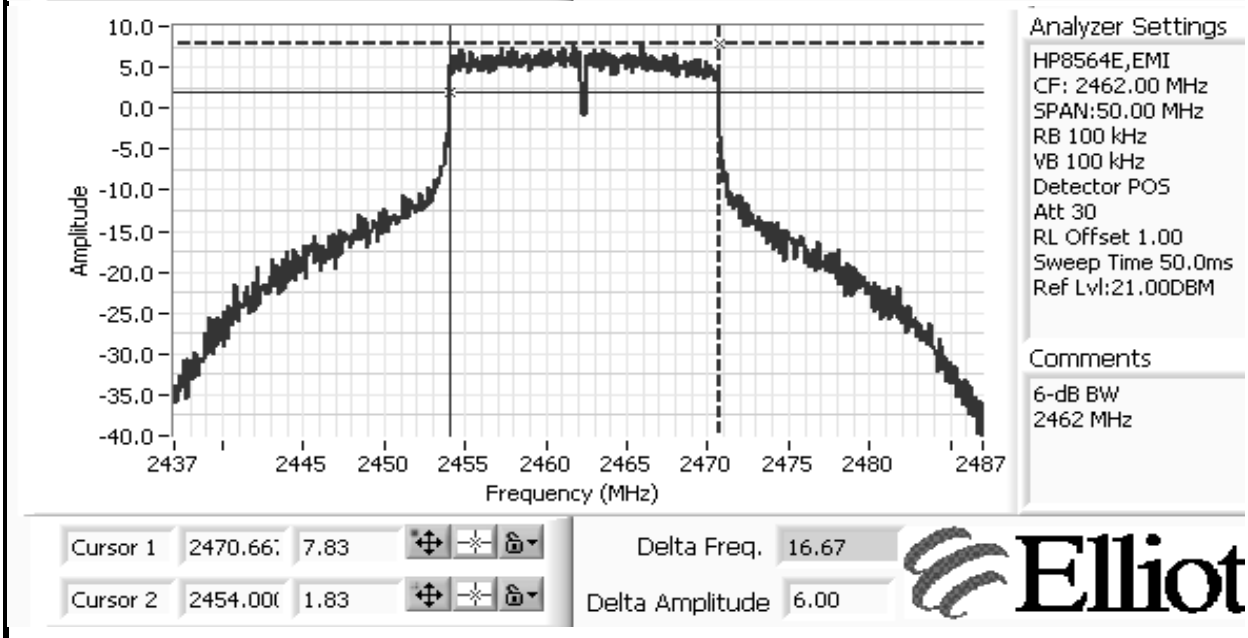
Power Setting	Frequency (MHz)	Resolution Bandwidth	Bandwidth (MHz) 6dB	99%
23	2412	100kHz	16.67	17.8
23	2437	100kHz	16.67	18
23	2462	100kHz	16.67	17.5

Note 1:	99% bandwidth measured in accordance with RSS GEN, with RB > 1% of the span and VB > 3xRB



Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



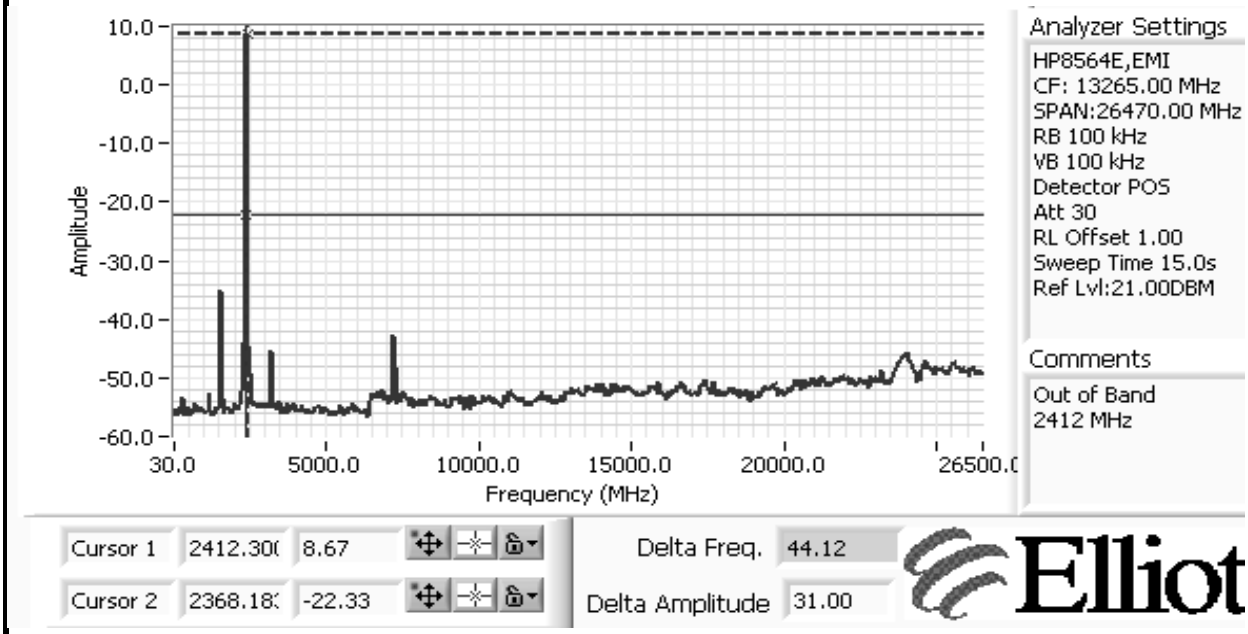


Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Run #4: Out of Band Spurious Emissions

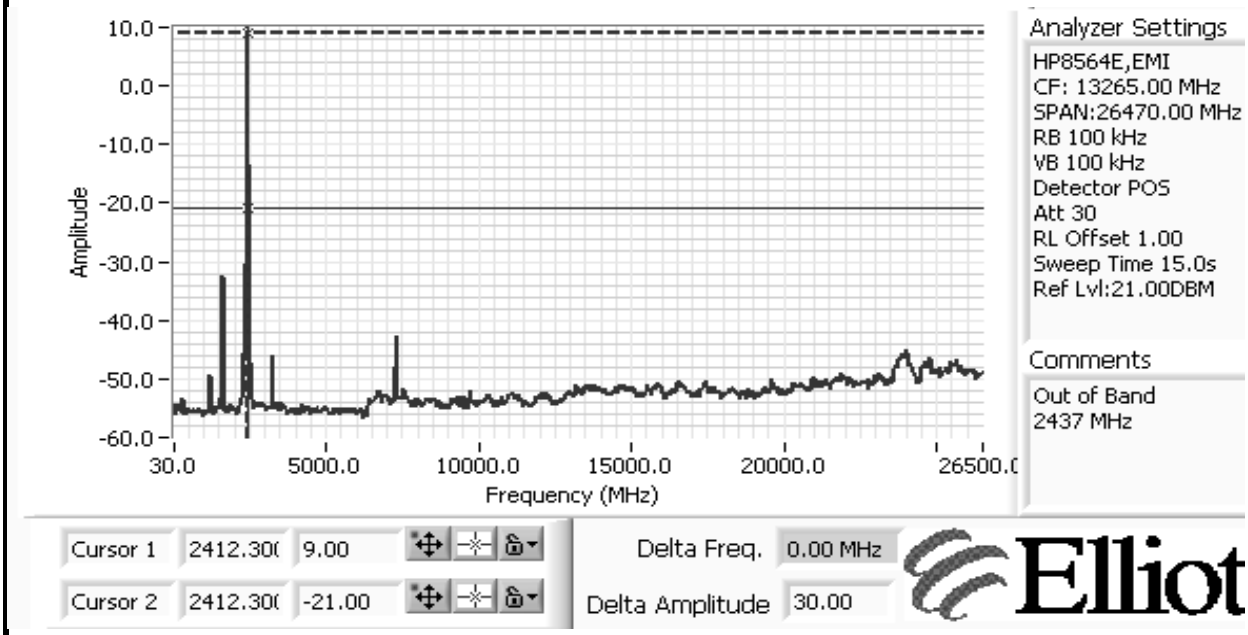
Frequency (MHz)	Limit	Result
2412	-30dBc	Refer to plot
2437	-30dBc	Refer to plot
2462	-30dBc	Refer to plot

Plots for low channel, power setting(s) = 23

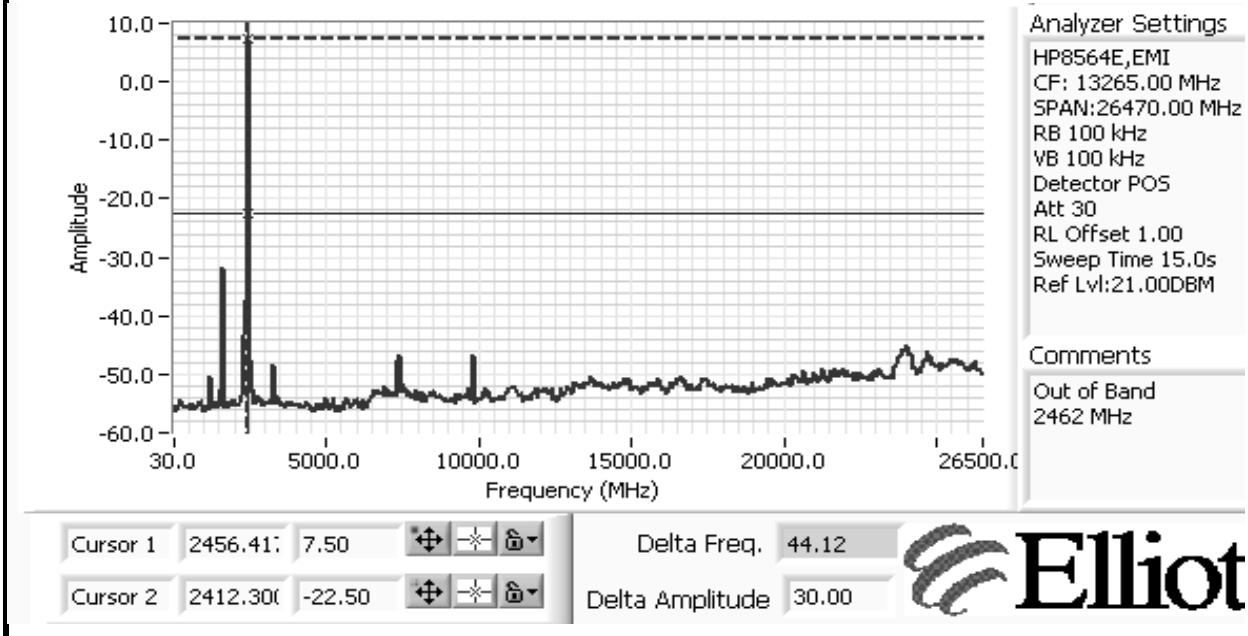


Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Plots for center channel, power setting(s) = 23



Plots for high channel, power setting(s) = 23



Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

RSS 210 and FCC 15.247 (DTS) Antenna Port Measurements
Power, Bandwidth and Spurious Emissions (802.11b)

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Date of Test: 6/14/2007
Test Engineer: Juan Martinez
Test Location: Fremont EMC Lab
Config. Used: 1
Config Change: None
EUT Voltage: 120V/60Hz

General Test Configuration

The EUT was connected to the spectrum analyzer or power meter via a suitable attenuator. All measurements were made on a single chain.

All measurements have been corrected to allow for the external attenuators used.

Ambient Conditions:

Temperature: 24.1 °C
Rel. Humidity: 43 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Output Power	15.247(b)	Pass	23.1 dBm
2	Power spectral Density (PSD)	15.247(d)	Pass	0.67dBm/kHz
3	6dB Bandwidth	15.247(a)	Pass	12.17 MHz
3	99% Bandwidth	RSS GEN	-	16.31 MHz
4	Spurious emissions	15.247(b)	Pass	Refer to run

Modifications Made During Testing:

No modifications were made to the EUT during testing

Deviations From The Standard

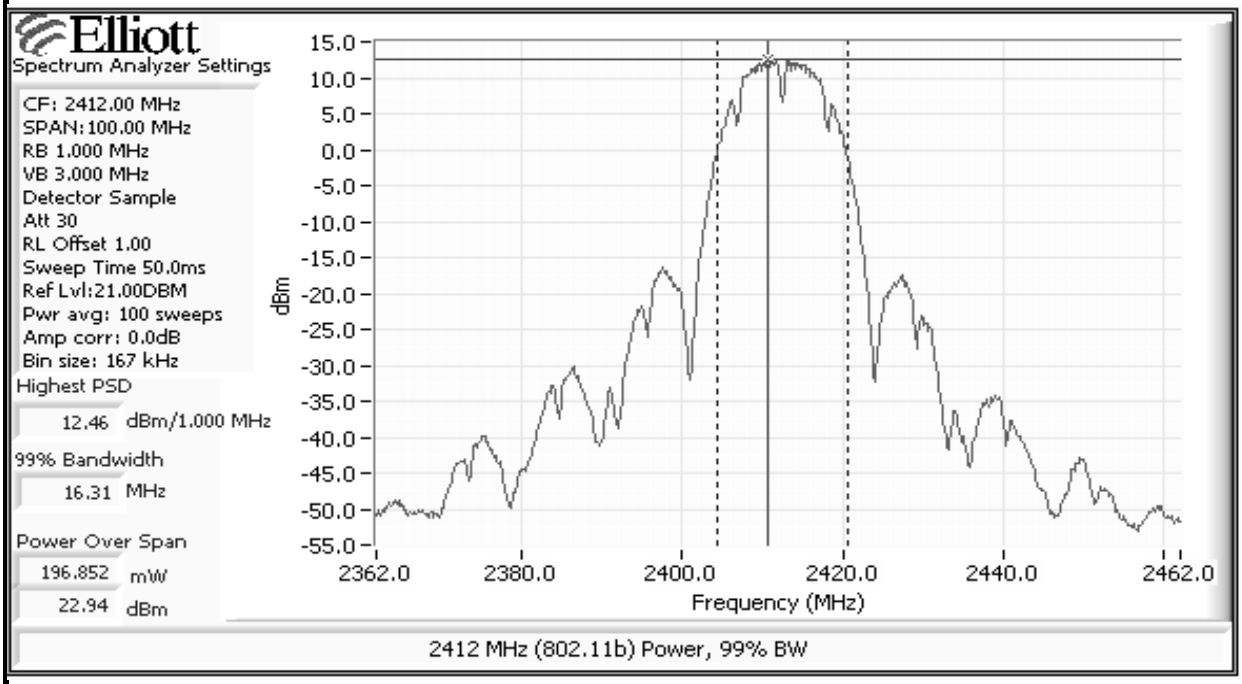
No deviations were made from the requirements of the standard.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

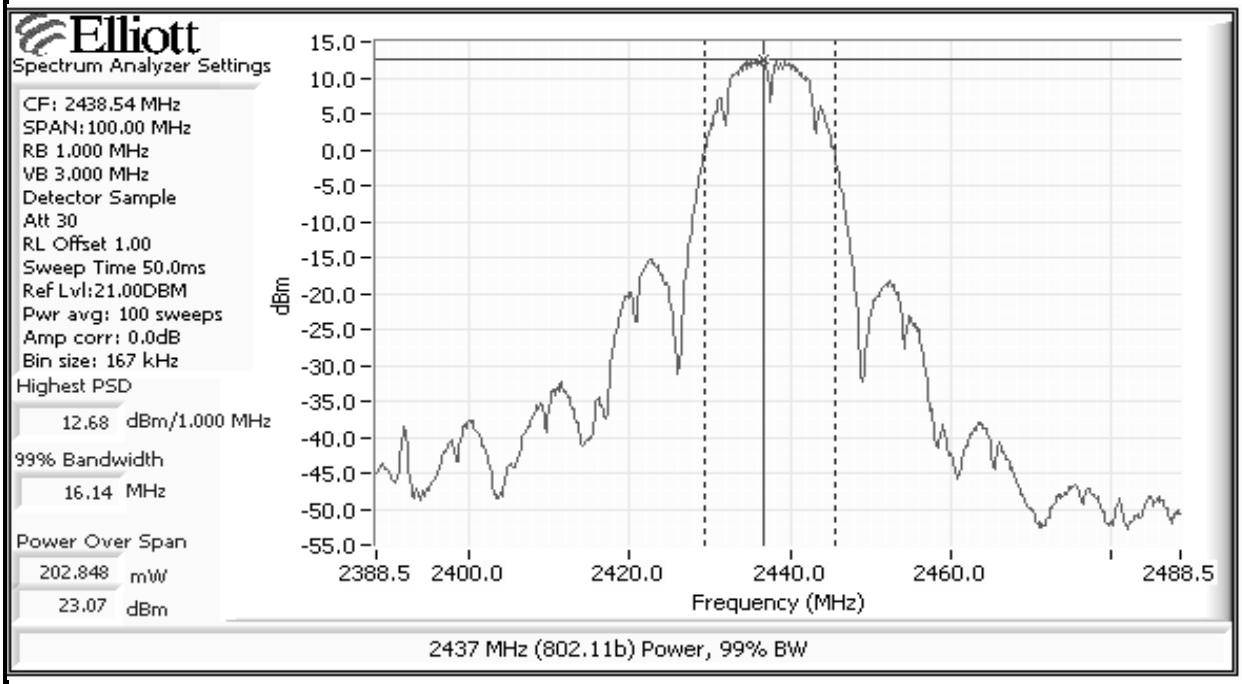
Run #1: Output Power

Power Setting[2]	Frequency (MHz)	Output Power (dBm) [1]	Output Power mW	Antenna Gain (dBi)	Result	EIRP [Note 2] dBm	EIRP W	Output Power (dBm) [3]	Output Power mW
23	2412	22.9	196.8	9.0	Pass	31.9	1.563		
23	2437	23.1	203.7	9.0	Pass	32.1	1.618		
23	2462	22.3	171.4	9.0	Pass	31.3	1.361		

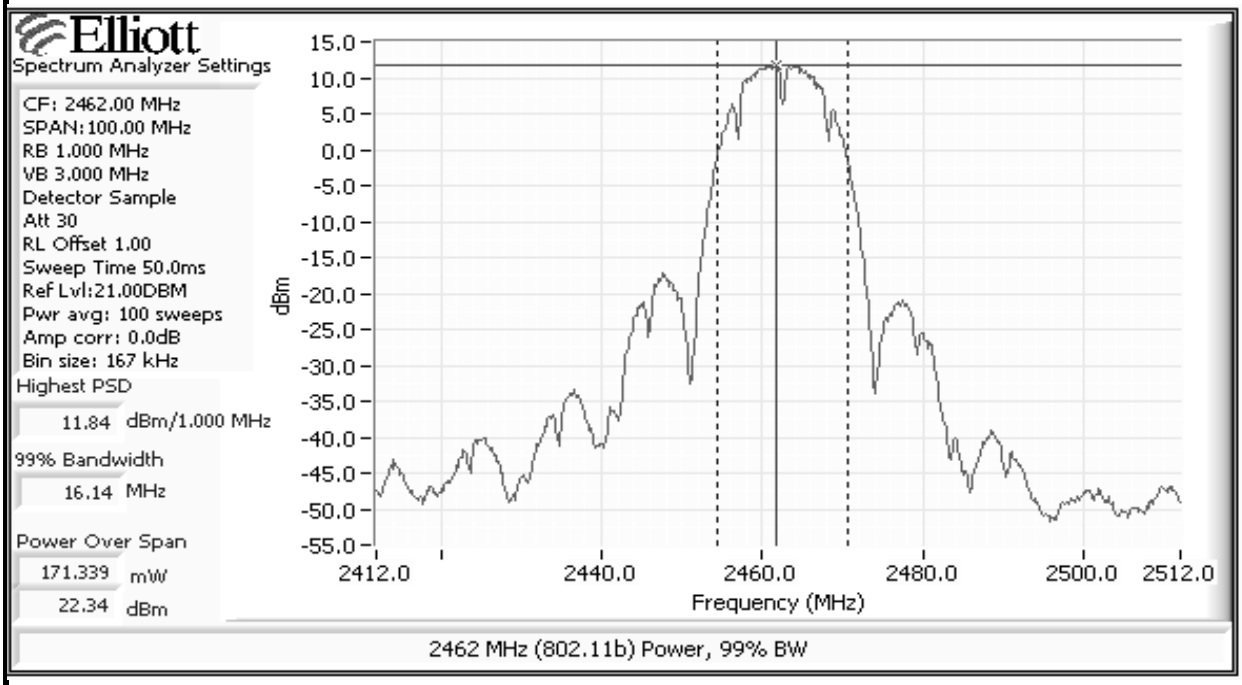
Note 1:	Output power measured using a spectrum analyzer (see plots below): RBW=1MHz, VB=3 MHz, sample detector, power averaging on (transmitted signal was continuous) and power integration over 100 MHz The output power limit is 30dBm
Note 2:	Power setting - the software power setting used during testing, included for reference only.



Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



2437 MHz (802.11b) Power, 99% BW



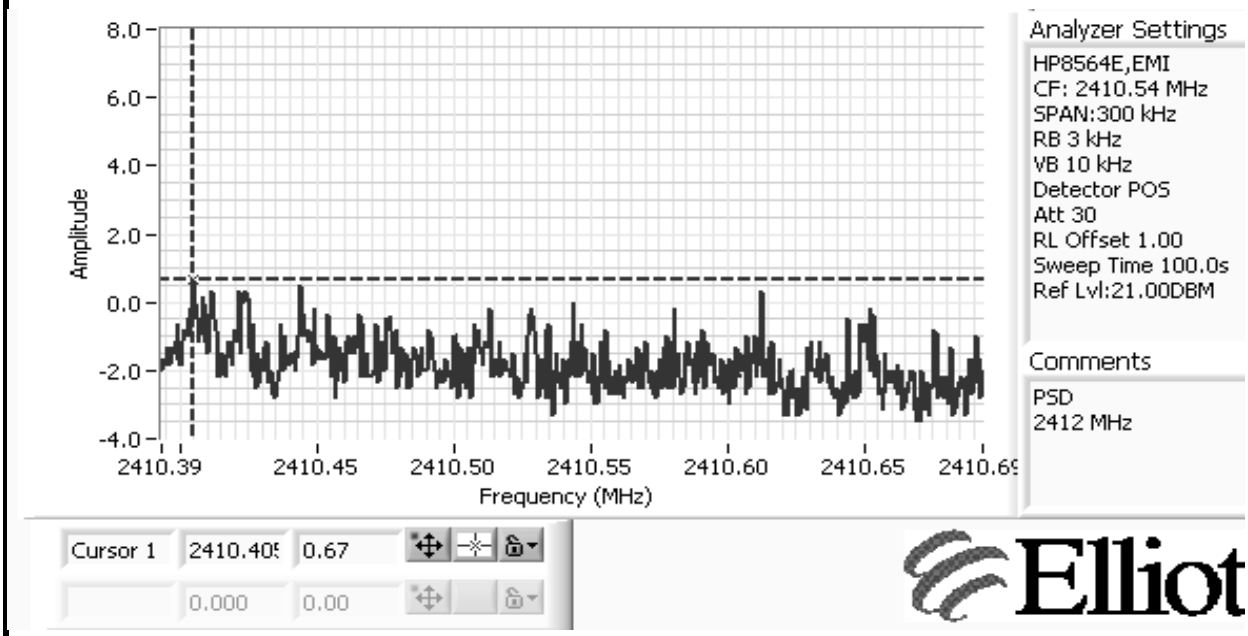
2462 MHz (802.11b) Power, 99% BW

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

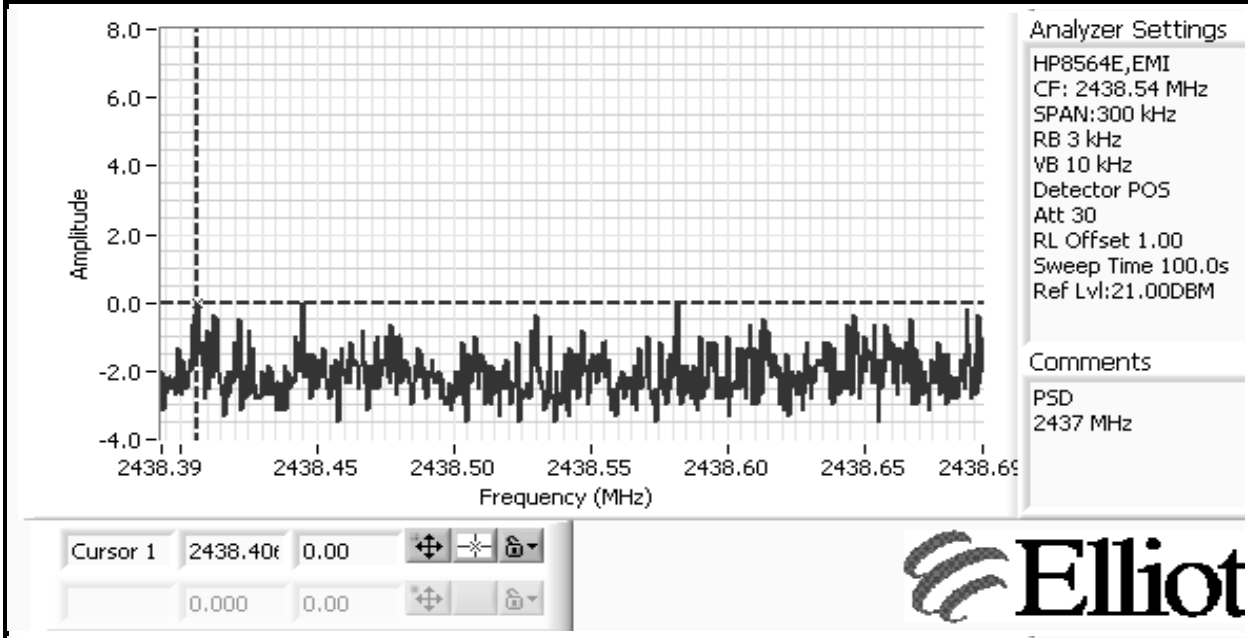
Run #2: Power spectral Density

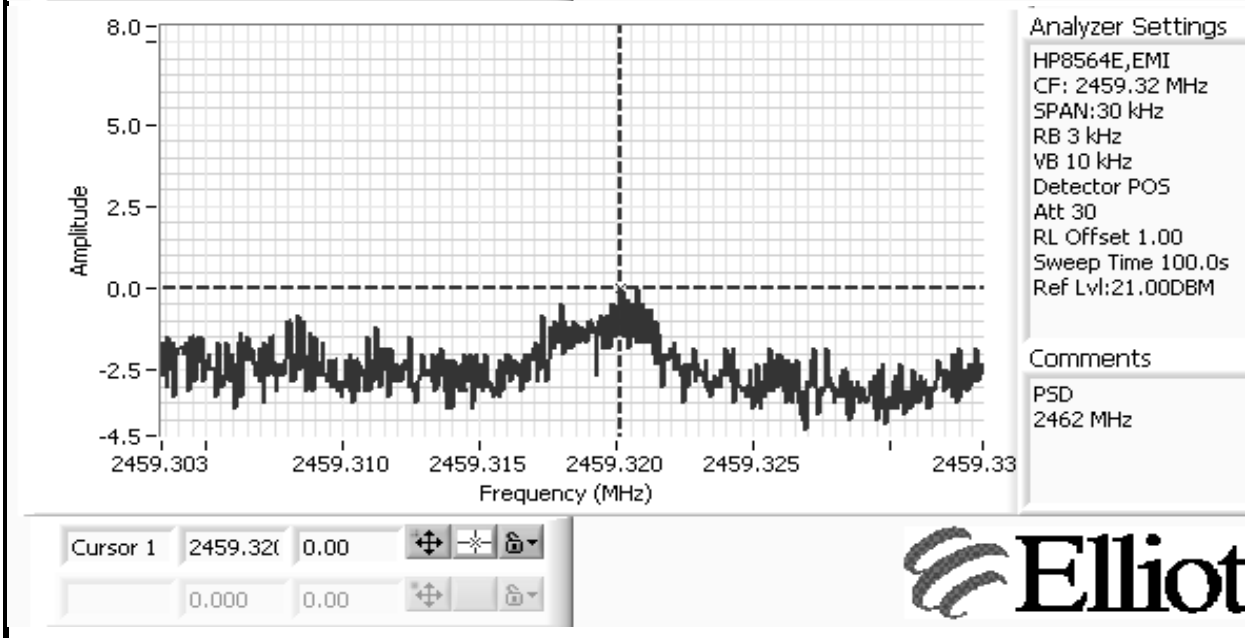
Power Setting	Frequency (MHz)	PSD (dBm/3kHz) Note 1	Limit dBm/3kHz	Result
23	2412	0.7	8.0	Pass
23	2437	0.0	8.0	Pass
23	2462	0.0	8.0	Pass

Note 1:	Power spectral density measured using RB=3 kHz, VB=10kHz, analyzer with peak detector and with a sweep time set to ensure a dwell time of at least 1 second per 3kHz. The measurement is made at the frequency of PPSD determined from preliminary scans using RB=3kHz using multiple sweeps at a faster rate over the 6dB bandwidth of the signal.



Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



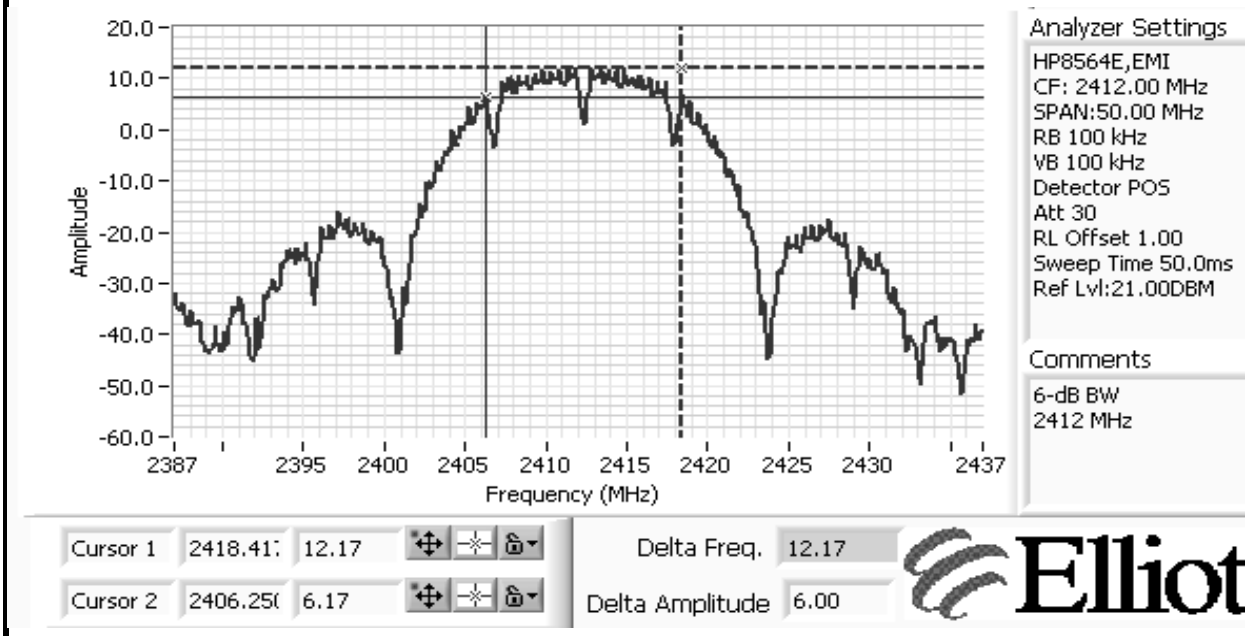


Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Run #3: Signal Bandwidth

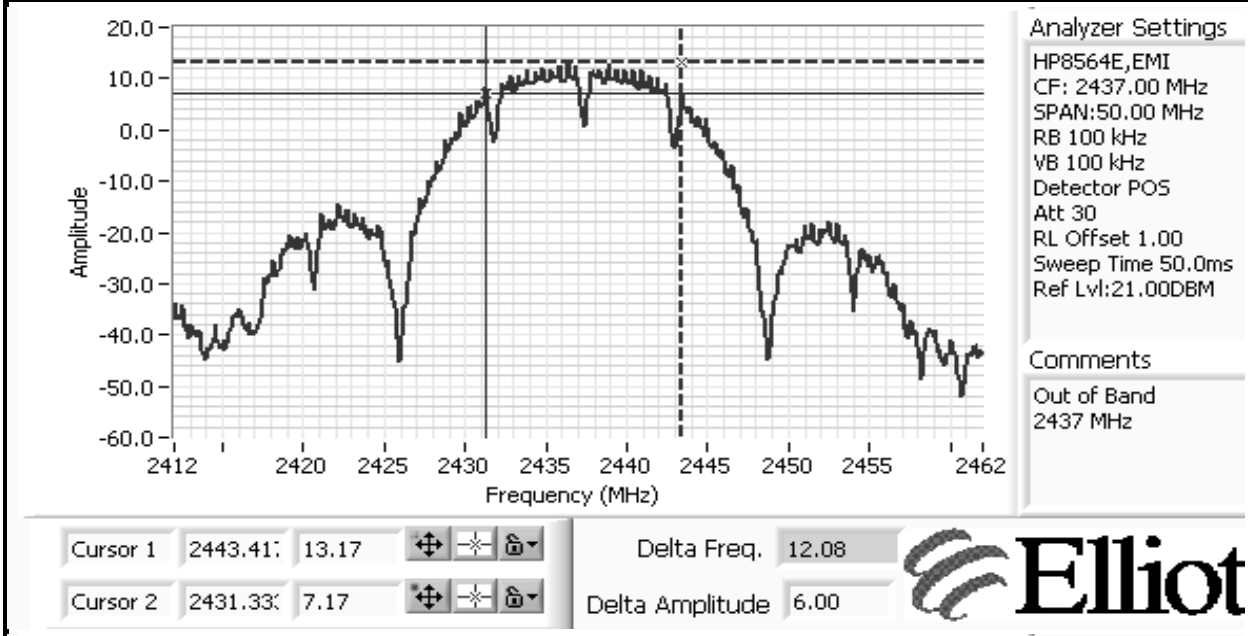
Power Setting	Frequency (MHz)	Resolution Bandwidth	Bandwidth (MHz) 6dB	99%
23	2412	100kHz	12.17	16.31
23	2437	100kHz	12.08	16.14
23	2462	100kHz	11.17	16.14

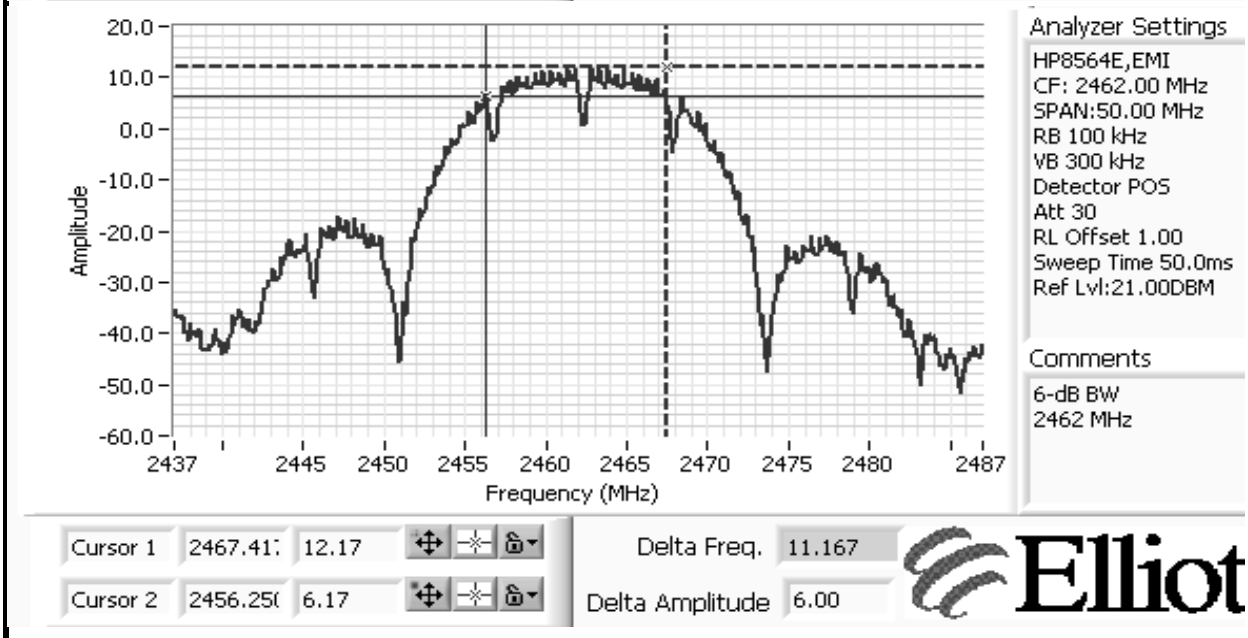
Note 1:	99% bandwidth measured in accordance with RSS GEN, with RB > 1% of the span and VB > 3xRB



EMC Test Data

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



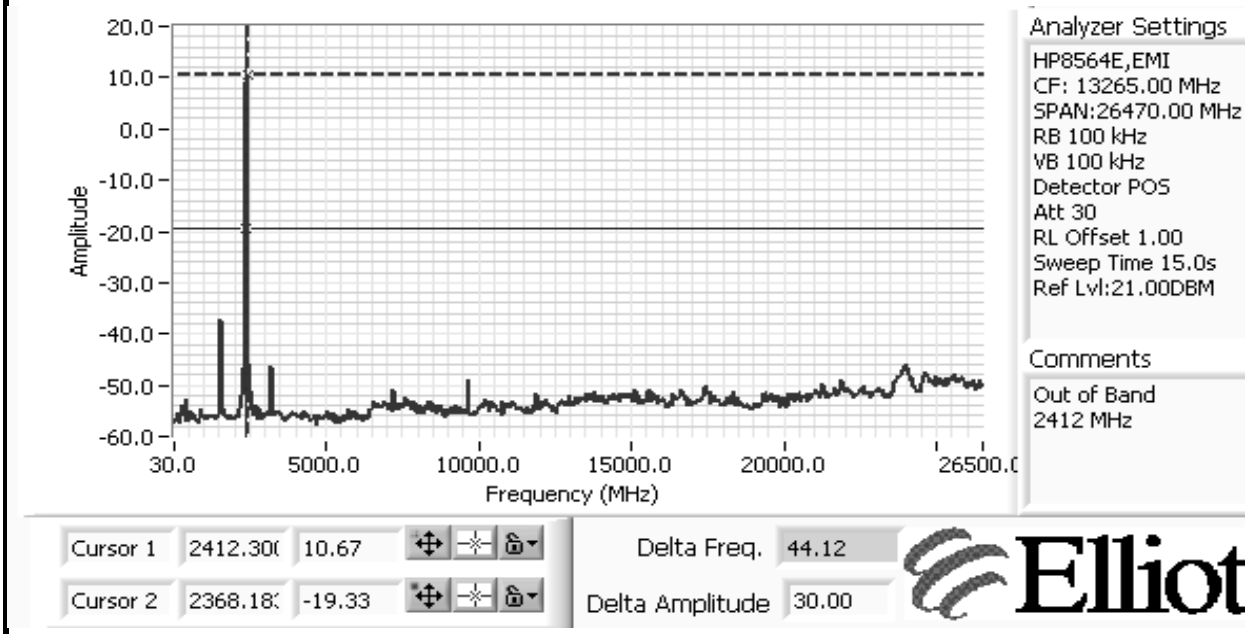


Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Run #4: Out of Band Spurious Emissions

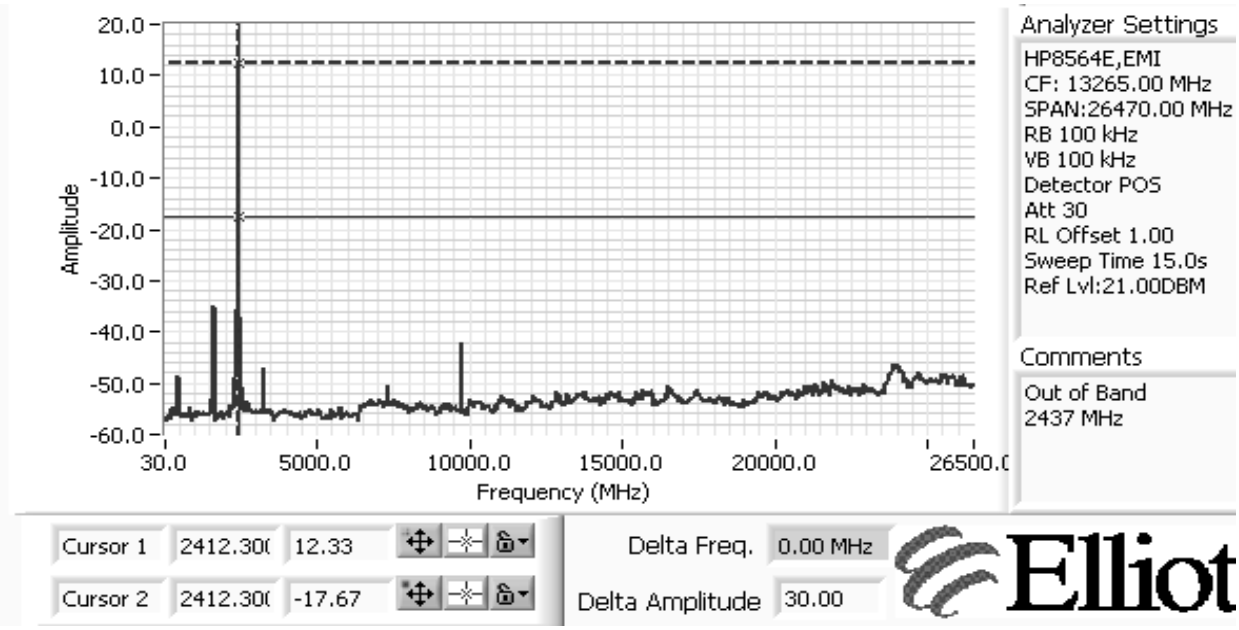
Frequency (MHz)	Limit	Result
2412	-30dBc	Refer to plot
2437	-30dBc	Refer to plot
2462	-30dBc	Refer to plot

Plots for low channel, power setting(s) = 23

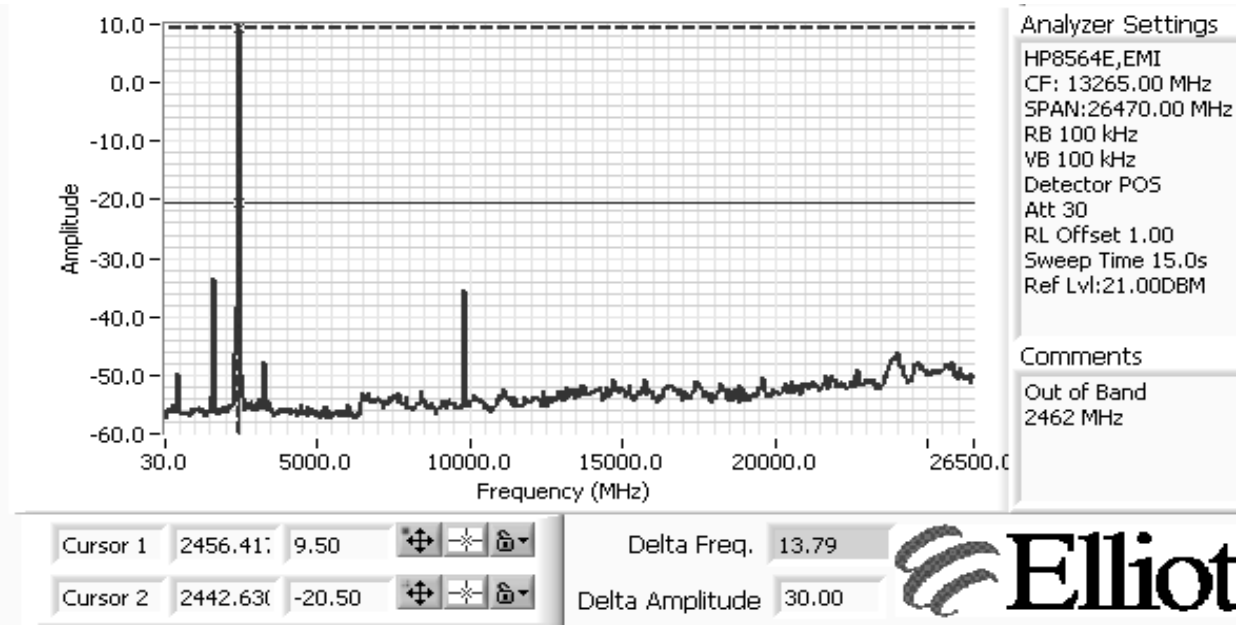


Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Plots for center channel, power setting(s) = 23



Plots for high channel, power setting(s) = 23



Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

RSS 210 and FCC 15.247 Radiated Spurious Emissions

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Date of Test: 6/13/2007
Test Engineer: Joseph Cadigal
Test Location: SVOATS #2

Config. Used: 1
Config Change: none
EUT Voltage: 120V/60Hz

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions:

Temperature: 31.7 °C
Rel. Humidity: 30 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1 (802.11b/g Mode) circle antenna	RE, 1000 - 18000 MHz - Spurious Emissions, Rx mode	FCC Part 15.209 / 15.247(c)	Pass	32.7dBµV/m (43.2µV/m) @ 12183.6MHz (-21.3dB)
2 (802.11b/g Mode) patch antenna	RE, 1000 - 18000 MHz - Spurious Emissions, Rx mode	FCC Part 15.209 / 15.247(c)	Pass	32.5dBµV/m (42.2µV/m) @ 12184.3MHz (-21.5dB)
3 (802.11b/g Mode) omni 9dBi antenna	RE, 1000 - 18000 MHz - Spurious Emissions, Rx mode	FCC Part 15.209 / 15.247(c)	Pass	32.2dBµV/m (40.7µV/m) @ 7311.6MHz (-21.8dB)

Modifications Made During Testing:

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Run #1: Radiated Spurious Emissions, 1000 - 18000 MHz. Operating Mode: 802.11b/g

Run #1a: Center Channel @ 2437 MHz
Rx, b mode, circle antenna
power supply : DSA-12R-12 AUS

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
12183.590	32.7	H	54.0	**-21.3**	AVG	360	1.0	
12184.310	32.5	V	54.0	-21.5	AVG	0	1.0	
7312.190	32.4	H	54.0	-21.6	AVG	360	2.0	
7311.480	32.3	V	54.0	-21.7	AVG	244	1.0	
9747.790	30.1	H	54.0	-23.9	AVG	0	1.0	
9747.440	30.0	V	54.0	-24.0	AVG	341	1.0	
4873.710	28.6	V	54.0	-25.4	AVG	94	2.3	
4875.480	28.5	H	54.0	-25.5	AVG	38	1.0	
12183.590	44.3	H	74.0	-29.7	PK	360	1.0	
7311.480	44.0	V	74.0	-30.0	PK	244	1.0	
12184.310	44.0	V	74.0	-30.0	PK	0	1.0	
7312.190	43.9	H	74.0	-30.1	PK	360	2.0	
9747.440	41.8	V	74.0	-32.2	PK	341	1.0	
9747.790	40.7	H	74.0	-33.3	PK	0	1.0	
4873.710	40.3	V	74.0	-33.7	PK	94	2.3	
4875.480	39.8	H	74.0	-34.2	PK	38	1.0	

Run #1b: Center Channel @ 2437 MHz
Rx, g mode, circle antenna
power supply : DSA-12R-12 AUS

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
12183.830	32.6	H	54.0	**-21.4**	AVG	341	1.0	
12183.830	32.6	V	54.0	-21.4	AVG	360	1.0	
7312.290	32.3	H	54.0	-21.7	AVG	248	1.0	
7309.500	32.2	V	54.0	-21.8	AVG	88	1.0	
9746.850	29.7	V	54.0	-24.3	AVG	116	1.0	
9746.780	29.6	H	54.0	-24.4	AVG	360	1.0	
4873.600	28.5	H	54.0	-25.5	AVG	32	1.0	
4872.690	28.5	V	54.0	-25.5	AVG	27	1.0	
12183.830	44.5	H	74.0	-29.5	PK	341	1.0	
7309.500	43.7	V	74.0	-30.3	PK	88	1.0	
12183.830	43.7	V	74.0	-30.3	PK	360	1.0	
7312.290	43.6	H	74.0	-30.4	PK	248	1.0	
9746.850	41.3	V	74.0	-32.7	PK	116	1.0	
9746.780	40.9	H	74.0	-33.1	PK	360	1.0	
4873.600	40.3	H	74.0	-33.7	PK	32	1.0	
4872.690	40.0	V	74.0	-34.0	PK	27	1.0	

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Run #2: Radiated Spurious Emissions, 1000 - 18000 MHz. Operating Mode: 802.11b/g

Run #2a: Center Channel @ 2437 MHz
Rx, b mode, 8dBi patch antenna
power supply : DSA-12R-12 AUS

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
7312.350	32.1	H	54.0	**-21.9**	AVG	52	1.0	
7310.680	32.0	V	54.0	-22.0	AVG	31	1.0	
12184.920	31.6	H	54.0	-22.4	AVG	164	1.0	
12184.160	31.4	V	54.0	-22.6	AVG	59	1.0	
9746.790	29.8	H	54.0	-24.2	AVG	95	1.0	
9746.520	29.7	V	54.0	-24.3	AVG	214	1.9	
4873.870	28.2	H	54.0	-25.8	AVG	70	1.0	
4872.840	28.2	V	54.0	-25.8	AVG	147	1.0	
7312.350	44.2	H	74.0	-29.8	PK	52	1.0	
12184.920	43.4	H	74.0	-30.6	PK	164	1.0	
7310.680	43.2	V	74.0	-30.8	PK	31	1.0	
12184.160	42.6	V	74.0	-31.4	PK	59	1.0	
9746.790	42.1	H	74.0	-31.9	PK	95	1.0	
9746.520	41.0	V	74.0	-33.0	PK	214	1.9	
4872.840	40.1	V	74.0	-33.9	PK	147	1.0	
4873.870	39.7	H	74.0	-34.3	PK	70	1.0	

Run #2b: Center Channel @ 2437 MHz
Rx, g mode, 8dBi patch antenna
power supply : DSA-12R-12 AUS

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
12184.300	32.5	V	54.0	**-21.5**	AVG	297	1.3	
7310.060	32.2	H	54.0	-21.8	AVG	107	1.0	
7311.460	32.0	V	54.0	-22.0	AVG	360	1.0	
12184.070	31.6	H	54.0	-22.4	AVG	137	1.0	
9747.120	30.1	V	54.0	-23.9	AVG	158	1.0	
9746.910	29.7	H	54.0	-24.3	AVG	208	1.0	
4874.790	28.5	V	54.0	-25.5	AVG	5	1.0	
4874.460	28.4	H	54.0	-25.6	AVG	356	1.0	
7311.460	43.7	V	74.0	-30.3	PK	360	1.0	
7310.060	43.7	H	74.0	-30.3	PK	107	1.0	
12184.300	43.4	V	74.0	-30.6	PK	297	1.3	
12184.070	43.2	H	74.0	-30.8	PK	137	1.0	
9747.120	41.4	V	74.0	-32.6	PK	158	1.0	
4874.790	40.7	V	74.0	-33.3	PK	5	1.0	
9746.910	40.7	H	74.0	-33.3	PK	208	1.0	
4874.460	40.3	H	74.0	-33.7	PK	356	1.0	

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Run #3: Radiated Spurious Emissions, 1000 - 18000 MHz. Operating Mode: 802.11b/g

Run #3a: Center Channel @ 2437 MHz
Rx, b mode, 9dBi Omni antenna
power supply : DSA-12R-12 AUS

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
7309.920	32.0	H	54.0	**-22.0**	AVG	241	1.0	
7310.040	31.8	V	54.0	-22.2	AVG	125	1.0	
12184.320	31.4	H	54.0	-22.6	AVG	360	1.0	
12183.690	31.0	V	54.0	-23.0	AVG	58	1.0	
9747.680	29.8	V	54.0	-24.2	AVG	163	1.0	
9746.580	29.6	H	54.0	-24.4	AVG	158	1.0	
4874.630	28.1	V	54.0	-25.9	AVG	327	1.0	
4873.080	28.1	H	54.0	-25.9	AVG	360	1.0	
7309.920	43.8	H	74.0	-30.2	PK	241	1.0	
7310.040	43.7	V	74.0	-30.3	PK	125	1.0	
12183.690	42.9	V	74.0	-31.1	PK	58	1.0	
12184.320	42.5	H	74.0	-31.5	PK	360	1.0	
9747.680	41.0	V	74.0	-33.0	PK	163	1.0	
9746.580	40.8	H	74.0	-33.2	PK	158	1.0	
4873.080	39.8	H	74.0	-34.2	PK	360	1.0	
4874.630	39.6	V	74.0	-34.4	PK	327	1.0	

Run #3b: Center Channel @ 2437 MHz
Rx, g mode, 9dBi Omni antenna
power supply : DSA-12R-12 AUS

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
7311.550	32.2	V	54.0	**-21.8**	AVG	0	1.0	
7311.560	32.1	H	54.0	-21.9	AVG	360	1.0	
12184.020	32.0	H	54.0	-22.0	AVG	360	1.0	
9746.720	29.7	H	54.0	-24.3	AVG	0	1.0	
9748.120	29.6	V	54.0	-24.4	AVG	109	1.0	
4873.810	28.4	V	54.0	-25.6	AVG	7	1.0	
4872.670	28.3	H	54.0	-25.7	AVG	155	1.0	
7311.550	44.2	V	74.0	-29.8	PK	0	1.0	
7311.560	43.7	H	74.0	-30.3	PK	360	1.0	
12184.020	42.9	H	74.0	-31.1	PK	360	1.0	
9746.720	41.6	H	74.0	-32.4	PK	0	1.0	
9748.120	40.9	V	74.0	-33.1	PK	109	1.0	
4873.810	40.2	V	74.0	-33.8	PK	7	1.0	
4872.670	39.8	H	74.0	-34.2	PK	155	1.0	

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Radiated Emissions

Test Specific Details

Objective: The objective of this test session is to perform engineering evaluation testing of the EUT with respect to the specification listed above.

Date of Test: 6/7/2007 23:34
Test Engineer: Rafael Varelas
Test Location: SVOATS #1

Config. Used: 1
Config Change: None
EUT Voltage: 120V/60Hz

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions:

Temperature: 18 °C
Rel. Humidity: 43 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1a - c	RE, 30 - 18000 MHz - Spurious Emissions	FCC Part 15.209 / 15.247(c)	Pass	52.1dBµV/m (402.7µV/m) @ 4875.6MHz (-1.9dB)

Modifications Made During Testing:

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Run #1a: Radiated Spurious Emissions, 30 - 18000 MHz. Low Channel @ 2412 MHz
Setting = 23, Tx100, External Patch, 8dBi antenna

	H	V	
Fundamental emission level @ 3m in 1MHz RBW:	106	120.6	Peak Measurement (RB=VB=1MHz)
Fundamental emission level @ 3m in 1MHz RBW:	96.8	112.1	Average Measurement (RB=1MHz, VB=10Hz)

Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2387.350	53.1	V	54.0	-0.9	Avg	335	1.3	
2387.430	67.3	V	74.0	-6.7	PK	335	1.3	
2389.430	44.5	H	54.0	-9.5	AVG	232	1.7	
2389.430	55.8	H	74.0	-18.2	PK	232	1.7	

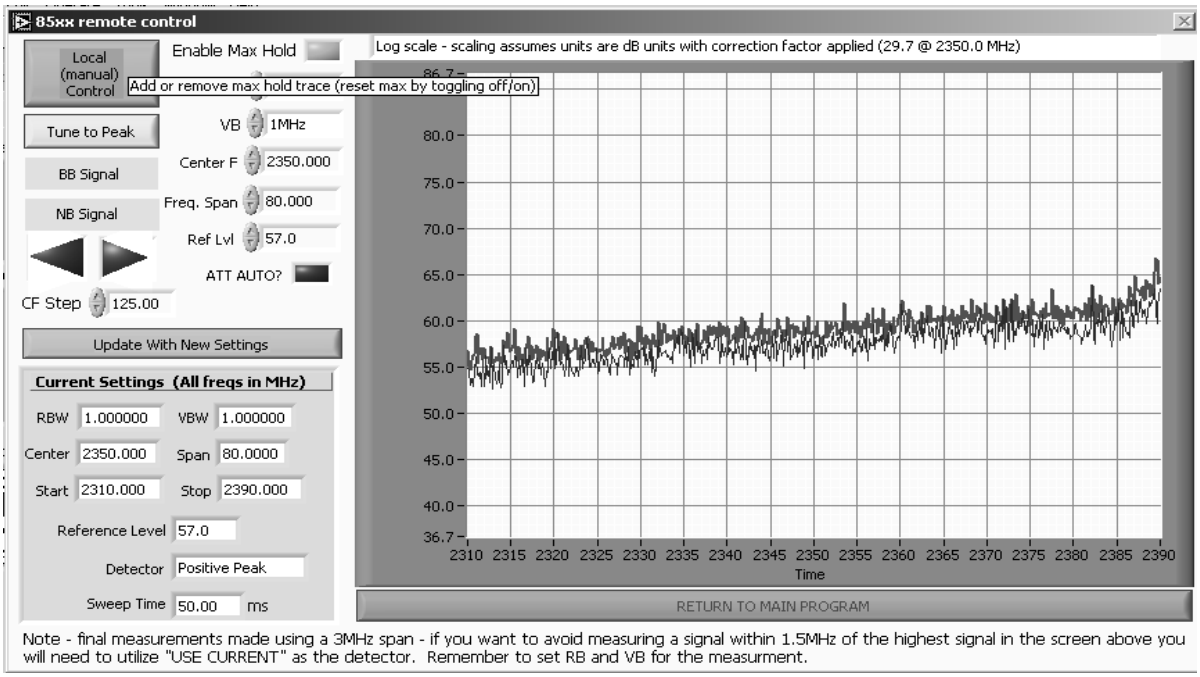
Other Spurious Radiated Emissions:

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4823.200	49.8	V	54.0	-4.2	AVG	69	1.3	
4823.200	62.8	V	74.0	-11.2	PK	69	1.3	
7239.970	39.2	V	54.0	-14.8	AVG	359	2.0	Note 3
4822.730	38.7	H	54.0	-15.3	AVG	111	1.0	
12053.370	36.5	V	54.0	-17.5	AVG	255	1.5	
12051.400	35.4	H	54.0	-18.6	AVG	199	1.5	
7237.930	35.0	H	54.0	-19.0	AVG	195	1.0	Note 3
7239.970	54.2	V	74.0	-19.8	PK	359	2.0	Note 3
7237.930	52.4	H	74.0	-21.6	PK	195	1.0	Note 3
4822.730	51.3	H	74.0	-22.7	PK	111	1.0	
12053.370	49.7	V	74.0	-24.3	PK	255	1.5	
12051.400	46.8	H	74.0	-27.2	PK	199	1.5	

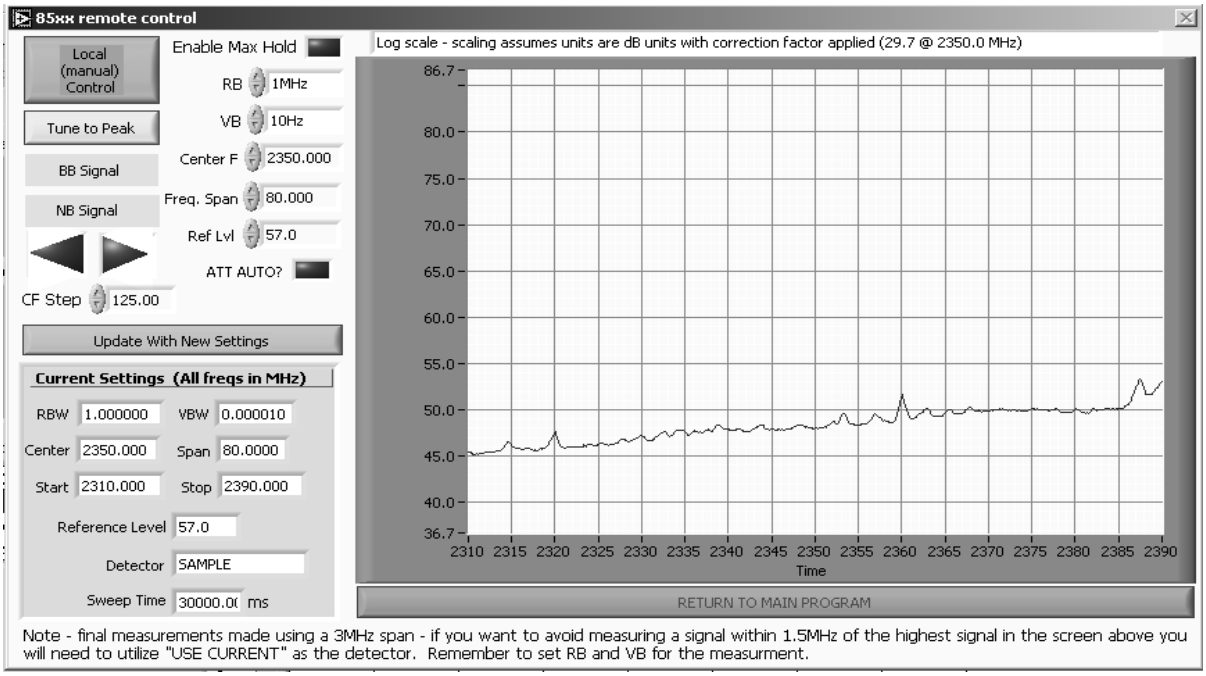
Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).
Note 2:	Band-edge measurement calculated from the fundamental field strength (peak or average) minus the band edge delta marker measurement.
Note 3:	Signal is not in a restricted band but the more stringent restricted band limit was used.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Vertical Plot



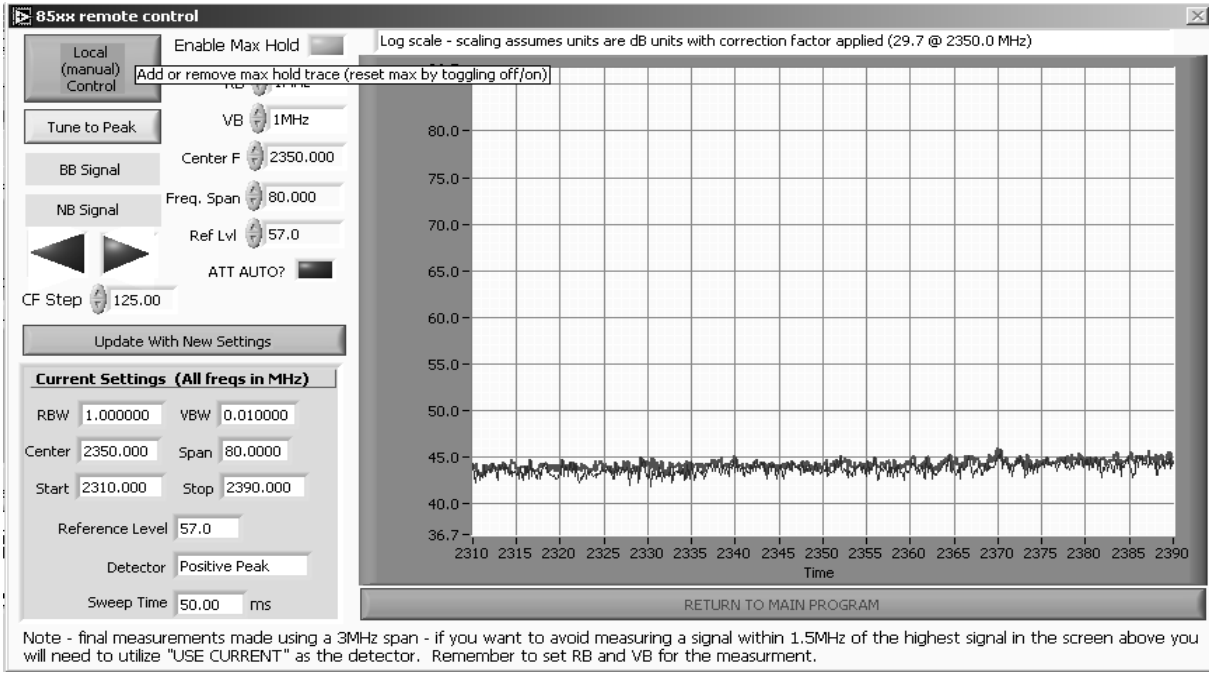
Note - final measurements made using a 3MHz span - if you want to avoid measuring a signal within 1.5MHz of the highest signal in the screen above you will need to utilize "USE CURRENT" as the detector. Remember to set RB and VB for the measurment.



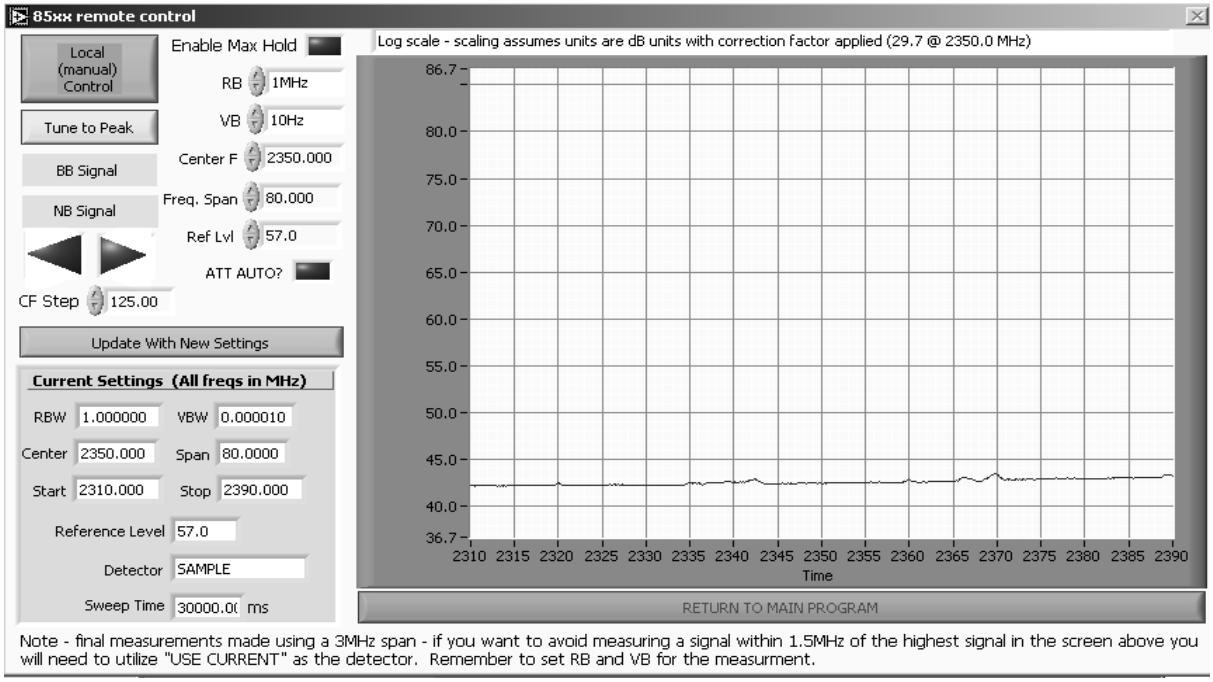
Note - final measurements made using a 3MHz span - if you want to avoid measuring a signal within 1.5MHz of the highest signal in the screen above you will need to utilize "USE CURRENT" as the detector. Remember to set RB and VB for the measurment.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Horizontal Plot



Note - final measurements made using a 3MHz span - if you want to avoid measuring a signal within 1.5MHz of the highest signal in the screen above you will need to utilize "USE CURRENT" as the detector. Remember to set RB and VB for the measurment.



Note - final measurements made using a 3MHz span - if you want to avoid measuring a signal within 1.5MHz of the highest signal in the screen above you will need to utilize "USE CURRENT" as the detector. Remember to set RB and VB for the measurment.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Run #1b: Radiated Spurious Emissions, 30 - 18000 MHz. Center Channel @ 2437 MHz
Setting = 23, Tx100, External Patch, 8dBi antenna

	H	V	
Fundamental emission level @ 3m in 1MHz RBW:	103.7	122.1	Peak Measurement (RB=VB=1MHz)
Fundamental emission level @ 3m in 1MHz RBW:	95.4	113.3	Average Measurement (RB=1MHz, VB=10Hz)

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4875.600	52.1	V	54.0	-1.9	AVG	312	1.1	
4875.600	66.1	V	74.0	-7.9	PK	312	1.1	
7305.600	43.7	V	54.0	-10.3	AVG	0	1.4	
4874.070	42.1	H	54.0	-11.9	AVG	16	1.0	
7310.070	41.9	H	54.0	-12.1	AVG	200	2.0	
7305.600	61.7	V	74.0	-12.3	PK	0	1.4	
7310.070	59.3	H	74.0	-14.7	PK	200	2.0	
12181.370	36.7	V	54.0	-17.3	AVG	253	1.5	
12175.030	34.3	H	54.0	-19.7	AVG	20	1.0	
4874.070	53.8	H	74.0	-20.2	PK	16	1.0	
12181.370	50.0	V	74.0	-24.0	PK	253	1.5	
12175.030	46.0	H	74.0	-28.0	PK	20	1.0	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Run #1c: Radiated Spurious Emissions, 30 - 18000 MHz. High Channel @ 2462 MHz
Setting = 23, Tx100, External Patch, 8dBi antenna

	H	V	
Fundamental emission level @ 3m in 1MHz RBW:	100.7	121.8	Peak Measurement (RB=VB=1MHz)
Fundamental emission level @ 3m in 1MHz RBW:	92.4	113.3	Average Measurement (RB=1MHz, VB=10Hz)

Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
2483.990	53.0	V	54.0	-1.0	Avg	346	1.5	
2485.740	65.6	V	74.0	-8.4	PK	346	1.5	
2485.900	45.2	H	54.0	-8.8	AVG	207	1.8	
2485.900	56.5	H	74.0	-17.5	PK	207	1.8	

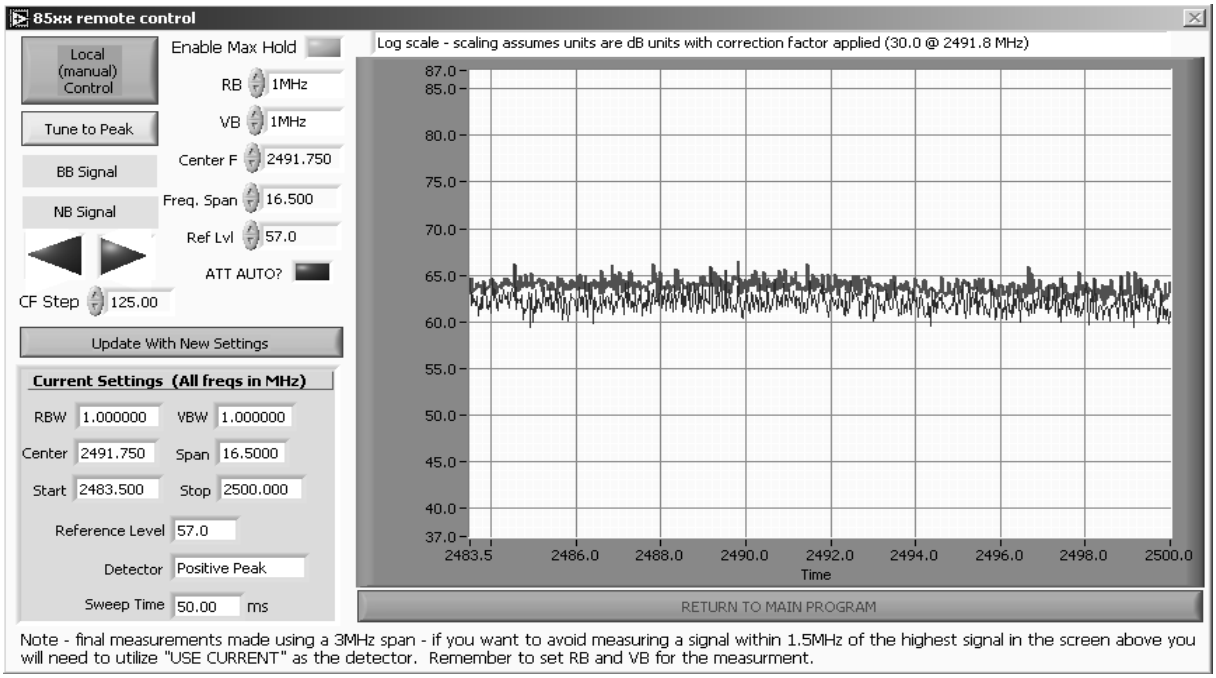
Other Spurious Radiated Emissions:

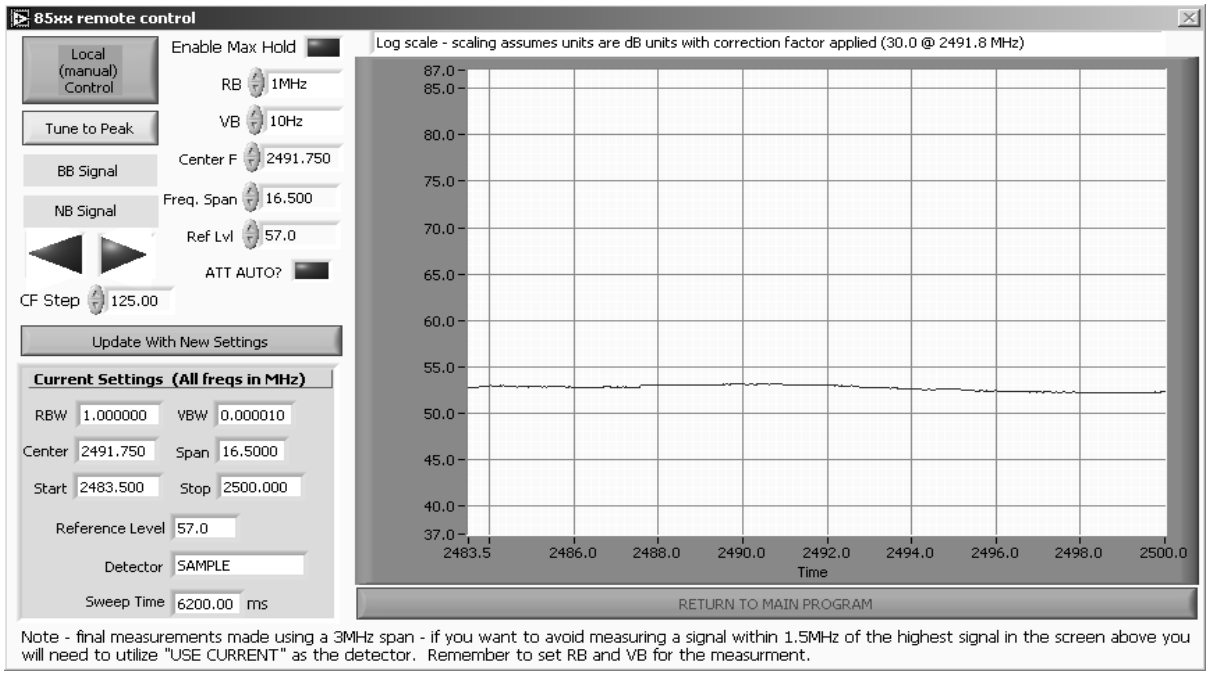
Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
4922.250	48.3	V	54.0	-5.7	AVG	342	1.0	
4923.770	47.0	H	54.0	-7.0	AVG	144	1.0	
7384.570	45.7	V	54.0	-8.3	AVG	206	2.0	
7385.100	44.0	H	54.0	-10.0	AVG	204	2.0	
4922.250	61.2	V	74.0	-12.8	PK	342	1.0	
7384.570	61.1	V	74.0	-12.9	PK	206	2.0	
7385.100	60.2	H	74.0	-13.8	PK	204	2.0	
4923.770	59.0	H	74.0	-15.0	PK	144	1.0	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).
Note 2:	Band-edge measurement calculated from the fundamental field strength (peak or average) minus the band edge delta marker measurement.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

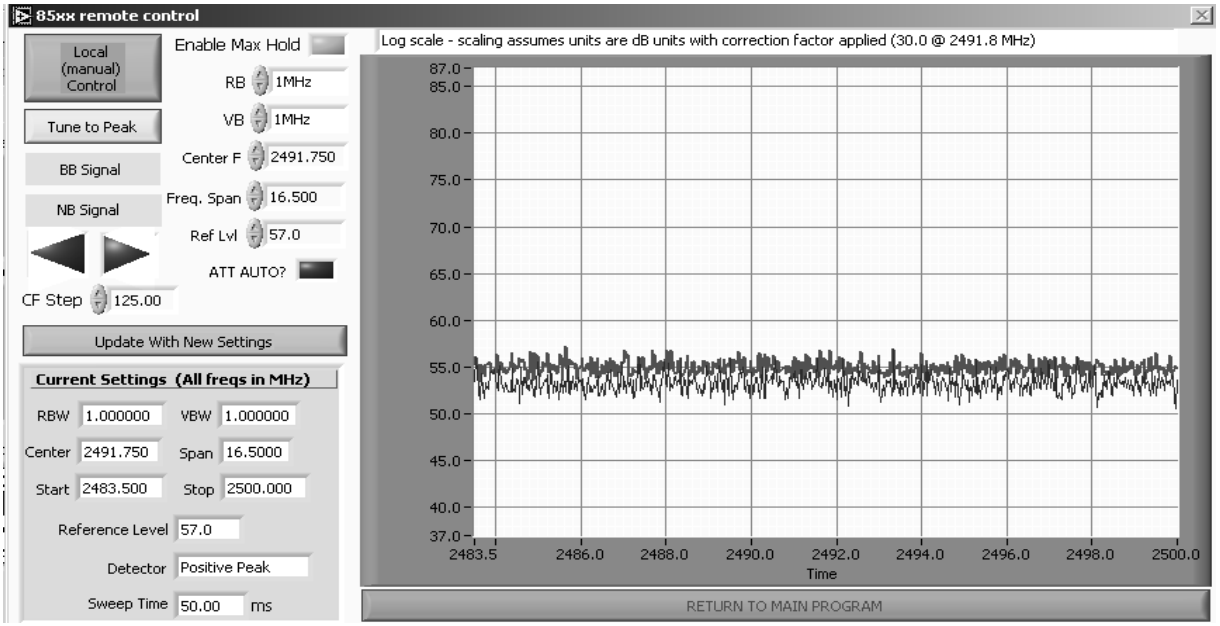
Vertical Plot

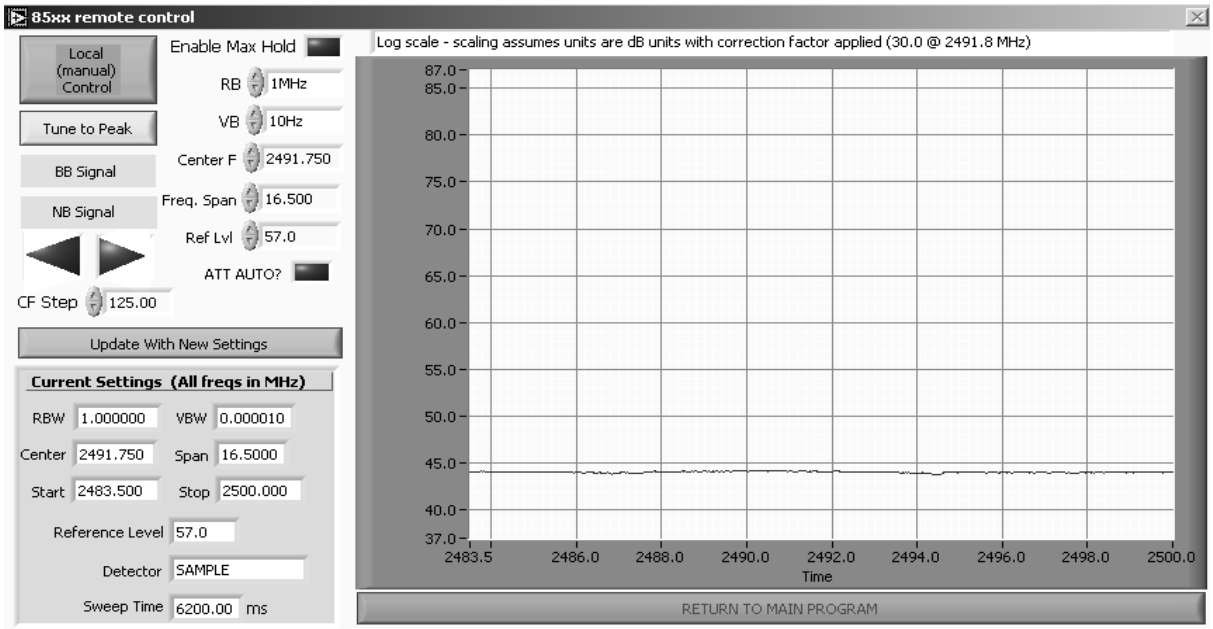




Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Horizontal Plot





Note - final measurements made using a 3MHz span - if you want to avoid measuring a signal within 1.5MHz of the highest signal in the screen above you will need to utilize "USE CURRENT" as the detector. Remember to set RB and VB for the measurment.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Radiated Emissions

Test Specific Details

Objective: The objective of this test session is to perform engineering evaluation testing of the EUT with respect to the specification listed above.

Date of Test: 6/7/2007 23:34
Test Engineer: Rafael Varelas
Test Location: SVOATS #1

Config. Used: 1
Config Change: None
EUT Voltage: 120V/60Hz

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions:

Temperature: 17 °C
Rel. Humidity: 41 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1a - c	RE, 30 - 18000 MHz - Spurious Emissions	FCC Part 15.209 / 15.247(c)	Pass	53.5dBµV/m (473.2µV/m) @ 9848.1MHz (-0.5dB)

Modifications Made During Testing:

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Run #1a: Radiated Spurious Emissions, 30 - 18000 MHz. Low Channel @ 2412 MHz
Setting = 23, Tx100, External Patch, 8dBi antenna

	H	V	
Fundamental emission level @ 3m in 1MHz RBW:	101.7	117.5	Peak Measurement (RB=VB=1MHz)
Fundamental emission level @ 3m in 1MHz RBW:	98.8	114.6	Average Measurement (RB=1MHz, VB=10Hz)

Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2387.350	53.7	V	54.0	-0.3	Avg	328	1.5	
2387.090	63.2	V	74.0	-10.8	Pk	328	1.5	
2386.200	48.5	H	54.0	-5.5	AVG	360	1.0	
2386.200	57.7	H	74.0	-16.3	PK	360	1.0	

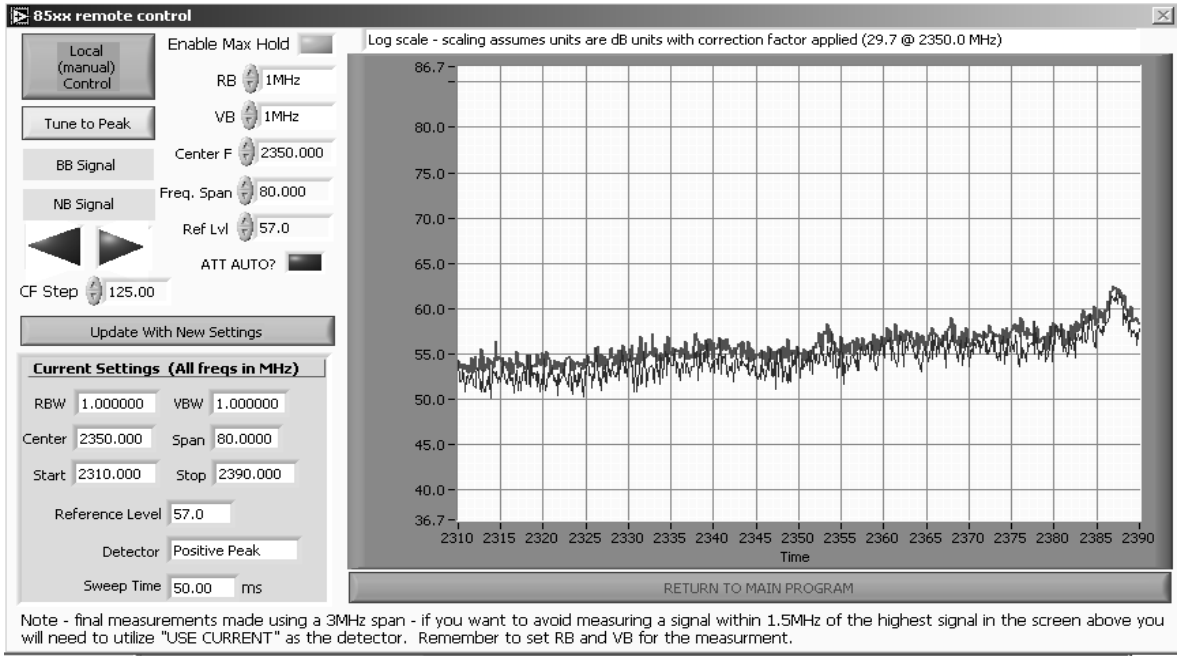
Other Spurious Radiated Emissions:

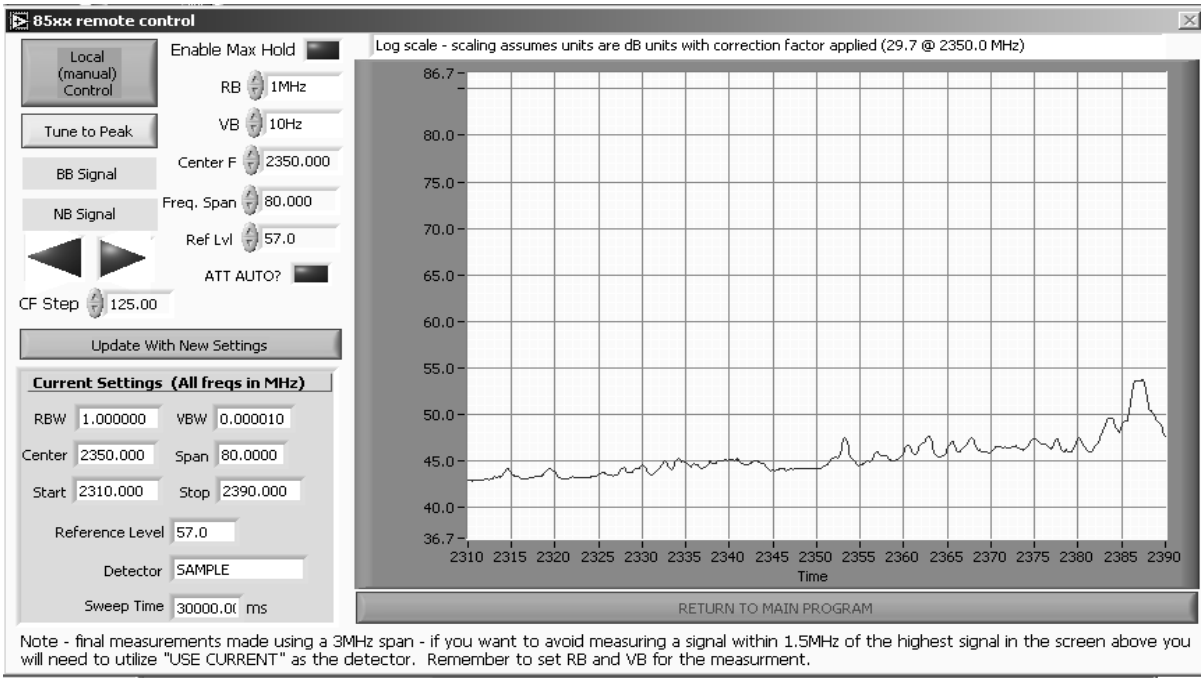
Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4824.080	50.0	H	54.0	-4.0	AVG	249	2.3	
4824.020	45.2	V	54.0	-8.8	AVG	43	1.3	
9648.160	44.6	V	54.0	-9.4	AVG	0	1.8	Note 3
7236.830	36.4	V	54.0	-17.6	AVG	264	1.9	
12050.070	35.1	H	54.0	-18.9	AVG	0	1.0	
4824.080	51.9	H	74.0	-22.1	PK	249	2.3	
9648.160	48.7	V	74.0	-25.3	PK	0	1.8	Note 3
4824.020	47.7	V	74.0	-26.3	PK	43	1.3	
12050.070	46.2	H	74.0	-27.8	PK	0	1.0	
7236.830	44.9	V	74.0	-29.1	PK	264	1.9	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).
Note 2:	Band-edge measurement calculated from the fundamental field strength (peak or average) minus the band edge delta marker measurement.
Note 3:	Signal is not in a restricted band but the more stringent restricted band limit was used.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

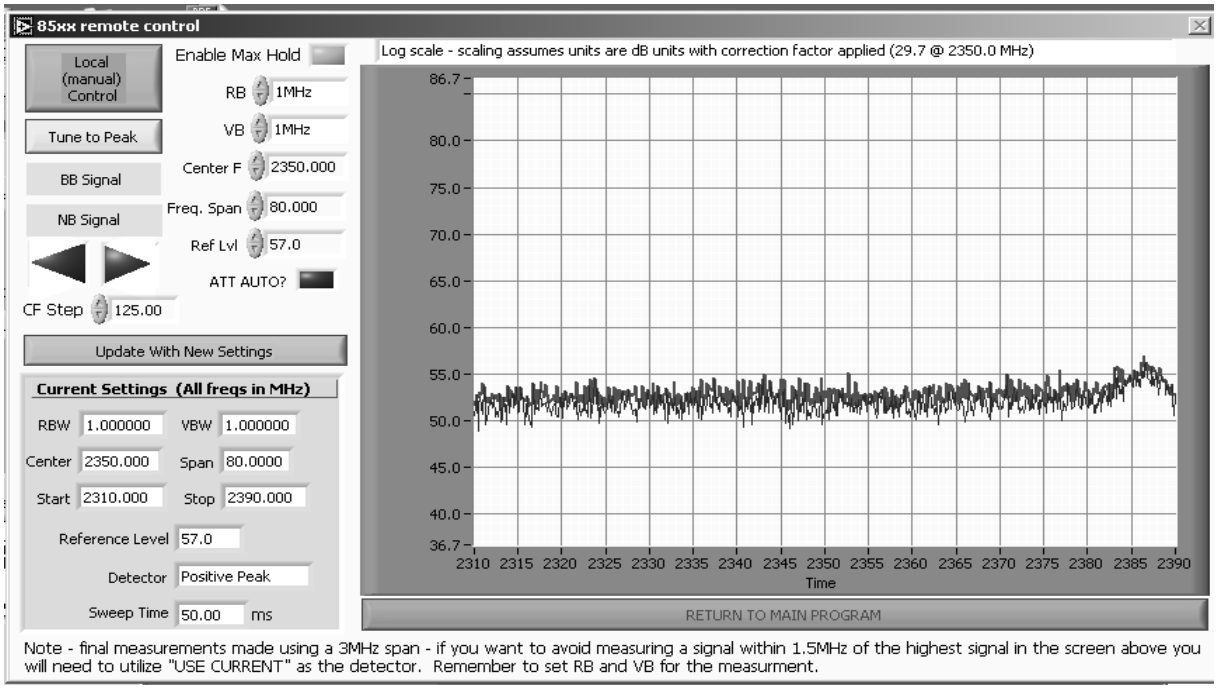
Vertical Plot

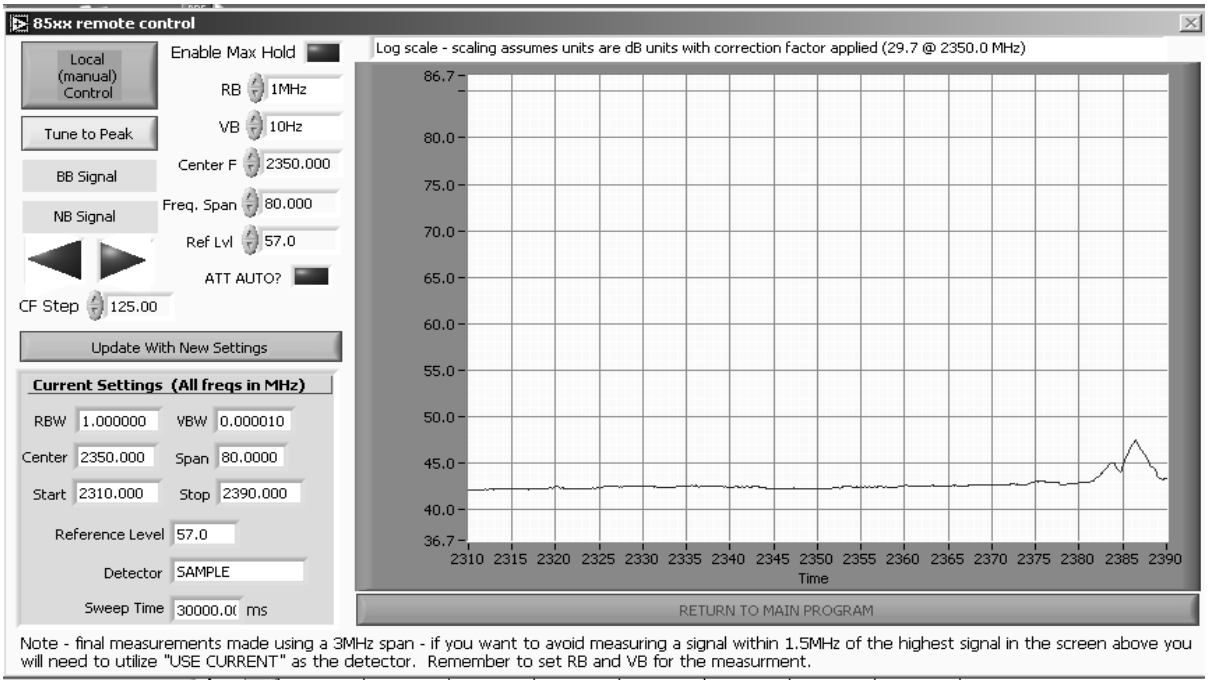




Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Horizontal Plot





Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Run #1b: Radiated Spurious Emissions, 30 - 18000 MHz. Center Channel @ 2437 MHz
Setting = 23, Tx100, External Patch, 8dBi antenna

	H	V	
Fundamental emission level @ 3m in 1MHz RBW:	100.9	119	Peak Measurement (RB=VB=1MHz)
Fundamental emission level @ 3m in 1MHz RBW:	98	116	Average Measurement (RB=1MHz, VB=10Hz)

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4874.070	51.4	H	54.0	-2.6	AVG	32	2.4	
9748.150	48.8	V	54.0	-5.2	AVG	120	1.5	
4874.150	45.4	V	54.0	-8.6	AVG	316	1.3	
7310.290	38.3	V	54.0	-15.7	AVG	54	1.9	
7312.300	37.1	H	54.0	-16.9	AVG	221	1.0	
12176.270	34.2	H	54.0	-19.8	AVG	0	1.8	
4874.070	53.8	H	74.0	-20.2	PK	32	2.4	
9748.150	51.1	V	74.0	-22.9	PK	120	1.5	
4874.150	48.6	V	74.0	-25.4	PK	316	1.3	
7310.290	46.9	V	74.0	-27.1	PK	54	1.9	
7312.300	46.7	H	74.0	-27.3	PK	221	1.0	
12176.270	45.1	H	74.0	-28.9	PK	0	1.8	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Run #1c: Radiated Spurious Emissions, 30 - 18000 MHz. High Channel @ 2462 MHz
Setting = 23, Tx100, External Patch, 8dBi antenna

	H	V	
Fundamental emission level @ 3m in 1MHz RBW:	98.3	119.2	Peak Measurement (RB=VB=1MHz)
Fundamental emission level @ 3m in 1MHz RBW:	95.4	116.1	Average Measurement (RB=1MHz, VB=10Hz)

Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2488.270	51.4	V	54.0	-2.6	AVG	345	1.5	
2488.270	61.0	V	74.0	-13.0	PK	345	1.5	
2490.770	44.4	H	54.0	-9.6	AVG	152	1.8	
2490.770	55.3	H	74.0	-18.7	PK	152	1.8	

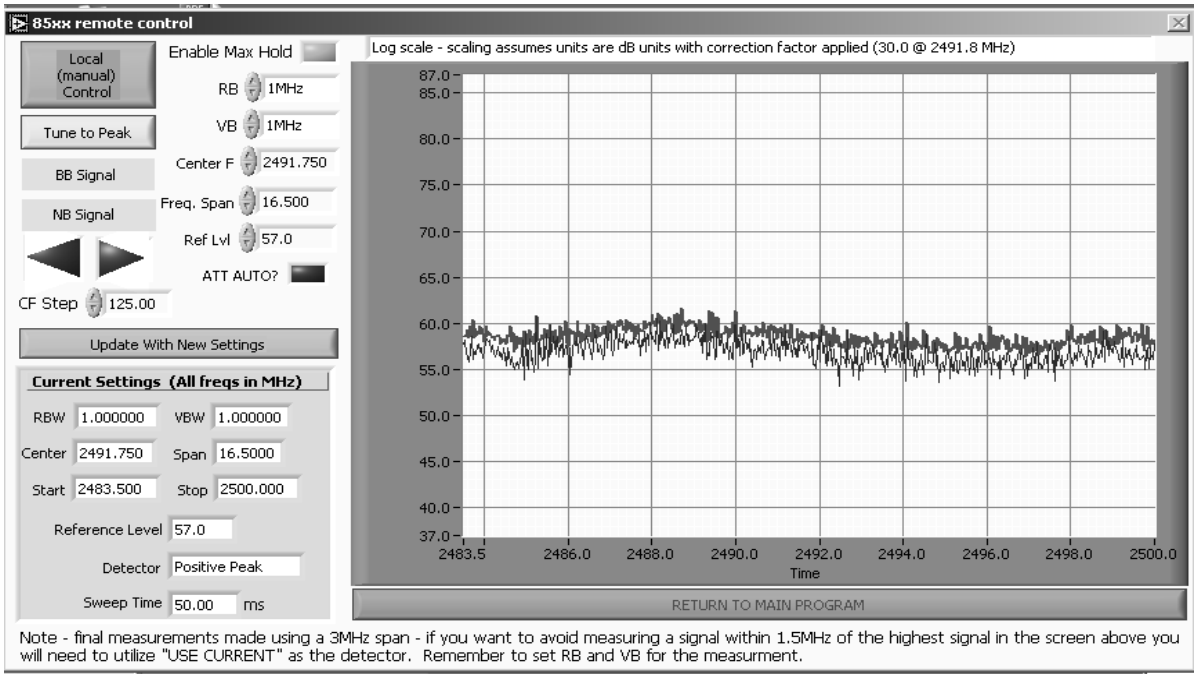
Other Spurious Radiated Emissions:

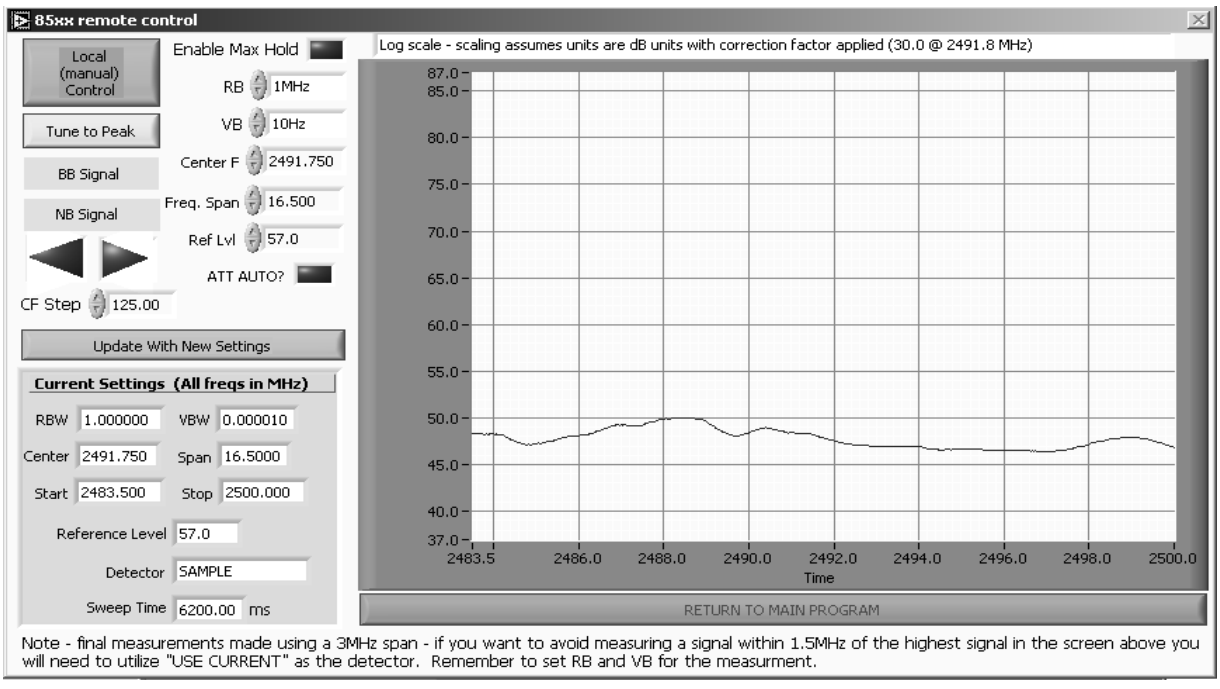
Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
9848.120	53.5	V	54.0	-0.5	AVG	107	1.4	
4924.080	51.8	V	54.0	-2.2	AVG	115	1.4	
4924.080	49.6	H	54.0	-4.4	AVG	190	1.7	
14772.230	38.2	V	54.0	-15.8	AVG	86	1.6	
12308.570	37.9	V	54.0	-16.1	AVG	334	1.9	
9848.120	55.3	V	74.0	-18.7	PK	107	1.4	
7686.870	33.8	V	54.0	-20.2	AVG	360	1.0	
7310.870	33.7	H	54.0	-20.3	AVG	0	1.0	
4924.080	53.5	V	74.0	-20.5	PK	115	1.4	
4924.080	52.8	H	74.0	-21.2	PK	190	1.7	
14772.230	46.8	V	74.0	-27.2	PK	86	1.6	
12308.570	46.2	V	74.0	-27.8	PK	334	1.9	
7310.870	45.0	H	74.0	-29.0	PK	0	1.0	
7686.870	45.0	V	74.0	-29.0	PK	360	1.0	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).
Note 2:	Band-edge measurement calculated from the fundamental field strength (peak or average) minus the band edge delta marker measurement.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

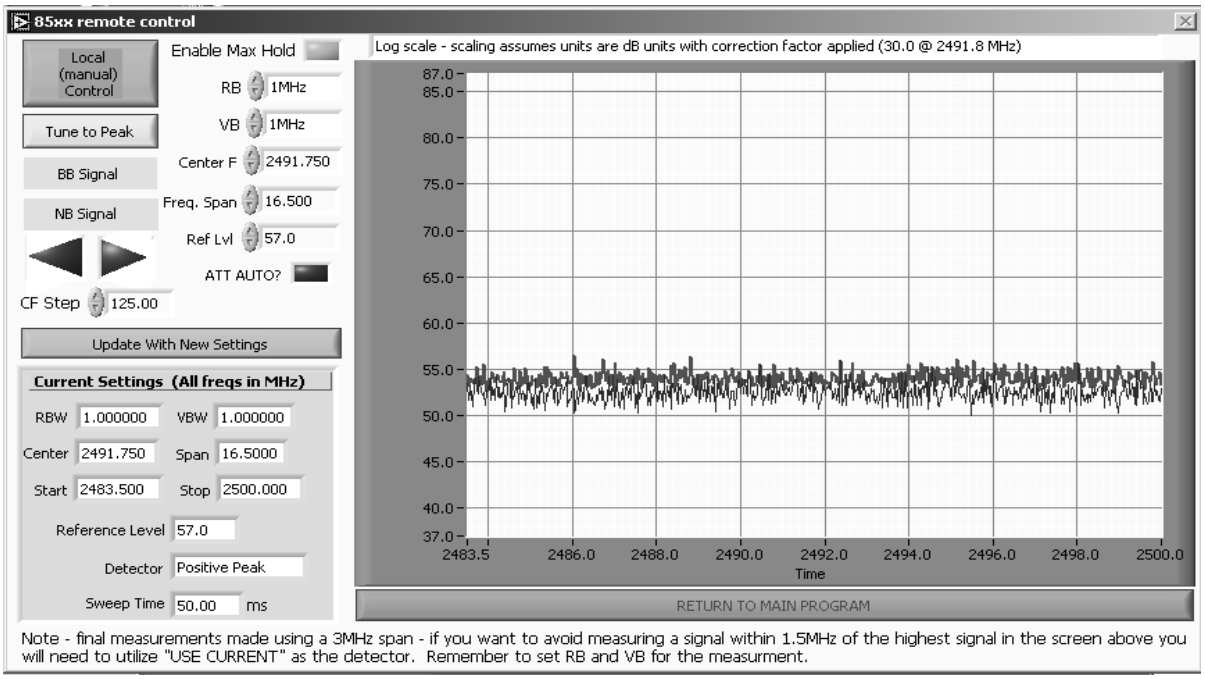
Vertical Plot



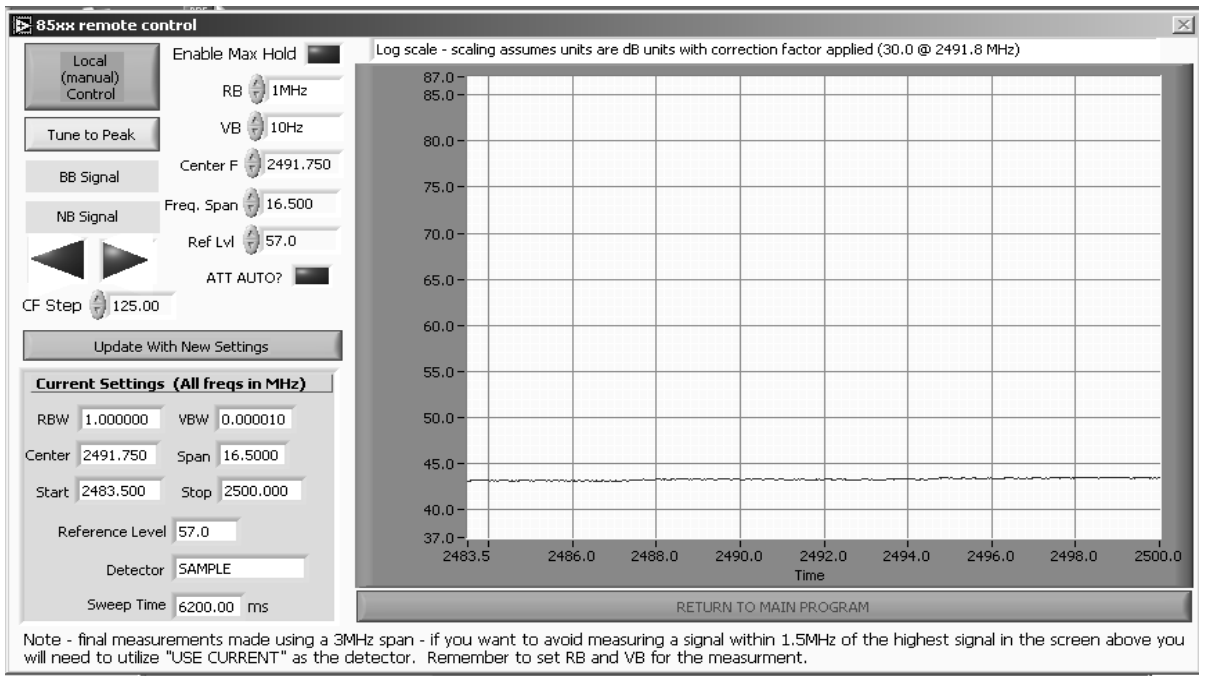


Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Horizontal Plot



Note - final measurements made using a 3MHz span - if you want to avoid measuring a signal within 1.5MHz of the highest signal in the screen above you will need to utilize "USE CURRENT" as the detector. Remember to set RB and VB for the measurment.



Note - final measurements made using a 3MHz span - if you want to avoid measuring a signal within 1.5MHz of the highest signal in the screen above you will need to utilize "USE CURRENT" as the detector. Remember to set RB and VB for the measurment.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Radiated Emissions

Test Specific Details

Objective: The objective of this test session is to perform engineering evaluation testing of the EUT with respect to the specification listed above.

Date of Test: 6/4/2007 23:34
Test Engineer: Rafael Varelas
Test Location: SVOATS #2

Config. Used: 1
Config Change: None
EUT Voltage: 120V/60Hz

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions:

Temperature: 18 °C
Rel. Humidity: 78 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1a - c	RE, 30 - 18000 MHz - Spurious Emissions	FCC Part 15.209 / 15.247(c)	Pass	53.0dBµV/m @ 4924.1MHz (-1.0dB)

Modifications Made During Testing:

No modifications were made to the EUT during testing

Deviations From The Standard

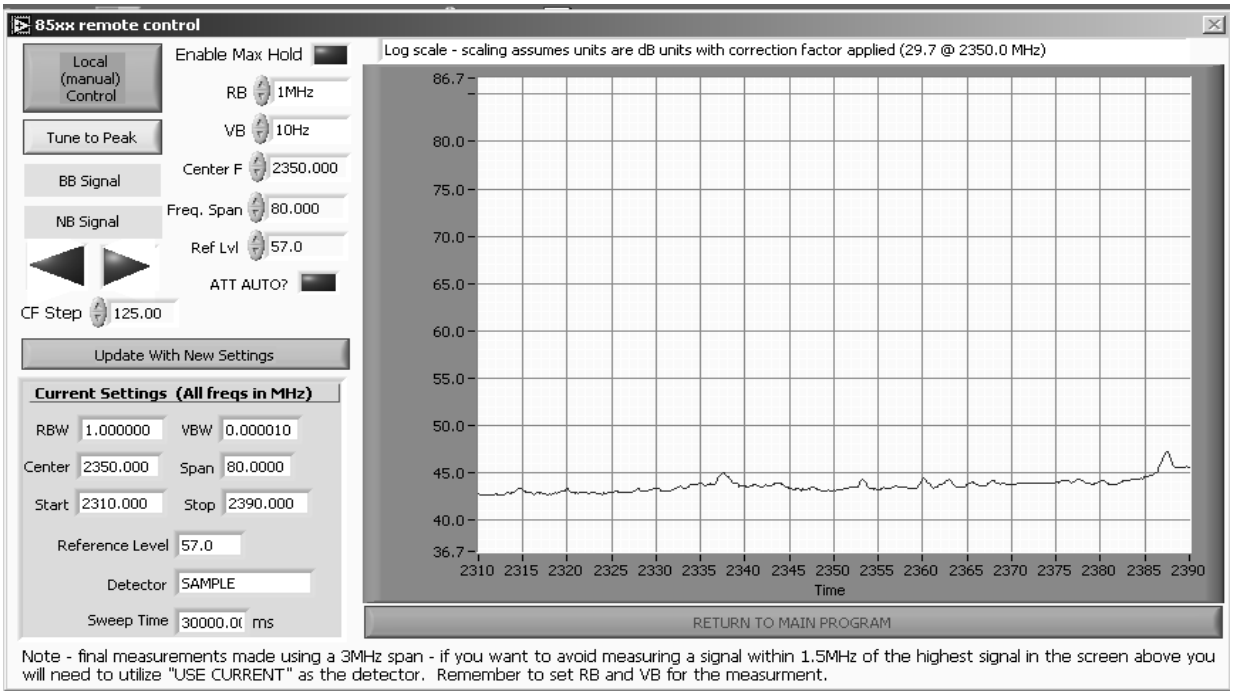
No deviations were made from the requirements of the standard.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

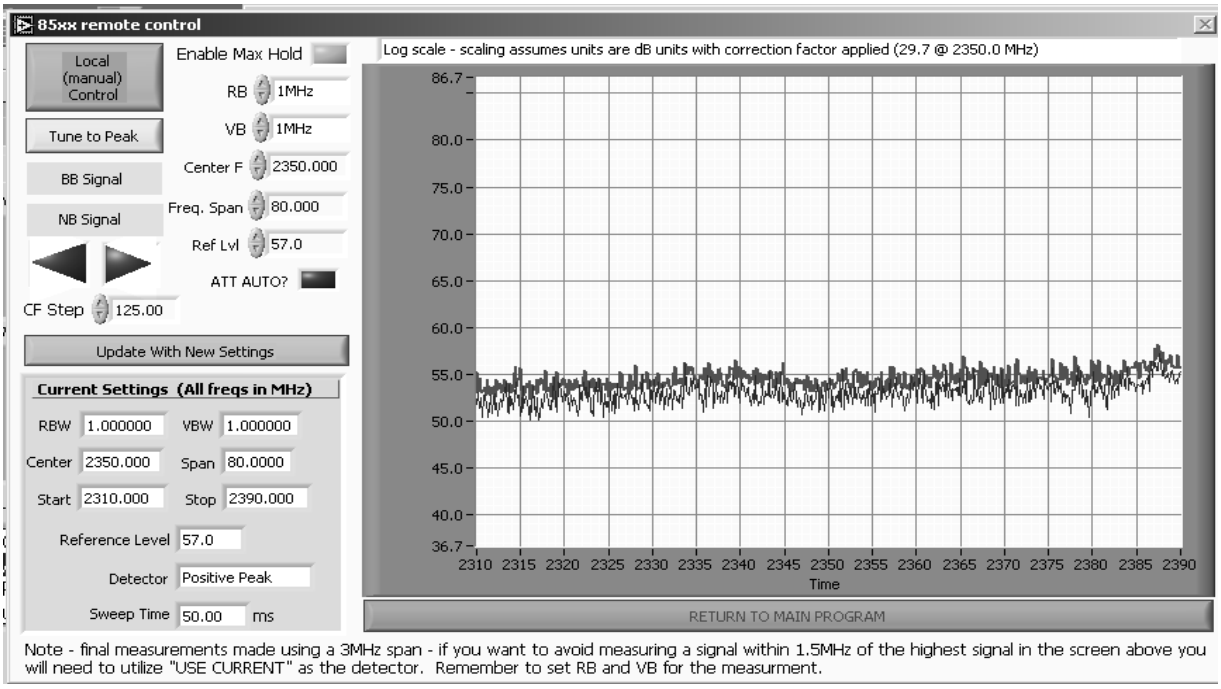
Run #1a: Radiated Spurious Emissions, 30 - 18000 MHz. Low Channel @ 2412 MHz
Setting = 23, Tx100, External Omni, 9dBi antenna

	H	V	
Fundamental emission level @ 3m in 1MHz RBW:	93.7	116.2	Peak Measurement (RB=VB=1MHz)
Fundamental emission level @ 3m in 1MHz RBW:	87.6	113.1	Average Measurement (RB=1MHz, VB=10Hz)

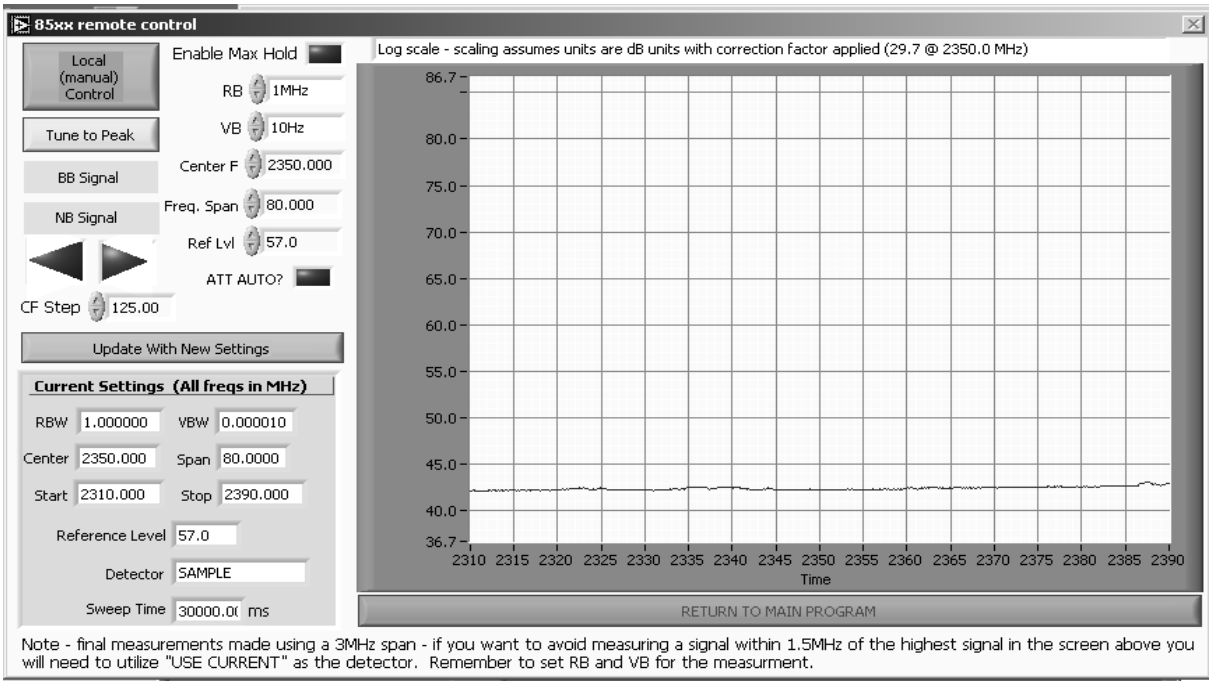
Vertical Plot



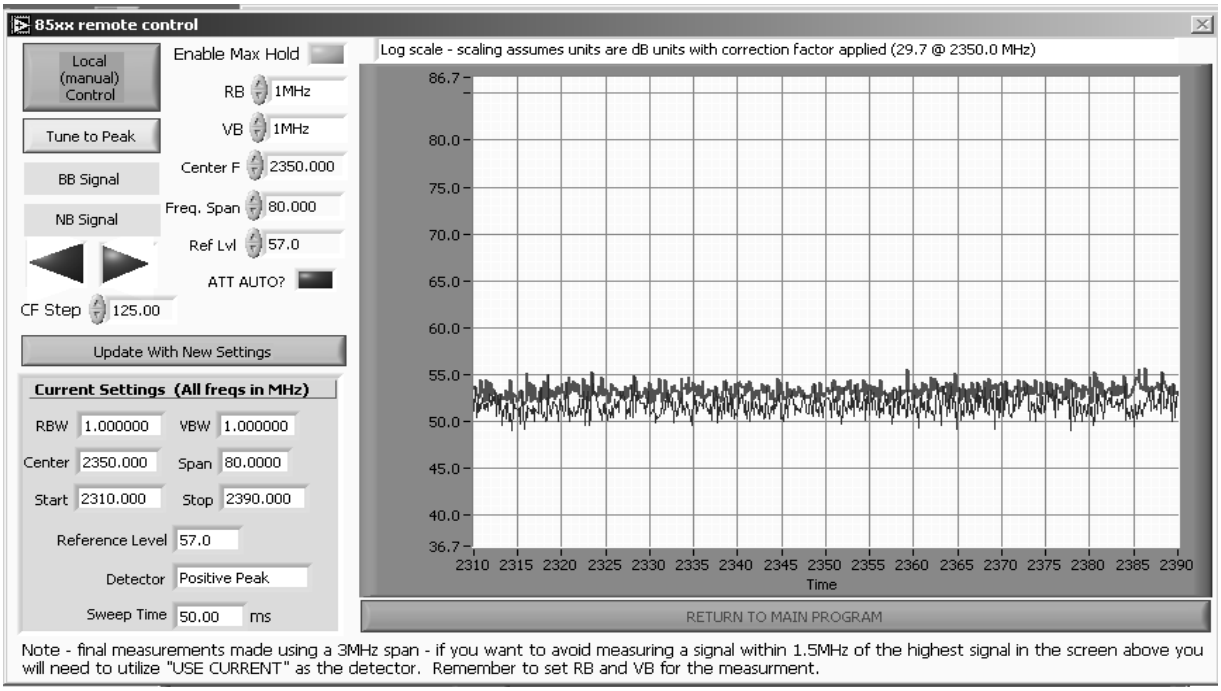
Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



Horizontal Plot



Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2387.450	48.6	V	54.0	-5.4	AVG	47	1.0	
2387.450	58.5	V	74.0	-15.5	PK	47	1.0	
2387.530	44.3	H	54.0	-9.7	AVG	143	1.0	
2387.530	55.7	H	74.0	-18.3	PK	143	1.0	

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Other Spurious Radiated Emissions:

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4824.100	48.0	V	54.0	-6.0	AVG	209	1.2	
4824.100	50.4	V	74.0	-23.6	PK	209	1.2	
7235.460	32.4	V	54.0	-21.6	AVG	232	1.0	
7235.460	43.1	V	74.0	-30.9	PK	232	1.0	
9648.130	42.6	V	54.0	-11.4	AVG	148	1.1	
9648.130	48.2	V	74.0	-25.8	PK	148	1.1	
12060.670	33.2	V	54.0	-20.8	AVG	340	1.0	
12060.670	45.4	V	74.0	-28.6	PK	340	1.0	
14472.110	36.2	V	54.0	-17.8	AVG	149	1.0	
14472.110	47.4	V	74.0	-26.6	PK	149	1.0	
4824.100	40.2	H	54.0	-13.8	AVG	224	1.0	
4824.100	45.0	H	74.0	-29.0	PK	224	1.0	
7236.730	30.7	H	54.0	-23.3	AVG	288	2.0	
7236.730	42.0	H	74.0	-32.0	PK	288	2.0	
9648.210	33.6	H	54.0	-20.4	AVG	291	1.0	
9648.210	43.8	H	74.0	-30.2	PK	291	1.0	
12059.530	33.4	H	54.0	-20.6	AVG	210	1.0	
12059.530	45.0	H	74.0	-29.0	PK	210	1.0	
14471.900	36.3	H	54.0	-17.7	AVG	0	1.6	
14471.900	48.0	H	74.0	-26.0	PK	0	1.6	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).
Note 2:	Band-edge measurement calculated from the fundamental field strength (peak or average) minus the band edge delta marker measurement.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Run #1b: Radiated Spurious Emissions, 30 - 18000 MHz. Center Channel @ 2437 MHz
Setting = 23, Tx100, External Omni, 9dBi antenna

	H	V	
Fundamental emission level @ 3m in 1MHz RBW:	100.1	116.5	Peak Measurement (RB=VB=1MHz)
Fundamental emission level @ 3m in 1MHz RBW:	94.3	113.4	Average Measurement (RB=1MHz, VB=10Hz)

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4874.030	50.7	V	54.0	-3.3	AVG	146	2.0	
4874.030	52.3	V	74.0	-21.7	PK	146	2.0	
7311.800	42.6	V	54.0	-11.4	AVG	263	1.8	
7311.800	49.0	V	74.0	-25.0	PK	263	1.8	
9748.110	42.2	V	54.0	-11.8	AVG	201	1.0	
9748.110	47.0	V	74.0	-27.0	PK	201	1.0	
12184.080	33.0	V	54.0	-21.0	AVG	14	1.8	
12184.080	45.2	V	74.0	-28.8	PK	14	1.8	
14623.500	36.5	V	54.0	-17.5	AVG	192	1.9	
14623.500	49.2	V	74.0	-24.8	PK	192	1.9	
4874.090	44.7	H	54.0	-9.3	AVG	220	1.6	
4874.090	47.9	H	74.0	-26.1	PK	220	1.6	
7309.960	33.3	H	54.0	-20.7	AVG	0	2.0	
7309.960	44.4	H	74.0	-29.6	PK	0	2.0	
9748.120	36.8	H	54.0	-17.2	AVG	212	2.0	
9748.120	44.2	H	74.0	-29.8	PK	212	2.0	
12184.620	32.9	H	54.0	-21.1	AVG	317	2.0	
12184.620	44.1	H	74.0	-29.9	PK	317	2.0	
14621.900	36.4	H	54.0	-17.6	AVG	162	1.3	
14621.900	48.5	H	74.0	-25.5	PK	162	1.3	

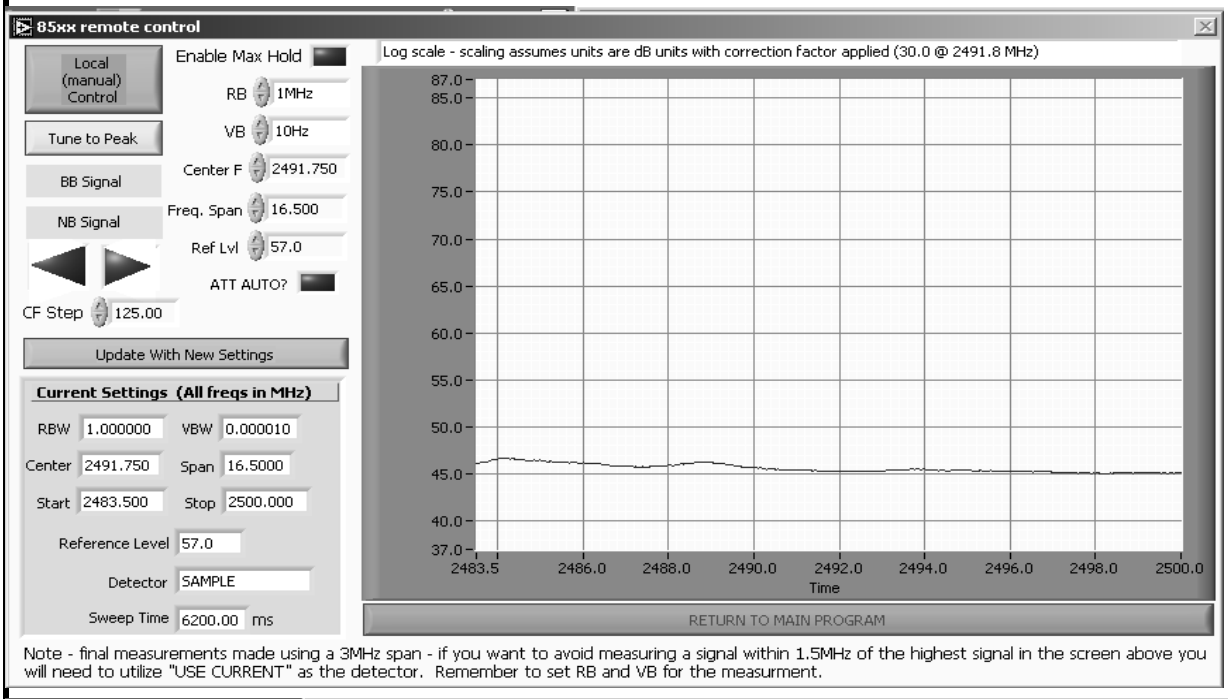
Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).

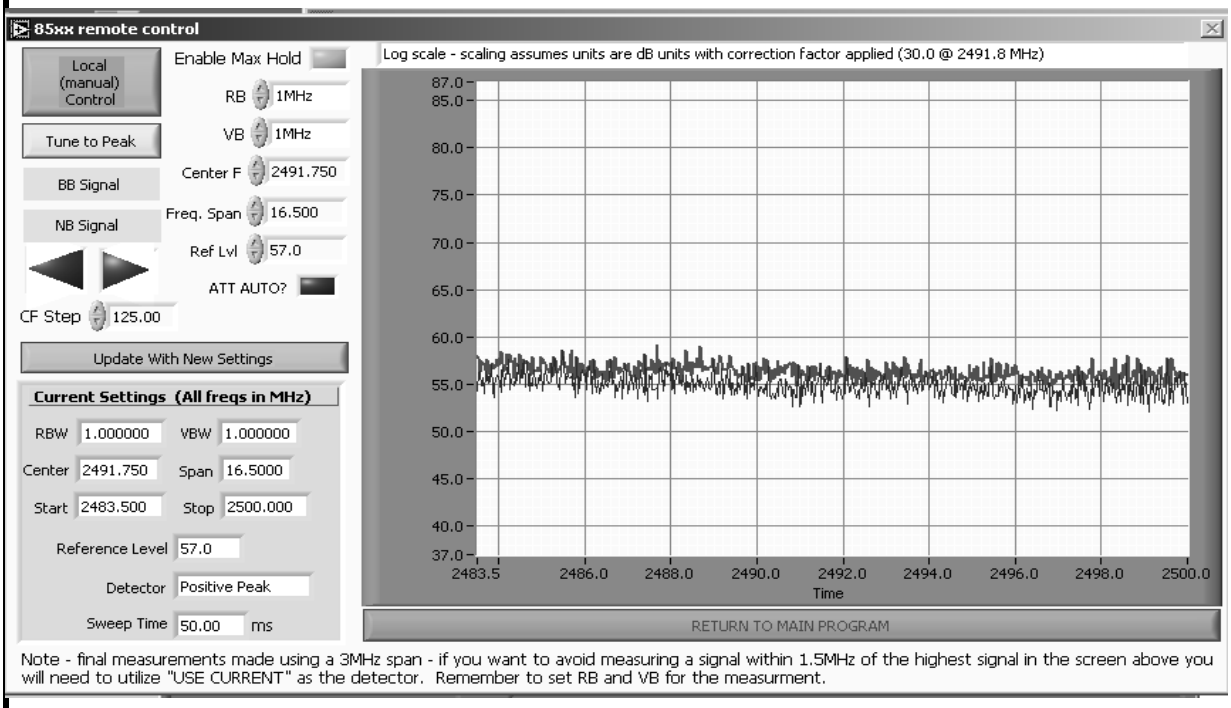
Run #1c: Radiated Spurious Emissions, 30 - 18000 MHz. High Channel @ 2462 MHz
Setting = 23, Tx100, External Omni, 9dBi antenna

	H	V	
Fundamental emission level @ 3m in 1MHz RBW:	98.2	117.1	Peak Measurement (RB=VB=1MHz)
Fundamental emission level @ 3m in 1MHz RBW:	91.4	113.9	Average Measurement (RB=1MHz, VB=10Hz)

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

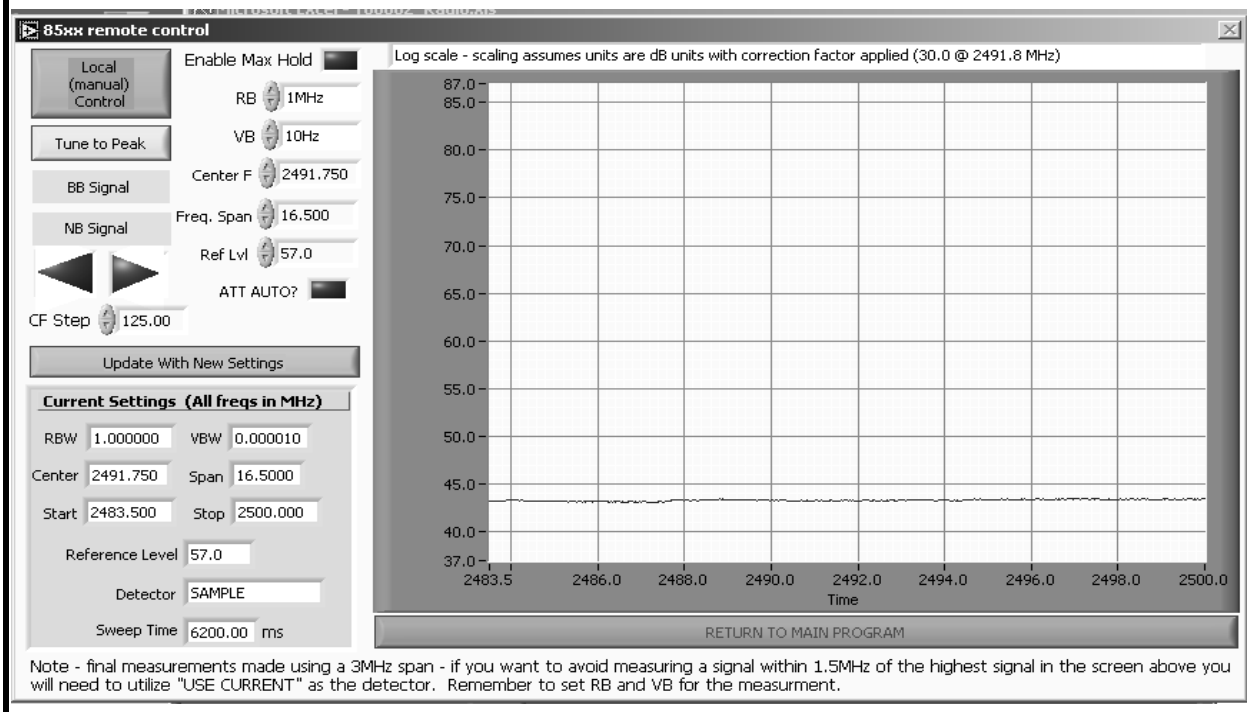
Vertical Plot

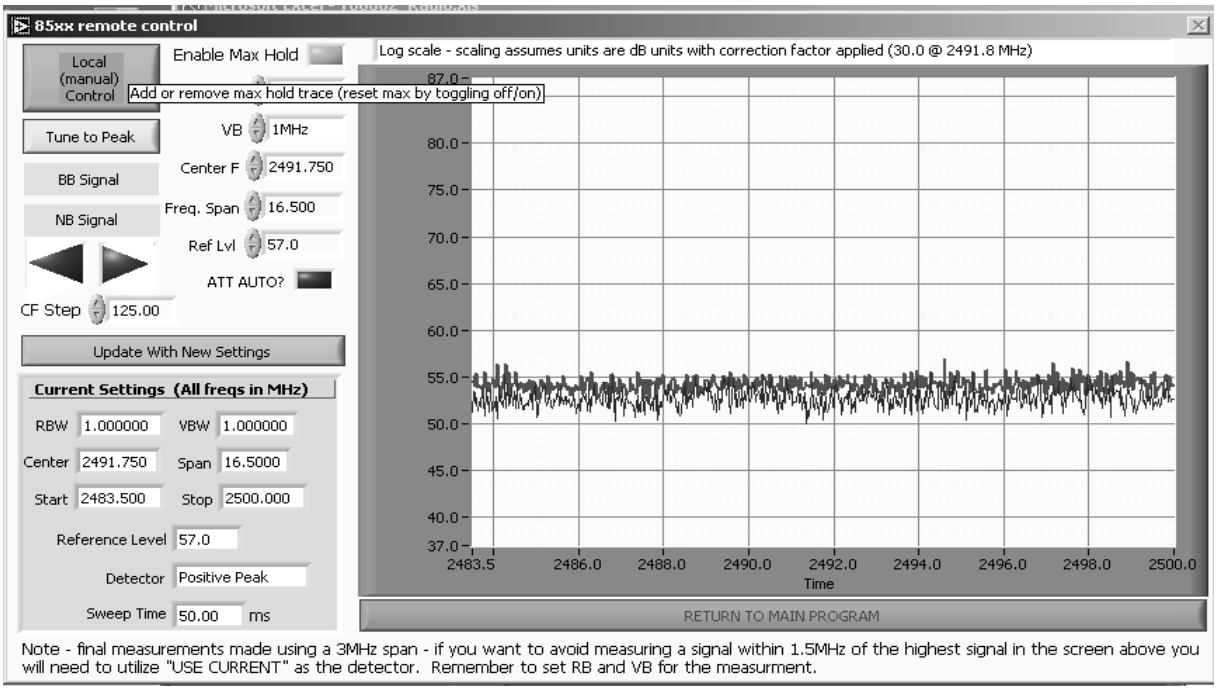




Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Horizontal Plot





Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2483.930	48.0	V	54.0	-6.0	AVG	46	1.1	
2483.930	58.9	V	74.0	-15.1	PK	46	1.1	
2486.180	44.4	H	54.0	-9.6	AVG	142	1.0	
2486.180	56.2	H	74.0	-17.8	PK	142	1.0	

Other Spurious Radiated Emissions:

Setting = 22.5

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4924.090	53.0	V	54.0	-1.0	AVG	47	1.9	
4924.090	54.4	V	74.0	-19.6	PK	47	1.9	
7235.170	30.1	V	54.0	-23.9	AVG	12	1.0	
7235.170	42.3	V	74.0	-31.7	PK	12	1.0	
9647.000	31.6	V	54.0	-22.4	AVG	360	1.0	
9647.000	42.7	V	74.0	-31.3	PK	360	1.0	
12061.360	33.6	V	54.0	-20.4	AVG	124	1.1	
12061.360	44.9	V	74.0	-29.1	PK	124	1.1	
14470.590	36.3	V	54.0	-17.7	AVG	152	1.0	
14470.590	47.9	V	74.0	-26.1	PK	152	1.0	
4924.050	44.5	H	54.0	-9.5	AVG	22	1.5	
4924.050	47.6	H	74.0	-26.4	PK	22	1.5	
7234.520	30.3	H	54.0	-23.7	AVG	360	1.0	
7234.520	41.7	H	74.0	-32.3	PK	360	1.0	
9647.130	31.8	H	54.0	-22.2	AVG	109	1.0	
9647.130	42.6	H	74.0	-31.4	PK	109	1.0	
12060.300	33.6	H	54.0	-20.4	AVG	215	1.0	
12060.300	45.6	H	74.0	-28.4	PK	215	1.0	
14471.750	36.2	H	54.0	-17.8	AVG	0	1.0	
14471.750	47.2	H	74.0	-26.8	PK	0	1.0	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).
Note 2:	Band-edge measurement calculated from the fundamental field strength (peak or average) minus the band edge delta marker measurement.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Radiated Emissions

Test Specific Details

Objective: The objective of this test session is to perform engineering evaluation testing of the EUT with respect to the specification listed above.

Date of Test: 6/4/2007 23:34
Test Engineer: Rafael Varelas
Test Location: SVOATS #2

Config. Used: 1
Config Change: None
EUT Voltage: 120V/60Hz

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions:

Temperature: 18 °C
Rel. Humidity: 78 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1a - c	RE, 30 - 18000 MHz - Spurious Emissions	FCC Part 15.209 / 15.247(c)	Pass	53.863.4 @ 2360 MHz (0.2dB)

Modifications Made During Testing:

No modifications were made to the EUT during testing

Deviations From The Standard

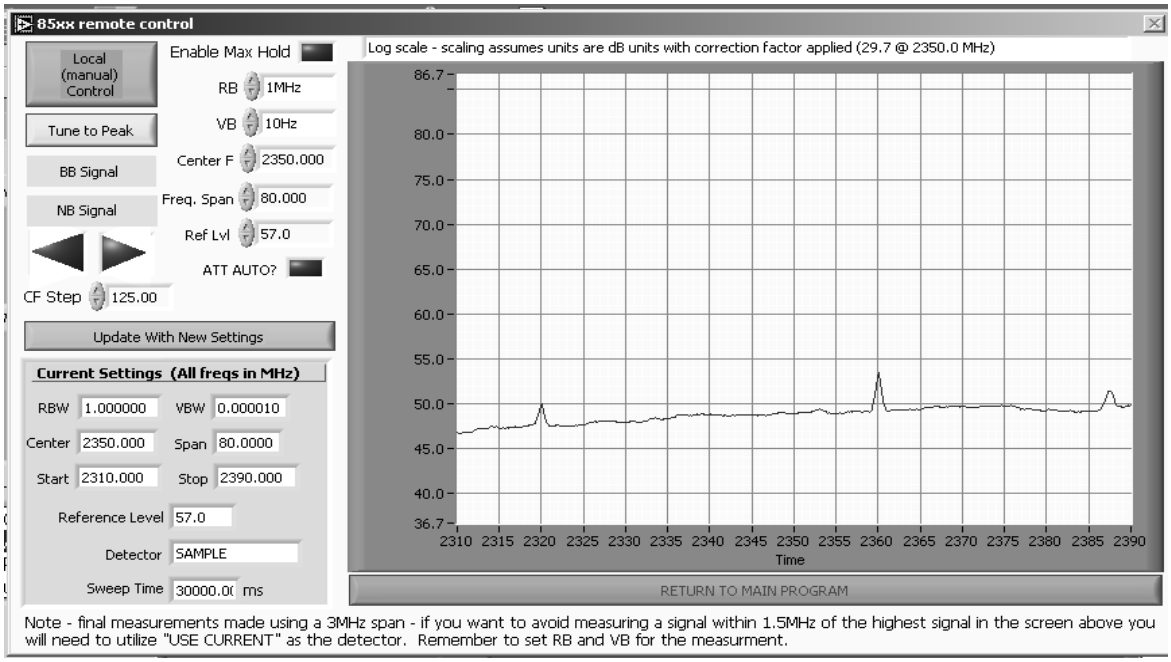
No deviations were made from the requirements of the standard.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

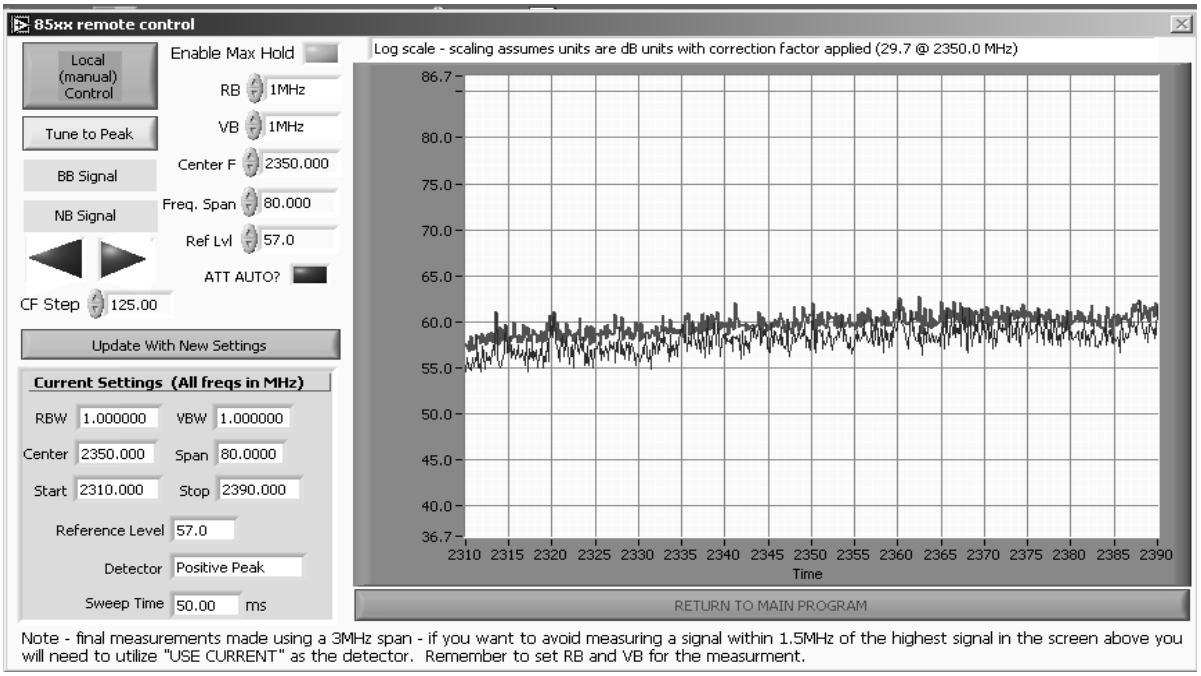
Run #1a: Radiated Spurious Emissions, 30 - 18000 MHz. Low Channel @ 2412 MHz
Setting = 23, Tx100, External Omni, 9dBi antenna

	H	V	
Fundamental emission level @ 3m in 1MHz RBW:	102.8	116.7	Peak Measurement (RB=VB=1MHz)
Fundamental emission level @ 3m in 1MHz RBW:	93.1	106.8	Average Measurement (RB=1MHz, VB=10Hz)

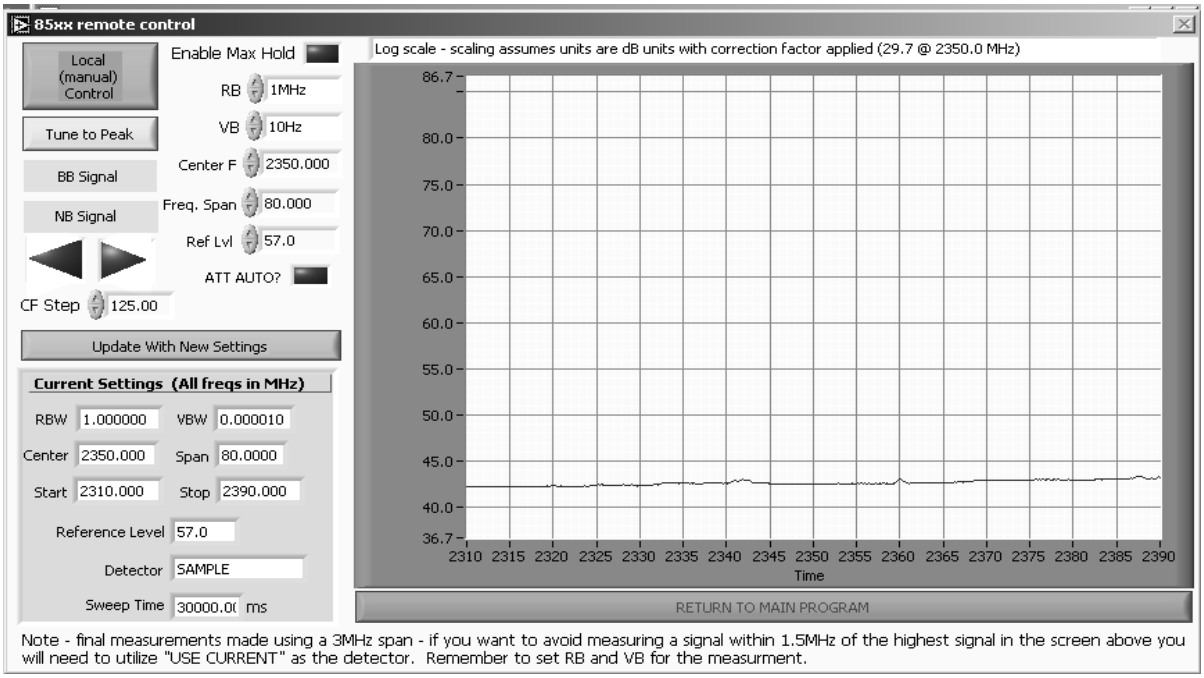
Vertical Plot



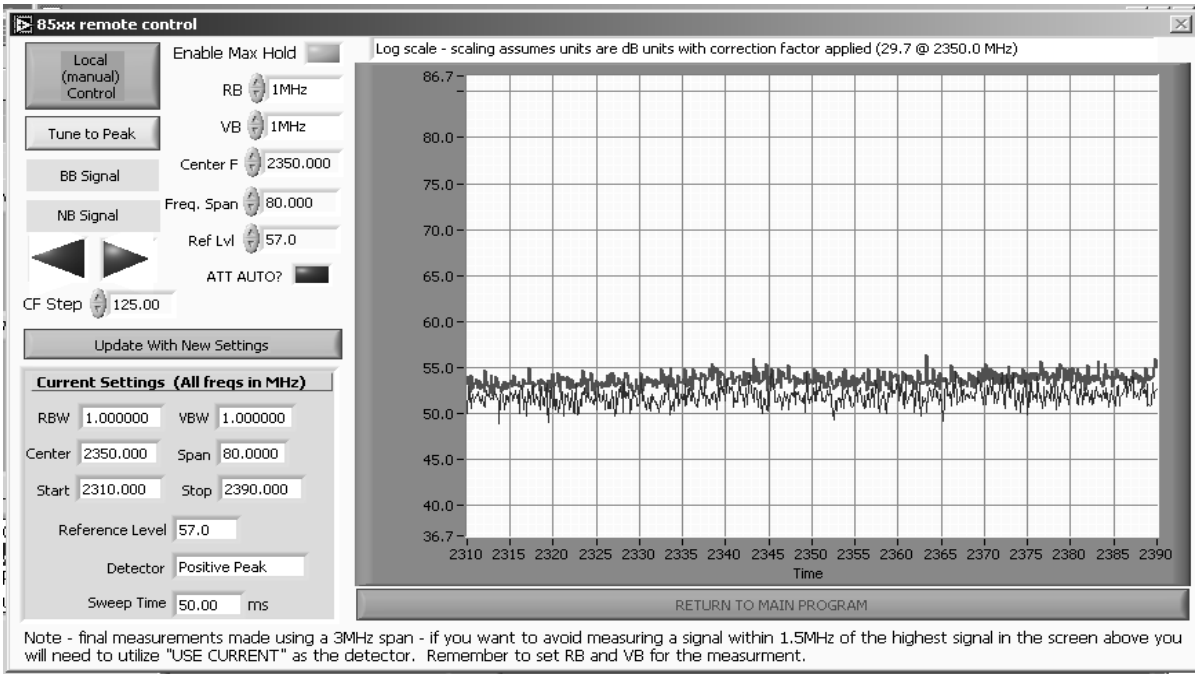
Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



Horizontal Plot



Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2387.420	44.6	H	54.0	-9.4	AVG	114	1.0	
2387.420	55.9	H	74.0	-18.1	PK	114	1.0	
2360.070	63.4	V	74.0	-10.6	PK	263	1.3	
2360.070	53.8	V	54.0	-0.2	Avg	263	1.3	

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Other Spurious Radiated Emissions:

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4824.570	47.0	V	54.0	-7.0	AVG	181	1.4	
4824.570	59.9	V	74.0	-14.1	PK	181	1.4	
7235.440	48.5	V	54.0	-5.5	AVG	167	1.0	
7235.440	62.1	V	74.0	-11.9	PK	167	1.0	
9647.870	43.3	V	54.0	-10.7	AVG	139	1.8	
9647.870	55.9	V	74.0	-18.1	PK	139	1.8	
12058.680	35.8	V	54.0	-18.2	AVG	184	1.0	
12058.680	48.1	V	74.0	-25.9	PK	184	1.0	
14472.750	36.6	V	54.0	-17.4	AVG	157	1.6	
14472.750	48.7	V	74.0	-25.3	PK	157	1.6	
4824.370	42.8	H	54.0	-11.2	AVG	203	1.0	
4824.370	54.8	H	74.0	-19.2	PK	203	1.0	
7235.560	44.1	H	54.0	-9.9	AVG	226	1.0	
7235.560	57.9	H	74.0	-16.1	PK	226	1.0	
9647.670	38.8	H	54.0	-15.2	AVG	220	1.9	
9647.670	52.2	H	74.0	-21.8	PK	220	1.9	
12060.710	33.9	H	54.0	-20.1	AVG	193	1.7	
12060.710	45.5	H	74.0	-28.5	PK	193	1.7	
14473.040	36.4	H	54.0	-17.6	AVG	344	1.0	
14473.040	47.8	H	74.0	-26.2	PK	344	1.0	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).
Note 2:	Band-edge measurement calculated from the fundamental field strength (peak or average) minus the band edge delta marker measurement.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Run #1b: Radiated Spurious Emissions, 30 - 18000 MHz. Center Channel @ 2437 MHz
Setting = 23, Tx100, External Omni, 9dBi antenna

	H	V	
Fundamental emission level @ 3m in 1MHz RBW:	106	120	Peak Measurement (RB=VB=1MHz)
Fundamental emission level @ 3m in 1MHz RBW:	96.5	110.1	Average Measurement (RB=1MHz, VB=10Hz)

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4874.100	39.3	V	54.0	-14.7	AVG	274	1.1	
4874.100	53.2	V	74.0	-20.8	PK	274	1.1	
7309.520	39.6	V	54.0	-14.4	AVG	124	1.0	
7309.520	56.2	V	74.0	-17.8	PK	124	1.0	
9746.940	40.5	V	54.0	-13.5	AVG	143	1.0	
9746.940	54.1	V	74.0	-19.9	PK	143	1.0	
12185.710	33.2	V	54.0	-20.8	AVG	201	2.0	
12185.710	45.4	V	74.0	-28.6	PK	201	2.0	
14621.250	36.5	V	54.0	-17.5	AVG	68	1.6	
14621.250	48.1	V	74.0	-25.9	PK	68	1.6	
4875.200	37.4	H	54.0	-16.6	AVG	122	1.0	
4875.200	50.3	H	74.0	-23.7	PK	122	1.0	
7311.420	38.3	H	54.0	-15.7	AVG	218	1.0	
7311.420	55.7	H	74.0	-18.3	PK	218	1.0	
9746.830	31.8	H	54.0	-22.2	AVG	143	1.9	
9746.830	42.5	H	74.0	-31.5	PK	143	1.9	
12185.470	32.6	H	54.0	-21.4	AVG	101	1.0	
12185.470	44.1	H	74.0	-29.9	PK	101	1.0	
14623.460	36.4	H	54.0	-17.6	AVG	159	1.0	
14623.460	48.1	H	74.0	-25.9	PK	159	1.0	

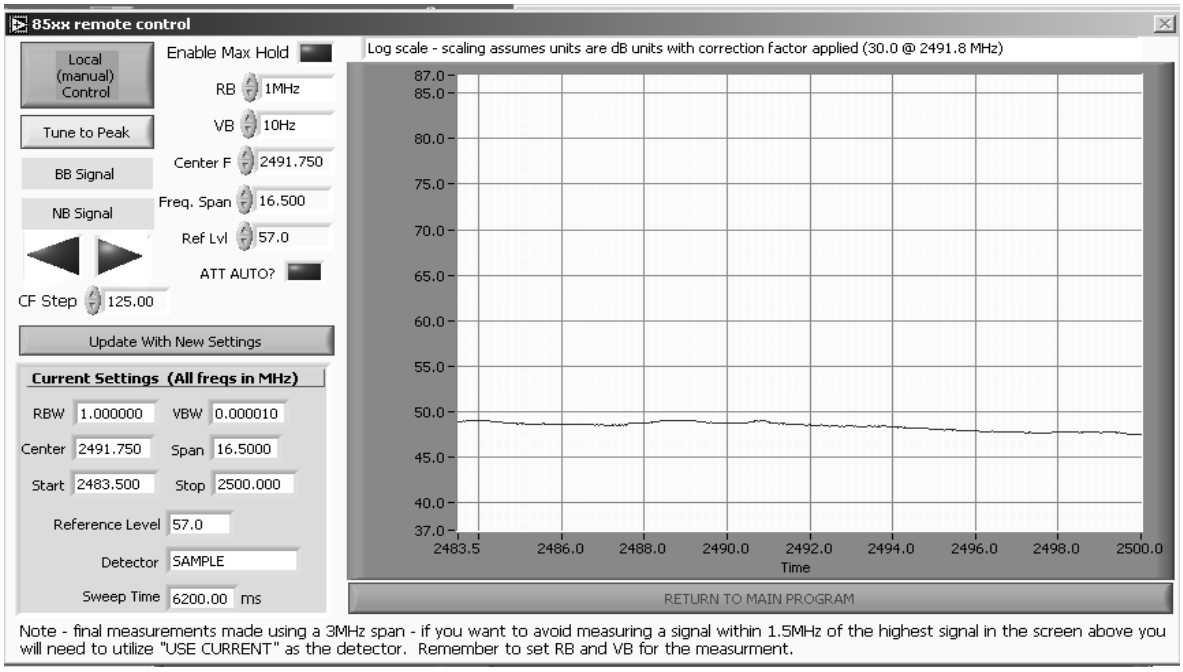
Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

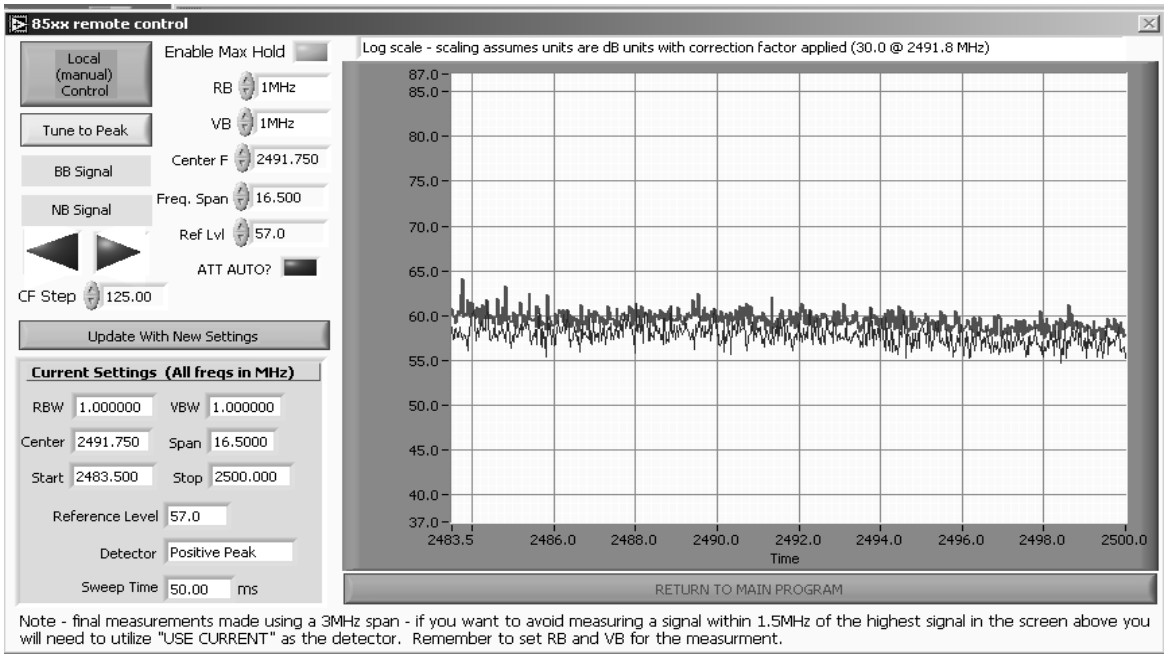
Run #1c: Radiated Spurious Emissions, 30 - 18000 MHz. High Channel @ 2462 MHz
Setting = 23, Tx100, External Omni, 9dBi antenna

	H	V	
Fundamental emission level @ 3m in 1MHz RBW:	103.9	117.2	Peak Measurement (RB=VB=1MHz)
Fundamental emission level @ 3m in 1MHz RBW:	94	108.3	Average Measurement (RB=1MHz, VB=10Hz)

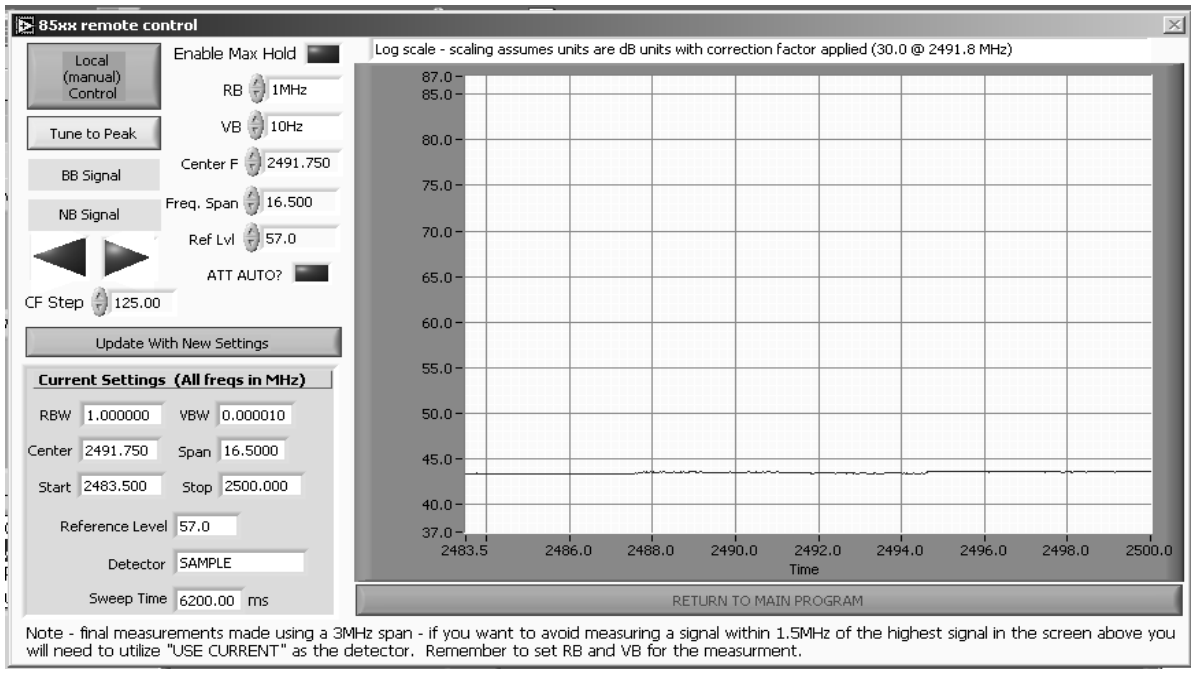
Vertical Plot



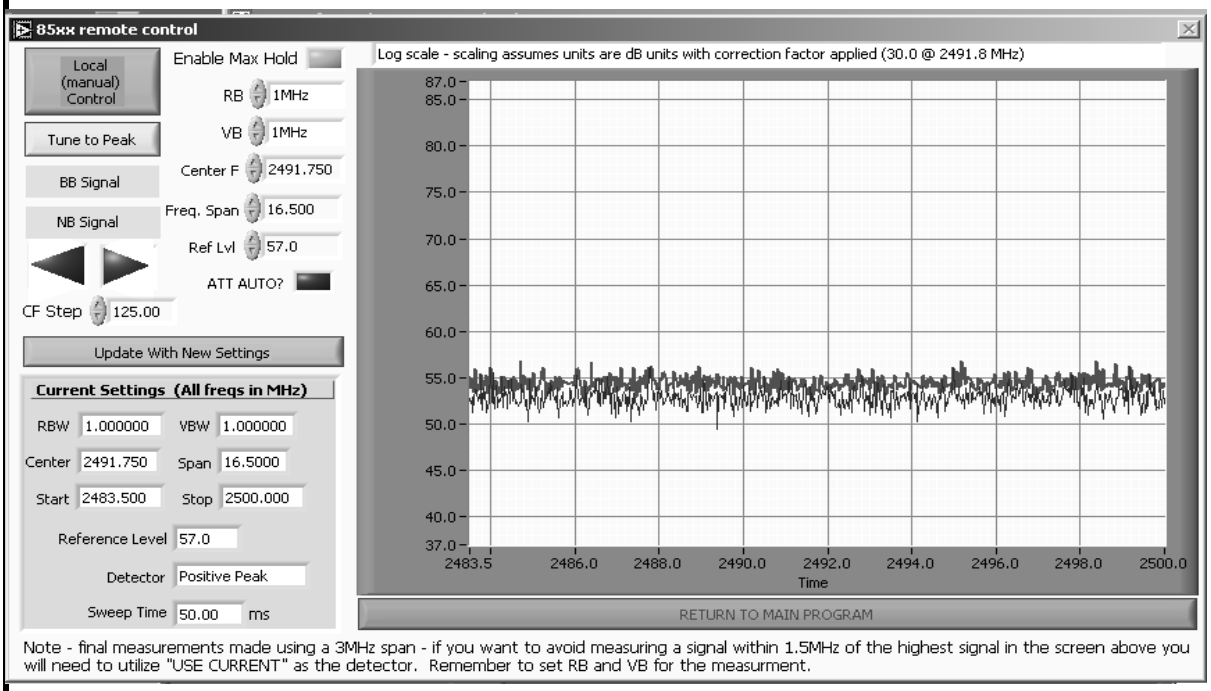
Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



Horizontal Plot



Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2485.410	44.6	H	54.0	-9.4	AVG	121	1.0	
2485.410	56.3	H	74.0	-17.7	PK	121	1.0	
2492.070	50.4	V	54.0	-3.6	AVG	61	1.0	
2492.070	61.6	V	74.0	-12.4	PK	61	1.0	

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Other Spurious Radiated Emissions:

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4923.440	47.9	V	54.0	-6.1	AVG	203	1.6	
4923.440	60.5	V	74.0	-13.5	PK	203	1.6	
7386.150	43.3	V	54.0	-10.7	AVG	246	1.9	
7386.150	60.8	V	74.0	-13.2	PK	246	1.9	
9847.830	40.9	V	54.0	-13.1	AVG	139	1.4	
9847.830	53.7	V	74.0	-20.3	PK	139	1.4	
12311.430	32.7	V	54.0	-21.3	AVG	182	2.0	
12311.430	44.5	V	74.0	-29.5	PK	182	2.0	
14771.910	34.2	V	54.0	-19.8	AVG	360	1.0	
14771.910	45.9	V	74.0	-28.1	PK	360	1.0	
4924.400	39.6	H	54.0	-14.4	AVG	204	1.7	
4924.400	50.9	H	74.0	-23.1	PK	204	1.7	
7385.210	43.0	H	54.0	-11.0	AVG	129	1.1	
7385.210	59.7	H	74.0	-14.3	PK	129	1.1	
9848.360	35.9	H	54.0	-18.1	AVG	300	1.9	
9848.360	48.6	H	74.0	-25.4	PK	300	1.9	
12309.540	32.1	H	54.0	-21.9	AVG	0	1.2	
12309.540	43.7	H	74.0	-30.3	PK	0	1.2	
14773.380	34.3	H	54.0	-19.7	AVG	204	1.2	
14773.380	45.5	H	74.0	-28.5	PK	204	1.2	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).
Note 2:	Band-edge measurement calculated from the fundamental field strength (peak or average) minus the band edge delta marker measurement.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Radiated Emissions

Test Specific Details

Objective: The objective of this test session is to perform engineering evaluation testing of the EUT with respect to the specification listed above.

Date of Test: 5/24/2007 23:34
Test Engineer: Rafael Varelas
Test Location: SVOATS #2

Config. Used: 1
Config Change: None
EUT Voltage: 120V/60Hz

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions:

Temperature: 13 °C
Rel. Humidity: 83 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1a - c	RE, 30 - 18000 MHz - Spurious Emissions	FCC Part 15.209 / 15.247(c)	Pass	52.7dBµV/m @ 2389.5MHz (-1.3dB)

Modifications Made During Testing:

No modifications were made to the EUT during testing

Deviations From The Standard

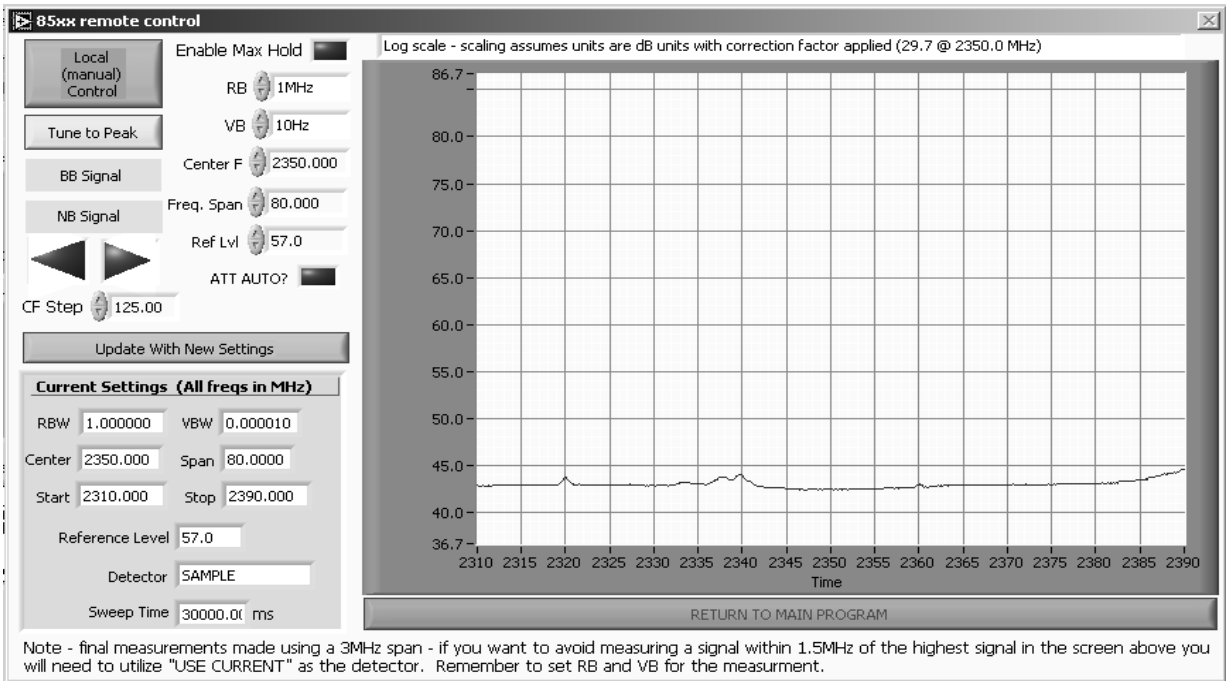
No deviations were made from the requirements of the standard.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Run #1a: Radiated Spurious Emissions, 30 - 18000 MHz. Low Channel @ 2412 MHz
Setting = 23, Tx100, EUT Horizontal Polarization, 6.5dBi antenna

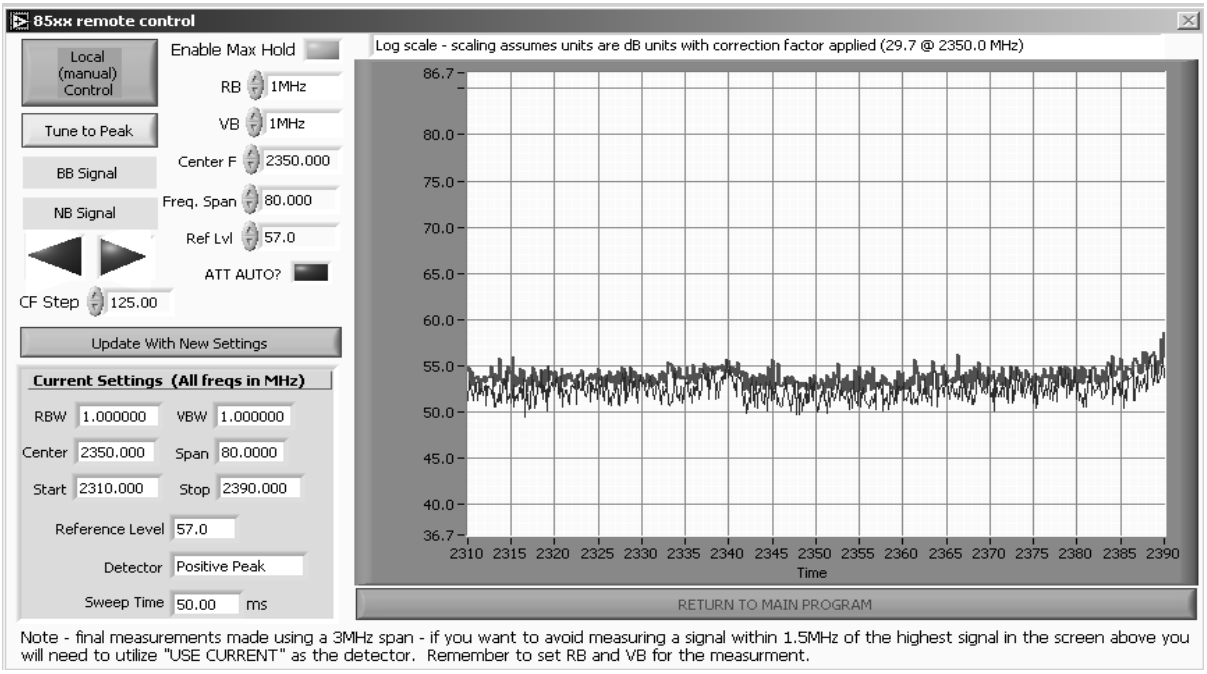
	H	V	
Fundamental emission level @ 3m in 1MHz RBW:	117.1	108.2	Peak Measurement (RB=VB=1MHz)
Fundamental emission level @ 3m in 1MHz RBW:	108.7	99.8	Average Measurement (RB=1MHz, VB=10Hz)

Vertical Plot



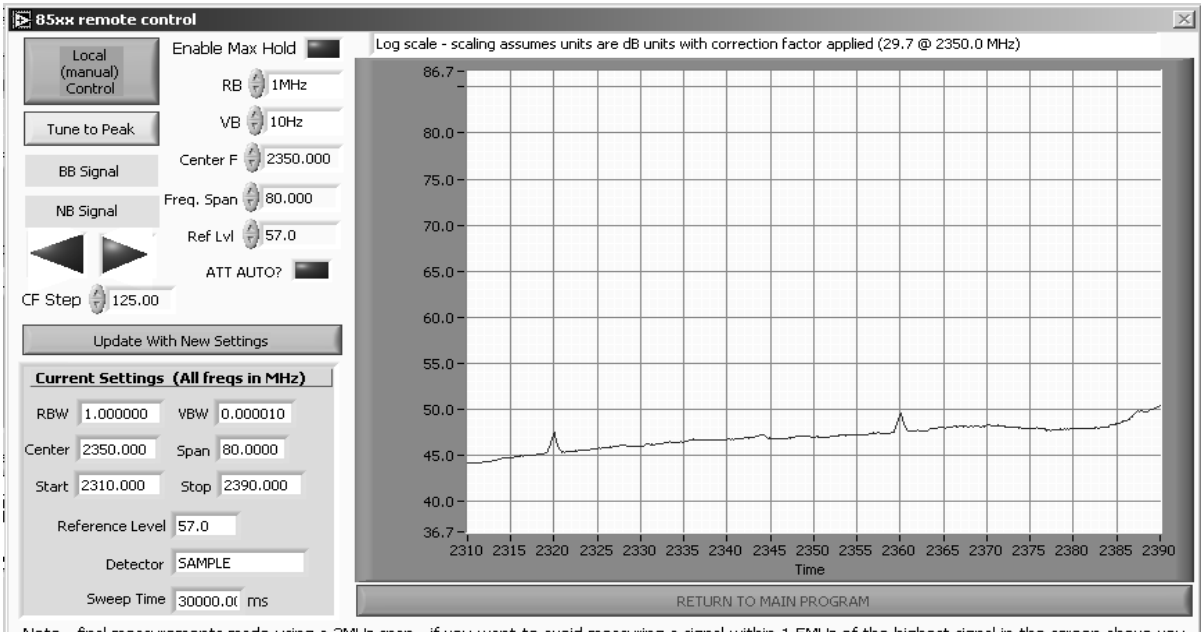
Note - final measurements made using a 3MHz span - if you want to avoid measuring a signal within 1.5MHz of the highest signal in the screen above you will need to utilize "USE CURRENT" as the detector. Remember to set RB and VB for the measurment.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



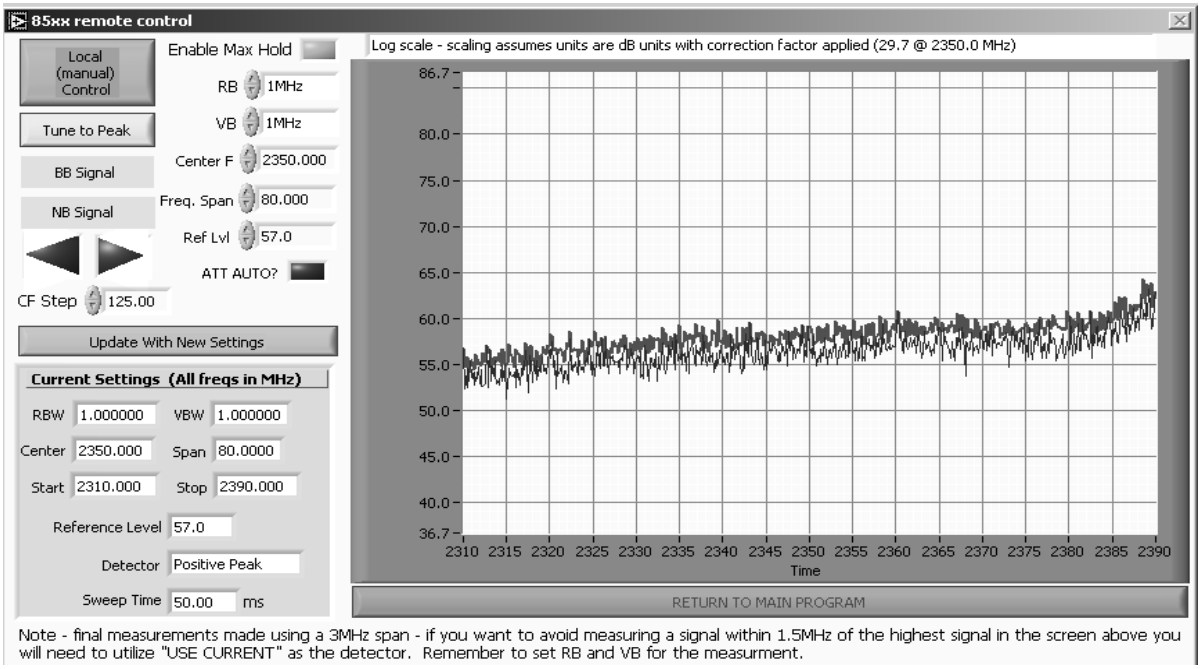
Note - final measurements made using a 3MHz span - if you want to avoid measuring a signal within 1.5MHz of the highest signal in the screen above you will need to utilize "USE CURRENT" as the detector. Remember to set RB and VB for the measurment.

Horizontal Plot



Note - final measurements made using a 3MHz span - if you want to avoid measuring a signal within 1.5MHz of the highest signal in the screen above you will need to utilize "USE CURRENT" as the detector. Remember to set RB and VB for the measurment.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2389.490	52.7	H	54.0	-1.3	AVG	9	2.0	
2389.490	65.9	H	74.0	-8.1	PK	9	2.0	
2389.810	47.0	V	54.0	-7.0	AVG	167	1.0	
2389.810	61.7	V	74.0	-12.3	PK	167	1.0	

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Other Spurious Radiated Emissions:

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4822.630	37.1	H	54.0	-16.9	AVG	186	1.2	
4822.630	49.6	H	74.0	-24.4	PK	186	1.2	
7234.670	31.2	H	54.0	-22.8	AVG	24	1.0	
7234.670	42.5	H	74.0	-31.5	PK	24	1.0	
9647.050	35.1	H	54.0	-18.9	AVG	175	1.6	
9647.050	48.2	H	74.0	-25.8	PK	175	1.6	
12058.920	34.2	H	54.0	-19.8	AVG	205	1.8	
12058.920	45.6	H	74.0	-28.4	PK	205	1.8	
14470.790	36.0	H	54.0	-18.0	AVG	53	1.2	
14470.790	49.1	H	74.0	-24.9	PK	53	1.2	
4823.370	45.6	V	54.0	-8.4	AVG	13	1.2	
4823.370	58.8	V	74.0	-15.2	PK	13	1.2	
7235.100	34.0	V	54.0	-20.0	AVG	288	2.0	
7235.100	45.8	V	74.0	-28.2	PK	288	2.0	
9646.910	41.5	V	54.0	-12.5	AVG	6	1.5	
9646.910	53.9	V	74.0	-20.1	PK	6	1.5	
12059.000	39.6	V	54.0	-14.4	AVG	0	2.0	
12059.000	51.0	V	74.0	-23.0	PK	0	2.0	
14472.580	38.0	V	54.0	-16.0	AVG	294	1.4	
14472.580	50.3	V	74.0	-23.7	PK	294	1.4	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).
Note 2:	Band-edge measurement calculated from the fundamental field strength (peak or average) minus the band edge delta marker measurement.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Run #1b: Radiated Spurious Emissions, 30 - 18000 MHz. Center Channel @ 2437 MHz
Setting = 23, Tx100, EUT Horizontal Polarization, 6.5dBi antenna

	H	V	
Fundamental emission level @ 3m in 1MHz RBW:	119	107.9	Peak Measurement (RB=VB=1MHz)
Fundamental emission level @ 3m in 1MHz RBW:	110.5	98.7	Average Measurement (RB=1MHz, VB=10Hz)

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4874.290	40.2	H	54.0	-13.8	AVG	114	2.0	
4874.290	52.8	H	74.0	-21.2	PK	114	2.0	
7311.090	35.3	H	54.0	-18.7	AVG	25	1.6	
7311.090	48.9	H	74.0	-25.1	PK	25	1.6	
9747.790	45.1	H	54.0	-8.9	AVG	173	1.4	
9747.790	58.4	H	74.0	-15.6	PK	173	1.4	
12184.330	34.4	H	54.0	-19.6	AVG	193	1.0	
12184.330	45.4	H	74.0	-28.6	PK	193	1.0	
14621.910	36.5	H	54.0	-17.5	AVG	255	1.3	
14621.910	48.0	H	74.0	-26.0	PK	255	1.3	
4873.600	47.5	V	54.0	-6.5	AVG	18	1.2	
4873.600	59.6	V	74.0	-14.4	PK	18	1.2	
7311.810	38.7	V	54.0	-15.3	AVG	288	1.9	
7311.810	51.2	V	74.0	-22.8	PK	288	1.9	
9747.100	43.0	V	54.0	-11.0	AVG	81	1.8	
9747.100	55.4	V	74.0	-18.6	PK	81	1.8	
12185.780	34.9	V	54.0	-19.1	AVG	73	1.0	
12185.780	46.2	V	74.0	-27.8	PK	73	1.0	
14621.140	36.2	V	54.0	-17.8	AVG	359	2.0	
14621.140	47.1	V	74.0	-26.9	PK	359	2.0	

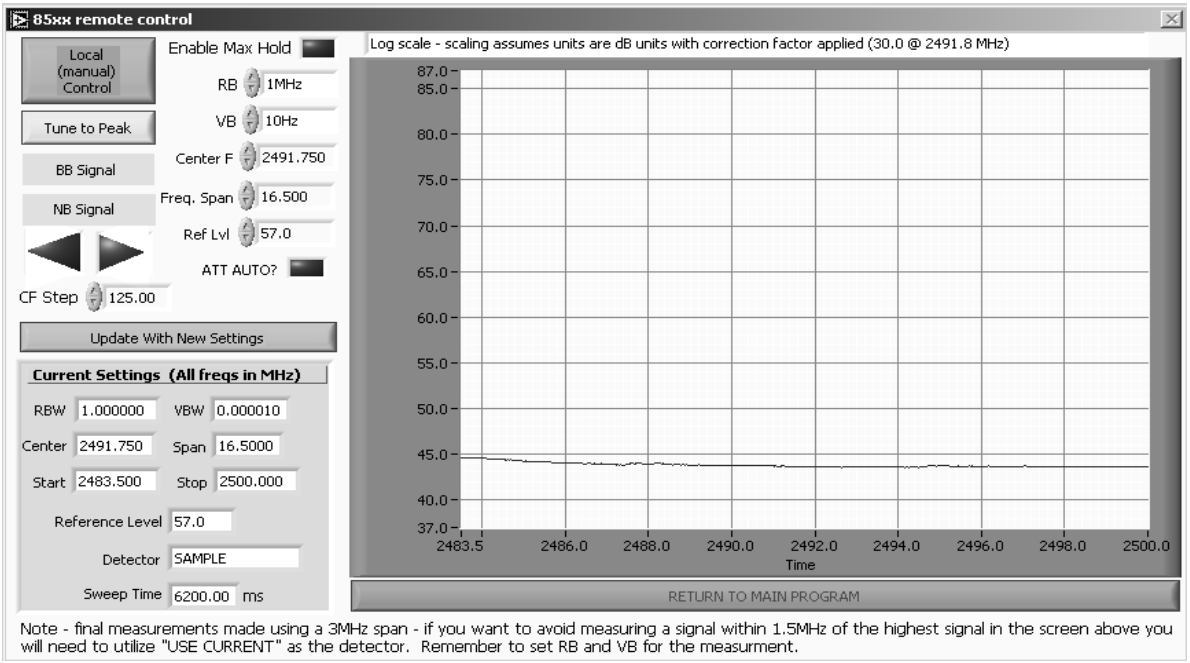
Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Run #1c: Radiated Spurious Emissions, 30 - 18000 MHz. High Channel @ 2462 MHz
Setting = 23, Tx100, EUT Horizontal Polarization, 6.5dBi antenna

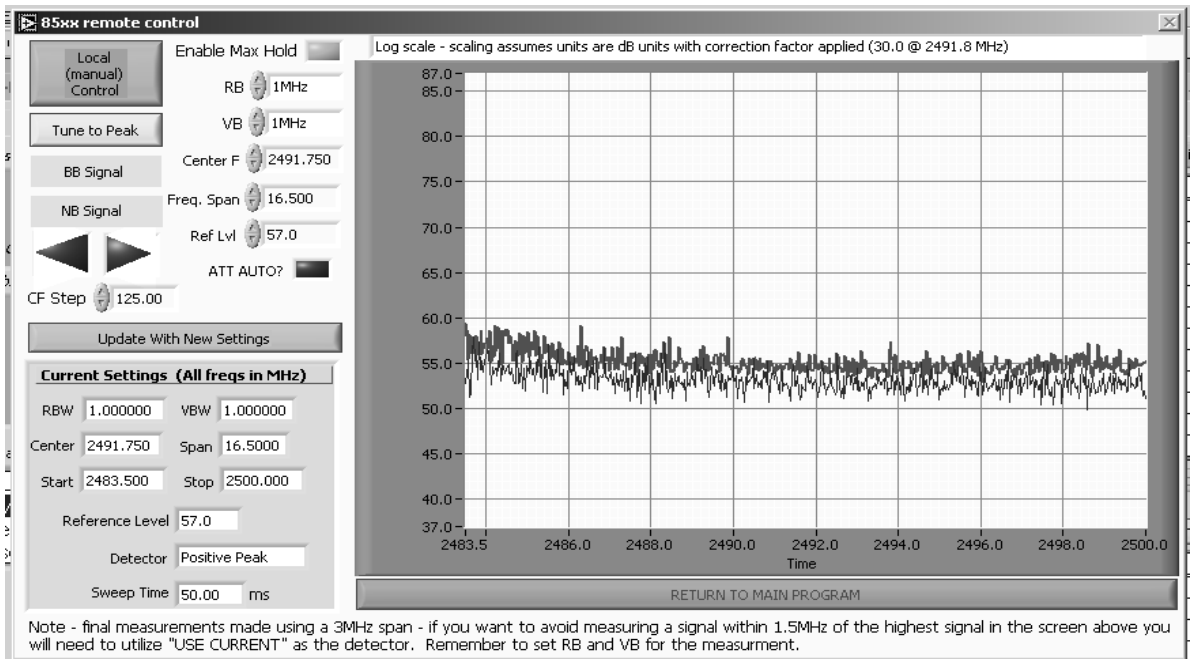
	H	V	
Fundamental emission level @ 3m in 1MHz RBW:	119	105.5	Peak Measurement (RB=VB=1MHz)
Fundamental emission level @ 3m in 1MHz RBW:	110.4	96.8	Average Measurement (RB=1MHz, VB=10Hz)

Vertical Plot

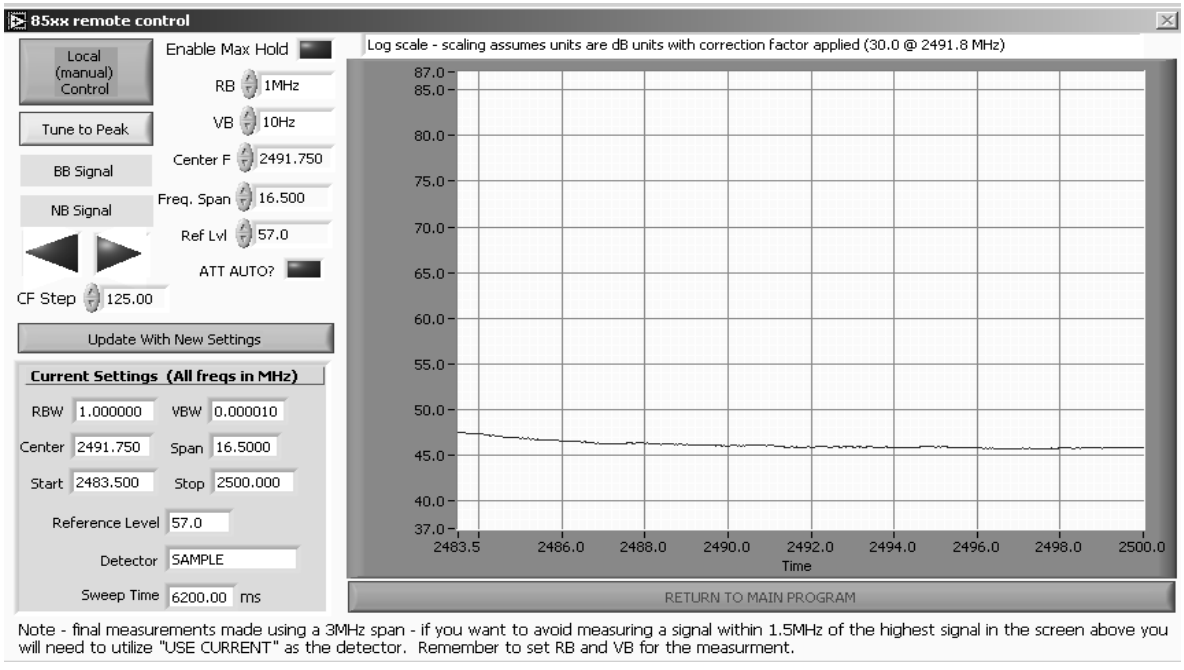


Note - final measurements made using a 3MHz span - if you want to avoid measuring a signal within 1.5MHz of the highest signal in the screen above you will need to utilize "USE CURRENT" as the detector. Remember to set RB and VB for the measurment.

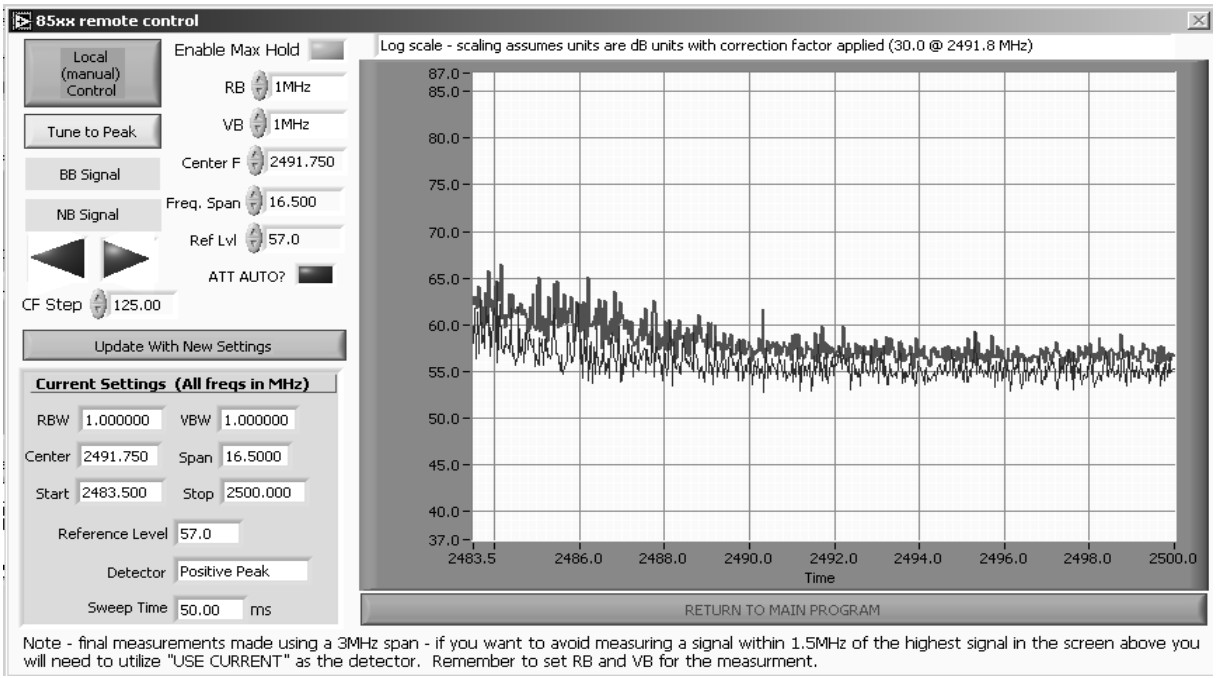
Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



Horizontal Plot



Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2485.870	48.9	H	54.0	-5.1	AVG	330	2.0	
2485.870	64.8	H	74.0	-9.2	PK	330	2.0	
2483.990	46.3	V	54.0	-7.7	AVG	186	1.1	
2483.990	61.4	V	74.0	-12.6	PK	186	1.1	

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Other Spurious Radiated Emissions:

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4925.100	41.7	H	54.0	-12.3	AVG	120	2.0	
4925.100	54.4	H	74.0	-19.6	PK	120	2.0	
7386.650	37.7	H	54.0	-16.3	AVG	10	1.5	
7386.650	53.4	H	74.0	-20.6	PK	10	1.5	
9846.920	51.1	H	54.0	-2.9	AVG	213	1.4	
9846.920	63.7	H	74.0	-10.3	PK	213	1.4	
12308.830	39.6	H	54.0	-14.4	AVG	336	1.3	
12308.830	51.9	H	74.0	-22.1	PK	336	1.3	
14771.640	34.3	H	54.0	-19.7	AVG	165	1.8	
14771.640	46.0	H	74.0	-28.0	PK	165	1.8	
4923.310	45.4	V	54.0	-8.6	AVG	8	1.1	
4923.310	56.9	V	74.0	-17.1	PK	8	1.1	
7385.850	37.7	V	54.0	-16.3	AVG	17	1.9	
7385.850	51.7	V	74.0	-22.3	PK	17	1.9	
9846.590	47.5	V	54.0	-6.5	AVG	230	1.4	
9846.590	61.7	V	74.0	-12.3	PK	230	1.4	
12308.680	43.0	V	54.0	-11.0	AVG	56	2.0	
12308.680	55.7	V	74.0	-18.3	PK	56	2.0	
14771.470	34.2	V	54.0	-19.8	AVG	131	1.2	
14771.470	46.4	V	74.0	-27.6	PK	131	1.2	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).
Note 2:	Band-edge measurement calculated from the fundamental field strength (peak or average) minus the band edge delta marker measurement.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Radiated Emissions

Test Specific Details

Objective: The objective of this test session is to perform engineering evaluation testing of the EUT with respect to the specification listed above.

Date of Test: 5/24/2007 23:34
Test Engineer: Rafael Varelas
Test Location: SVOATS #2

Config. Used: 1
Config Change: None
EUT Voltage: 120V/60Hz

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions:

Temperature: 13 °C
Rel. Humidity: 83 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1a - c	RE, 30 - 18000 MHz - Spurious Emissions	FCC Part 15.209 / 15.247(c)	Pass	53.0dBµV/m @ 2483.5MHz (-1.0dB)

Modifications Made During Testing:

No modifications were made to the EUT during testing

Deviations From The Standard

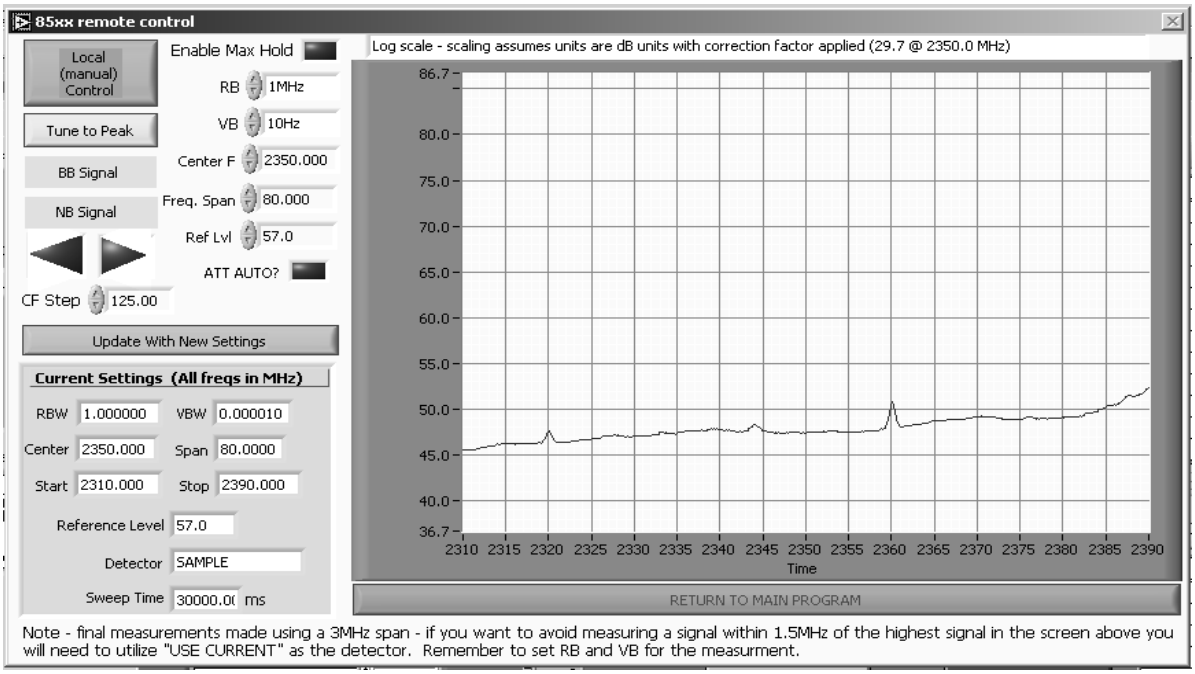
No deviations were made from the requirements of the standard.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

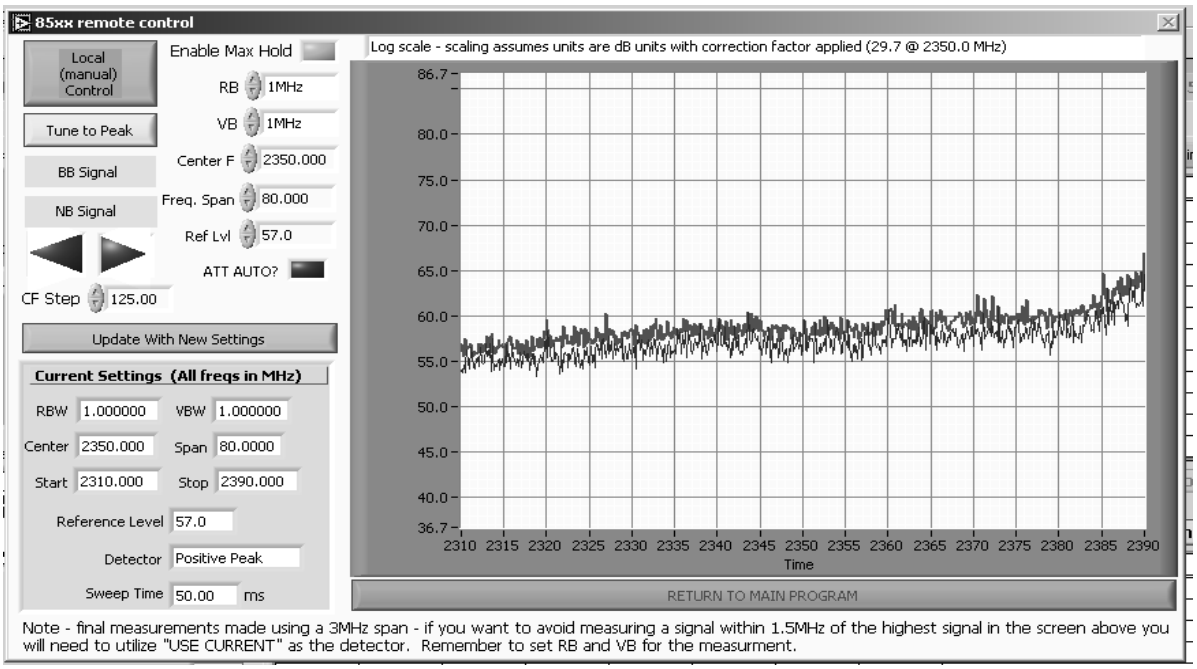
Run #1a: Radiated Spurious Emissions, 30 - 18000 MHz. Low Channel @ 2412 MHz
Setting = 23, Tx100, EUT Vertical Polarization, 8.7dBi antenna

	H	V	
Fundamental emission level @ 3m in 1MHz RBW:	101.4	118.6	Peak Measurement (RB=VB=1MHz)
Fundamental emission level @ 3m in 1MHz RBW:	93.1	109.8	Average Measurement (RB=1MHz, VB=10Hz)

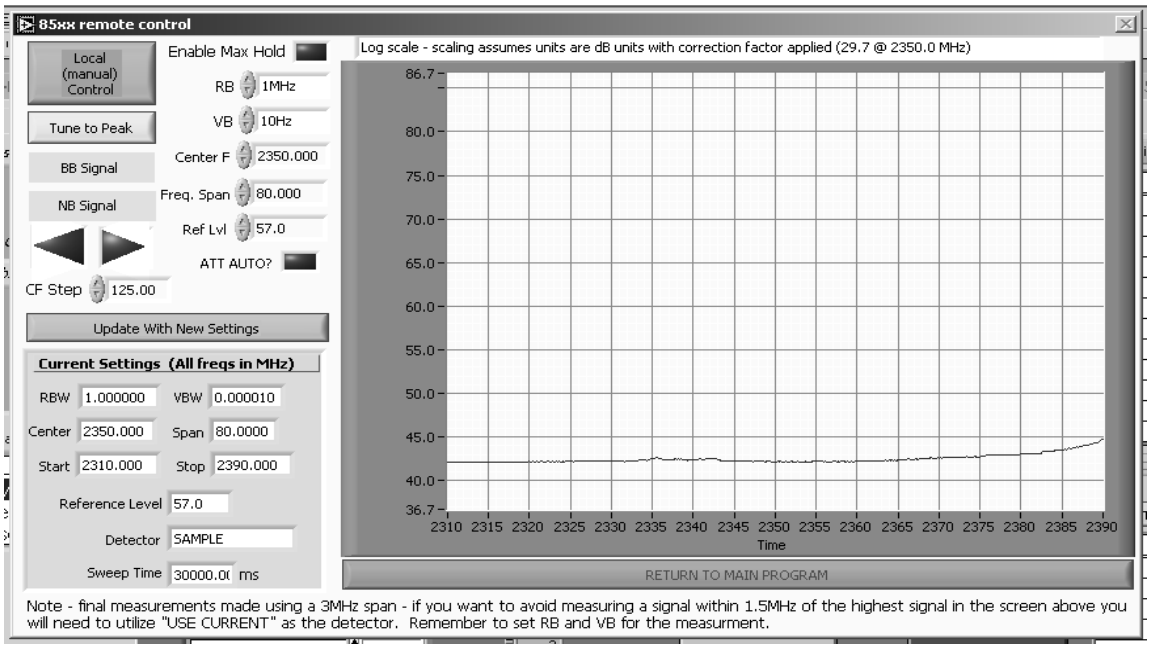
Vertical Plot



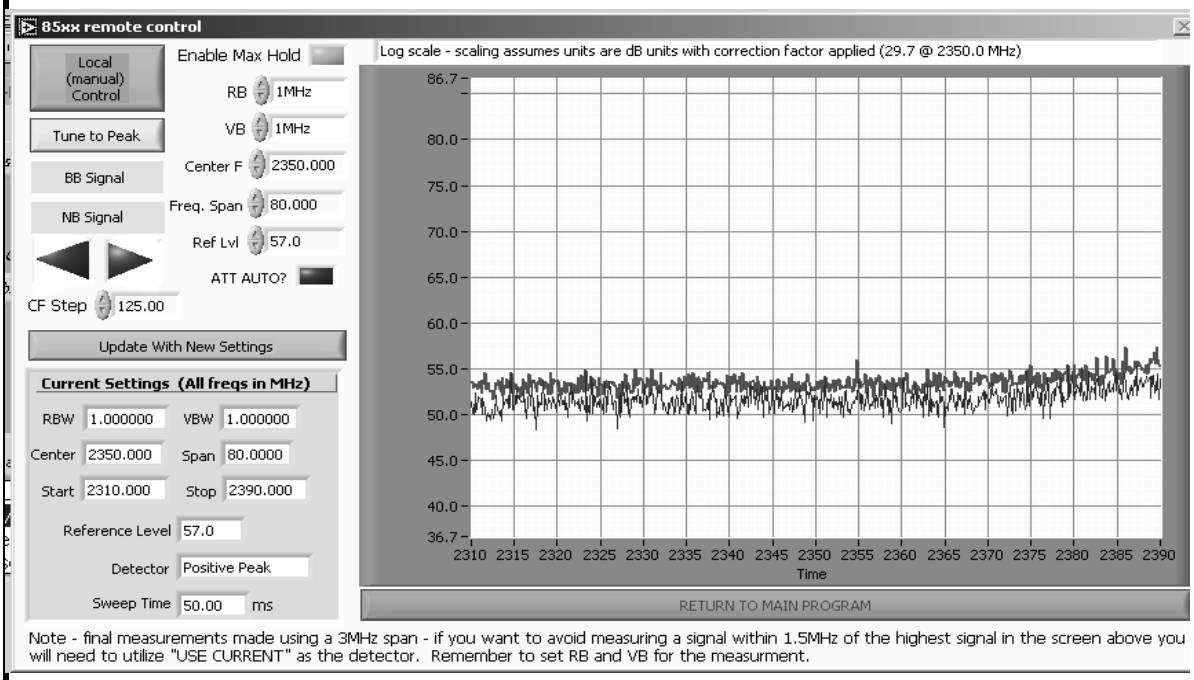
Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



Horizontal Plot



Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2389.940	64.7	V	74.0	-9.3	Pk	283	1.0	
2389.740	50.3	V	54.0	-3.7	Avg	283	1.0	
2389.850	46.7	H	54.0	-7.3	AVG	176	1.0	
2389.850	60.6	H	74.0	-13.4	PK	176	1.0	

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Other Spurious Radiated Emissions:

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4823.190	37.8	V	54.0	-16.2	AVG	88	1.3	
4823.190	52.7	V	74.0	-21.3	PK	88	1.3	
7234.730	31.9	V	54.0	-22.1	AVG	218	1.0	
7234.730	42.8	V	74.0	-31.2	PK	218	1.0	
9647.140	34.5	V	54.0	-19.5	AVG	155	1.1	
9647.140	46.3	V	74.0	-27.7	PK	155	1.1	
12061.170	34.3	V	54.0	-19.7	AVG	318	2.0	
12061.170	45.5	V	74.0	-28.5	PK	318	2.0	
14472.220	36.0	V	54.0	-18.0	AVG	17	1.4	
14472.220	47.4	V	74.0	-26.6	PK	17	1.4	
4824.980	33.2	H	54.0	-20.8	AVG	79	1.4	
4824.980	47.4	H	74.0	-26.6	PK	79	1.4	
7234.930	30.9	H	54.0	-23.1	AVG	274	1.0	
7234.930	43.0	H	74.0	-31.0	PK	274	1.0	
9647.470	32.9	H	54.0	-21.1	AVG	196	1.3	
9647.470	44.6	H	74.0	-29.4	PK	196	1.3	
12059.540	34.1	H	54.0	-19.9	AVG	175	1.6	
12059.540	45.1	H	74.0	-28.9	PK	175	1.6	
14472.880	36.1	H	54.0	-17.9	AVG	285	1.8	
14472.880	47.7	H	74.0	-26.3	PK	285	1.8	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).
Note 2:	Band-edge measurement calculated from the fundamental field strength (peak or average) minus the band edge delta marker measurement.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Run #1b: Radiated Spurious Emissions, 30 - 18000 MHz. Center Channel @ 2437 MHz
Setting = 23, Tx100, EUT Vertical Polarization, 8.7dBi antenna

	H	V	
Fundamental emission level @ 3m in 1MHz RBW:	104.3	119.6	Peak Measurement (RB=VB=1MHz)
Fundamental emission level @ 3m in 1MHz RBW:	96	111.2	Average Measurement (RB=1MHz, VB=10Hz)

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4874.720	44.4	V	54.0	-9.6	AVG	69	1.3	
4874.720	57.5	V	74.0	-16.5	PK	69	1.3	
7309.870	38.0	V	54.0	-16.0	AVG	349	2.0	
7309.870	49.9	V	74.0	-24.1	PK	349	2.0	
9746.680	36.7	V	54.0	-17.3	AVG	145	2.0	
9746.680	49.8	V	74.0	-24.2	PK	145	2.0	
12183.670	36.1	V	54.0	-17.9	AVG	55	1.7	
12183.670	47.3	V	74.0	-26.7	PK	55	1.7	
14623.010	36.1	V	54.0	-17.9	AVG	68	1.2	
14623.010	48.5	V	74.0	-25.5	PK	68	1.2	
4875.090	35.5	H	54.0	-18.5	AVG	3	2.0	
4875.090	48.2	H	74.0	-25.8	PK	3	2.0	
7309.570	37.5	H	54.0	-16.5	AVG	74	1.5	
7309.570	49.4	H	74.0	-24.6	PK	74	1.5	
9747.460	37.6	H	54.0	-16.4	AVG	277	1.5	
9747.460	51.6	H	74.0	-22.4	PK	277	1.5	
12183.530	32.8	H	54.0	-21.2	AVG	265	1.0	
12183.530	44.4	H	74.0	-29.6	PK	265	1.0	
14620.580	36.1	H	54.0	-17.9	AVG	180	1.0	
14620.580	47.4	H	74.0	-26.6	PK	180	1.0	

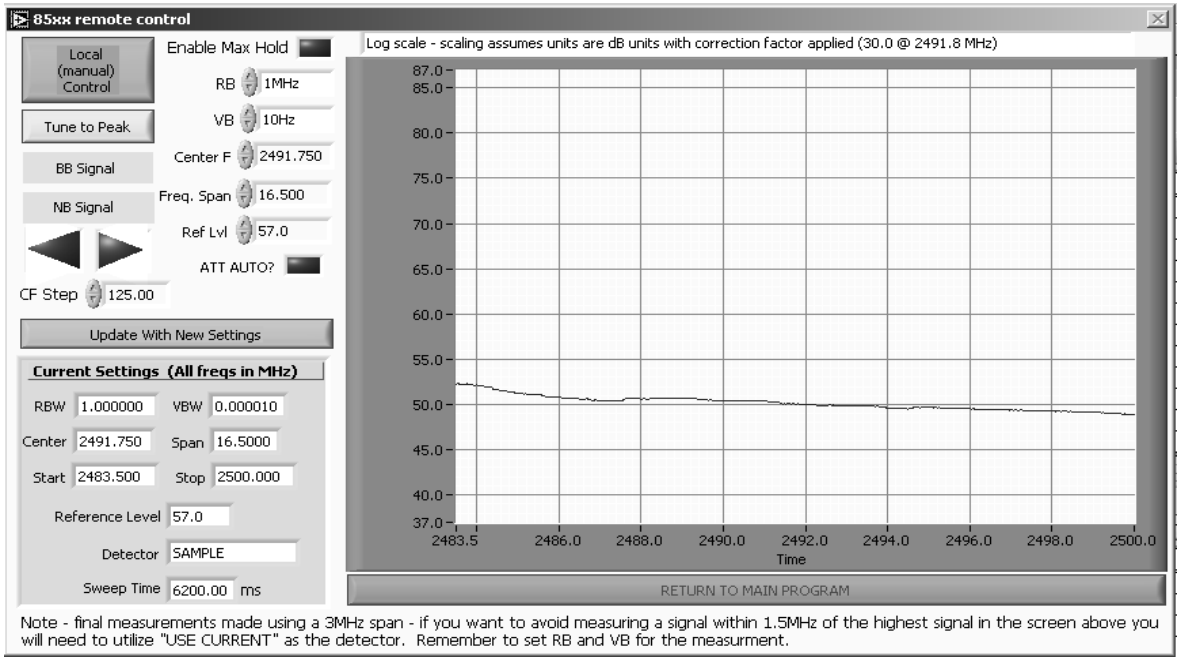
Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

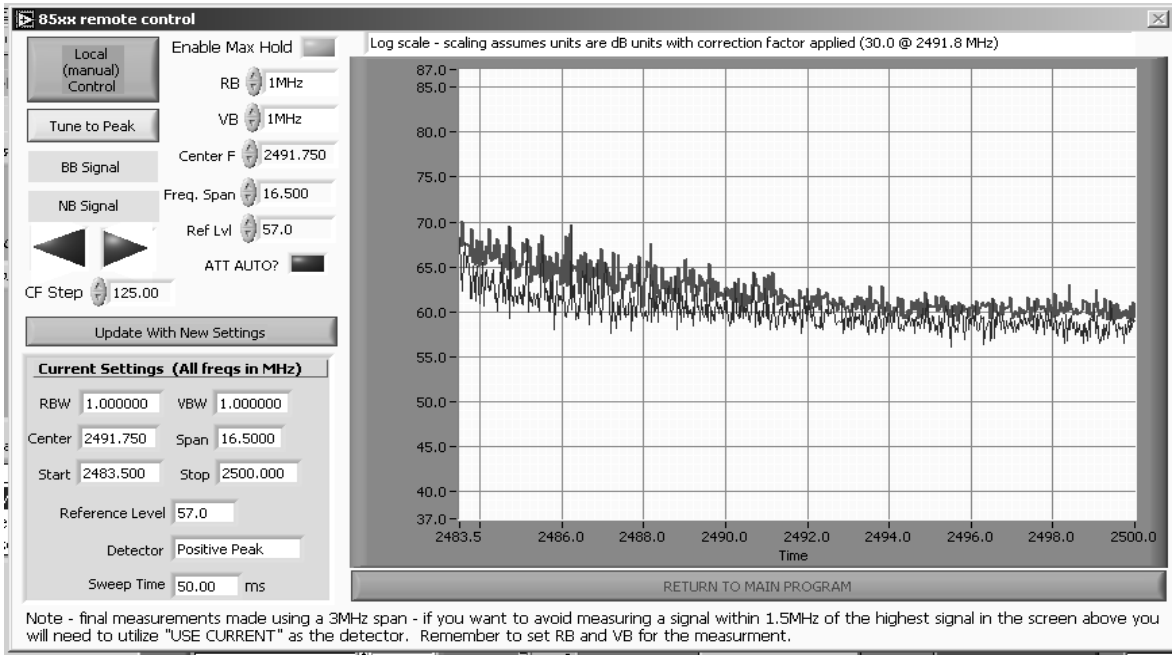
Run #1c: Radiated Spurious Emissions, 30 - 18000 MHz. High Channel @ 2462 MHz
Setting = 23, Tx100, EUT Vertical Polarization, 8.7dBi antenna

	H	V	
Fundamental emission level @ 3m in 1MHz RBW:	107.4	121.1	Peak Measurement (RB=VB=1MHz)
Fundamental emission level @ 3m in 1MHz RBW:	98.3	112.9	Average Measurement (RB=1MHz, VB=10Hz)

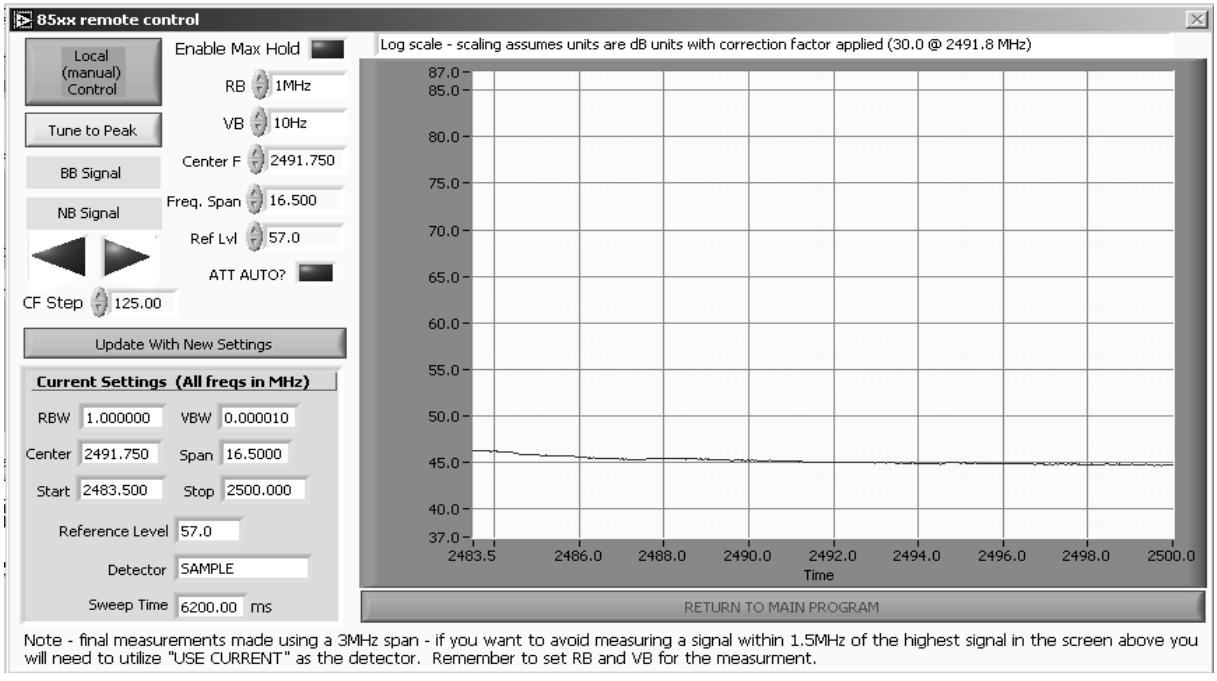
Vertical Plot



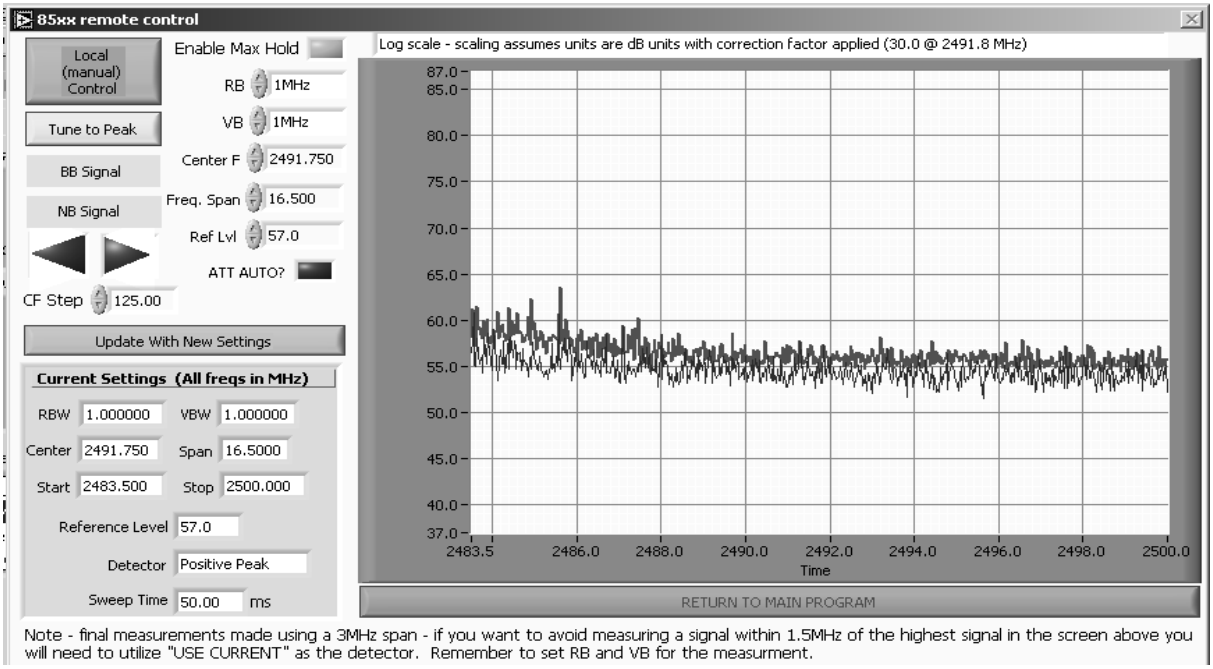
Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



Horizontal Plot



Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2483.500	53.0	V	54.0	-1.0	AVG	283	1.6	
2483.980	71.6	V	74.0	-2.4	PK	283	1.6	
2483.660	48.6	H	54.0	-5.4	AVG	210	1.0	
2483.660	64.8	H	74.0	-9.2	PK	210	1.0	

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Other Spurious Radiated Emissions:

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4923.000	49.8	V	54.0	-4.2	AVG	69	1.2	
4923.000	62.1	V	74.0	-11.9	PK	69	1.2	
7384.450	40.3	V	54.0	-13.7	AVG	130	1.6	
7384.450	60.6	V	74.0	-13.4	PK	130	1.6	
9846.830	41.6	V	54.0	-12.4	AVG	216	2.0	
9846.830	55.9	V	74.0	-18.1	PK	216	2.0	
12308.840	33.1	V	54.0	-20.9	AVG	0	1.3	
12308.840	45.1	V	74.0	-28.9	PK	0	1.3	
14771.800	34.0	V	54.0	-20.0	AVG	360	1.0	
14771.800	45.5	V	74.0	-28.5	PK	360	1.0	
4924.480	35.7	H	54.0	-18.3	AVG	352	1.0	
4924.480	47.2	H	74.0	-26.8	PK	352	1.0	
7386.120	36.5	H	54.0	-17.5	AVG	190	1.4	
7386.120	53.8	H	74.0	-20.2	PK	190	1.4	
9846.660	40.1	H	54.0	-13.9	AVG	273	1.4	
9846.660	54.4	H	74.0	-19.6	PK	273	1.4	
12311.460	32.6	H	54.0	-21.4	AVG	0	1.0	
12311.460	44.0	H	74.0	-30.0	PK	0	1.0	
14773.060	34.2	H	54.0	-19.8	AVG	185	1.6	
14773.060	45.3	H	74.0	-28.7	PK	185	1.6	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Radiated Emissions

Test Specific Details

Objective: The objective of this test session is to perform engineering evaluation testing of the EUT with respect to the specification listed above.

Date of Test: 5/24/2007 23:34
Test Engineer: Rafael Varelas
Test Location: SVOATS #2

Config. Used: 1
Config Change: None
EUT Voltage: 120V/60Hz

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions:

Temperature: 13 °C
Rel. Humidity: 83 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1a - c	RE, 30 - 18000 MHz - Spurious Emissions	FCC Part 15.209 / 15.247(c)	Pass	53.448.3 @ 4874 MHz (0.6dB)

Modifications Made During Testing:

No modifications were made to the EUT during testing

Deviations From The Standard

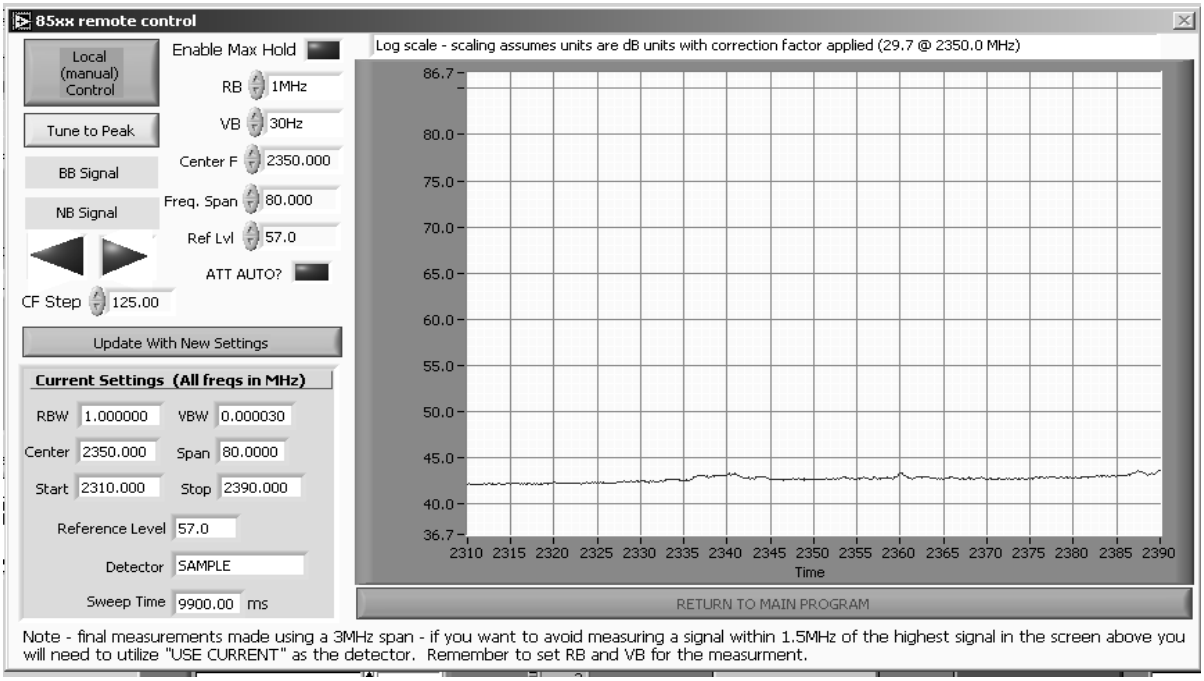
No deviations were made from the requirements of the standard.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

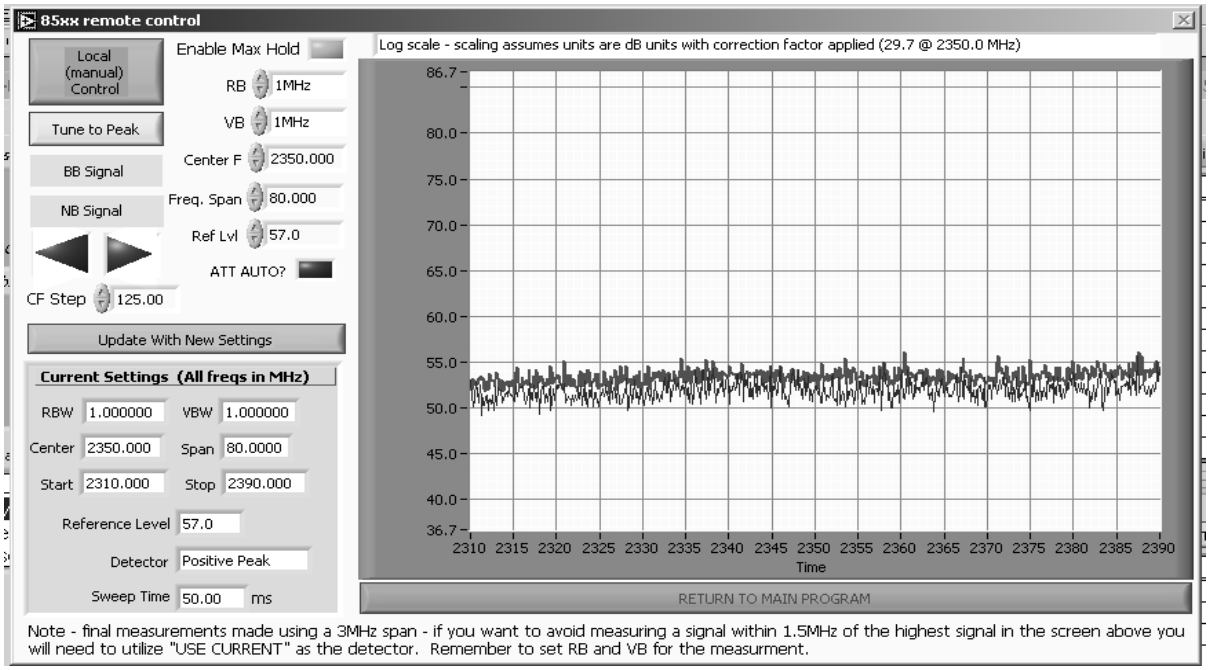
Run #1a: Radiated Spurious Emissions, 30 - 18000 MHz. Low Channel @ 2412 MHz
Setting = 23, Tx100, EUT Horizontal Polarization, 6.5dBi antenna

	H	V	
Fundamental emission level @ 3m in 1MHz RBW:	115.2	104.9	Peak Measurement (RB=VB=1MHz)
Fundamental emission level @ 3m in 1MHz RBW:	112.3	101.9	Average Measurement (RB=1MHz, VB=10Hz)

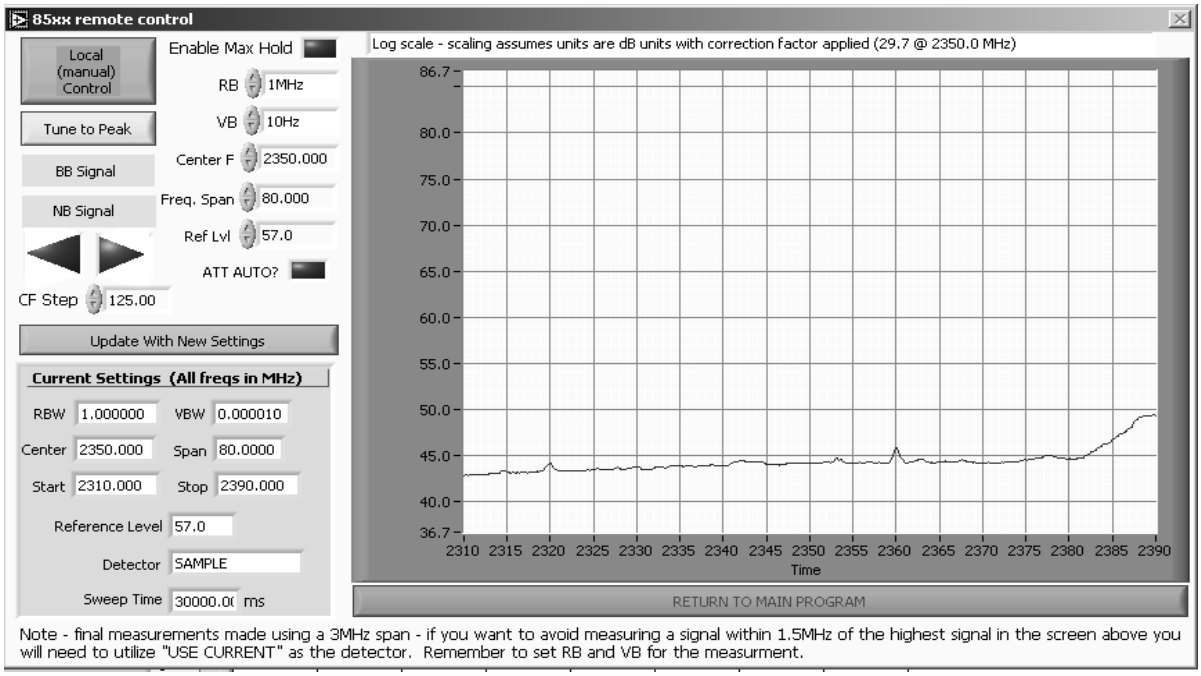
Vertical Plot



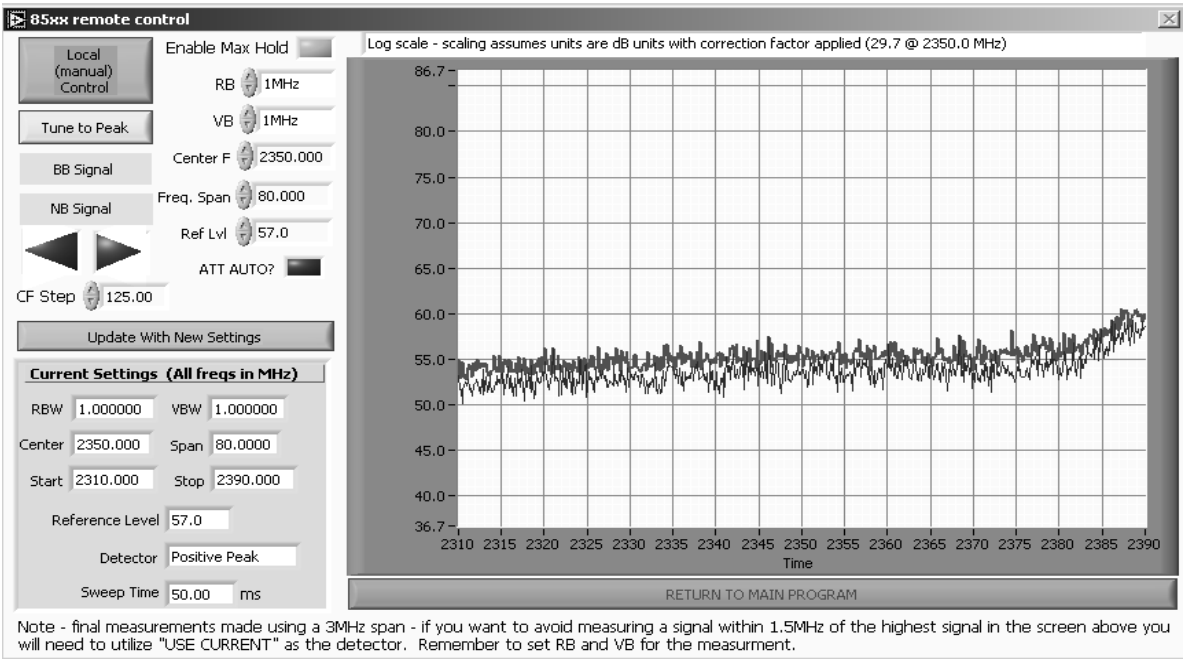
Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



Horizontal Plot



Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



Note - final measurements made using a 3MHz span - if you want to avoid measuring a signal within 1.5MHz of the highest signal in the screen above you will need to utilize "USE CURRENT" as the detector. Remember to set RB and VB for the measurment.

Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2388.430	50.9	H	54.0	-3.1	AVG	180	1.9	
2388.430	61.3	H	74.0	-12.7	PK	180	1.9	
2389.050	44.8	V	54.0	-9.2	AVG	0	1.0	
2389.050	56.5	V	74.0	-17.5	PK	0	1.0	

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Other Spurious Radiated Emissions:

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4824.090	41.1	H	54.0	-12.9	AVG	248	1.5	
4824.090	46.0	H	74.0	-28.0	PK	248	1.5	
7234.740	30.9	H	54.0	-23.1	AVG	80	2.0	
7234.740	42.1	H	74.0	-31.9	PK	80	2.0	
9648.140	41.4	H	54.0	-12.6	AVG	158	1.5	
9648.140	47.0	H	74.0	-27.0	PK	158	1.5	
12060.840	34.1	H	54.0	-19.9	AVG	4	1.5	
12060.840	46.5	H	74.0	-27.5	PK	4	1.5	
14472.100	36.0	H	54.0	-18.0	AVG	135	1.7	
14472.100	47.2	H	74.0	-26.8	PK	135	1.7	
4824.090	51.1	V	54.0	-2.9	AVG	88	1.3	
4824.090	52.6	V	74.0	-21.4	PK	88	1.3	
7235.290	32.2	V	54.0	-21.8	AVG	200	1.8	
7235.290	43.5	V	74.0	-30.5	PK	200	1.8	
9648.150	45.4	V	54.0	-8.6	AVG	139	1.7	
9648.150	49.4	V	74.0	-24.6	PK	139	1.7	
12061.040	34.2	V	54.0	-19.8	AVG	244	1.6	
12061.040	45.4	V	74.0	-28.6	PK	244	1.6	
14472.080	36.9	V	54.0	-17.1	AVG	0	1.9	
14472.080	48.5	V	74.0	-25.5	PK	0	1.9	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Run #1b: Radiated Spurious Emissions, 30 - 18000 MHz. Center Channel @ 2437 MHz
Setting = 23, Tx100, EUT Horizontal Polarization, 6.5dBi antenna

	H	V	
Fundamental emission level @ 3m in 1MHz RBW:	116.2	104.5	Peak Measurement (RB=VB=1MHz)
Fundamental emission level @ 3m in 1MHz RBW:	113.2	101.6	Average Measurement (RB=1MHz, VB=10Hz)

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4874.080	52.5	H	54.0	-1.5	AVG	321	1.0	
4874.080	53.6	H	74.0	-20.4	PK	321	1.0	
7310.270	36.9	H	54.0	-17.1	AVG	166	1.6	
7310.270	45.8	H	74.0	-28.2	PK	166	1.6	
9748.170	48.5	H	54.0	-5.5	AVG	94	1.4	
9748.170	51.1	H	74.0	-22.9	PK	94	1.4	
12184.540	34.0	H	54.0	-20.0	AVG	28	1.4	
12184.540	44.3	H	74.0	-29.7	PK	28	1.4	
14622.230	38.9	H	54.0	-15.1	AVG	91	1.2	
14622.230	48.3	H	74.0	-25.7	PK	91	1.2	
4874.040	53.4	V	54.0	-0.6	AVG	290	1.1	
4874.040	54.5	V	74.0	-19.5	PK	290	1.1	
7310.220	40.0	V	54.0	-14.0	AVG	284	2.0	
7310.220	48.0	V	74.0	-26.0	PK	284	2.0	
9748.180	49.0	V	54.0	-5.0	AVG	322	1.3	
9748.180	51.3	V	74.0	-22.7	PK	322	1.3	
12183.540	37.2	V	54.0	-16.8	AVG	61	1.9	
12183.540	46.1	V	74.0	-27.9	PK	61	1.9	
14622.170	39.8	V	54.0	-14.2	AVG	72	1.8	
14622.170	48.5	V	74.0	-25.5	PK	72	1.8	

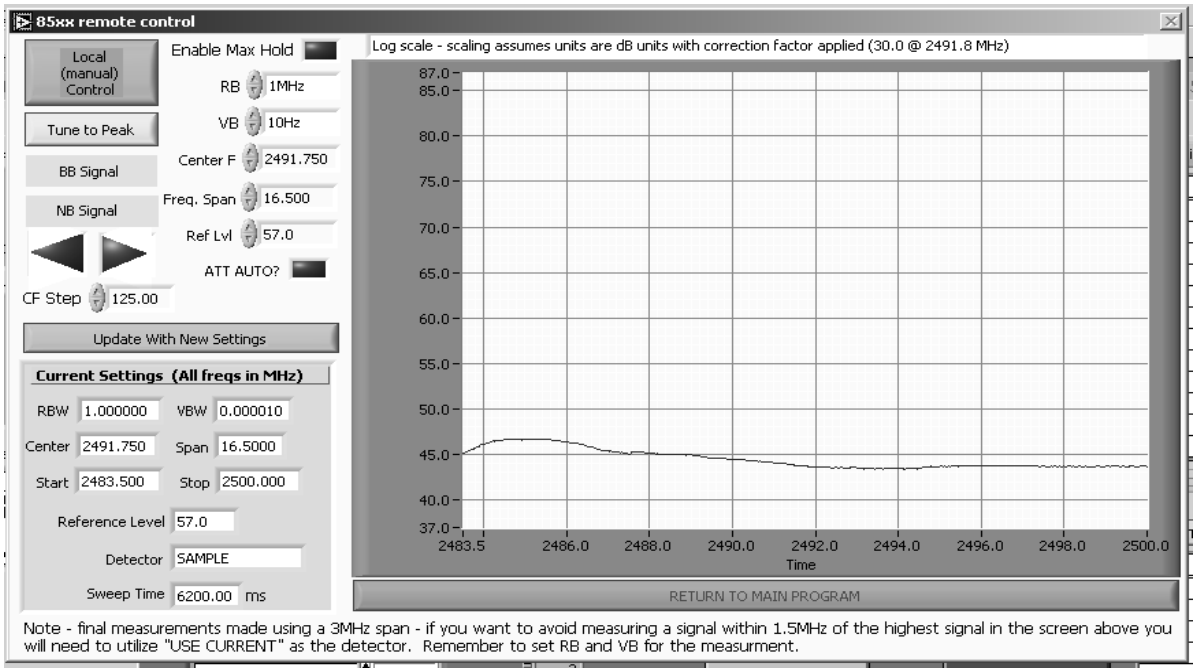
Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

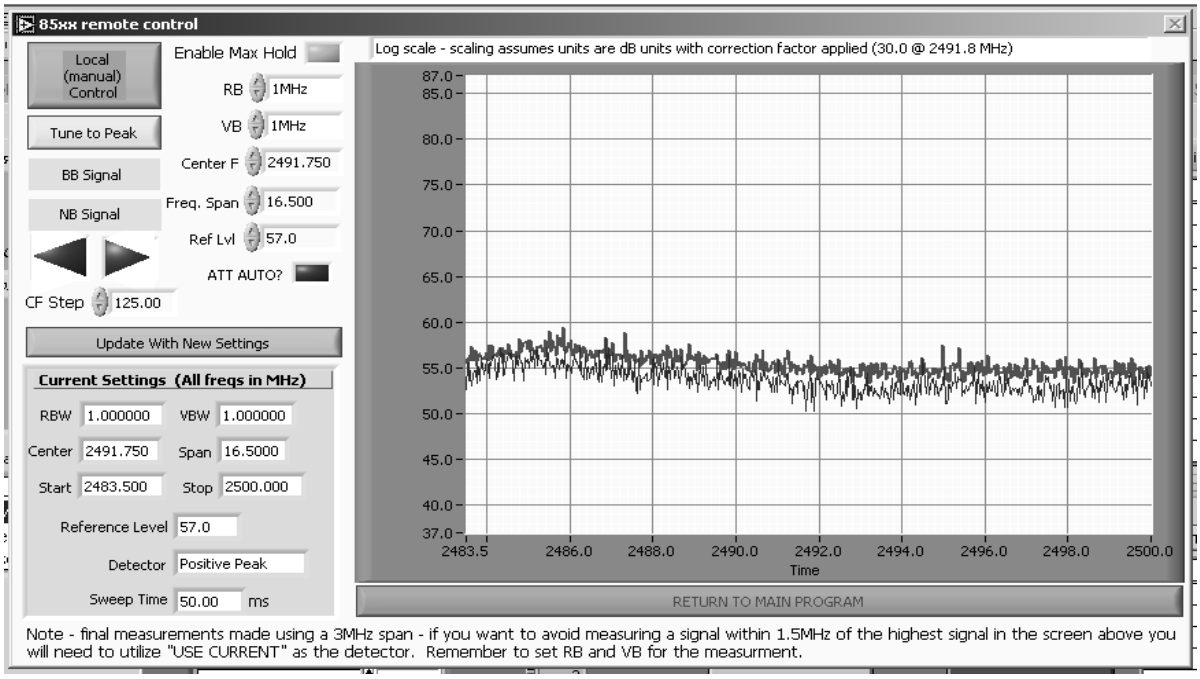
Run #1c: Radiated Spurious Emissions, 30 - 18000 MHz. High Channel @ 2462 MHz
Setting = 23, Tx100, EUT Horizontal Polarization, 6.5dBi antenna

	H	V	
Fundamental emission level @ 3m in 1MHz RBW:	117.3	103	Peak Measurement (RB=VB=1MHz)
Fundamental emission level @ 3m in 1MHz RBW:	114.2	100.1	Average Measurement (RB=1MHz, VB=10Hz)

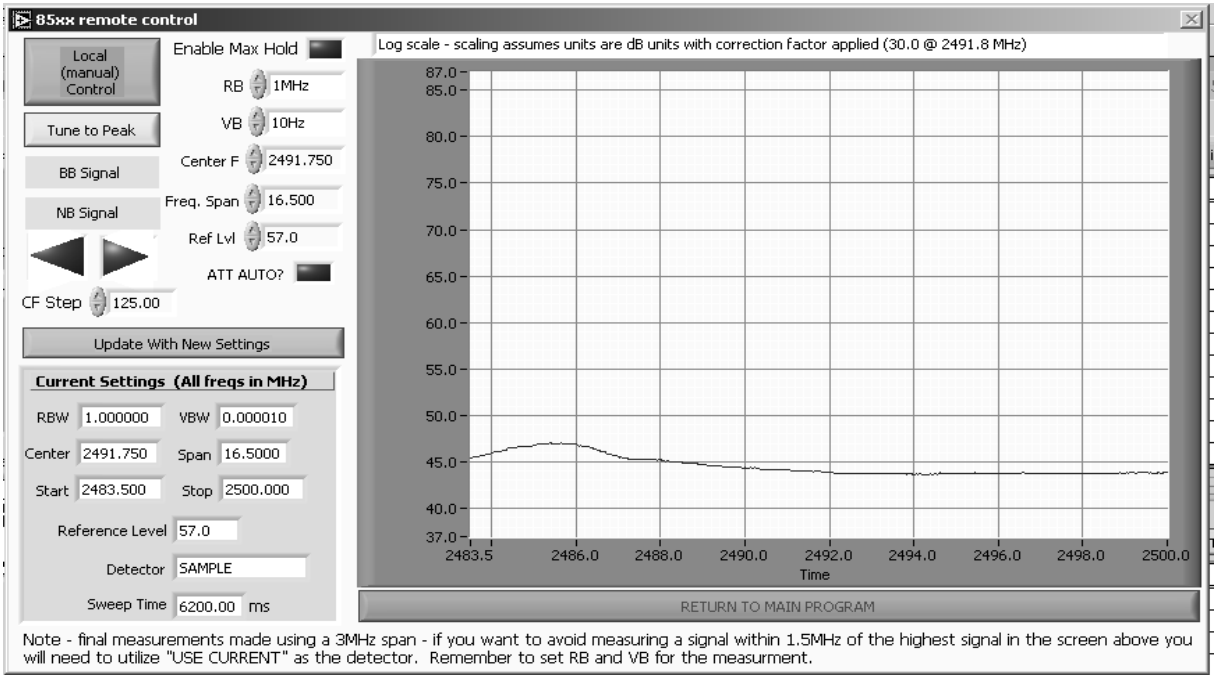
Vertical Plot



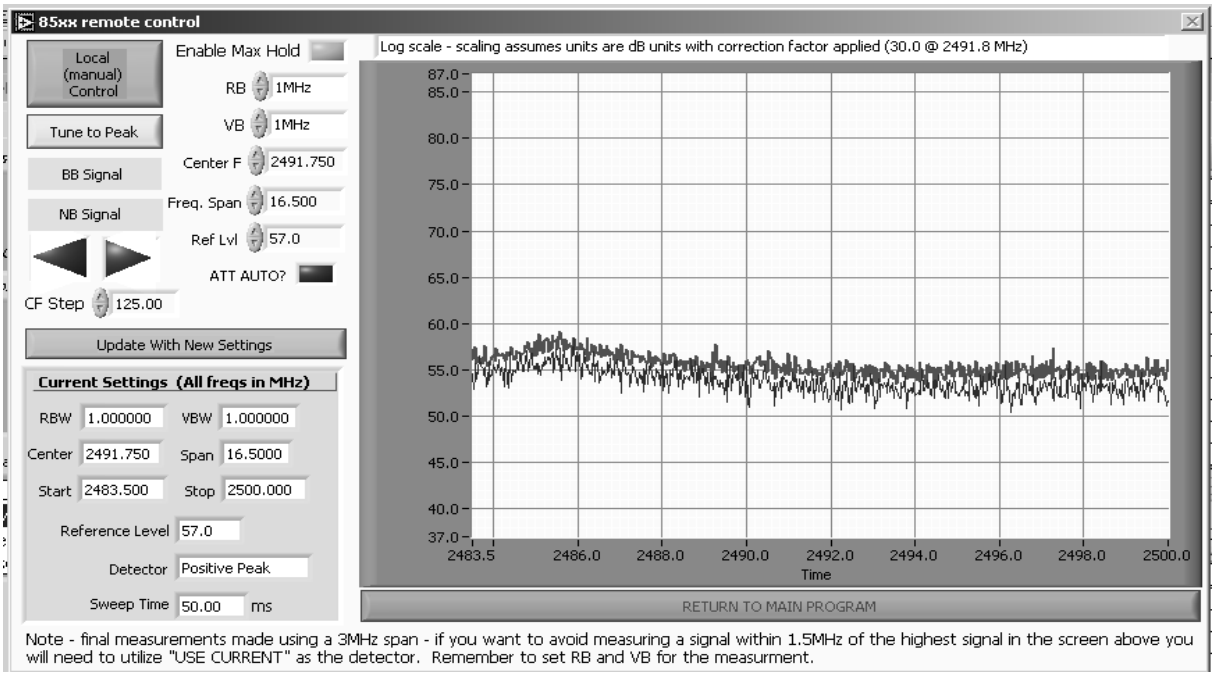
Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



Horizontal Plot



Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2485.320	50.9	H	54.0	-3.1	AVG	174	2.0	
2485.320	61.1	H	74.0	-12.9	PK	174	2.0	
2485.720	47.2	V	54.0	-6.8	AVG	285	1.0	
2485.720	58.0	V	74.0	-16.0	PK	285	1.0	

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Other Spurious Radiated Emissions:

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4924.150	51.0	V	54.0	-3.0	AVG	302	1.3	
4924.150	52.4	V	74.0	-21.6	PK	302	1.3	
7387.290	42.5	V	54.0	-11.5	AVG	17	1.9	
7387.290	49.7	V	74.0	-24.3	PK	17	1.9	
9848.130	51.2	V	54.0	-2.8	AVG	154	1.6	
9848.130	53.2	V	74.0	-20.8	PK	154	1.6	
12309.080	40.1	V	54.0	-13.9	AVG	66	1.9	
12309.080	47.5	V	74.0	-26.5	PK	66	1.9	
14772.280	35.8	V	54.0	-18.2	AVG	4	1.8	
14772.280	46.9	V	74.0	-27.1	PK	4	1.8	
4924.060	47.5	H	54.0	-6.5	AVG	284	1.9	
4924.060	50.0	H	74.0	-24.0	PK	284	1.9	
7386.710	37.4	H	54.0	-16.6	AVG	178	1.7	
7386.710	46.6	H	74.0	-27.4	PK	178	1.7	
9848.120	53.4	H	54.0	-0.6	AVG	170	1.5	
9848.120	54.9	H	74.0	-19.1	PK	170	1.5	
12308.760	33.6	H	54.0	-20.4	AVG	203	1.3	
12308.760	44.4	H	74.0	-29.6	PK	203	1.3	
14772.140	35.8	H	54.0	-18.2	AVG	143	1.2	
14772.140	45.4	H	74.0	-28.6	PK	143	1.2	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Radiated Emissions

Test Specific Details

Objective: The objective of this test session is to perform engineering evaluation testing of the EUT with respect to the specification listed above.

Date of Test: 5/21/2007 23:34
Test Engineer: Rafael Varelas
Test Location: SVOATS #2

Config. Used: 1
Config Change: None
EUT Voltage: 120V/60Hz

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions:

Temperature: 12.1 °C
Rel. Humidity: 78 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1a - c	RE, 30 - 18000 MHz - Spurious Emissions	FCC Part 15.209 / 15.247(c)	Pass	53.8dBµV/m (489.8µV/m) @ 2389.5MHz (-0.2dB)

Modifications Made During Testing:

No modifications were made to the EUT during testing

Deviations From The Standard

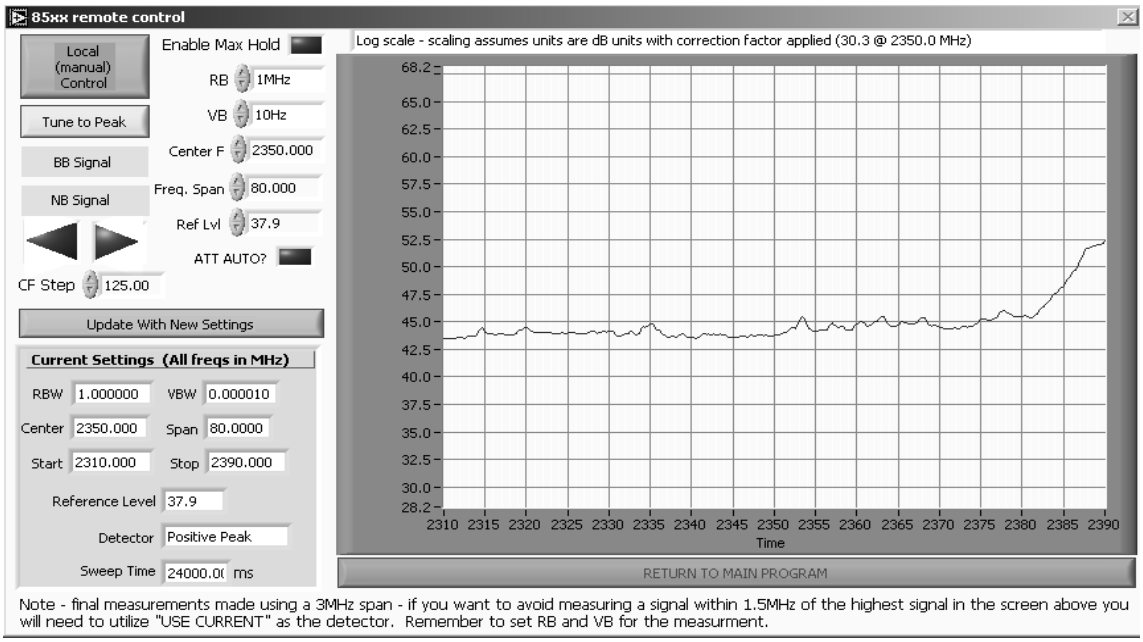
No deviations were made from the requirements of the standard.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

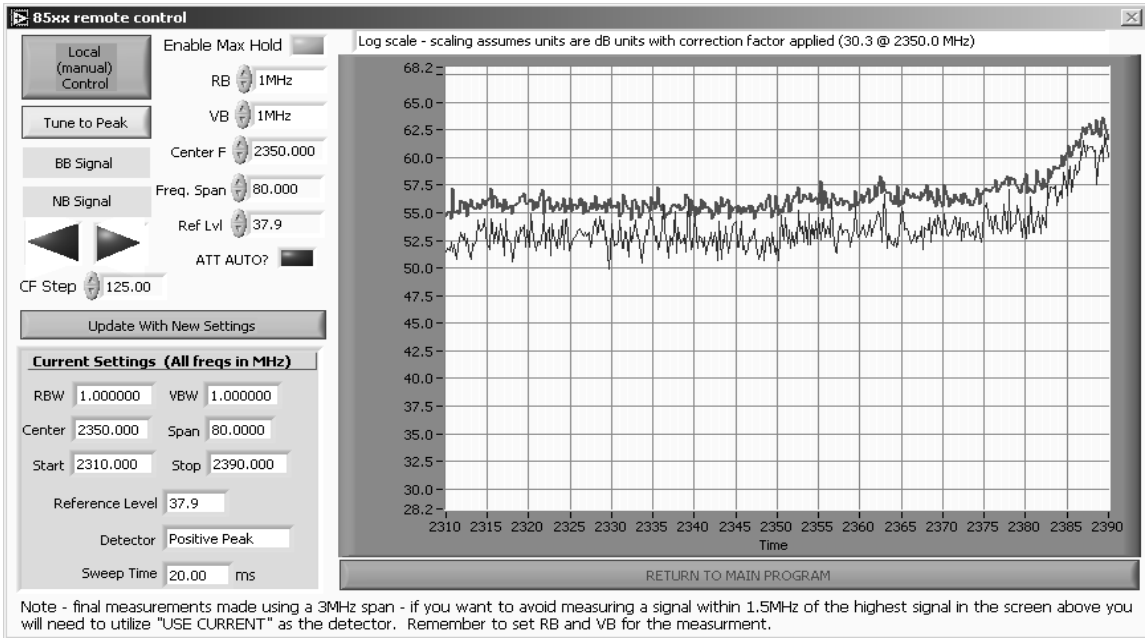
Run #1a: Radiated Spurious Emissions, 30 - 18000 MHz. Low Channel @ 2412 MHz
Setting = 23, Tx100, EUT Vertical Polarization, 8.7dBi antenna

	H	V	
Fundamental emission level @ 3m in 1MHz RBW:	110	117.3	Peak Measurement (RB=VB=1MHz)
Fundamental emission level @ 3m in 1MHz RBW:	107	114.2	Average Measurement (RB=1MHz, VB=10Hz)

Vertical Plot

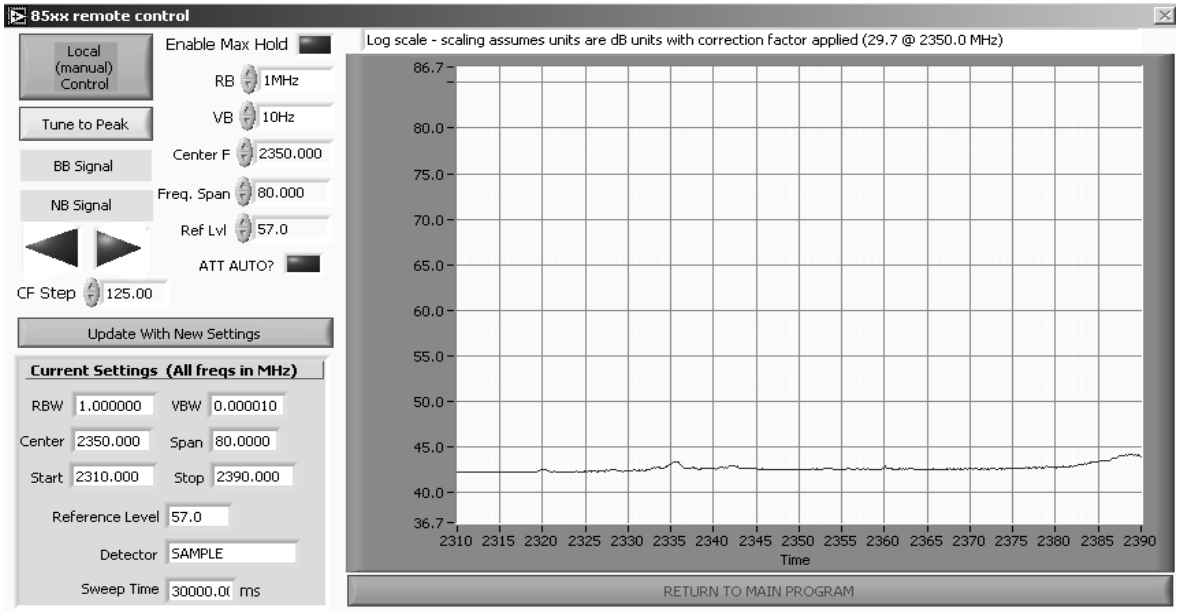


Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



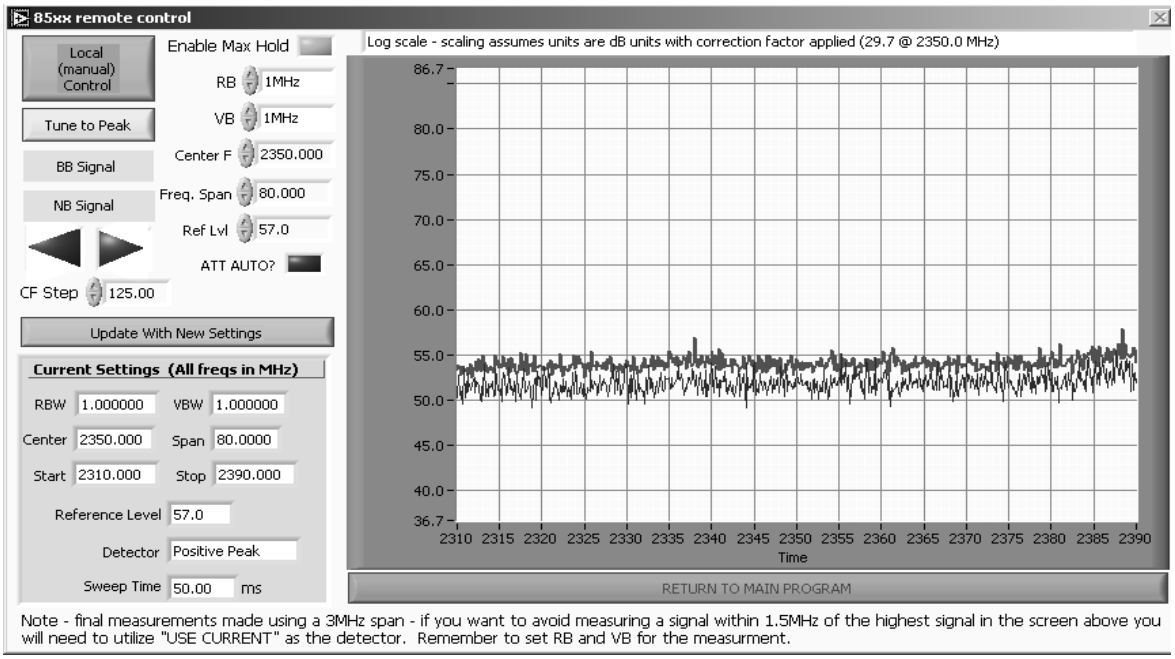
Note - final measurements made using a 3MHz span - if you want to avoid measuring a signal within 1.5MHz of the highest signal in the screen above you will need to utilize "USE CURRENT" as the detector. Remember to set RB and VB for the measurment.

Horizontal Plot



Note - final measurements made using a 3MHz span - if you want to avoid measuring a signal within 1.5MHz of the highest signal in the screen above you will need to utilize "USE CURRENT" as the detector. Remember to set RB and VB for the measurment.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2389.540	53.8	V	54.0	-0.2	AVG	270	1.1	
2389.540	63.0	V	74.0	-11.0	PK	270	1.1	
2387.690	45.5	H	54.0	-8.5	AVG	276	1.6	
2387.690	56.9	H	74.0	-17.1	PK	276	1.6	

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Other Spurious Radiated Emissions:

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4824.020	50.9	V	54.0	-3.1	AVG	330	1.1	
4824.020	52.4	V	74.0	-21.6	PK	330	1.1	
7234.480	33.2	V	54.0	-20.8	AVG	14	1.0	
7234.480	43.4	V	74.0	-30.6	PK	14	1.0	
9648.120	50.4	V	54.0	-3.6	AVG	321	1.5	
9648.120	52.7	V	74.0	-21.3	PK	321	1.5	
12059.250	38.5	V	54.0	-15.5	AVG	153	1.6	
12059.250	48.3	V	74.0	-25.7	PK	153	1.6	
14472.120	41.3	V	54.0	-12.7	AVG	113	1.2	
14472.120	50.0	V	74.0	-24.0	PK	113	1.2	
16883.180	34.5	V	54.0	-19.5	AVG	190	1.0	
16883.180	45.3	V	74.0	-28.7	PK	190	1.0	
4824.080	47.7	H	54.0	-6.3	AVG	149	2.0	
4824.080	49.8	H	74.0	-24.2	PK	149	2.0	
7235.540	35.3	H	54.0	-18.7	AVG	303	1.5	
7235.540	45.5	H	74.0	-28.5	PK	303	1.5	
9648.120	49.3	H	54.0	-4.7	AVG	329	1.4	
9648.120	51.9	H	74.0	-22.1	PK	329	1.4	
12061.070	37.0	H	54.0	-17.0	AVG	360	1.3	
12061.070	47.5	H	74.0	-26.5	PK	360	1.3	
14472.250	39.6	H	54.0	-14.4	AVG	185	1.3	
14472.250	49.0	H	74.0	-25.0	PK	185	1.3	
16884.270	34.4	H	54.0	-19.6	AVG	104	1.0	
16884.270	46.5	H	74.0	-27.5	PK	104	1.0	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).
Note 2:	Band-edge measurement calculated from the fundamental field strength (peak or average) minus the band edge delta marker measurement.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Run #1b: Radiated Spurious Emissions, 30 - 18000 MHz. Center Channel @ 2437 MHz
Setting = 23, Tx100, EUT Vertical Polarization, 8.7dBi antenna

	H	V	
Fundamental emission level @ 3m in 1MHz RBW:	109.3	120.3	Peak Measurement (RB=VB=1MHz)
Fundamental emission level @ 3m in 1MHz RBW:	106.5	117.2	Average Measurement (RB=1MHz, VB=10Hz)

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4873.900	46.4	V	54.0	-7.6	AVG	106	1.2	
4873.900	51.0	V	74.0	-23.0	PK	106	1.2	
7310.330	41.3	V	54.0	-12.7	AVG	13	2.0	
7310.330	49.2	V	74.0	-24.8	PK	13	2.0	
9748.120	53.6	V	54.0	-0.4	AVG	16	1.9	
9748.120	55.0	V	74.0	-19.0	PK	16	1.9	
12183.540	38.6	V	54.0	-15.4	AVG	143	1.4	
12183.540	47.5	V	74.0	-26.5	PK	143	1.4	
14622.230	44.6	V	54.0	-9.4	AVG	13	1.5	
14622.230	51.4	V	74.0	-22.6	PK	13	1.5	
4874.030	44.1	H	54.0	-9.9	AVG	47	2.0	
4874.030	47.3	H	74.0	-26.7	PK	47	2.0	
7310.370	36.9	H	54.0	-17.1	AVG	199	1.4	
7310.370	46.1	H	74.0	-27.9	PK	199	1.4	
9748.100	51.4	H	54.0	-2.6	AVG	179	1.4	
9748.100	53.4	H	74.0	-20.6	PK	179	1.4	
12184.470	34.2	H	54.0	-19.8	AVG	0	1.7	
12184.470	45.8	H	74.0	-28.2	PK	0	1.7	
14622.140	40.1	H	54.0	-13.9	AVG	173	1.3	
14622.140	49.2	H	74.0	-24.8	PK	173	1.3	

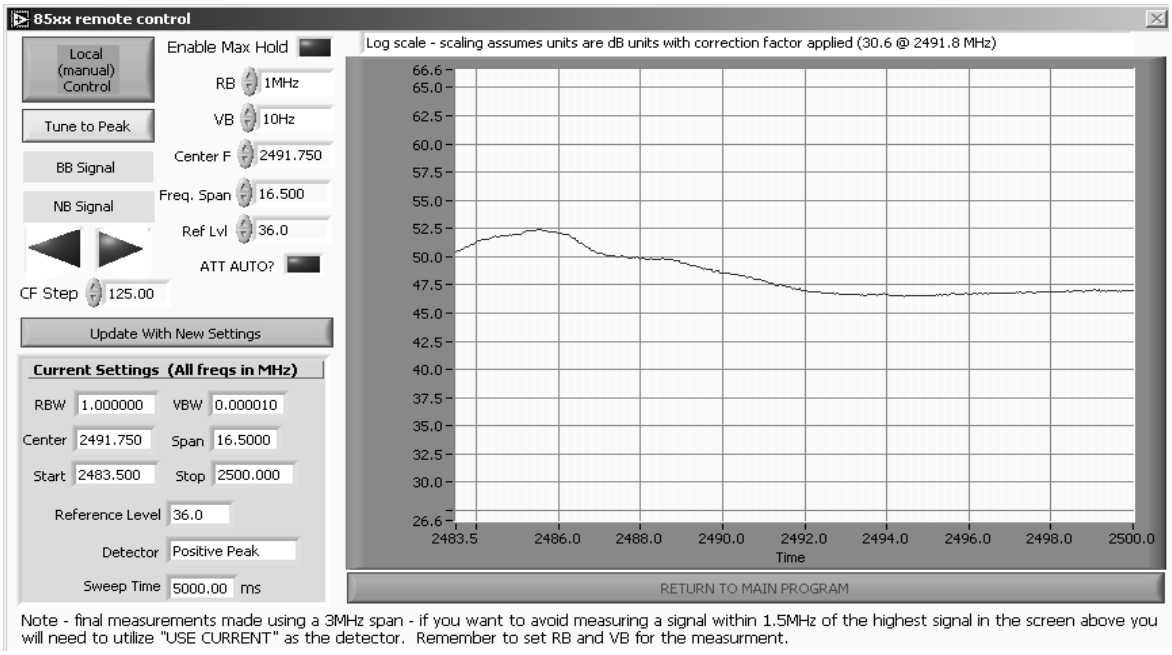
Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Run #1c: Radiated Spurious Emissions, 30 - 18000 MHz. High Channel @ 2462 MHz
Setting = 23, Tx100, EUT Vertical Polarization, 8.7dBi antenna

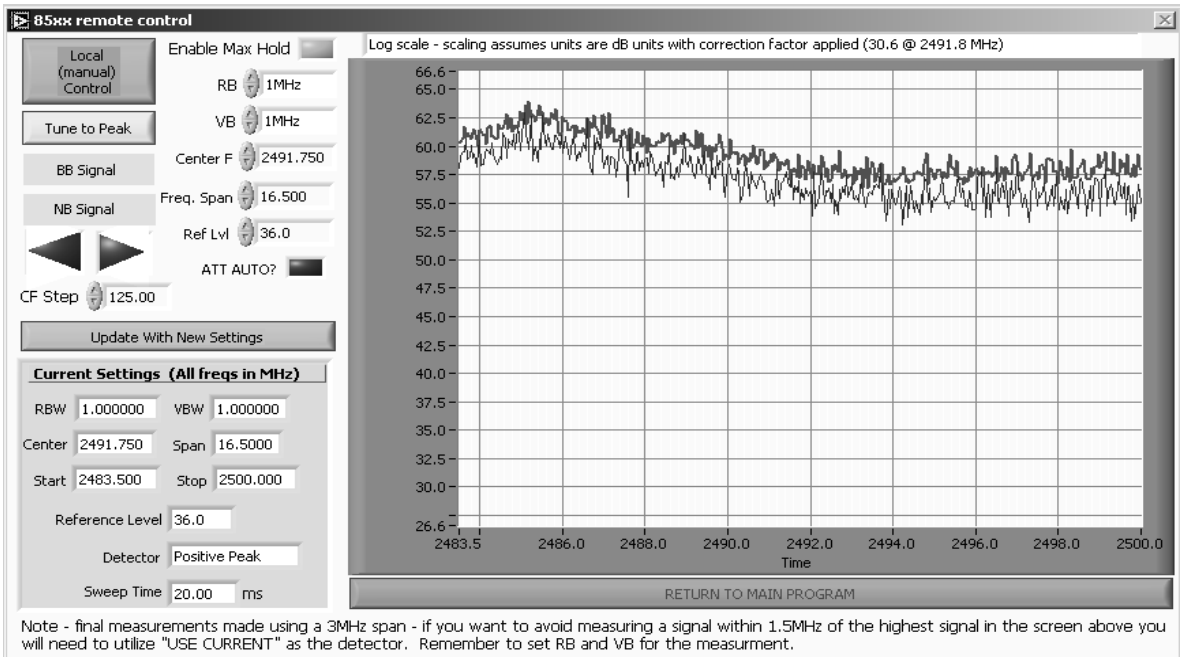
	H	V	
Fundamental emission level @ 3m in 1MHz RBW:	104.4	120.3	Peak Measurement (RB=VB=1MHz)
Fundamental emission level @ 3m in 1MHz RBW:	101.2	117.4	Average Measurement (RB=1MHz, VB=10Hz)

Vertical Plot



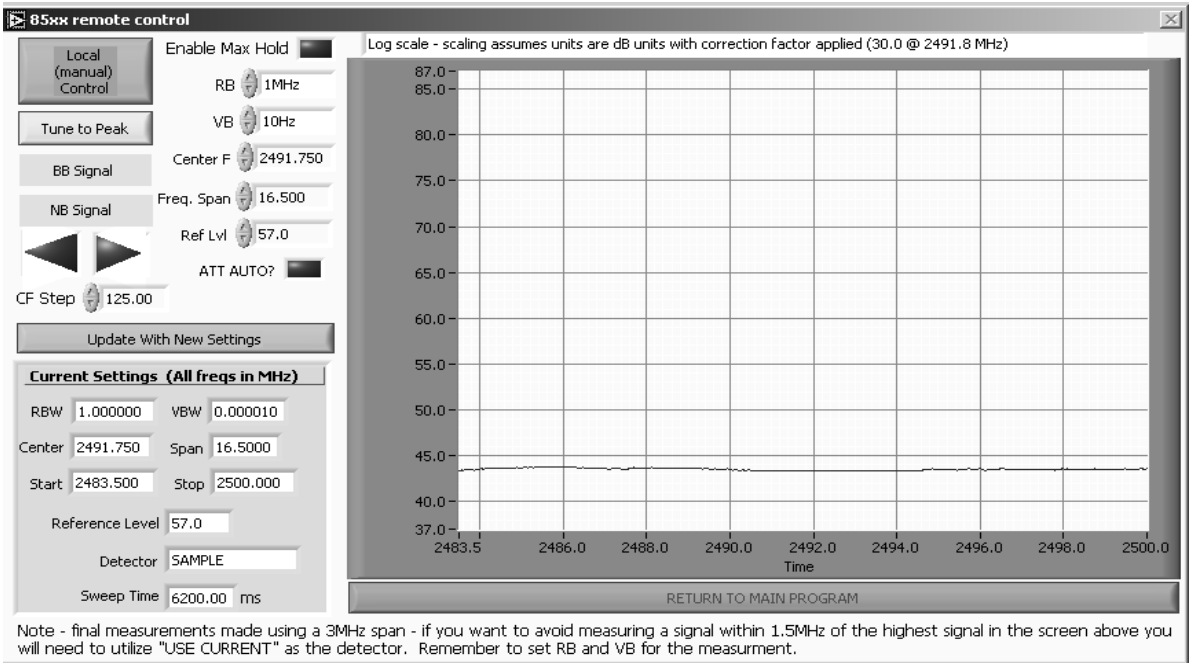
Note - final measurements made using a 3MHz span - if you want to avoid measuring a signal within 1.5MHz of the highest signal in the screen above you will need to utilize "USE CURRENT" as the detector. Remember to set RB and VB for the measurment.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



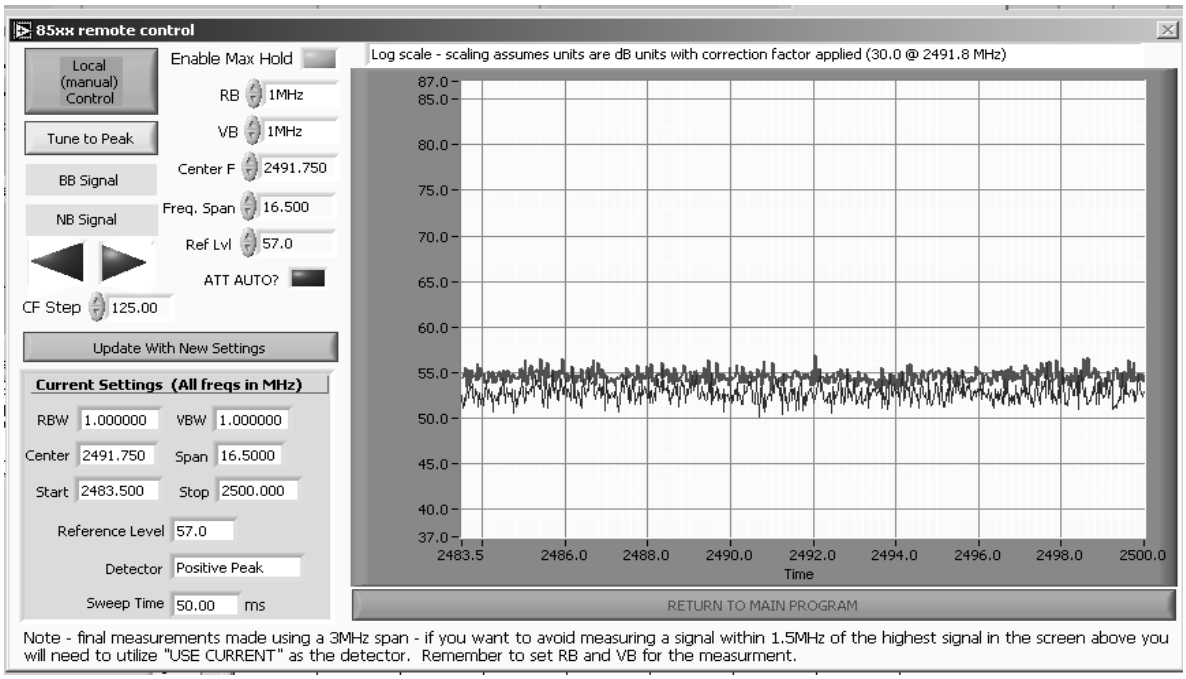
Note - final measurements made using a 3MHz span - if you want to avoid measuring a signal within 1.5MHz of the highest signal in the screen above you will need to utilize "USE CURRENT" as the detector. Remember to set RB and VB for the measurment.

Horizontal Plot



Note - final measurements made using a 3MHz span - if you want to avoid measuring a signal within 1.5MHz of the highest signal in the screen above you will need to utilize "USE CURRENT" as the detector. Remember to set RB and VB for the measurment.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A



Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2485.300	53.7	V	54.0	-0.3	AVG	270	1.1	
2485.300	62.9	V	74.0	-11.1	PK	270	1.1	
2485.660	45.1	H	54.0	-8.9	AVG	255	1.1	
2485.660	57.2	H	74.0	-16.8	PK	255	1.1	

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68062
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	15.247, RSS-210	Class:	N/A

Other Spurious Radiated Emissions:

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4924.120	43.5	V	54.0	-10.5	AVG	99	1.6	
4924.120	47.2	V	74.0	-26.8	PK	99	1.6	
7387.300	42.8	V	54.0	-11.2	AVG	43	1.9	
7387.300	49.4	V	74.0	-24.6	PK	43	1.9	
9848.150	52.8	V	54.0	-1.2	AVG	13	2.0	
9848.150	54.5	V	74.0	-19.5	PK	13	2.0	
12309.450	37.2	V	54.0	-16.8	AVG	149	1.5	
12309.450	46.1	V	74.0	-27.9	PK	149	1.5	
14772.200	41.6	V	54.0	-12.4	AVG	14	1.4	
14772.200	48.1	V	74.0	-25.9	PK	14	1.4	
4924.150	47.6	H	54.0	-6.4	AVG	200	2.0	
4924.150	49.9	H	74.0	-24.1	PK	200	2.0	
7387.270	38.4	H	54.0	-15.6	AVG	219	1.5	
7387.270	46.8	H	74.0	-27.2	PK	219	1.5	
9848.130	51.2	H	54.0	-2.8	AVG	311	1.3	
9848.130	53.2	H	74.0	-20.8	PK	311	1.3	
12308.630	32.4	H	54.0	-21.6	AVG	360	1.4	
12308.630	43.7	H	74.0	-30.3	PK	360	1.4	
14772.250	34.6	H	54.0	-19.4	AVG	152	1.0	
14772.250	45.6	H	74.0	-28.4	PK	152	1.0	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252,	Test-Log Number:	T68277
	2922, 2932, 2942, 2952, 2962	Project Manager:	Richard Gencev
Contact:	Craig Owens		
Emissions Spec:	EN 300 328 v1.7.1, EN 301 489	Class:	Radio
Immunity Spec:	-	Environment:	-

EMC Test Data

For The

Ruckus Wireless

Model

2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962

Date of Last Test: 6/20/2007

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252,	Test-Log Number:	T68277
	2922, 2932, 2942, 2952, 2962	Project Manager:	Richard Gencev
Contact:	Craig Owens		
Emissions Spec:	EN 300 328 v1.7.1, EN 301 489	Class:	Radio
Immunity Spec:	-	Environment:	-

EUT INFORMATION

The following information was collected during the test sessions(s).

General Description

The EUT is a 2.4GHz wireless bridge that is designed to provide wireless internet and networking services. Since the EUT would be placed on a table top during operation, the EUT was treated as table-top equipment during testing to simulate the end-user environment. The electrical rating of the EUT is 120 Volts , 60 Hz, 0.3 Amps.

Equipment Under Test

Manufacturer	Model	Description	Serial Number	FCC ID
Ruckus	2942	2.4Ghz wireless bridge	-	

Other EUT Details

Testing performed on the 2942 was considered representative of the 2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2952 and 2962. The models all use identical hardware

EUT Enclosure

The EUT enclosure is primarily constructed of Plastic . It measures approximately 19.43cm (L), 14.43cm (W), 10.16cm (H).

Modification History

Mod. #	Test	Date	Modification
1	-	-	None
2			
3			

Modifications applied are assumed to be used on subsequent tests unless otherwise stated as a further modification.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252,	T-Log Number:	T68277
	2922, 2932, 2942, 2952, 2962	Project Manager:	Richard Gencev
Contact:	Craig Owens		
Emissions Spec:	EN 300 328 v1.7.1, EN 301 489	Class:	Radio
Immunity Spec:	-	Environment:	-

Test Configuration #1

The following information was collected during the test sessions(s).

Local Support Equipment

Manufacturer	Model	Description	Serial Number	FCC ID
-	-	-	-	-

Remote Support Equipment

Manufacturer	Model	Description	Serial Number	FCC ID
Dell	Inspiron 2650	Laptop	N/A	DoC

Cabling and Ports

Port	Connected To	Cable(s)		
		Description	Shielded or Unshielded	Length(m)
RF	Antenna	Coaxial	Shielded	0.5
Ethernet	Laptop	Cat5	Unshielded	30.0
EUT DC input	AC Mains	Multiwire	Unshielded	1.5

Note: The console port was not connected during testing. The manufacturer stated that these are for configuration purposes and therefore would not normally be connected.

EUT Operation During Radio Emissions Tests

During Radio emissions testing the EUT was set to maximum power to produce CCK or OFDM modulation continous transmission .

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68277
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	EN 300 328 v1.7.1, EN 301 489	Class:	Radio

Conducted Emissions - Power Ports

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Date of Test: 6/18/2007 9:24
Test Engineer: Juan Martinez
Test Location: SVOATS #1

Config. Used: 1
Config Change: None
EUT Voltage: Refer to individual runs

General Test Configuration

The EUT was located on a wooden table, 40 cm from a vertical coupling plane and 80cm from the LISN. Remote support equipment was located approximately 30 meters away from the test area, with all I/O connections running on top of the groundplane.

Ambient Conditions:

Temperature: 22 °C
Rel. Humidity: 47 %

Summary of Results

Run #	Test Performed	Limit	Result	Margin
1	CE, AC Power, 230V/50Hz	EN55022 B	Pass	54.6dBµV @ 0.249MHz (-7.2dB)
2	CE, AC Power,120V/60Hz	EN55022 B	Pass	38.8dBµV @ 0.804MHz (-7.2dB)
3	CE, AC Power,120V/60Hz (PoE)	EN55022 B	Pass	39.9dBµV @ 0.793MHz (-6.1dB)
4	CE, AC Power,120V/60Hz	EN55022 B	Pass	39.3dBµV @ 2.829MHz (-6.7dB)
5	CE, AC Power,120V/60Hz	EN55022 B	Pass	46.0dBµV @ 0.152MHz (-19.9dB)

Modifications Made During Testing:

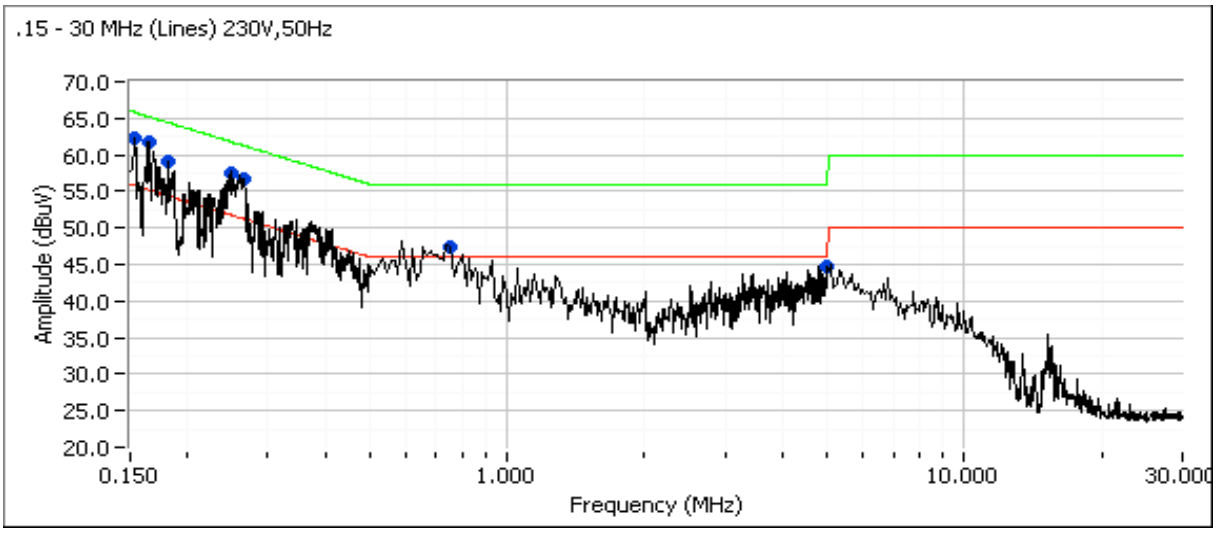
No modifications were made to the EUT during testing

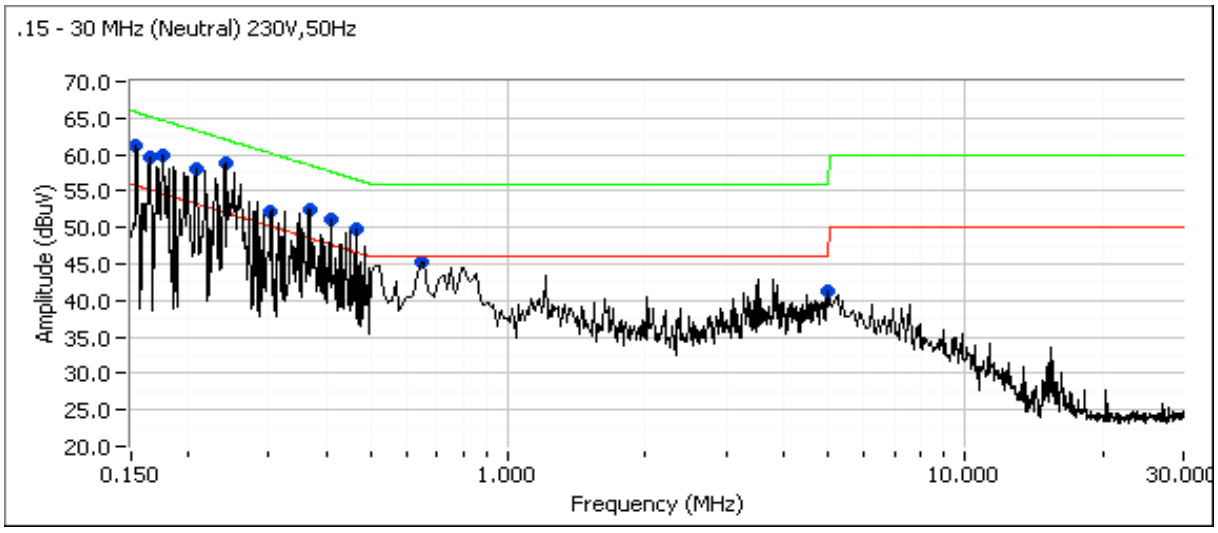
Deviations From The Standard

No deviations were made from the requirements of the standard.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68277
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	EN 300 328 v1.7.1, EN 301 489	Class:	Radio

Run #1: AC Power Port Conducted Emissions, 0.15 - 30MHz, 230V/50Hz





Elliott

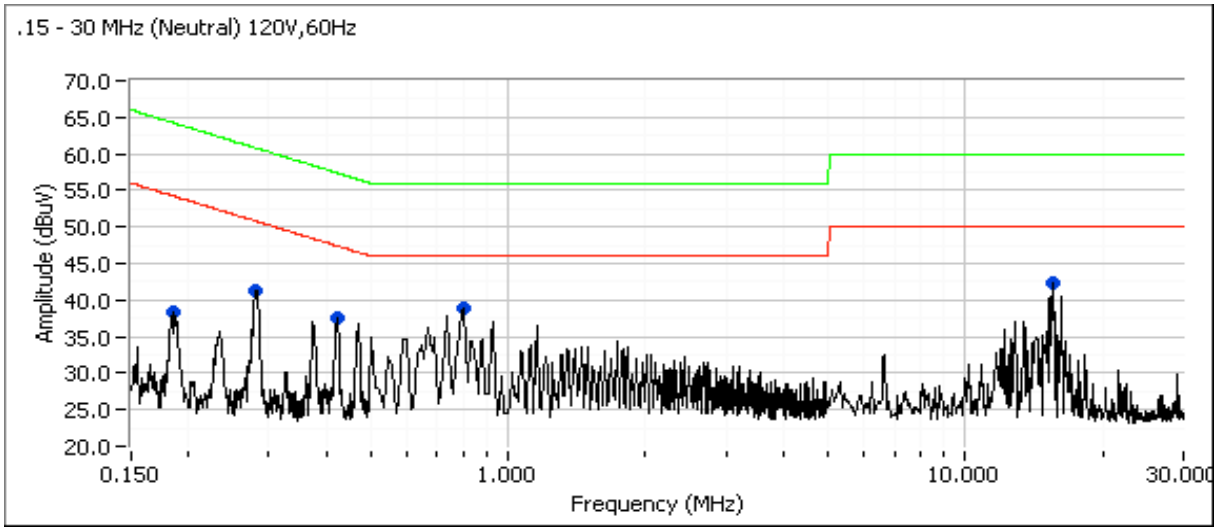
EMC Test Data

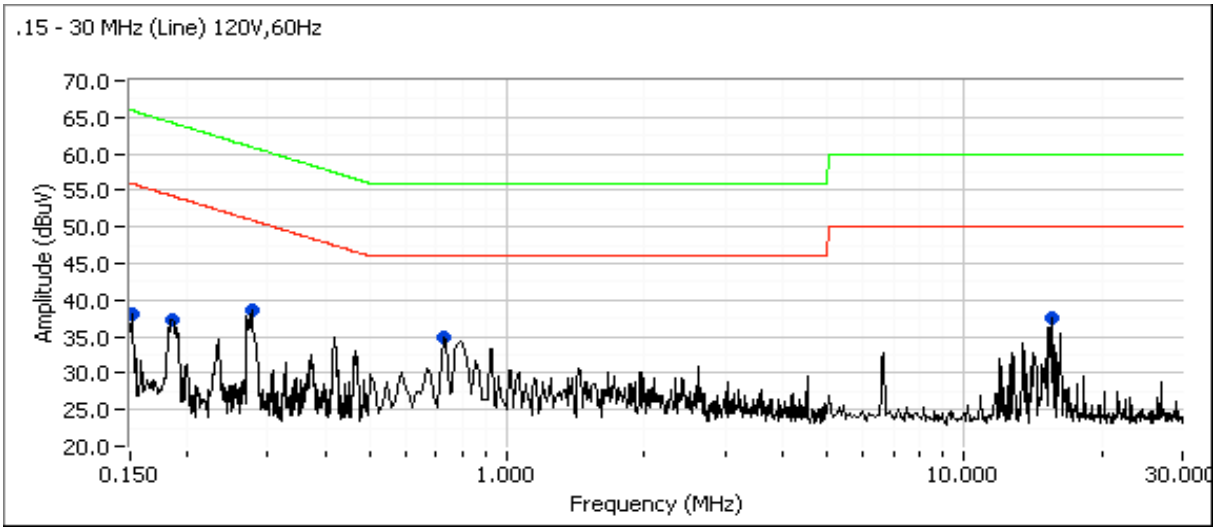
Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68277
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	EN 300 328 v1.7.1, EN 301 489	Class:	Radio

Frequency	Level	AC	EN55022 B		Detector	Comments
MHz	dBµV	Line	Limit	Margin	QP/Ave	
0.249	54.6	Line 1	61.8	-7.2	QP	
0.249	44.0	Line 1	51.8	-7.8	AVG	
0.266	52.8	Line 1	61.2	-8.4	QP	
0.266	41.7	Line 1	51.2	-9.5	AVG	
0.154	54.5	Line 1	65.8	-11.3	QP	
0.165	53.6	Line 1	65.2	-11.6	QP	
0.154	53.8	Neutral	65.8	-12.0	QP	
0.182	52.3	Line 1	64.4	-12.1	QP	
0.165	53.1	Neutral	65.2	-12.1	QP	
0.242	49.8	Neutral	62.0	-12.2	QP	
0.176	52.2	Neutral	64.7	-12.5	QP	
0.368	36.0	Neutral	48.5	-12.5	AVG	
0.748	33.4	Line 1	46.0	-12.6	AVG	
0.748	43.2	Line 1	56.0	-12.8	QP	
0.208	50.1	Neutral	63.3	-13.2	QP	
0.368	44.6	Neutral	58.5	-13.9	QP	
0.409	33.4	Neutral	47.7	-14.3	AVG	
0.242	37.5	Neutral	52.0	-14.5	AVG	
0.409	42.6	Neutral	57.7	-15.1	QP	
0.303	44.8	Neutral	60.2	-15.4	QP	
0.646	30.3	Neutral	46.0	-15.7	AVG	
0.154	39.8	Line 1	55.8	-16.0	AVG	
0.182	37.8	Line 1	54.4	-16.6	AVG	
0.165	38.4	Line 1	55.2	-16.8	AVG	
5.000	29.1	Line 1	46.0	-16.9	AVG	
5.000	38.9	Line 1	56.0	-17.1	QP	
0.646	38.7	Neutral	56.0	-17.3	QP	
0.465	39.1	Neutral	56.6	-17.5	QP	
0.465	28.6	Neutral	46.6	-18.0	AVG	
5.000	27.9	Neutral	46.0	-18.1	AVG	
0.303	30.4	Neutral	50.2	-19.8	AVG	
0.208	32.6	Neutral	53.3	-20.7	AVG	
5.000	35.3	Neutral	56.0	-20.7	QP	
0.154	34.3	Neutral	55.8	-21.5	AVG	
0.165	33.4	Neutral	55.2	-21.8	AVG	
0.176	32.8	Neutral	54.7	-21.9	AVG	

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68277
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	EN 300 328 v1.7.1, EN 301 489	Class:	Radio

Run #2: AC Power Port Conducted Emissions, 0.15 - 30MHz, 120V/60Hz. Rx mode





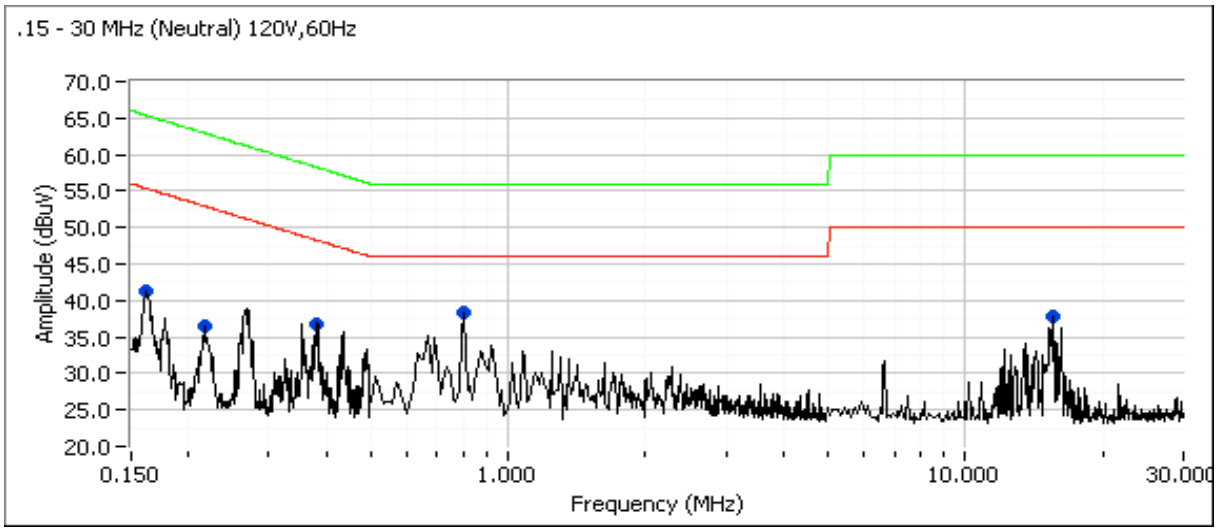
Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68277
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	EN 300 328 v1.7.1, EN 301 489	Class:	Radio

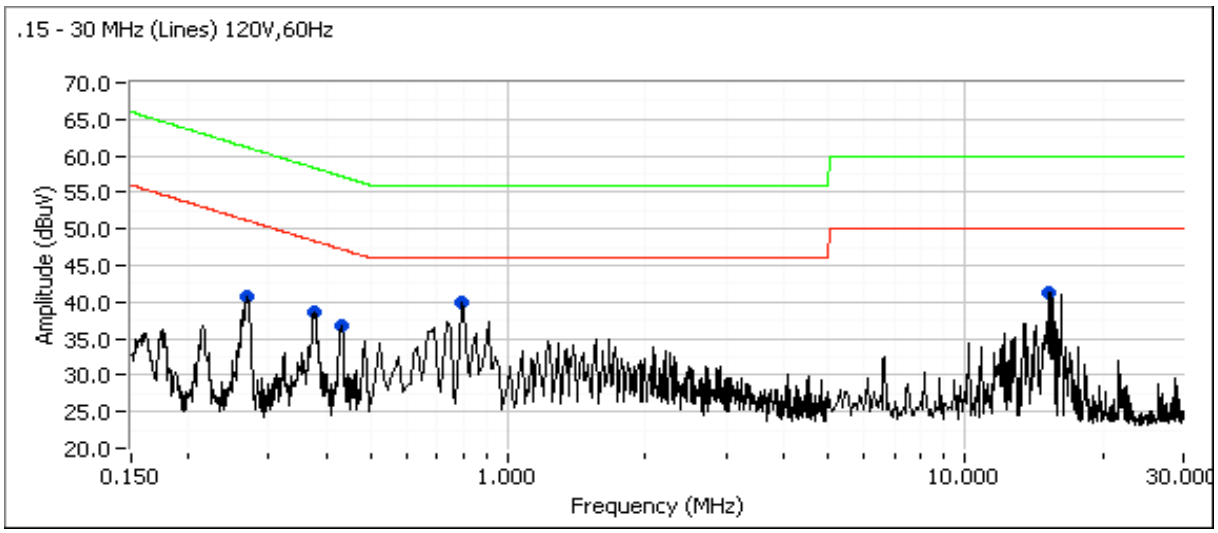
Frequency	Level	AC	EN55022 B		Detector	Comments
MHz	dBµV	Line	Limit	Margin	QP/Ave	
0.804	38.8	Neutral	46.0	-7.2	Peak	Note 1
15.625	42.3	Neutral	50.0	-7.7	Peak	Note 1
0.281	41.2	Neutral	50.8	-9.6	Peak	Note 1
0.423	37.5	Neutral	47.4	-9.9	Peak	Note 1
0.725	34.9	Line 1	46.0	-11.1	Peak	Note 1
0.276	38.5	Line 1	50.9	-12.4	Peak	Note 1
15.562	37.6	Line 1	50.0	-12.4	Peak	Note 1
0.185	38.3	Neutral	54.3	-16.0	Peak	Note 1
0.186	37.2	Line 1	54.2	-17.0	Peak	Note 1
0.151	38.0	Line 1	56.0	-18.0	Peak	Note 1

Note 1:	No QP readings taken. All peak readings are more then 6-dB below the average limit.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68277
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	EN 300 328 v1.7.1, EN 301 489	Class:	Radio

Run #3: AC Power Port Conducted Emissions, 0.15 - 30MHz, 120V/60Hz. Tx mode





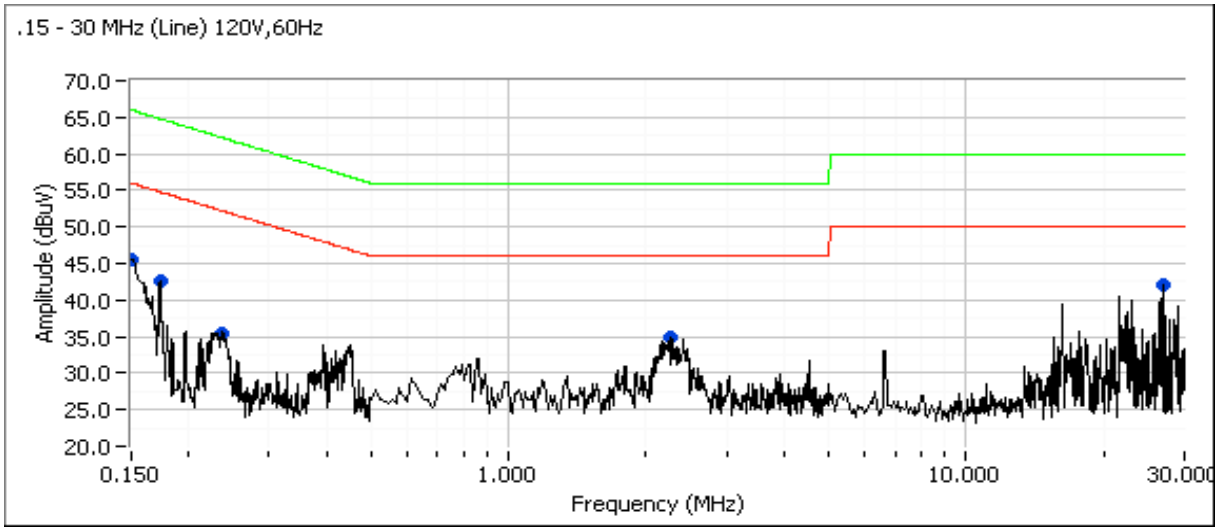
Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68277
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	EN 300 328 v1.7.1, EN 301 489	Class:	Radio

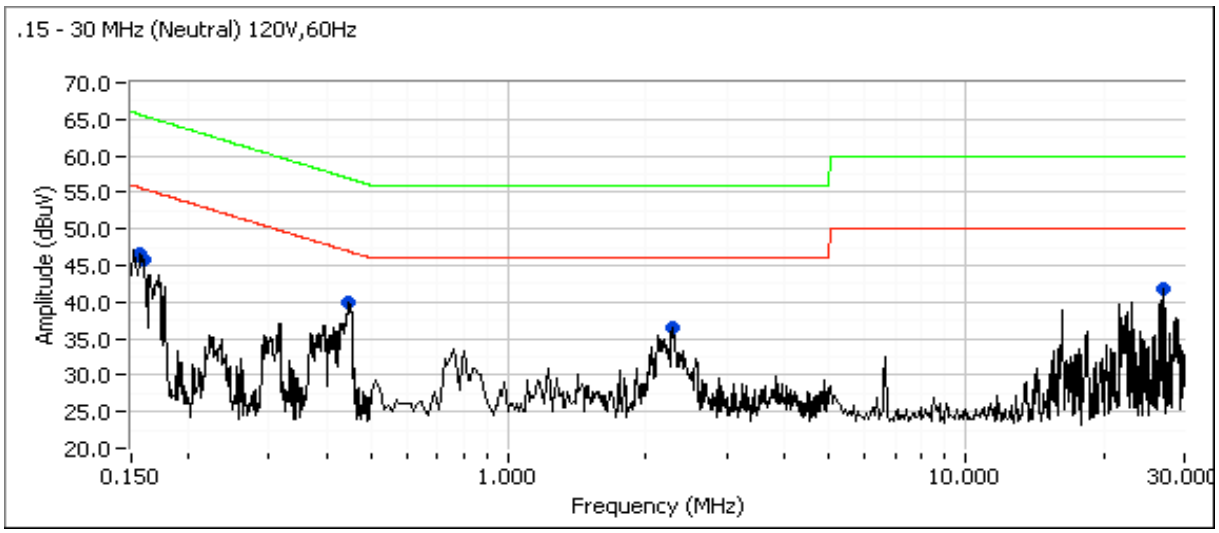
Frequency	Level	AC	EN55022 B		Detector	Comments
MHz	dBµV	Line	Limit	Margin	QP/Ave	
0.793	39.9	Line 1	46.0	-6.1	Peak	Note 1
0.804	38.4	Neutral	46.0	-7.6	Peak	Note 1
15.250	41.3	Line 1	50.0	-8.7	Peak	Note 1
0.377	38.7	Line 1	48.4	-9.7	Peak	Note 1
0.268	40.8	Line 1	51.2	-10.4	Peak	Note 1
0.433	36.8	Line 1	47.2	-10.4	Peak	Note 1
0.383	36.8	Neutral	48.2	-11.4	Peak	Note 1
15.625	37.9	Neutral	50.0	-12.1	Peak	Note 1
0.162	41.3	Neutral	55.3	-14.0	Peak	Note 1
0.217	36.6	Neutral	52.9	-16.3	Peak	Note 1

Note 1:	No QP readings taken. All peak readings are more then 6-dB below the average limit.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68277
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	EN 300 328 v1.7.1, EN 301 489	Class:	Radio

Run #4: AC Power Port Conducted Emissions, 0.15 - 30MHz, 120V/60Hz. POE





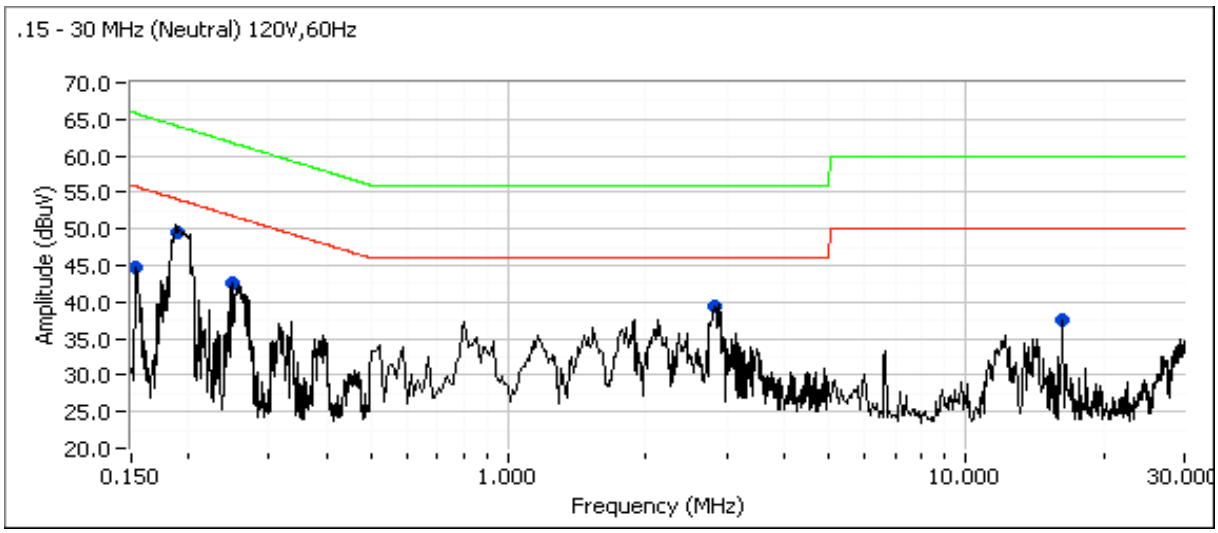
Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68277
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	EN 300 328 v1.7.1, EN 301 489	Class:	Radio

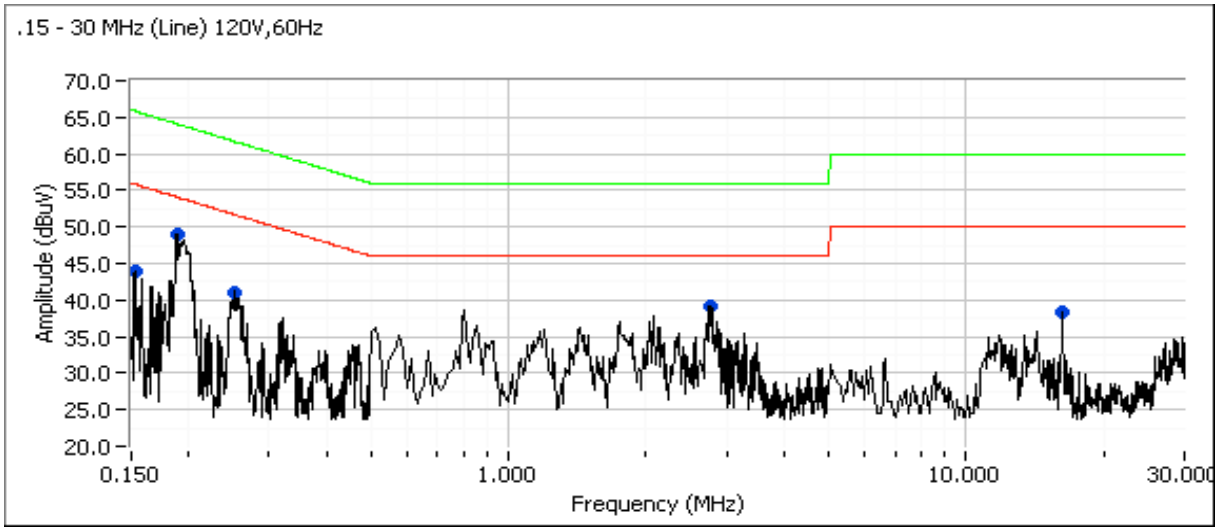
Frequency	Level	AC	EN55022 B		Detector	Comments
MHz	dBµV	Line	Limit	Margin	QP/Ave	
0.150	45.6	Line 1	56.0	-10.4	Peak	
0.236	35.5	Line 1	52.2	-16.7	Peak	
0.174	42.7	Line 1	54.8	-12.1	Peak	
2.255	34.8	Line 1	46.0	-11.2	Peak	
27.125	42.1	Line 1	50.0	-7.9	Peak	
0.157	46.6	Neutral	55.6	-9.0	Peak	
0.160	45.8	Neutral	55.5	-9.7	Peak	
0.448	39.9	Neutral	46.9	-7.0	Peak	
2.277	36.5	Neutral	46.0	-9.5	Peak	
27.125	41.9	Neutral	50.0	-8.1	Peak	

Note 1:	No QP readings taken. All peak readings are more then 6-dB below the average limit.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68277
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	EN 300 328 v1.7.1, EN 301 489	Class:	Radio

Run #5: AC Power Port Conducted Emissions, 0.15 - 30MHz, 120V/60Hz. Mitra MPB-1201250





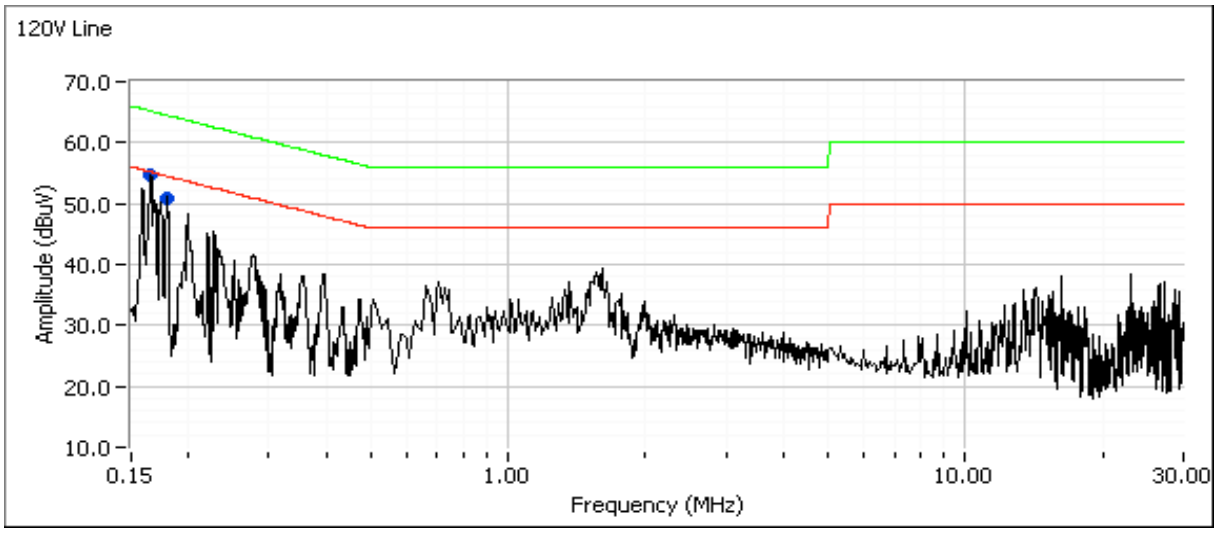
Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68277
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	EN 300 328 v1.7.1, EN 301 489	Class:	Radio

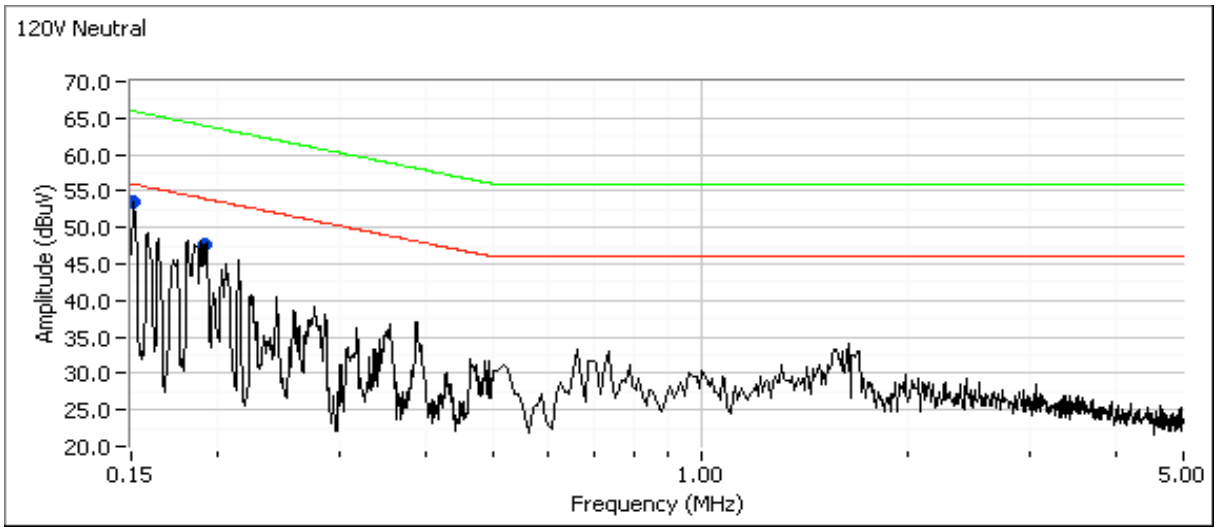
Frequency	Level	AC	EN55022 B		Detector	Comments
MHz	dBµV	Line	Limit	Margin	QP/Ave	
2.829	39.3	Neutral	46.0	-6.7	Peak	Note 1
2.773	39.2	Line 1	46.0	-6.8	Peak	Note 1
0.252	41.1	Line 1	51.7	-10.6	Peak	Note 1
0.153	43.9	Line 1	55.9	-12.0	Peak	Note 1
16.250	38.3	Line 1	50.0	-11.7	Peak	Note 1
0.189	30.5	Line 1	54.1	-23.6	AVG	
0.189	45.7	Line 1	64.1	-18.4	QP	
0.249	42.7	Neutral	51.8	-9.1	Peak	Note 1
0.154	44.7	Neutral	55.8	-11.1	Peak	Note 1
16.250	37.5	Neutral	50.0	-12.5	Peak	Note 1
0.189	31.6	Neutral	54.1	-22.5	AVG	
0.189	47.1	Neutral	64.1	-17.0	QP	

Note 1:	No QP readings taken. All peak readings are more then 6-dB below the average limit.

Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68277
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	EN 300 328 v1.7.1, EN 301 489	Class:	Radio

Run #2: AC Power Port Conducted Emissions, 0.15 - 30MHz, 120V/60Hz
PSA-12R-12 AUS120120, Rx mode





Client:	Ruckus Wireless	Job Number:	J68059
Model:	2231, 2232, 2241, 2242, 2252, 2252, 2922, 2932, 2942, 2952, 2962	T-Log Number:	T68277
		Account Manager:	Richard Gencev
Contact:	Craig Owens		
Standard:	EN 300 328 v1.7.1, EN 301 489	Class:	Radio

Run 2 Continued

Frequency	Level	AC	EN55022 B		Detector	Comments
MHz	dBµV	Line	Limit	Margin	QP/Ave	
0.152	46.0	Neutral	65.9	-19.9	QP	
0.165	44.5	Line 1	65.2	-20.7	QP	
0.180	42.2	Line 1	64.5	-22.3	QP	
0.192	39.7	Neutral	63.9	-24.2	QP	
0.192	24.6	Neutral	53.9	-29.3	Average	
0.165	23.5	Line 1	55.2	-31.7	Average	
0.152	22.9	Neutral	55.9	-33.0	Average	
0.180	20.0	Line 1	54.5	-34.5	Average	

EXHIBIT 3: Photographs of Test Configurations

6 Pages

EXHIBIT 4: Proposed FCC ID Label & Label Location

EXHIBIT 5: Detailed Photographs of Ruckus Wireless Model 2942Construction

Pages

EXHIBIT 6: Operator's Manual for Ruckus Wireless Model 2942

Pages

EXHIBIT 7: Block Diagram of Ruckus Wireless Model 2942

Pages

EXHIBIT 8: Schematic Diagrams for Ruckus Wireless Model 2942

Pages

EXHIBIT 9: Theory of Operation for Ruckus Wireless Model 2942

Pages

EXHIBIT 10: Advertising Literature

Pages

EXHIBIT 11: RF Exposure Information

Pages