

EMC Test Report

Application for Class 2 Permissive Change/Re-assessment

Industry Canada RSS-Gen Issue 3 / RSS 210 Issue 8 FCC Part 15, Subpart E

Model: WS-AP3710e

FCC ID: QQD10E
IC CERTIFICATION #: 5248S-10E

APPLICANT: Flextronics
21 Richardson Side Road
Kanata, ON K2K 2C1, Canada

TEST SITE(S): National Technical Systems - Silicon Valley
41039 Boyce Road.
Fremont, CA. 94538-2435

IC SITE REGISTRATION #: 2845B-4, 2845B-5, 2845B-7

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April 18, 19, 21, and 22, 2013

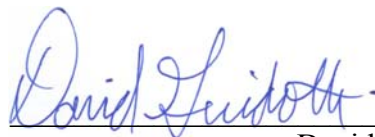
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PROGRAM MGR /
TECHNICAL REVIEWER:



David W. Bare
Chief Engineer

QUALITY ASSURANCE DELEGATE /
FINAL REPORT PREPARER:



David Guidotti
Senior Technical Writer



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REVISION HISTORY

Rev#	Date	Comments	Modified By
-	11-20-2013	Initial release	

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SCOPE

An electromagnetic emissions test has been performed on the Flextronics model WS-AP3710e, pursuant to the following rules:

- Industry Canada RSS-Gen Issue 3

- RSS 210 Issue 8 “Low-power Licence-exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment”

- FCC Part 15, Subpart E requirements for UNII Devices (using FCC KDB 789033 and KDB 662911)

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 National Technical Systems - Silicon Valley test procedures:

- ANSI C63.4:2003

- ANSI C63.10-2009

- FCC UNII test procedure, KDB 789033

- FCC Multiple Transmitter Output Test Procedure, KDB 662911

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.

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 Flextronics model WS-AP3710e complied with the requirements of the following regulations:

RSS 210 Issue 8 "Low-power Licence-exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment"
FCC Part 15, Subpart E requirements for UNII Devices

Maintenance of compliance is the responsibility of the manufacturer. Any modifications to the product should be assessed to determine their potential impact on the compliance status of the device with respect to the standards detailed in this test report.

The test results recorded herein are based on a single type test of Flextronics model WS-AP3710e and therefore apply only to the tested sample. The sample was selected and prepared by Georges Fares of Flextronics.

DEVIATIONS FROM THE STANDARDS

No deviations were made from the published requirements listed in the scope of this report.

TEST RESULTS SUMMARY**UNII / LELAN DEVICES****Operation in the 5.25 – 5.35 GHz Band**

FCC Rule Part	RSS Rule Part	Description	Measured Value / Comments	Limit / Requirement	Result
15.407(a)(2)		Min 26dB Bandwidth	a: 36.5 MHz n20: 40.2 MHz n40: 49.3 MHz	N/A – limits output power if < 20MHz	N/A
15.407 (a)(2)		Output Power	802.11a: 19.9 dBm n20: 22.3 dBm n40: 20.8 dBm (Max eirp: 0.495 W) ¹	a:23.2dBm ² n20: 24.0 n40: 24.0	Complies
	A9.2(2)			a: 22.5dBm ³ n20: 23.6 ³ n40: 24.0	Complies
15.407 (a)(2)	-	Power Spectral Density	a: 5.1 dBm/MHz n20: 6.6 dBm/MHz n40: 5.7 dBm/MHz	6.7 ⁴ dBm/MHz	Complies
-	A9.2 (2) A9.4(2)				Complies
Note 1: EIRP calculated using antenna gain of 9.8 dBi (three 5 dBi antennas) for the highest EIRP system in legacy mode.					
Note 2: Limit reduced to 23.2 dBm from 24 dBm as effective antenna gain exceeded 6 dBi by 0.8 dBi for legacy mode.					
Note 3: Limit reduced to 22.5/23.6 dBm from 24 dBm as effective antenna gain exceeded 6 dBi by 0.8 dBi for legacy mode and the minimum 99% BW is 16.9/18.1 MHz for 20 MHz modes.					
Note 4: Limit reduced to 6.7 dBm from 11 dBm as effective antenna gain exceeded 6 dBi by 4.3 dBi.					

Operation in the 5.47 - 5.6 MHz and 5.65 – 5.725 GHz Bands

FCC Rule Part	RSS Rule Part	Description	Measured Value / Comments	Limit / Requirement	Result
15.407(a)(2)		Min 26dB Bandwidth	a: 27.0 MHz n20: 26.7 MHz n40: 49.2 MHz	N/A – limits output power if < 20MHz	N/A
15.407 (a)(2)		Output Power	802.11a: 20.1 dBm n20: 22.0 dBm n40: 20.9 dBm (Max eirp: 0.493 W) ¹	a:23.2dBm ² n20: 24.0 n40: 24.0	Complies
	A9.2(3)			a: 22.5dBm ³ n20: 23.6 ³ n40: 24.0	Complies
15.407 (a)(2)	-	Power Spectral Density	a: 5.1 dBm/MHz n20: 6.6 dBm/MHz n40: 5.3 dBm/MHz	6.7 ⁴ dBm/MHz	Complies
-	A9.2 (3) A9.4(2)				Complies
Note 1: EIRP calculated using antenna gain of 10.3 dBi (three 5.5 dBi antennas) for the highest EIRP system in legacy mode.					
Note 2: Limit reduced to 23.2 dBm from 24 dBm as effective antenna gain exceeded 6 dBi by 0.8 dBi for legacy mode.					
Note 3: Limit reduced to 22.5/23.6 dBm from 24 dBm as effective antenna gain exceeded 6 dBi by 0.8 dBi for legacy mode and the minimum 99% BW is 16.8/18.0 MHz for 20 MHz modes.					
Note 4: Limit reduced to 6.7 dBm from 11 dBm as effective antenna gain exceeded 6 dBi by 4.3 dBi.					

Requirements for all U-NII/LELAN bands

FCC Rule Part	RSS Rule Part	Description	Measured Value / Comments	Limit / Requirement	Result
15.407	A9.4(1)	Modulation	System uses 802.11a/n techniques	Digital modulation is required	Complies
15.407(b) (6) / 15.209	A9.2(2) (3) / RSS-GEN	Spurious Emissions below 1GHz	No change from original filing as emissions below 1 GHz were found to be unrelated to the frequency of opeation		
15.407(b) (5) / 15.209	A9.2(2) (3) / RSS-GEN	Spurious Emissions above 1GHz	53.9 dBμV/m @ 5350.1 MHz (-0.1 dB)	Refer to page 21	Complies
15.407(a)(6)	-	Peak Excursion Ratio	a: 8.6 dB n20: 8.1 dB n40: 9.0 dB	< 13dB	Complies
	A9.4(3)	Channel Selection	Spurious emissions tested at outermost channels in each band	Device was tested on the top, bottom and center channels in each band	N/A
15			Measurements on three channels in each band		
15.407 (c)	A9.4(4)	Operation in the absence of information to transmit	No change from original filing		
15.407 (g)		Frequency Stability	No change from original filing		
15.407 (h) (1)		Transmit Power Control	Device does not exceed 500 mW EIRP	If power > 500 mW EIRP, TPC is required	Complies
15.407 (h) (2)	A9.3	Dynamic frequency Selection	Refer to separate report R91144		N/A
	A9.4(6) & (7)	User Manual information	No change from original filing		

GENERAL REQUIREMENTS APPLICABLE TO ALL BANDS

FCC Rule Part	RSS Rule part	Description	Measured Value / Comments	Limit / Requirement	Result (margin)
15.203	-	RF Connector	No change from original filing		
15.407 (b) (6) / 15.207	RSS GEN Table 2	AC Conducted Emissions	No change from original filing		
15.407 (f)	RSS 102	RF Exposure Requirements	Refer to MPE calculations, RSS 102 declaration and User Manual statements.	Refer to OET 65, FCC Part 1 and RSS 102	Complies
-	RSP 100 RSS GEN 7.1.3	User Manual	No change from original filing		
-	RSP 100 RSS GEN 7.1.2	User Manual	No change from original filing		
-	RSP 100 RSS GEN 4.4.1 RSS-210 A9.2(2) (3)	99% Bandwidth	5250-5350 MHz a: 17.1 MHz n20: 20.2 MHz n40: 36.6 MHz 5470-5725 MHz a: 16.9 MHz n20: 18.1 MHz n40: 36.6 MHz	Information only	N/A

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	Measurement Unit	Frequency Range	Expanded Uncertainty
RF power, conducted (power meter)	dBm	25 to 7000 MHz	± 0.52 dB
RF power, conducted (Spectrum analyzer)	dBm	25 to 7000 MHz	± 0.7 dB
Conducted emission of transmitter	dBm	25 to 26500 MHz	± 0.7 dB
Conducted emission of receiver	dBm	25 to 26500 MHz	± 0.7 dB
Radiated emission (substitution method)	dBm	25 to 26500 MHz	± 2.5 dB
Radiated emission (field strength)	dB μ V/m	25 to 1000 MHz	± 3.6 dB
		1000 to 40000 MHz	± 6.0 dB
Conducted Emissions (AC Power)	dB μ V	0.15 to 30 MHz	± 2.4 dB

EQUIPMENT UNDER TEST (EUT) DETAILS**GENERAL**

The Flextronics model WS-AP3710e is a multiple radio access point, each radio operating in 3x3 MIMO and 3 chain legacy modes. It incorporates both a 2.4 GHz band 802.11b/g/n and a 5 GHz band 802.11a/n radio in a single enclosure. Since the EUT could be placed in any position 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 48 Volts DC, 0.8 Amps.

The samples were received on November 29, 2012 and April 11, 2013 and tested on February 19, 20, 21, 25, 28, March 1, 2, 3, 4, 5, April 18, 19, 21, and 22, 2013. The following samples of the EUT were tested:

Company	Model	Description	Serial Number	FCC ID
Flextronics	WS-AP3710e	Access Point	123503115942	QQD10E
Flextronics	WS-AP3710e	Access Point	1245049259450 000	QQD10E

ANTENNA SYSTEM

The antenna system consists of a 6 element Omni antenna (gain of 2.0dBi), two Sector antennas (gain of 5 dBi) or two 3 element Panel antennas (gain of 3 dBi in the 2.4 GHz band and 4 dBi in the 5.8 GHz band) or 6 element Sector antenna (gain of 12.5 dBi in the 2.4 GHz band and 11.5 dBi in the 5.8 GHz band). However, this antenna will be used with at least 6dB of attenuation in the feed line and thus the effective gains are 6.5 dBi and 5.5 dBi in the 2.4 and 5 GHz bands respectively. When two antennas are used, they are the same for both radios.

Model	Application	Description	Gain (dBi)	Frequency (GHz)	Connector type
WS-AI-DX02360	Indoor	MIMO, Dual-band	2 dBi	2.4 – 2.5 5.15 – 5.85	RSMA
WS-AI-DT04360	Indoor	MIMO, Panel	3.0 dBi 4.0 dBi	2.4 – 2.5 4.9 – 5.9	RSMA
WS-AI-DT05120	Indoor	MIMO, Sector, dual-band	5 dBi	2.3 – 2.7 4.9 – 6.1	RSMA
WS-AI-DX13025	Indoor	MIMO, Sector, dual-band	6.5 dBi 5.5 dBi	2.4 – 2.5 5.15 – 5.85	RSMA

ENCLOSURE

The EUT enclosure measures approximately 20 by 18.5 by 3 centimeters. It is constructed of uncoated plastic and cast metal.

MODIFICATIONS

No modifications were made to the EUT during the time the product was at National Technical Systems - Silicon Valley.

SUPPORT EQUIPMENT

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

Company	Model	Description	Serial Number	FCC ID
PowerDsine	9001G-40/SP	POE adapter	N114565190018 46A01	-
Dell	Latitude D610	Laptop Computer	26895386773	-

EUT INTERFACE PORTS

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

Port	Connected To	Description	Cable(s)	Length(m)
			Shielded or Unshielded	
Ethernet/POE	Remote POE adapter or switch	Cat 5	Unshielded	10
Remote POE Data or switch	Laptop	Cat 5	Unshielded	2

The console port was not connected during testing as this is used only during configuration of the radio.

EUT OPERATION

During testing, the EUT was configured to transmit a continuous modulated signal at the selected frequency and power level on all three chains of both radios.

TEST SITE**GENERAL INFORMATION**

Final test measurements were taken at the test sites listed below. 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 and with industry Canada.

Site	Registration Numbers		Location
	FCC	Canada	
Chamber 7	A2LA accreditation	2845B-7	41039 Boyce Road Fremont, CA 94538-2435

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. The test site(s) contain 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.

CONDUCTED EMISSIONS CONSIDERATIONS

Conducted emissions testing is performed in conformance with ANSI C63.4:2003. 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.

MEASUREMENT INSTRUMENTATION

RECEIVER SYSTEM

An EMI receiver as specified in CISPR 16-1-1 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 specifies 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.

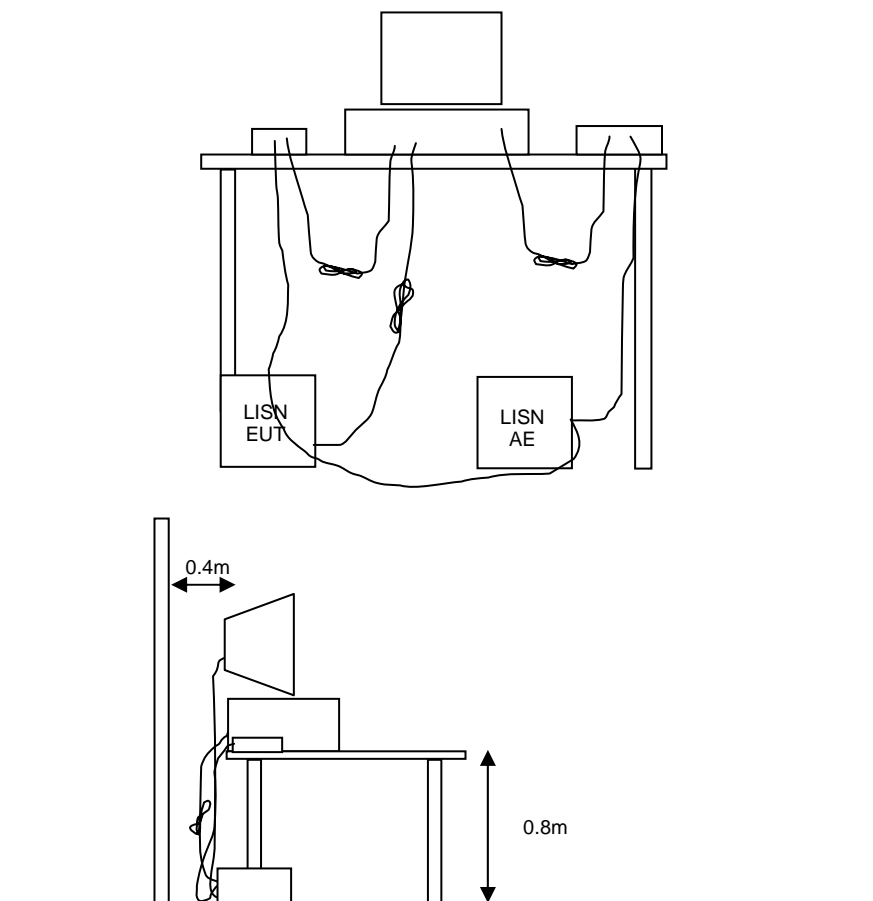


Figure 1 Typical Conducted Emissions Test Configuration

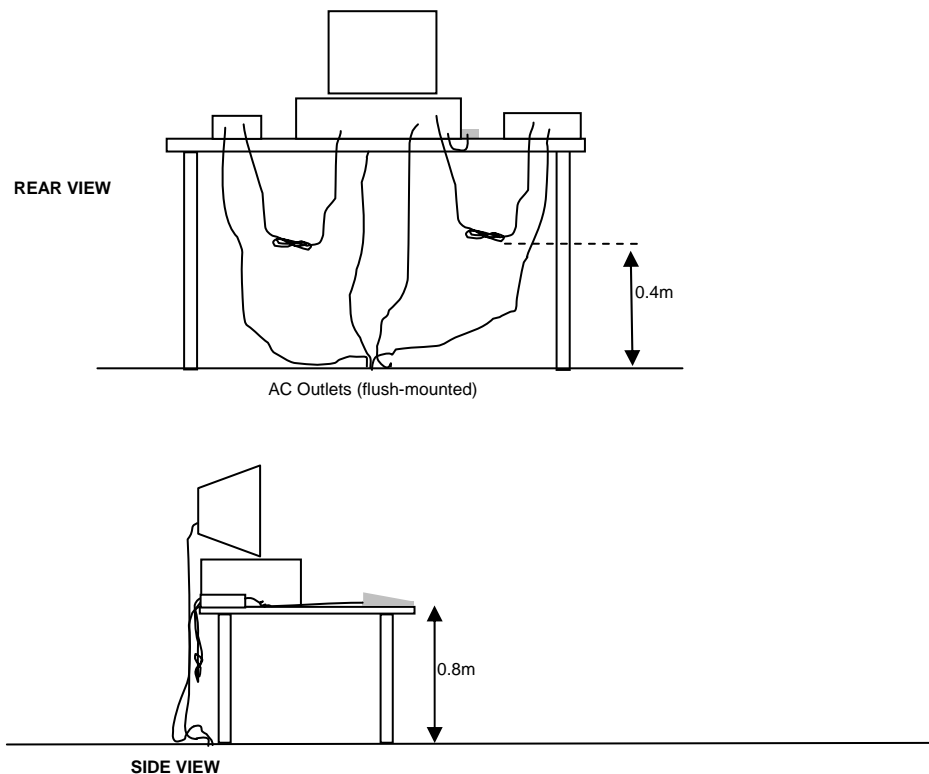
RADIATED EMISSIONS

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.

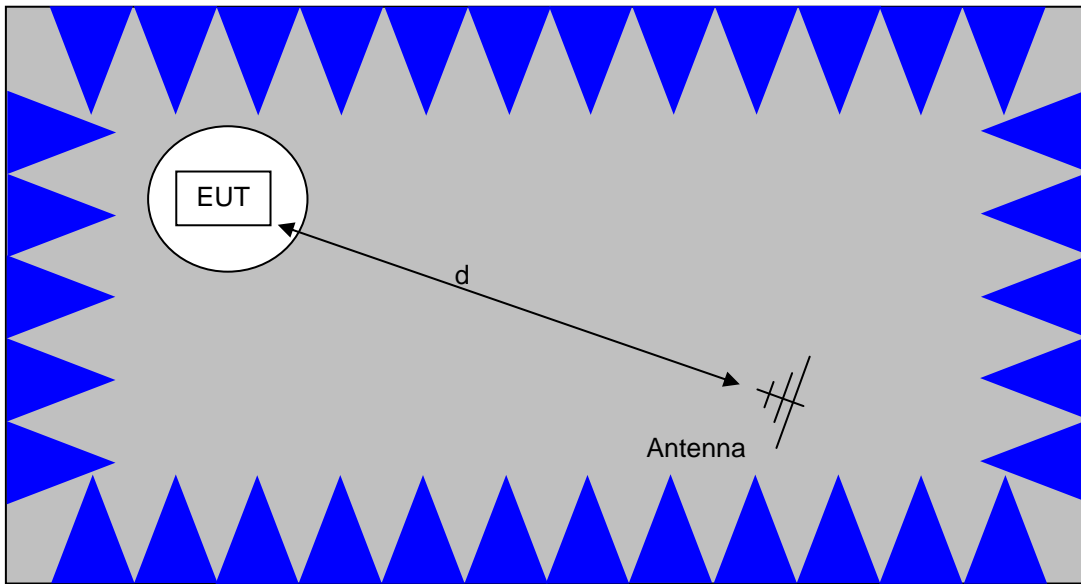
A speaker is provided in the receiver to aid in discriminating between EUT and ambient emissions. Other methods used during the preliminary scan for EUT emissions involve scanning with near field magnetic loops, monitoring I/O cables with RF current clamps, and cycling power to the EUT.

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 1 meter from the EUT and the antenna height is restricted to a maximum of 2.5 meters.

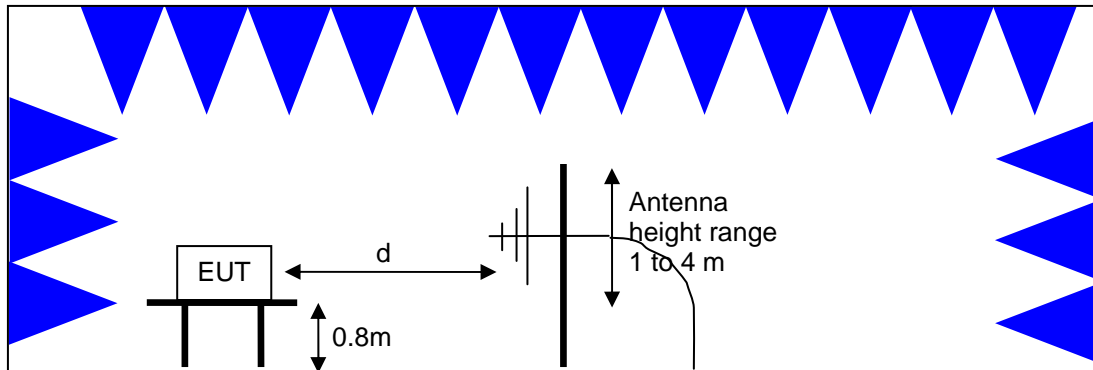


Typical Test Configuration for Radiated Field Strength Measurements



The anechoic materials on the walls and ceiling ensure compliance with the normalized site attenuation requirements of CISPR 16 / CISPR 22 / ANSI C63.4 for an alternate test site at the measurement distances used.

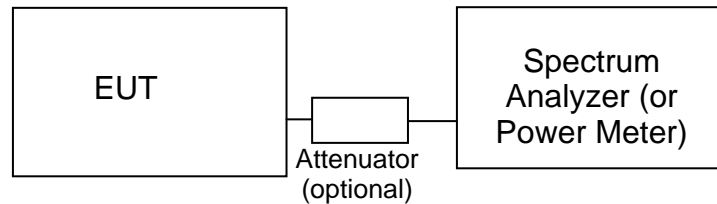
Floor-standing equipment is placed on the floor with insulating supports between the unit and the ground plane.



Test Configuration for Radiated Field Strength Measurements
Semi-Anechoic Chamber, Plan and Side Views

CONDUCTED EMISSIONS FROM ANTENNA PORT

Direct measurements of power, bandwidth and power spectral density are performed, where possible, with the antenna port of the EUT connected to either the power meter or spectrum analyzer via a suitable attenuator and/or filter. These are used to ensure that the front end of the measurement instrument is not overloaded by the fundamental transmission.

**Test Configuration for Antenna Port Measurements**

Measurement bandwidths (video and resolution) are set in accordance with the relevant standards and National Technical Systems - Silicon Valley's test procedures for the type of radio being tested. When power measurements are made using a resolution bandwidth less than the signal bandwidth the power is calculated by summing the power across the signal bandwidth using either the analyzer channel power function or by capturing the trace data and calculating the power using software. In both cases the summed power is corrected to account for the equivalent noise bandwidth (ENBW) of the resolution bandwidth used.

If power averaging is used (typically for certain digital modulation techniques), the EUT is configured to transmit continuously. Power averaging is performed using either the built-in function of the analyzer or, if the analyzer does not feature power averaging, using external software. In both cases the average power is calculated over a number of sweeps (typically 100). When the EUT cannot be configured to continuously transmit then either the analyzer is configured to perform a gated sweep to ensure that the power is averaged over periods that the device is transmitting or power averaging is disabled and a max-hold feature is used.

If a power meter is used to make output power measurements the sensor head type (peak or average) is stated in the test data table.

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:

CONDUCTED EMISSIONS SPECIFICATION LIMITS: FCC 15.207; FCC 15.107(a), RSS GEN

The table below shows the limits for the emissions on the AC power line from an intentional radiator and a receiver.

Frequency (MHz)	Average Limit (dBuV)	Quasi Peak Limit (dBuV)
0.150 to 0.500	Linear decrease on logarithmic frequency axis between 56.0 and 46.0	Linear decrease on logarithmic frequency axis between 66.0 and 56.0
0.500 to 5.000	46.0	56.0
5.000 to 30.000	50.0	60.0

GENERAL TRANSMITTER RADIATED EMISSIONS SPECIFICATION LIMITS

The table below shows the limits for the spurious emissions from transmitters that fall in restricted bands¹ (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

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

FCC 15.407 (a) OUTPUT POWER LIMITS

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
5150 – 5250	50mW (17 dBm)	4 dBm/MHz
5250 – 5350	250 mW (24 dBm)	11 dBm/MHz
5725 – 5825	1 Watts (30 dBm)	17 dBm/MHz

For system using antennas with gains exceeding 6dBi, the output power and power spectral density limits are reduced by 1dB for every dB the antenna gain exceeds 6dBi. Fixed point-to-point applications using the 5725 – 5825 MHz band may use antennas with gains of up to 23dBi without this limitation. If the gain exceeds 23dBi then the output power limit of 1 Watt is reduced by 1dB for every dB the gain exceeds 23dBi.

The peak excursion envelope is limited to 13dB.

OUTPUT POWER LIMITS –LELAN DEVICES

The table below shows the limits for output power and output power density defined by RSS 210. 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
5150 – 5250	200mW (23 dBm) eirp	10 dBm/MHz eirp
5250 – 5350	250 mW (24 dBm) ² 1W (30dBm) eirp	11 dBm/MHz
5470 – 5725	250 mW (24 dBm) ³ 1W (30dBm) eirp	11 dBm/MHz
5725 – 5825	1 Watts (30 dBm) 4W eirp	17 dBm/MHz

In addition, the power spectral density limit shall be reduced by 1dB for every dB the highest power spectral density exceeds the “average” power spectral density) by more than 3dB. The “average” power spectral density is determined by dividing the output power by $10\log(\text{EBW})$ where EBW is the 99% power bandwidth.

Fixed point-to-point applications using the 5725 – 5825 MHz band may use antennas with gains of up to 23dBi without this limitation. If the gain exceeds 23dBi then the output power limit of 1 Watt is reduced by 1dB for every dB the gain exceeds 23dBi.

² If EIRP exceeds 500mW the device must employ TPC

³ If EIRP exceeds 500mW the device must employ TPC

SPURIOUS EMISSIONS LIMITS –UNII and LELAN DEVICES

The spurious emissions limits for signals below 1GHz are the FCC/RSS-GEN general limits. For emissions above 1GHz, signals in restricted bands are subject to the FCC/RSS GEN general limits. All other signals have a limit of –27dBm/MHz, which is a field strength of 68.3dBuV/m/MHz at a distance of 3m. This is an average limit so the peak value of the emission may not exceed –7dBm/MHz (88.3dBuV/m/MHz at a distance of 3m). For devices operating in the 5725-5850Mhz bands under the LELAN/UNII rules, the limit within 10Mhz of the allocated band is increased to –17dBm/MHz.

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 d (meters) from the equipment under test:

$$E = \frac{1000000 \sqrt{30 P}}{d} \quad \text{microvolts per meter}$$

where P is the eirp (Watts)

For a measurement at 3m the conversion from a logarithmic value for field strength (dBuV/m) to an eirp power (dBm) is -95.3dB.

Appendix A Test Equipment Calibration Data

<u>Manufacturer</u>	<u>Description</u>	<u>Model</u>	<u>Asset #</u>	<u>Cal Due</u>
Radiated Emissions, 1,000 - 6,500 MHz, 19-Feb-13 to 21-Feb-13				
EMCO	Antenna, Horn, 1-18 GHz	3115	1561	7/12/2014
Rohde & Schwarz	EMI Test Receiver, 20 Hz-7 GHz	ESIB7	1756	5/21/2013
Micro-Tronics	Band Reject Filter, 2400-2500 MHz	BRM50702-02	2249	10/11/2013
Radio Antenna Port (Power and Spurious Emissions), 21-Feb-13 to 26-Feb-13				
Agilent	3Hz -44GHz PSA Spectrum Analyzer	E4446A	2796	1/28/2014
Radiated Emissions, 1000 - 40,000 MHz, 28-Feb-13 to 05-Mar-13				
Hewlett Packard	Microwave Preamplifier, 1-26.5GHz	8449B	263	3/29/2013
EMCO	Antenna, Horn, 1-18 GHz (SA40-Red)	3115	1142	8/23/2014
Hewlett Packard	High Pass filter, 8.2 GHz (Red System)	P/N 84300-80039 (84125C)	1152	8/2/2013
Hewlett Packard	SpecAn 9 kHz - 40 GHz, FT (SA40) Blue	8564E (84125C)	1393	5/1/2013
Hewlett Packard	Head (Inc flex cable, (1742,1743) Blue)	84125C	1620	5/17/2013
A.H. Systems	Spare System Horn, 18-40GHz	SAS-574, p/n: 2581	2162	5/8/2013
Micro-Tronics	Band Reject Filter, 2400-2500 MHz	BRM50702-02	2249	10/11/2013
Micro-Tronics	Band Reject Filter, 5150-5350 MHz	BRC50703-02	2251	10/11/2013
Radiated Emissions, 1,000 - 18,000 MHz, 18-Apr-13 & 19-Apr-13				
Hewlett Packard	Microwave Preamplifier, 1-26.5GHz	8449B	785	11/9/2013
EMCO	Antenna, Horn, 1-18GHz	3115	868	6/19/2014
Hewlett Packard	SpecAn 30 Hz -40 GHz, SV (SA40) Red	8564E (84125C)	1148	9/14/2013
Rohde & Schwarz	EMI Test Receiver, 20 Hz-7 GHz	ESIB7	1756	5/21/2013
Micro-Tronics	Band Reject Filter, 5150-5350 MHz	BRC50703-02	2239	10/4/2013
Micro-Tronics	Band Reject Filter, 5725-5875 MHz	BRC50705-02	2241	10/4/2013
Micro-Tronics	Band Reject Filter, 2400-2500 MHz	BRM50702-02	2249	10/11/2013
Radiated Emissions, 1000 - 40,000 MHz, 19-Apr-13 & 21-Apr-13				
Hewlett Packard	Microwave Preamplifier, 1-26.5GHz	8449B	785	11/9/2013
EMCO	Antenna, Horn, 1-18GHz	3115	868	6/19/2014
Hewlett Packard	Head (Inc flex cable, 1143, 2198) Red	84125C	1145	7/5/2013
Hewlett Packard	SpecAn 30 Hz -40 GHz, SV (SA40) Red	8564E (84125C)	1148	9/14/2013
A. H. Systems	Blue System Horn, 18-40GHz	SAS-574, p/n: 2581	2159	5/30/2013
Micro-Tronics	Band Reject Filter, 5150-5350 MHz	BRC50703-02	2239	10/4/2013
Micro-Tronics	Band Reject Filter, 5470-5725 MHz	BRC50704-02	2240	10/4/2013

<u>Manufacturer</u>	<u>Description</u>	<u>Model</u>	<u>Asset #</u>	<u>Cal Due</u>
Micro-Tronics	Band Reject Filter, 5725-5875 MHz	BRC50705-02	2241	10/4/2013
Micro-Tronics	Band Reject Filter, 2400-2500 MHz	BRM50702-02	2249	10/11/2013
Radio Antenna Port (Power and Spurious Emissions), 18-Apr-13 & 22-Apr-13				
Agilent Technologies	3Hz -44GHz PSA Spectrum Analyzer	E4446A	2796	1/28/2014

Appendix B Test Data

T89633 Pages 26 - 234

Client:	Flextronics	Job Number:	J89632
Model:	AP3710e	T-Log Number:	T89633
		Account Manager:	Christine Krebill
Contact:	Georges Fares		
Emissions Standard(s):	15.407, RSS-210	Class:	
Immunity Standard(s):		Environment:	Radio

EMC Test Data

For The

Flextronics

Model

AP3710e

Date of Last Test: 4/29/2013

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

RSS-210 (LELAN) and FCC 15.407(UNII)

Antenna Port Measurements

Power, PSD, Peak Excursion, Bandwidth and 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: 2/21/2013
 Test Engineer: Jack Liu
 Test Location: FT Lab 4b

Config. Used: 1
 Config Change: None
 EUT Voltage: POE

General Test Configuration

When measuring the conducted emissions from the EUT's antenna port, the antenna port of the EUT was connected to the spectrum analyzer or power meter via a suitable attenuator to prevent overloading the measurement system. All measurements are corrected to allow for the external attenuators and cables used.

Ambient Conditions:

Temperature: 23 °C
 Rel. Humidity: 40 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Peak Excursion Envelope	15.407(a) (6) 13dB	Pass	a: 8.6dB n20: 8.1dB n40: 9.0dB
2	20dB Signal Bandwidth	15.215	Pass	Signal remains within allocated band.

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: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #1: Peak Excursion Measurement

a 20MHz: Device meets the requirement for the peak excursion

Freq	Peak Excursion(dB)		Freq	Peak Excursion(dB)		Freq	Peak Excursion(dB)	
(MHz)	Value	Limit	(MHz)	Value	Limit	(MHz)	Value	Limit
			5260	8.0	13.0	5500	8.6	13.0
			5300	8.4	13.0	5580	8.0	13.0
			5320	7.9	13.0	5700	8.4	13.0

a 20MHz: Device meets the requirement for the peak excursion

Freq	Peak Excursion(dB)		Freq	Peak Excursion(dB)		Freq	Peak Excursion(dB)	
(MHz)	Value	Limit	(MHz)	Value	Limit	(MHz)	Value	Limit
			5260	7.9	13.0	5500	7.4	13.0
			5300	7.7	13.0	5580	8.0	13.0
			5320	7.5	13.0	5700	8.1	13.0

n 40MHz: Device meets the requirement for the peak excursion

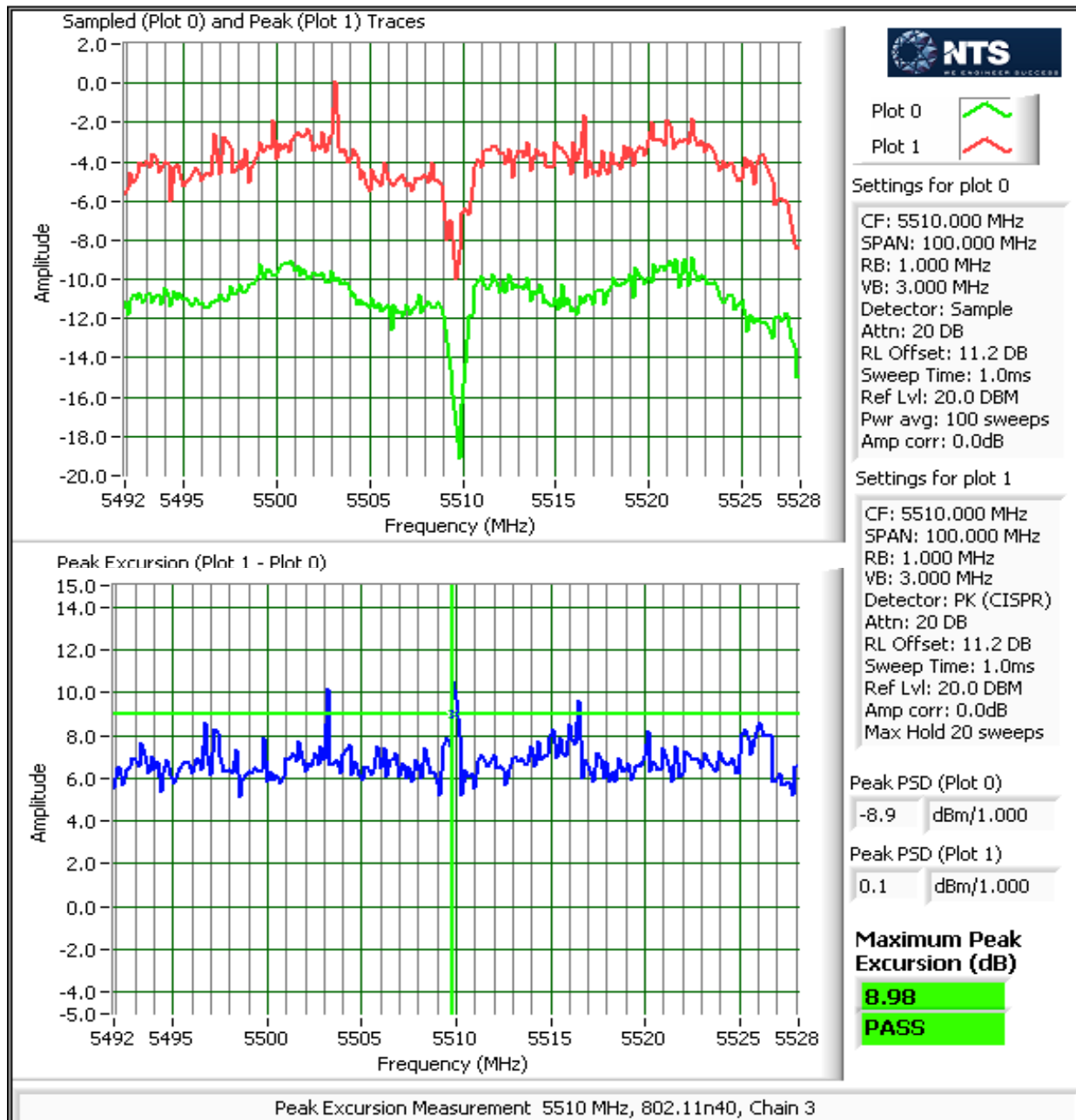
Freq	Peak Excursion(dB)		Freq	Peak Excursion(dB)		Freq	Peak Excursion(dB)	
(MHz)	Value	Limit	(MHz)	Value	Limit	(MHz)	Value	Limit
			5270	7.4	13.0	5510	9.0	13.0
			5310	7.7	13.0	5550	8.0	13.0
						5670	7.7	13.0

Plots Showing Peak Excursion

Trace A: RBW = 1MHz, VBW = 3MHz, Peak hold

Trace B: Same settings as used for power/PSD measurements (RBW = 1 MHz, VBW = 3MHz, Integrated average power)

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

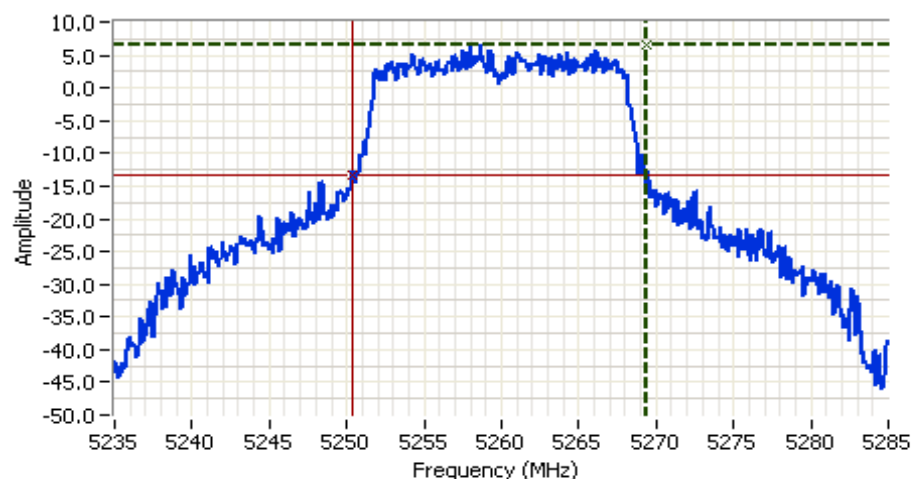
Run #2: 20dB Signal Bandwidth

Shall remain in band and also not in 5600-5650 MHz band.

Power Setting	Frequency (MHz)	Resolution Bandwidth	Bandwidth (MHz) 20dB	F _L or F _H Value (MHz)	Frequency Check (MHz)	Pass or Fail
802.11a						
15	5260	300kHz	19.08	5250.33	5250	PASS
19	5580	300kHz	20.66	5590.08	5600	PASS
18	5660	300kHz	20.66	5650.25	5650	PASS
802.11n20						
15	5260	300kHz	20.08	5250.08	5250	PASS
20	5580	300kHz	22.08	5590.66	5600	PASS
17	5660	300kHz	20.33	5650.16	5650	PASS
802.11n40						
9	5270	500kHz	40.17	5250.17	5250	PASS
16	5550	500kHz	40.83	5570.16	5600	PASS
10	5670	500kHz	40.00	5650.16	5650	PASS

Note 1: Measured on a single chain

Note 2: 20dB bandwidth measured with the instrument bandwidth > 1% of the 20dB Bandwidth



Analyzer Settings

Agilent Technologies, E4446A
 CF: 5260.000 MHz
 SPAN: 50.000 MHz
 RB: 300 kHz
 VB: 1.000 MHz
 Detector: POS
 Attn: 20 DB
 RL Offset: 11.2 DB
 Sweep Time: 1.0ms
 Ref Lvl: 20.0 DBM

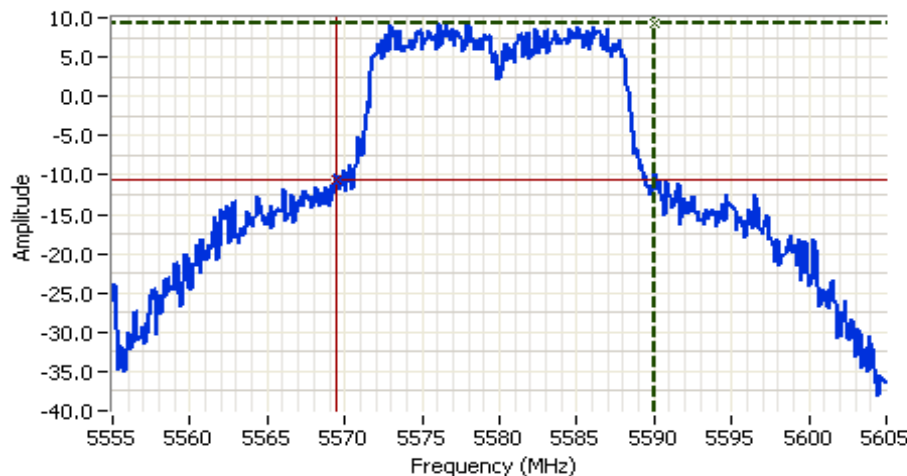
Comments

20dB BW: 19.083 MHz
 802.11 a mode
 Chain2

Cursor 1	5269.4167	6.55	
Cursor 2	5250.3333	-13.45	

Delta Freq. 19.083
 Delta Amplitude 20.00

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A



Analyzer Settings

Agilent Technologies, E4446A
 CF: 5580.000 MHz
 SPAN: 50.000 MHz
 RB: 300 kHz
 VB: 1.000 MHz
 Detector: POS
 Attn: 20 DB
 RL Offset: 11.2 DB
 Sweep Time: 1.0ms
 Ref Lvl: 20.0 DBM

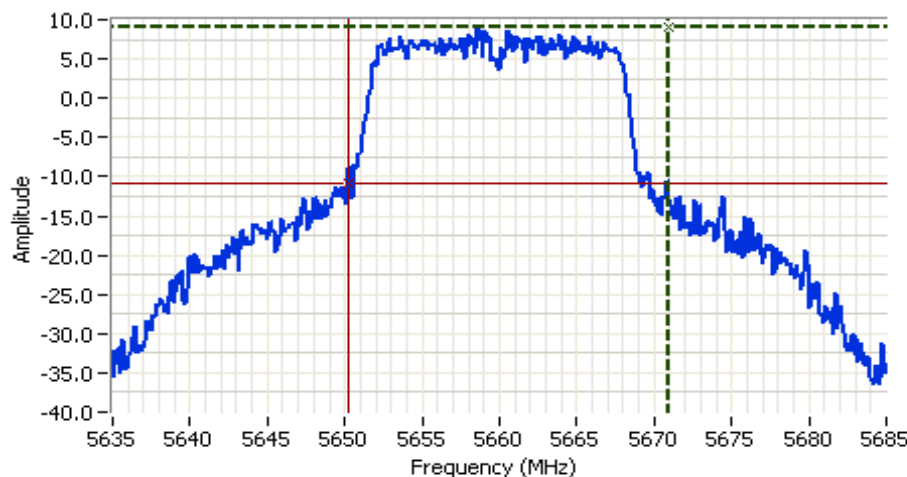
Comments

20dB BW: 20.667 MHz
 802.11 a mode
 Chain2

Cursor 1 5590.0833 9.39
 Cursor 2 5569.4167 -10.61

Delta Freq. 20.667

Delta Amplitude 20.00



Analyzer Settings

Agilent Technologies, E4446A
 CF: 5660.000 MHz
 SPAN: 50.000 MHz
 RB: 300 kHz
 VB: 1.000 MHz
 Detector: POS
 Attn: 20 DB
 RL Offset: 11.2 DB
 Sweep Time: 1.0ms
 Ref Lvl: 20.0 DBM

Comments

20dB BW: 20.667 MHz
 802.11 a mode
 Chain2

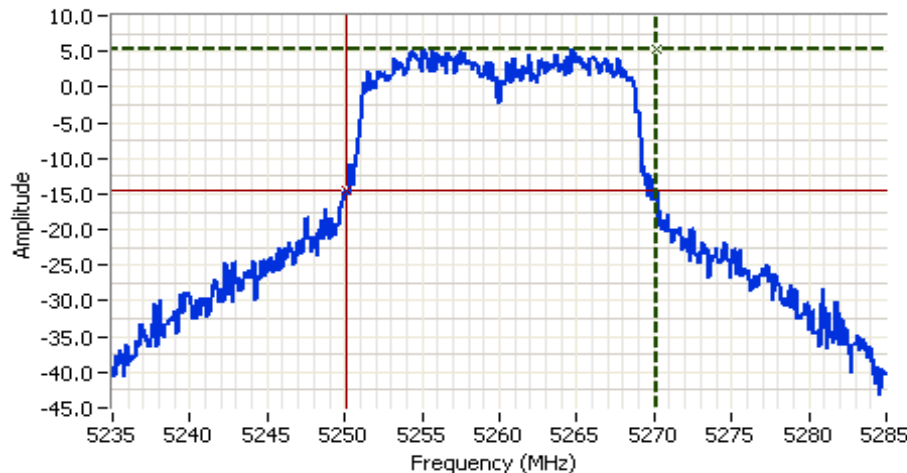
Cursor 1 5670.9167 9.04
 Cursor 2 5650.2500 -10.96

Delta Freq. 20.667

Delta Amplitude 20.00



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

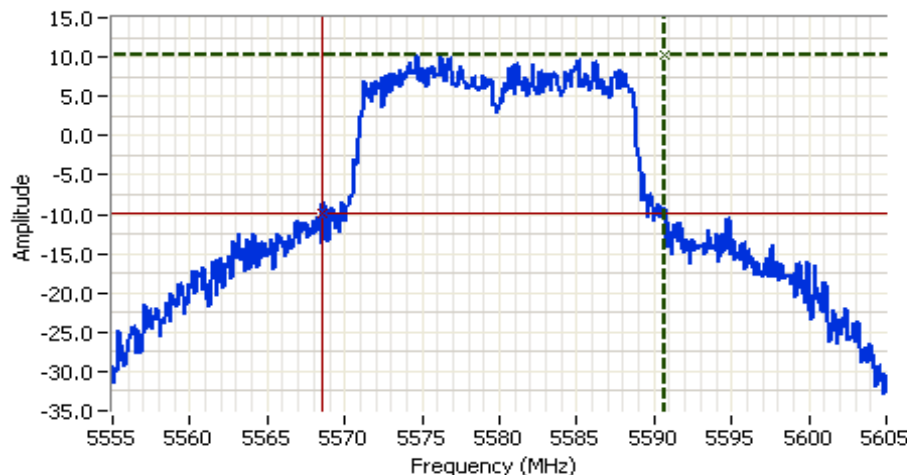


Analyzer Settings

Agilent Technologies, E4446A
 CF: 5260.000 MHz
 SPAN: 50.000 MHz
 RB: 300 kHz
 VB: 1.000 MHz
 Detector: POS
 Attn: 20 DB
 RL Offset: 11.2 DB
 Sweep Time: 1.0ms
 Ref Lvl: 20.0 DBM

Comments

20dB BW: 20.083 MHz
 802.11 n20 mode
 Chain1



Analyzer Settings

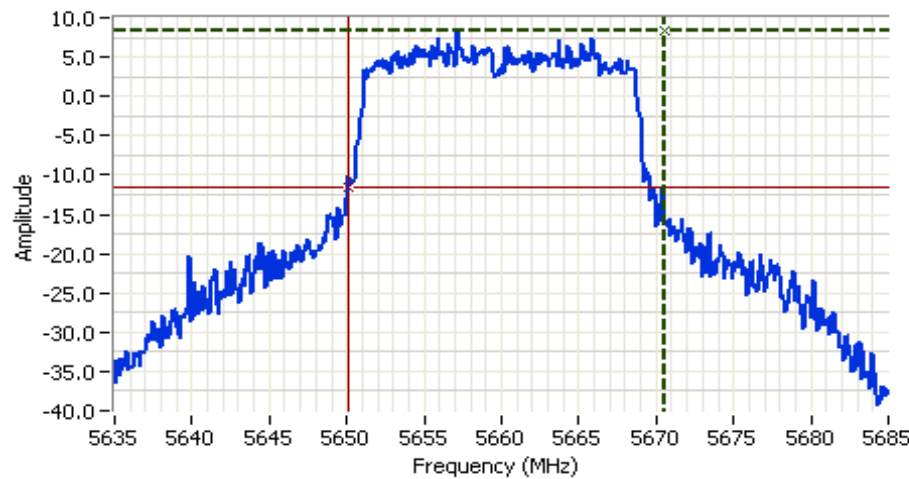
Agilent Technologies, E4446A
 CF: 5580.000 MHz
 SPAN: 50.000 MHz
 RB: 300 kHz
 VB: 1.000 MHz
 Detector: POS
 Attn: 20 DB
 RL Offset: 11.2 DB
 Sweep Time: 1.0ms
 Ref Lvl: 20.0 DBM

Comments

20dB BW: 22.083 MHz
 802.11 n20 mode
 Chain3



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A



Analyzer Settings

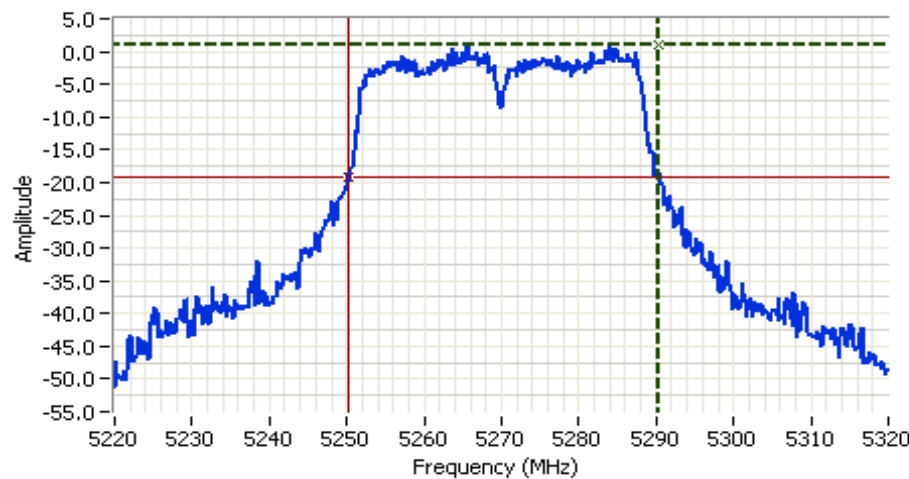
Agilent Technologies, E4446A
 CF: 5660.000 MHz
 SPAN: 50.000 MHz
 RB: 300 kHz
 VB: 1.000 MHz
 Detector: POS
 Attn: 20 DB
 RL Offset: 11.2 DB
 Sweep Time: 1.0ms
 Ref Lvl: 20.0 DBM

Comments

20dB BW: 20.333 MHz
 802.11 n20 mode
 Chain2

Cursor 1 5670.5000 8.35
 Cursor 2 5650.1667 -11.65

Delta Freq. 20.333
 Delta Amplitude 20.00



Analyzer Settings

Agilent Technologies, E4446A
 CF: 5270.000 MHz
 SPAN: 100.000 MHz
 RB: 510 kHz
 VB: 2.000 MHz
 Detector: POS
 Attn: 20 DB
 RL Offset: 11.2 DB
 Sweep Time: 1.0ms
 Ref Lvl: 20.0 DBM

Comments

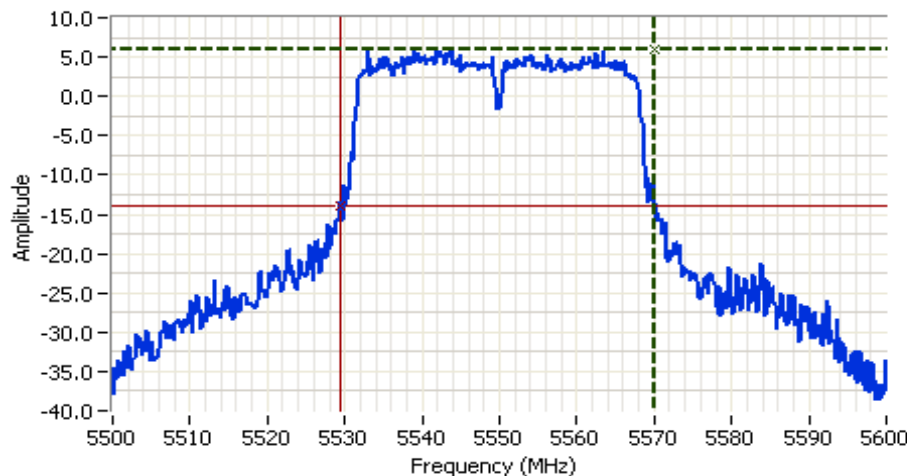
20dB BW: 40.167 MHz
 802.11 n40 mode
 Chain3

Cursor 1 5290.3333 0.88
 Cursor 2 5250.1667 -19.12

Delta Freq. 40.167
 Delta Amplitude 20.00



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A



Analyzer Settings

Agilent Technologies, E4446A
 CF: 5550.000 MHz
 SPAN: 100.000 MHz
 RB: 510 kHz
 VB: 2.000 MHz
 Detector: POS
 Attn: 20 DB
 RL Offset: 11.2 DB
 Sweep Time: 1.0ms
 Ref Lvl: 20.0 DBM

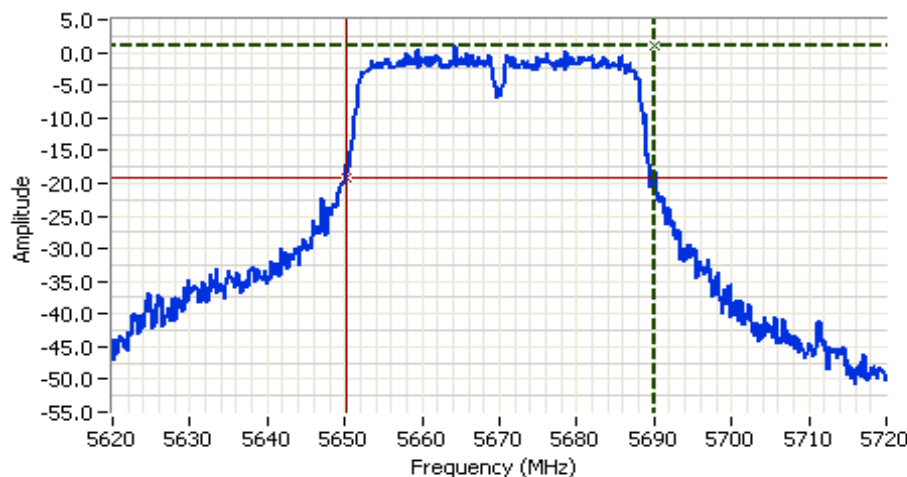
Comments

20dB BW: 40.833 MHz
 802.11 n40 mode
 Chain1

Cursor 1 5570.1667 6.04
 Cursor 2 5529.3333 -13.96

Delta Freq. 40.833

Delta Amplitude 20.00



Analyzer Settings

Agilent Technologies, E4446A
 CF: 5670.000 MHz
 SPAN: 100.000 MHz
 RB: 510 kHz
 VB: 2.000 MHz
 Detector: POS
 Attn: 20 DB
 RL Offset: 11.2 DB
 Sweep Time: 1.0ms
 Ref Lvl: 20.0 DBM

Comments

20dB BW: 40.000 MHz
 802.11 n40 mode
 Chain2

Cursor 1 5690.1667 0.89
 Cursor 2 5650.1667 -19.11

Delta Freq. 40.000

Delta Amplitude 20.00



Client:	Flextronics	Job Number:	J89632
Model:	AP3710e	T-Log Number:	T89633
Contact:	Georges Fares	Account Manager:	Christine Krebill
Standard:	15.407, RSS-210	Class:	N/A

RSS-210 (LELAN) and FCC 15.407(UNII) Antenna Port Measurements Power, PSD and Bandwidth

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: 2/21/2013
 Test Engineer: J. Liu / R. Varelas
 Test Location: FT7

Config. Used: 1
 Config Change: None
 EUT Voltage: POE

General Test Configuration

When measuring the conducted emissions from the EUT's antenna port, the antenna port of the EUT was connected to the spectrum analyzer or power meter via a suitable attenuator to prevent overloading the measurement system. All measurements are corrected to allow for the external attenuators and cables used.

Ambient Conditions:

Temperature: 20.4 °C
 Rel. Humidity: 35 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Power, 5250 - 5350MHz	15.407(a) (1), (2)	Pass	802.11a: 98.7 mW 802.11n 20MHz: 170.2 mW 802.11n n40MHz: 38.6 mW
1	PSD, 5250 - 5350MHz	15.407(a) (1), (2)	Pass	802.11a: 8.0 dBm/MHz 802.11n 20MHz: 9.9 dBm/MHz 802.11n n40MHz: 0.7 dBm/MHz
1	Max EIRP 5250 - 5350MHz	TPC required if EIRP ≥ 500mW (27dBm). EIRP ≥ 200mW (23dBm) DFS threshold = -64dBm	Pass	EIRP = 26.7 dBm (469.2 mW)
1	Power, 5470 - 5725MHz	15.407(a) (1), (2)	Pass	802.11a: 103.3 mW 802.11n 20MHz: 157.1 mW 802.11n n40MHz: 122.2 mW
1	PSD, 5470 - 5725MHz	15.407(a) (1), (2)	Pass	802.11a: 8.0 dBm/MHz 802.11n 20MHz: 9.6 dBm/MHz 802.11n n40MHz: 5.3 dBm/MHz

Client:	Flextronics	Job Number:	J89632
Model:	AP3710e	T-Log Number:	T89633
Contact:	Georges Fares	Account Manager:	Christine Krebill
Standard:	15.407, RSS-210	Class:	N/A

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Max EIRP 5470 - 5725MHz	TPC required if EIRP ≥ 500mW (27dBm). EIRP ≥ 200mW (23dBm) DFS threshold = -64dBm.	Pass	EIRP = 26.9 dBm (491.0 mW)
1	26dB Bandwidth	15.407 (Information only)	-	> 20MHz for all modes
1	99% Bandwidth	RSS 210 (Information only)	N/A	802.11a: 17.1 MHz 802.11n 20MHz: 20.2 MHz 802.11n n40MHz: 36.6 MHz

Antenna:

#	Model	Type	Freq. Band (GHz)	Gain (dBi)	Ind/Out	Xpol?	Pt to Pt?
1	Laird S2451DBT	Omni	5.2 & 5.6	2	Indoor	No	No

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:	Flextronics	Job Number:	J89632
Model:	AP3710e	T-Log Number:	T89633
Contact:	Georges Fares	Account Manager:	Christine Krebill
Standard:	15.407, RSS-210	Class:	N/A

Run #1: Bandwidth, Output Power and Power Spectral Density - MIMO Systems

MIMO Device - 5250-5350 MHz Band

	Chain 1	Chain 2	Chain 3	Coherent	Effective ⁵	EIRP (mW)	EIRP (dBm)
Legacy Antenna Gain (dBi):	2	2	2	Yes	6.8	469.2	26.7
MIMO Antenna Gain (dBi):	2	2	2	No	2.0	269.7	24.3

Frequency (MHz)	Software Setting	26dB BW (MHz)	Measured Output Power ¹ dBm			Total		Limit (dBm)	Max Power (W)	Pass or Fail
			Chain 1	Chain 2	Chain 3	mW	dBm			

20MHz a Mode

5260	15.0	36.9	14.4	15.0	15.7	95.9	19.8	23.2	0.099	PASS
5300	15.0	36.5	14.7	14.6	15.1	90.7	19.6	23.2		PASS
5320	15.0	38.5	15.4	14.9	15.2	98.7	19.9	23.2		PASS

20MHz n Mode

5260	15.0	40.2	15.0	14.7	15.7	98.0	19.9	24.0	0.170	PASS
5300	19.0	48.2	17.8	17.3	17.5	170.2	22.3	24.0		PASS
5320	17.0	44.4	16.9	16.6	16.8	141.6	21.5	24.0		PASS

40MHz Mode

5270	9.0	50.4	9.5	9.0	9.6	25.9	14.1	24.0	0.039	PASS
5310	11.0	49.3	11.4	10.7	11.2	38.6	15.9	24.0		PASS

PSD

Frequency (MHz)	99% ⁴ BW	Total Power	PSD ² dBm/MHz			Total PSD		Limit		Pass or Fail
			Chain 1	Chain 2	Chain 3	mW/MHz	dBm/MHz	FCC	RSS 210 ³	

20MHz a Mode

5260	17.1	19.8	2.2	2.8	3.8	6.0	7.8	10.2	11.0	PASS
5300	16.9	19.6	2.5	2.4	3.4	5.7	7.6	10.2	11.0	PASS
5320	17.0	19.9	3.2	3.1	3.5	6.4	8.0	10.2	11.0	PASS

20MHz n Mode

5260	18.1	19.9	2.7	2.6	4.1	6.2	7.9	10.2	11.0	PASS
5300	20.2	22.3	5.5	4.7	5.2	9.8	9.9	10.2	11.0	PASS
5320	18.4	21.5	4.2	4.0	5.0	8.3	9.2	10.2	11.0	PASS

40MHz Mode

5270	36.3	14.1	-5.9	-6.3	-5.5	0.8	-1.1	10.2	11.0	PASS
5310	36.5	15.9	-4.1	-4.9	-3.4	1.2	0.7	10.2	11.0	PASS

Client:	Flextronics	Job Number:	J89632
Model:	AP3710e	T-Log Number:	T89633
Contact:	Georges Fares	Account Manager:	Christine Krebill
Standard:	15.407, RSS-210	Class:	N/A

For Industry Canada, B in the power limit calculation is based on 99% BW instead of 26dB BW

Power

Frequency (MHz)	Software Setting	99% BW (MHz)	Measured Output Power ¹ dBm			Total		Limit (dBm)	Max Power (W)	Pass or Fail
			Chain 1	Chain 2	Chain 3	mW	dBm			
20MHz a Mode										
5260	15.0	17.1	14.4	15.0	15.7	95.9	19.8	22.6	0.099	PASS
5300	15.0	16.9	14.7	14.6	15.1	90.7	19.6	22.5		PASS
5320	15.0	17.0	15.4	14.9	15.2	98.7	19.9	22.5		PASS
20MHz n Mode										
5260	15.0	18.1	15.0	14.7	15.7	98.0	19.9	23.6	0.170	PASS
5300	19.0	20.2	17.8	17.3	17.5	170.2	22.3	24.0		PASS
5320	17.0	18.4	16.9	16.6	16.8	141.6	21.5	23.6		PASS
40MHz Mode										
5270	9.0	36.3	9.5	9.0	9.6	25.9	14.1	24.0	0.039	PASS
5310	11.0	36.5	11.4	10.7	11.2	38.6	15.9	24.0		PASS

EIRP does not exceed 500mW, therefore TPC is not required.

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

MIMO Device - 5470-5725 MHz Band

	Chain 1	Chain 2	Chain 3	Coherent	Effective ⁵	EIRP (mW)	EIRP (dBm)
Legacy Antenna Gain (dBi):	2	2	2	Yes	6.8	491.0	26.9
MIMO Antenna Gain (dBi):	2	2	2	No	2.0	248.9	24.0

Power

Frequency (MHz)	Software Setting	26dB BW (MHz)	Measured Output Power ¹ dBm			Total		Limit (dBm)	Max Power (W)	Pass or Fail
			Chain 1	Chain 2	Chain 3	mW	dBm			

20MHz a Mode

5500	14.0	27.0	14.4	13.9	14.4	79.5	19.0	23.2	0.103	PASS
5580	15.0	31.4	14.8	15.1	15.2	95.6	19.8	23.2		PASS
5660	15.5	36.1	15.5	15.4	15.2	103.3	20.1	23.2		PASS
5700	15.5	30.5	15.6	14.3	15.4	97.6	19.9	23.2		PASS

20MHz n Mode

5500	13.5	26.7	14.1	13.2	13.7	70.0	18.5	24.0	0.157	PASS
5580	17.5	41.8	17.3	17.0	17.3	157.1	22.0	24.0		PASS
5660	17.0	37.7	16.7	16.2	16.3	130.7	21.2	24.0		PASS
5700	16.5	34.2	16.3	15.2	16.1	116.5	20.7	24.0		PASS

40MHz Mode

5510	8.0	50.4	9.1	8.3	8.8	22.5	13.5	24.0	0.122	PASS
5550	16.0	60.0	16.2	15.9	16.2	122.2	20.9	24.0		PASS
5670	10.0	49.2	10.4	10.8	10.4	34.0	15.3	24.0		PASS

PSD

Frequency (MHz)	99% ⁴ BW	Total Power	PSD ² dBm/MHz			Total PSD		Limit		Pass or Fail
			Chain 1	Chain 2	Chain 3	mW/MHz	dBm/MHz	FCC	RSS 210 ³	

20MHz a Mode

5500	16.8	19.0	2.3	1.8	2.7	5.1	7.0	10.2	11.0	PASS
5580	16.9	19.8	2.4	2.8	2.9	5.6	7.5	10.2	11.0	PASS
5660	16.8	20.1	3.2	3.2	3.4	6.3	8.0	10.2	11.0	PASS
5700	16.9	19.9	3.3	1.9	3.2	5.8	7.6	10.2	11.0	PASS

20MHz Mode

5500	18.0	18.5	1.7	1.0	1.6	4.2	6.2	10.2	11.0	PASS
5580	18.1	22.0	4.7	4.2	5.6	9.2	9.6	10.2	11.0	PASS
5660	18.1	21.2	4.4	3.9	3.9	7.6	8.8	10.2	11.0	PASS
5700	18.1	20.7	3.9	2.9	3.6	6.7	8.2	10.2	11.0	PASS

40MHz Mode

5510	36.5	13.5	-6.5	-7.3	-6.4	0.6	-1.9	10.2	11.0	PASS
5550	36.6	20.9	0.7	0.2	0.8	3.4	5.3	10.2	11.0	PASS
5670	36.3	15.3	-5.2	-4.7	-4.8	1.0	-0.1	10.2	11.0	PASS

Client:	Flextronics	Job Number:	J89632
Model:	AP3710e	T-Log Number:	T89633
Contact:	Georges Fares	Account Manager:	Christine Krebill
Standard:	15.407, RSS-210	Class:	N/A

For Industry Canada, B in the power limit calculation is based on 99% BW instead of 26dB BW

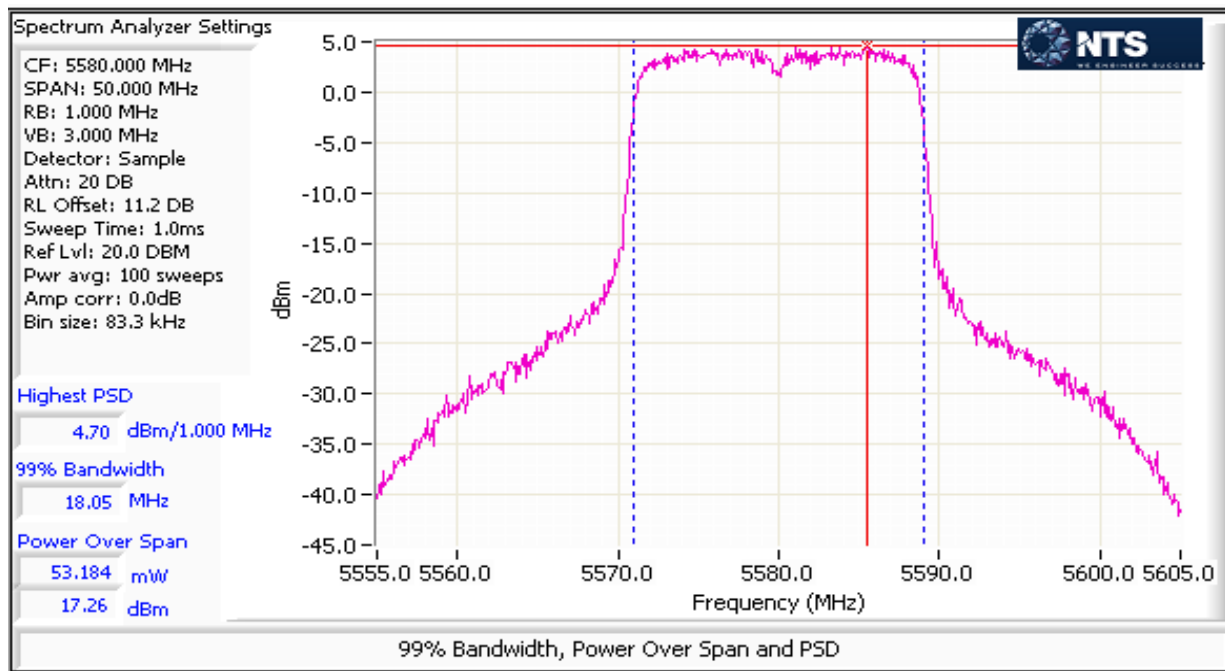
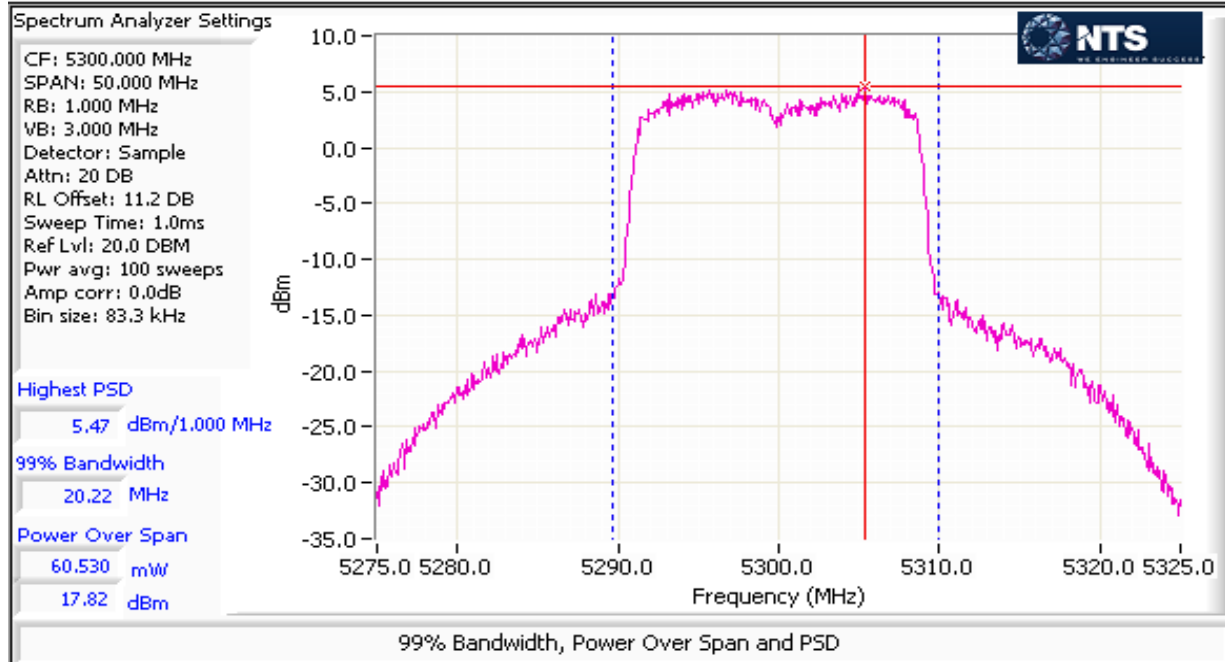
Power

Frequency (MHz)	Software Setting	99% BW (MHz)	Measured Output Power ¹ dBm			Total		Limit (dBm)	Max Power (W)	Pass or Fail
			Chain 1	Chain 2	Chain 3	mW	dBm			
20MHz a Mode										
5500	14.0	16.8	14.4	13.9	14.4	79.5	19.0	22.5	0.103	PASS
5580	15.0	16.9	14.8	15.1	15.2	95.6	19.8	22.5		PASS
5660	15.5	16.8	15.5	15.4	15.2	103.3	20.1	22.5		PASS
5700	15.5	16.9	15.6	14.3	15.4	97.6	19.9	22.5		PASS
20MHz n Mode										
5500	13.5	18.0	14.1	13.2	13.7	70.0	18.5	23.6	0.157	PASS
5580	17.5	18.1	17.3	17.0	17.3	157.1	22.0	23.6		PASS
5660	17.0	18.1	16.7	16.2	16.3	130.7	21.2	23.6		PASS
5700	16.5	18.1	16.3	15.2	16.1	116.5	20.7	23.6		PASS
40MHz Mode										
5510	8.0	36.5	9.1	8.3	8.8	22.5	13.5	24.0	0.122	PASS
5550	16.0	36.6	16.2	15.9	16.2	122.2	20.9	24.0		PASS
5670	10.0	36.3	10.4	10.8	10.4	34.0	15.3	24.0		PASS

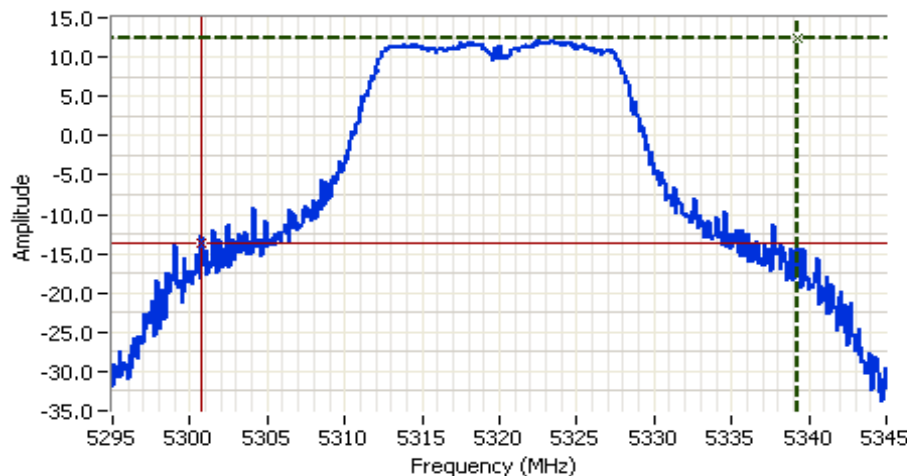
EIRP does not exceed 500mW, therefore TPC is not required.

Note 1:	Output power measured using a spectrum analyzer (see plots below). RBW=1MHz, VB=3 MHz, # of points in sweep $\geq 2 \times \text{span} / \text{RBW}$, sample detector, power averaging on (transmitted signal was continuous) and power integration over 50 MHz (method SA-1 of KDB 789033).
Note 2:	Measured using the same analyzer settings used for output power.
Note 3:	For RSS-210 the limit for the 5150 - 5250 MHz band accounts for the antenna gain as the maximum eirp allowed is 10dBm/MHz. The limits are also corrected for instances where the highest measured value of the PSD exceeds the average PSD (calculated from the measured power divided by the measured 99% bandwidth) by more than 3dB by the amount that the measured value exceeds the average by more than 3dB.
Note 4:	99% Bandwidth measured in accordance with RSS GEN - RB > 1% of span and VB $\geq 3 \times \text{RB}$
Note 5:	For MIMO systems, the total output power and total PSD are calculated from the sum of the powers of the individual chains (in linear terms). The antenna gain used to determine the EIRP and limits for PSD/Output power depends on the operating mode of the MIMO device. If the signals on the non-coherent between the transmit chains then the gain used to determine the limits is the highest gain of the individual chains and the EIRP is the sum of the products of gain and power on each chain. If the signals are coherent then the effective antenna gain is the sum (in linear terms) of the gains for each chain and the EIRP is the product of the effective gain and total power. 802.11n modes are treated as not coherent for Power.

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A



Analyzer Settings

Agilent Technologies, E4446A
 CF: 5320.000 MHz
 SPAN: 50.000 MHz
 RB: 1.000 MHz
 VB: 3.000 MHz
 Detector: POS
 Attn: 20 DB
 RL Offset: 11.2 DB
 Sweep Time: 1.0s
 Ref Lvl: 20.0 DBM

Comments

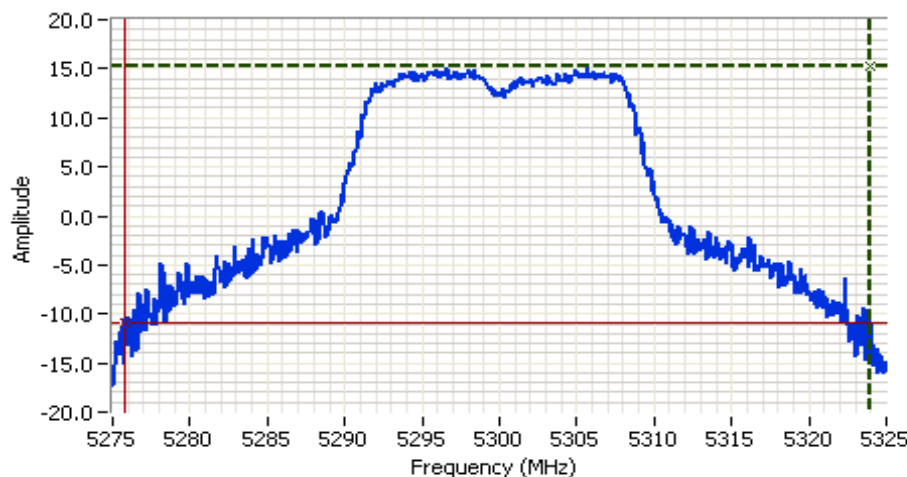
26dB BW: 38.500 MHz
 802.11 a mode
 Chain1

Cursor 1 5339.2500 12.41

Cursor 2 5300.7500 -13.59

Delta Freq. 38.500

Delta Amplitude 26.00



Analyzer Settings

Agilent Technologies, E4446A
 CF: 5300.000 MHz
 SPAN: 50.000 MHz
 RB: 1.000 MHz
 VB: 3.000 MHz
 Detector: POS
 Attn: 20 DB
 RL Offset: 11.2 DB
 Sweep Time: 1.0s
 Ref Lvl: 20.0 DBM

Comments

26dB BW: 48.167 MHz
 802.11 n20 mode
 Chain1

Cursor 1 5324.0000 15.19

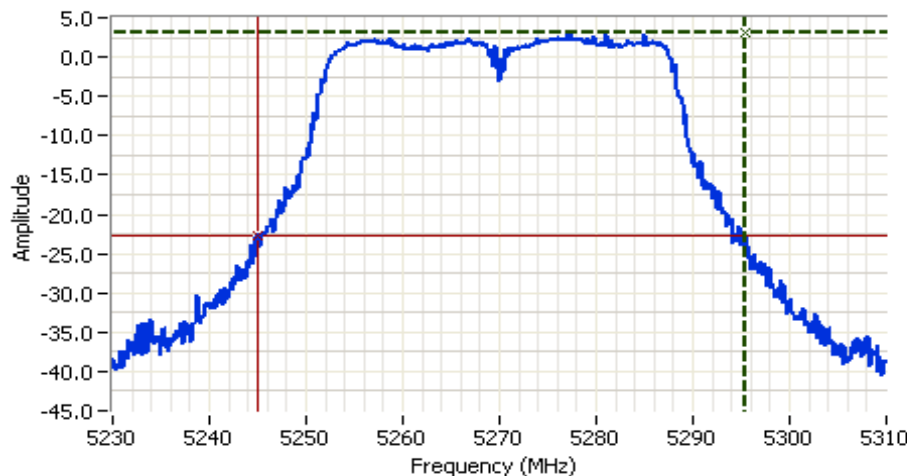
Cursor 2 5275.8333 -10.81

Delta Freq. 48.167

Delta Amplitude 26.00



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A



Analyzer Settings

Agilent Technologies, E4446A
 CF: 5270.000 MHz
 SPAN: 80.000 MHz
 RB: 1.000 MHz
 VB: 3.000 MHz
 Detector: POS
 Attn: 20 DB
 RL Offset: 11.2 DB
 Sweep Time: 1.0s
 Ref Lvl: 20.0 DBM

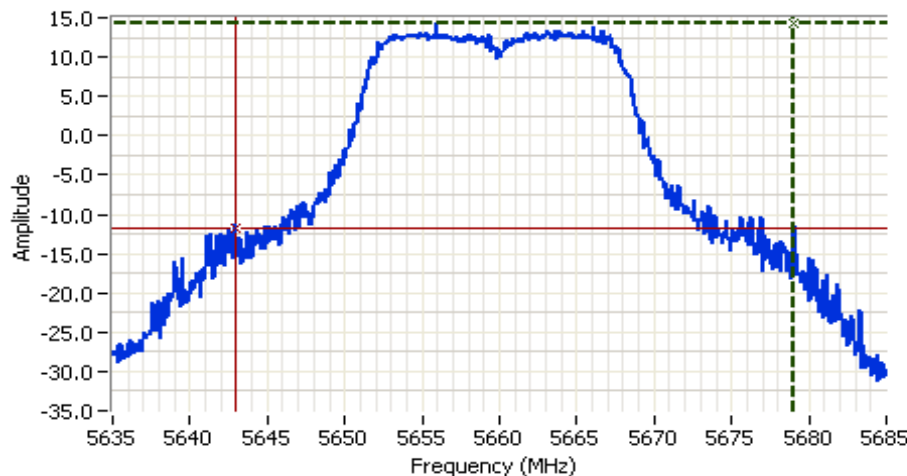
Comments

26dB BW: 50.400 MHz
 802.11 n40 mode
 Chain1

Cursor 1 5295.4667 3.19
 Cursor 2 5245.0667 -22.81

Delta Freq. 50.400

Delta Amplitude 26.00



Analyzer Settings

Agilent Technologies, E4446A
 CF: 5660.000 MHz
 SPAN: 50.000 MHz
 RB: 1.000 MHz
 VB: 3.000 MHz
 Detector: POS
 Attn: 20 DB
 RL Offset: 11.2 DB
 Sweep Time: 1.0s
 Ref Lvl: 20.0 DBM

Comments

26dB BW: 36.083 MHz
 802.11 a mode
 Chain2

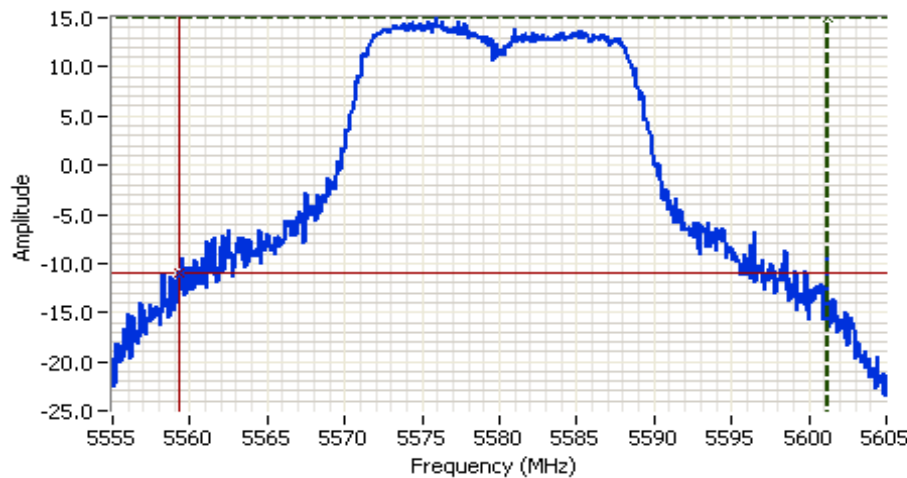
Cursor 1 5679.0000 14.34
 Cursor 2 5642.9167 -11.66

Delta Freq. 36.083

Delta Amplitude 26.00



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A



Analyzer Settings

Agilent Technologies, E4446A
 CF: 5580.000 MHz
 SPAN: 50.000 MHz
 RB: 1.000 MHz
 VB: 3.000 MHz
 Detector: POS
 Attn: 20 DB
 RL Offset: 11.2 DB
 Sweep Time: 1.0s
 Ref Lvl: 20.0 DBM

Comments

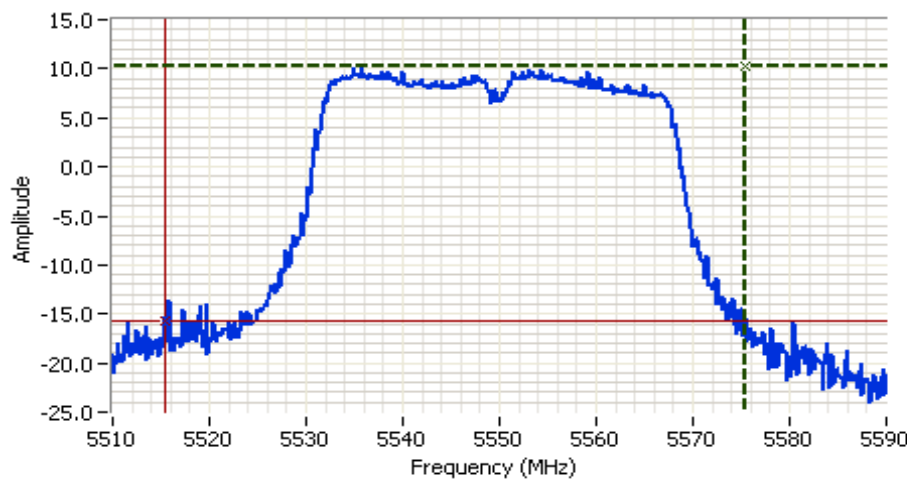
26dB BW: 41.833 MHz
 802.11 n20 mode
 Chain2

Cursor 1 5601.1667 14.99

Cursor 2 5559.3333 -11.01

Delta Freq. 41.833

Delta Amplitude 26.00



Analyzer Settings

Agilent Technologies, E4446A
 CF: 5550.000 MHz
 SPAN: 80.000 MHz
 RB: 1.000 MHz
 VB: 3.000 MHz
 Detector: POS
 Attn: 20 DB
 RL Offset: 11.2 DB
 Sweep Time: 1.0s
 Ref Lvl: 20.0 DBM

Comments

26dB BW: 60.000 MHz
 802.11 n40 mode
 Chain2

Cursor 1 5575.4667 10.32

Cursor 2 5515.4667 -15.68

Delta Freq. 60.000

Delta Amplitude 26.00



Client:	Flextronics	Job Number:	J89632
Model:	AP3710e	T-Log Number:	T89633
Contact:	Georges Fares	Account Manager:	Christine Krebill
Standard:	15.407, RSS-210	Class:	N/A

RSS-210 (LELAN) and FCC 15.407(UNII) Antenna Port Measurements Power, PSD and Bandwidth

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: 2/21/2013
 Test Engineer: J. Liu / R. Varelas
 Test Location: FT7

Config. Used: 1
 Config Change: None
 EUT Voltage: POE

General Test Configuration

When measuring the conducted emissions from the EUT's antenna port, the antenna port of the EUT was connected to the spectrum analyzer or power meter via a suitable attenuator to prevent overloading the measurement system. All measurements are corrected to allow for the external attenuators and cables used.

Ambient Conditions:

Temperature: 20.4 °C
 Rel. Humidity: 35 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Power, 5250 - 5350MHz	15.407(a) (1), (2)	Pass	802.11a: 52.2 mW 802.11n 20MHz: 86.4 mW 802.11n n40MHz: 25.9 mW
1	PSD, 5250 - 5350MHz	15.407(a) (1), (2)	Pass	802.11a: 5.2 dBm/MHz 802.11n 20MHz: 7.2 dBm/MHz 802.11n n40MHz: -1.1 dBm/MHz
1	Max EIRP 5250 - 5350MHz	TPC required if EIRP ≥ 500mW (27dBm). EIRP ≥ 200mW (23dBm) DFS threshold = -64dBm	Pass	EIRP = 26.9 dBm (495.4 mW)
1	Power, 5470 - 5725MHz	15.407(a) (1), (2)	Pass	802.11a: 50.7 mW 802.11n 20MHz: 93.4 mW 802.11n n40MHz: 67.9 mW
1	PSD, 5470 - 5725MHz	15.407(a) (1), (2)	Pass	802.11a: 5.0 dBm/MHz 802.11n 20MHz: 7.2 dBm/MHz 802.11n n40MHz: 2.9 dBm/MHz

Client:	Flextronics	Job Number:	J89632
Model:	AP3710e	T-Log Number:	T89633
Contact:	Georges Fares	Account Manager:	Christine Krebill
Standard:	15.407, RSS-210	Class:	N/A

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Max EIRP 5470 - 5725MHz	TPC required if EIRP ≥ 500mW (27dBm). EIRP ≥ 200mW (23dBm) DFS threshold = -64dBm.	Pass	EIRP = 26.8 dBm (481.4 mW)
1	26dB Bandwidth	15.407 (Information only)	-	> 20MHz for all modes
1	99% Bandwidth	RSS 210 (Information only)	N/A	802.11a: 16.9 MHz 802.11n 20MHz: 18.1 MHz 802.11n n40MHz: 36.3 MHz

Antenna:

#	Model	Type	Freq. Band (GHz)	Gain (dBi)	Ind/Out	Xpol?	Pt to Pt?
2	Enterasys WS-A1-DT05120	Sector	5.2 & 5.6	5	Indoor	2 Xpol / 1 Vert	No

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:	Flextronics	Job Number:	J89632
Model:	AP3710e	T-Log Number:	T89633
Contact:	Georges Fares	Account Manager:	Christine Krebill
Standard:	15.407, RSS-210	Class:	N/A

Run #1: Bandwidth, Output Power and Power Spectral Density - MIMO Systems

MIMO Device - 5250-5350 MHz Band

	Chain 1	Chain 2	Chain 3	Coherent	Effective ⁵	EIRP (mW)	EIRP (dBm)
Legacy Antenna Gain (dBi):	5	5	5	Yes	9.8	495.4	26.9
MIMO Antenna Gain (dBi):	5	5	5	No	5.0	273.1	24.4

Power

Frequency (MHz)	Software Setting	26dB BW (MHz)	Measured Output Power ¹ dBm			Total		Limit (dBm)	Max Power (W)	Pass or Fail
			Chain 1	Chain 2	Chain 3	mW	dBm			
20MHz a Mode										
5260	12.0	36.9	12.2	12.1	12.9	52.2	17.2	20.2	0.052	PASS
5300	12.5	36.5	12.6	12.3	12.2	51.6	17.1	20.2		PASS
5320	12.0	38.5	12.6	11.8	12.1	49.6	17.0	20.2		PASS
20MHz n Mode										
5260	14.5	40.2	14.3	14.3	15.1	86.4	19.4	24.0	0.086	PASS
5300	14.5	48.2	14.2	14.3	14.5	81.1	19.1	24.0		PASS
5320	14.0	44.4	13.9	14.1	13.6	73.4	18.7	24.0		PASS
40MHz Mode										
5270	9.0	50.4	9.5	9.0	9.6	25.9	14.1	24.0	0.026	PASS
5310	8.0	49.3	8.2	8.1	8.5	20.1	13.0	24.0		PASS

PSD

Frequency (MHz)	99% ⁴ BW	Total Power	PSD ² dBm/MHz			Total PSD		Limit		Pass or Fail
			Chain 1	Chain 2	Chain 3	mW/MHz	dBm/MHz	FCC	RSS 210 ³	
20MHz a Mode										
5260	16.8	17.2	0.0	0.1	1.1	3.3	5.2	7.2	11.0	PASS
5300	16.8	17.1	0.2	0.1	0.6	3.2	5.1	7.2	11.0	PASS
5320	16.9	17.0	0.4	-0.5	0.7	3.2	5.0	7.2	11.0	PASS
20MHz n Mode										
5260	18.1	19.4	1.8	1.7	3.5	5.2	7.2	7.2	11.0	PASS
5300	18.1	19.1	1.8	2.0	2.7	4.9	6.9	7.2	11.0	PASS
5320	18.1	18.7	1.5	1.8	1.8	4.4	6.5	7.2	11.0	PASS
40MHz Mode										
5270	36.3	14.1	-5.9	-6.3	-5.5	0.8	-1.1	7.2	11.0	PASS
5310	36.3	13.0	-7.4	-6.9	-6.2	0.6	-2.0	7.2	11.0	PASS

Client:	Flextronics	Job Number:	J89632
Model:	AP3710e	T-Log Number:	T89633
Contact:	Georges Fares	Account Manager:	Christine Krebill
Standard:	15.407, RSS-210	Class:	N/A

For Industry Canada, B in the power limit calculation is based on 99% BW instead of 26dB BW

Power

Frequency (MHz)	Software Setting	99% BW (MHz)	Measured Output Power ¹ dBm			Total		Limit (dBm)	Max Power (W)	Pass or Fail
			Chain 1	Chain 2	Chain 3	mW	dBm			
20MHz a Mode										
5260	12.0	16.8	12.2	12.1	12.9	52.2	17.2	19.5	0.052	PASS
5300	12.5	16.8	12.6	12.3	12.2	51.6	17.1	19.5		PASS
5320	12.0	16.9	12.6	11.8	12.1	49.6	17.0	19.5		PASS
20MHz n Mode										
5260	14.5	18.1	14.3	14.3	15.1	86.4	19.4	23.6	0.086	PASS
5300	14.5	18.1	14.2	14.3	14.5	81.1	19.1	23.6		PASS
5320	14.0	18.1	13.9	14.1	13.6	73.4	18.7	23.6		PASS
40MHz Mode										
5270	9.0	36.3	9.5	9.0	9.6	25.9	14.1	24.0	0.026	PASS
5310	8.0	36.3	8.2	8.1	8.5	20.1	13.0	24.0		PASS

EIRP does not exceed 500mW, therefore TPC is not required.

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

MIMO Device - 5470-5725 MHz Band

	Chain 1	Chain 2	Chain 3	Coherent	Effective ⁵	EIRP (mW)	EIRP (dBm)
Legacy Antenna Gain (dBi):	5	5	5	Yes	9.8	481.4	26.8
MIMO Antenna Gain (dBi):	5	5	5	No	5.0	295.5	24.7

Power

Frequency (MHz)	Software Setting	26dB BW (MHz)	Measured Output Power ¹ dBm			Total		Limit (dBm)	Max Power (W)	Pass or Fail
			Chain 1	Chain 2	Chain 3	mW	dBm			

20MHz a Mode

5500	12.0	27.0	12.5	11.9	12.5	50.7	17.1	20.2	0.051	PASS
5580	12.0	31.4	12.4	12.0	12.1	49.3	16.9	20.2		PASS
5660	12.0	36.1	12.2	12.4	11.5	48.1	16.8	20.2		PASS
5700	12.0	30.5	11.9	12.0	12.0	47.2	16.7	20.2		PASS

20MHz n Mode

5500	11.5	26.7	12.5	11.3	12.0	46.9	16.7	24.0	0.093	PASS
5580	14.5	41.8	14.7	14.6	14.4	85.4	19.3	24.0		PASS
5660	15.0	37.7	15.0	14.8	15.0	93.4	19.7	24.0		PASS
5700	13.5	34.2	13.4	12.6	13.6	63.0	18.0	24.0		PASS

40MHz Mode

5510	6.0	50.4	7.2	6.3	7.1	14.6	11.6	24.0	0.068	PASS
5550	13.0	60.0	13.9	13.1	13.6	67.9	18.3	24.0		PASS
5670	10.0	49.2	10.4	10.8	10.4	34.0	15.3	24.0		PASS

PSD

Frequency (MHz)	99% ⁴ BW	Total Power	PSD ² dBm/MHz			Total PSD		Limit		Pass or Fail
			Chain 1	Chain 2	Chain 3	mW/MHz	dBm/MHz	FCC	RSS 210 ³	

20MHz a Mode

5500	16.9	17.1	-0.5	-0.4	-0.4	2.7	4.3	7.2	11.0	PASS
5580	16.8	16.9	0.1	-0.3	0.0	3.0	4.7	7.2	11.0	PASS
5660	16.8	16.8	0.0	0.2	-0.3	3.0	4.7	7.2	11.0	PASS
5700	16.9	16.7	0.3	-0.4	0.7	3.1	5.0	7.2	11.0	PASS

20MHz Mode

5500	18.0	16.7	0.1	-0.7	-0.2	2.8	4.5	7.2	11.0	PASS
5580	18.0	19.3	2.3	2.2	2.5	5.1	7.1	7.2	11.0	PASS
5660	18.1	19.7	2.7	2.2	2.5	5.3	7.2	7.2	11.0	PASS
5700	18.0	18.0	0.9	0.0	1.2	3.5	5.5	7.2	11.0	PASS

40MHz Mode

5510	36.3	11.6	-8.3	-9.3	-7.9	0.4	-3.7	7.2	11.0	PASS
5550	36.3	18.3	-1.6	-2.4	-1.7	2.0	2.9	7.2	11.0	PASS
5670	36.3	15.3	-5.2	-4.7	-4.8	1.0	-0.1	7.2	11.0	PASS

Client:	Flextronics	Job Number:	J89632
Model:	AP3710e	T-Log Number:	T89633
Contact:	Georges Fares	Account Manager:	Christine Krebill
Standard:	15.407, RSS-210	Class:	N/A

For Industry Canada, B in the power limit calculation is based on 99% BW instead of 26dB BW

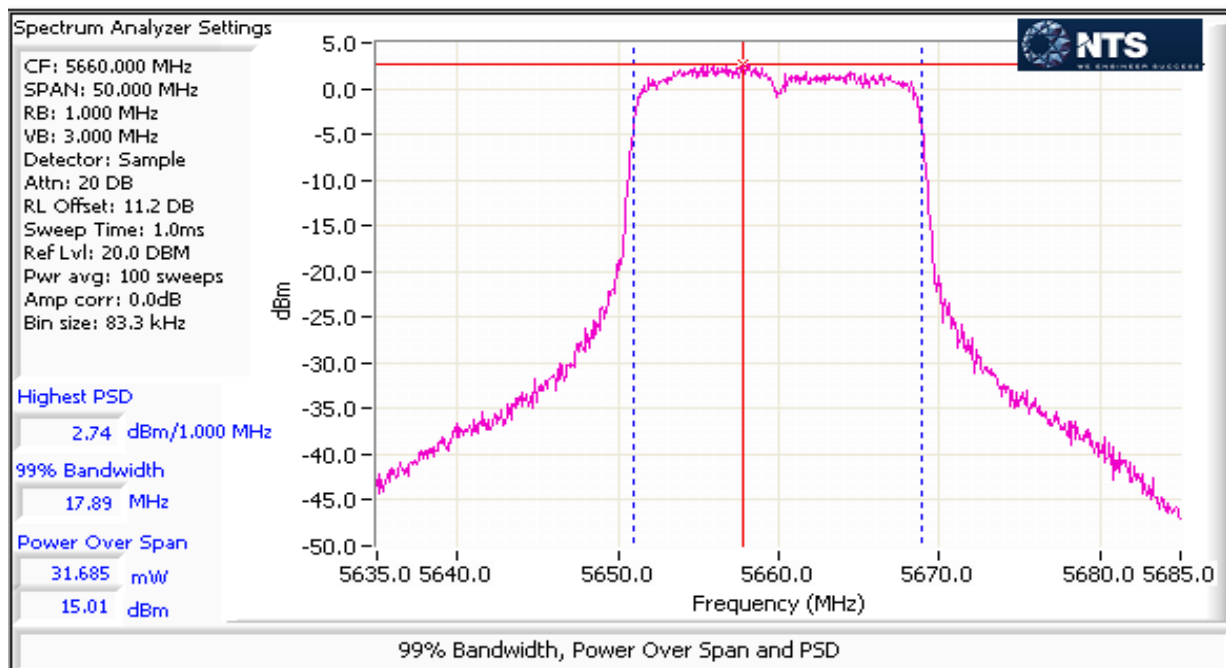
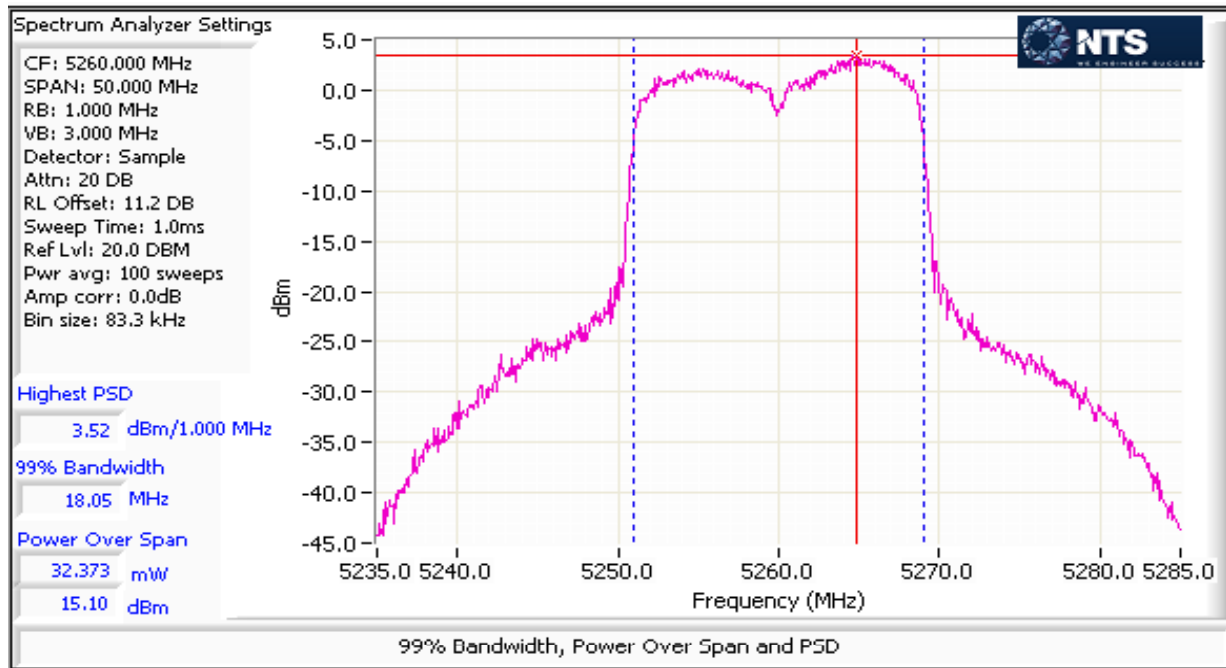
Power

Frequency (MHz)	Software Setting	99% BW (MHz)	Measured Output Power ¹ dBm			Total		Limit (dBm)	Max Power (W)	Pass or Fail
			Chain 1	Chain 2	Chain 3	mW	dBm			
20MHz a Mode										
5500	12.0	16.9	12.5	11.9	12.5	50.7	17.1	19.5	0.051	PASS
5580	12.0	16.8	12.4	12.0	12.1	49.3	16.9	19.5		PASS
5660	12.0	16.8	12.2	12.4	11.5	48.1	16.8	19.5		PASS
5700	12.0	16.9	11.9	12.0	12.0	47.2	16.7	19.5		PASS
20MHz n Mode										
5500	11.5	18.0	12.5	11.3	12.0	46.9	16.7	23.5	0.093	PASS
5580	14.5	18.0	14.7	14.6	14.4	85.4	19.3	23.6		PASS
5660	15.0	18.1	15.0	14.8	15.0	93.4	19.7	23.6		PASS
5700	13.5	18.0	13.4	12.6	13.6	63.0	18.0	23.6		PASS
40MHz Mode										
5510	6.0	36.3	7.2	6.3	7.1	14.6	11.6	24.0	0.068	PASS
5550	13.0	36.3	13.9	13.1	13.6	67.9	18.3	24.0		PASS
5670	10.0	36.3	10.4	10.8	10.4	34.0	15.3	24.0		PASS

EIRP does not exceed 500mW, therefore TPC is not required.

Note 1:	Output power measured using a spectrum analyzer (see plots below). RBW=1MHz, VB=3 MHz, # of points in sweep $\geq 2 \times \text{span} / \text{RBW}$, sample detector, power averaging on (transmitted signal was continuous) and power integration over 50 MHz (method SA-1 of KDB 789033).
Note 2:	Measured using the same analyzer settings used for output power.
Note 3:	For RSS-210 the limit for the 5150 - 5250 MHz band accounts for the antenna gain as the maximum eirp allowed is 10dBm/MHz. The limits are also corrected for instances where the highest measured value of the PSD exceeds the average PSD (calculated from the measured power divided by the measured 99% bandwidth) by more than 3dB by the amount that the measured value exceeds the average by more than 3dB.
Note 4:	99% Bandwidth measured in accordance with RSS GEN - RB > 1% of span and VB $\geq 3 \times \text{RB}$
Note 5:	For MIMO systems, the total output power and total PSD are calculated from the sum of the powers of the individual chains (in linear terms). The antenna gain used to determine the EIRP and limits for PSD/Output power depends on the operating mode of the MIMO device. If the signals on the non-coherent between the transmit chains then the gain used to determine the limits is the highest gain of the individual chains and the EIRP is the sum of the products of gain and power on each chain. If the signals are coherent then the effective antenna gain is the sum (in linear terms) of the gains for each chain and the EIRP is the product of the effective gain and total power. 802.11n modes are treated as not coherent for Power.

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

RSS-210 (LELAN) and FCC 15.407(UNII) Antenna Port Measurements Power, PSD and Bandwidth

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: 2/25/2013
 Test Engineer: J. Liu / R. Varelas
 Test Location: FT7

Config. Used: 1
 Config Change: None
 EUT Voltage: POE

General Test Configuration

When measuring the conducted emissions from the EUT's antenna port, the antenna port of the EUT was connected to the spectrum analyzer or power meter via a suitable attenuator to prevent overloading the measurement system. All measurements are corrected to allow for the external attenuators and cables used.

Ambient Conditions:

Temperature: 20.4 °C
 Rel. Humidity: 35 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Power, 5250 - 5350MHz	15.407(a) (1), (2)	Pass	802.11a: 64.2 mW 802.11n 20MHz: 103.7 mW 802.11n n40MHz: 25.9 mW
1	PSD, 5250 - 5350MHz	15.407(a) (1), (2)	Pass	802.11a: 6.1 dBm/MHz 802.11n 20MHz: 7.9 dBm/MHz 802.11n n40MHz: -1.1 dBm/MHz
1	Max EIRP 5250 - 5350MHz	TPC required if EIRP ≥ 500mW (27dBm). EIRP ≥ 200mW (23dBm) DFS threshold = -64dBm	Pass	EIRP = 26.8 dBm (483.8 mW)
1	Power, 5470 - 5725MHz	15.407(a) (1), (2)	Pass	802.11a: 62.2 mW 802.11n 20MHz: 114.8 mW 802.11n n40MHz: 79.9 mW
1	PSD, 5470 - 5725MHz	15.407(a) (1), (2)	Pass	802.11a: 5.8 dBm/MHz 802.11n 20MHz: 8.1 dBm/MHz 802.11n n40MHz: 3.7 dBm/MHz

Client:	Flextronics	Job Number:	J89632
Model:	AP3710e	T-Log Number:	T89633
Contact:	Georges Fares	Account Manager:	Christine Krebill
Standard:	15.407, RSS-210	Class:	N/A

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Max EIRP 5470 - 5725MHz	TPC required if EIRP ≥ 500mW (27dBm). EIRP ≥ 200mW (23dBm) DFS threshold = -64dBm.	Pass	EIRP = 26.7 dBm (468.7 mW)
1	26dB Bandwidth	15.407 (Information only)	-	> 20MHz for all modes
1	99% Bandwidth	RSS 210 (Information only)	N/A	802.11a: 16.9 MHz 802.11n 20MHz: 18.2 MHz 802.11n n40MHz: 36.4 MHz

Antenna:

#	Model	Type	Freq. Band (GHz)	Gain (dBi)	Ind/Out	Xpol?	Pt to Pt?
3	Enterasys WS-A1-DT04360	Omni	5.2 & 5.6	4	Indoor	No	No

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:	Flextronics	Job Number:	J89632
Model:	AP3710e	T-Log Number:	T89633
Contact:	Georges Fares	Account Manager:	Christine Krebill
Standard:	15.407, RSS-210	Class:	N/A

Run #1: Bandwidth, Output Power and Power Spectral Density - MIMO Systems

MIMO Device - 5250-5350 MHz Band

	Chain 1	Chain 2	Chain 3	Coherent	Effective ⁵	EIRP (mW)	EIRP (dBm)
Legacy Antenna Gain (dBi):	4	4	4	Yes	8.8	483.8	26.8
MIMO Antenna Gain (dBi):	4	4	4	No	4.0	260.4	24.2

Power										
Frequency (MHz)	Software Setting	26dB BW (MHz)	Measured Output Power ¹ dBm			Total		Limit (dBm)	Max Power (W)	Pass or Fail
			Chain 1	Chain 2	Chain 3	mW	dBm			
20MHz a Mode										
5260	13.0	36.9	12.9	13.1	13.9	64.2	18.1	21.2	0.064	PASS
5300	13.0	36.5	13.0	13.3	13.5	63.2	18.0	21.2		PASS
5320	13.0	38.5	13.5	13.5	12.8	63.4	18.0	21.2		PASS
20MHz n Mode										
5260	15.0	40.2	15.0	14.7	15.7	98.0	19.9	24.0	0.104	PASS
5300	15.5	48.2	15.6	15.2	15.4	103.7	20.2	24.0		PASS
5320	14.5	44.4	14.7	14.4	14.7	86.5	19.4	24.0		PASS
40MHz Mode										
5270	9.0	50.4	9.5	9.0	9.6	25.9	14.1	24.0	0.026	PASS
5310	8.5	49.3	8.7	8.6	9.0	22.7	13.6	24.0		PASS
PSD										
Frequency (MHz)	99% ⁴ BW	Total Power	PSD ² dBm/MHz			Total PSD		Limit		Pass or Fail
			Chain 1	Chain 2	Chain 3	mW/MHz	dBm/MHz	FCC	RSS 210 ³	
20MHz a Mode										
5260	16.8	18.1	0.7	0.8	2.2	4.0	6.0	8.2	11.0	PASS
5300	16.8	18.0	0.8	1.5	1.7	4.1	6.1	8.2	11.0	PASS
5320	16.8	18.0	1.1	1.9	0.8	4.0	6.1	8.2	11.0	PASS
20MHz n Mode										
5260	18.1	19.9	2.7	2.6	4.1	6.2	7.9	8.2	11.0	PASS
5300	18.2	20.2	3.0	2.9	3.2	6.0	7.8	8.2	11.0	PASS
5320	18.1	19.4	2.1	2.2	2.4	5.0	7.0	8.2	11.0	PASS
40MHz Mode										
5270	36.3	14.1	-5.9	-6.3	-5.5	0.8	-1.1	8.2	11.0	PASS
5310	36.3	13.6	-6.8	-6.6	-6.1	0.7	-1.7	8.2	11.0	PASS

Client:	Flextronics	Job Number:	J89632
Model:	AP3710e	T-Log Number:	T89633
Contact:	Georges Fares	Account Manager:	Christine Krebill
Standard:	15.407, RSS-210	Class:	N/A

For Industry Canada, B in the power limit calculation is based on 99% BW instead of 26dB BW

Power

Frequency (MHz)	Software Setting	99% BW (MHz)	Measured Output Power ¹ dBm			Total		Limit (dBm)	Max Power (W)	Pass or Fail
			Chain 1	Chain 2	Chain 3	mW	dBm			
20MHz a Mode										
5260	13.0	16.8	12.9	13.1	13.9	64.2	18.1	20.5	0.064	PASS
5300	13.0	16.8	13.0	13.3	13.5	63.2	18.0	20.5		PASS
5320	13.0	16.8	13.5	13.5	12.8	63.4	18.0	20.5		PASS
20MHz n Mode										
5260	15.0	18.1	15.0	14.7	15.7	98.0	19.9	23.6	0.104	PASS
5300	15.5	18.2	15.6	15.2	15.4	103.7	20.2	23.6		PASS
5320	14.5	18.1	14.7	14.4	14.7	86.5	19.4	23.6		PASS
40MHz Mode										
5270	9.0	36.3	9.5	9.0	9.6	25.9	14.1	24.0	0.026	PASS
5310	8.5	36.3	8.7	8.6	9.0	22.7	13.6	24.0		PASS

EIRP does not exceed 500mW, therefore TPC is not required.

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

MIMO Device - 5470-5725 MHz Band

	Chain 1	Chain 2	Chain 3	Coherent	Effective ⁵	EIRP (mW)	EIRP (dBm)
Legacy Antenna Gain (dBi):	4	4	4	Yes	8.8	468.7	26.7
MIMO Antenna Gain (dBi):	4	4	4	No	4.0	288.4	24.6

Power

Frequency (MHz)	Software Setting	26dB BW (MHz)	Measured Output Power ¹ dBm			Total		Limit (dBm)	Max Power (W)	Pass or Fail
			Chain 1	Chain 2	Chain 3	mW	dBm			

20MHz a Mode

5500	11.5	27.0	12.4	11.3	11.9	46.2	16.6	21.2	0.062	PASS
5580	13.0	31.4	13.4	13.1	13.0	62.2	17.9	21.2		PASS
5660	13.0	36.1	12.8	13.4	13.1	61.3	17.9	21.2		PASS
5700	11.5	30.5	11.8	11.7	11.1	42.5	16.3	21.2		PASS

20MHz n Mode

5500	11.0	26.7	11.9	10.8	11.1	40.3	16.1	24.0	0.115	PASS
5580	16.0	41.8	15.8	15.7	16.0	114.8	20.6	24.0		PASS
5660	16.0	37.7	16.0	15.6	15.5	110.7	20.4	24.0		PASS
5700	11.5	34.2	11.7	11.6	11.0	41.8	16.2	24.0		PASS

40MHz Mode

5510	5.5	50.4	6.5	5.8	6.3	12.5	11.0	24.0	0.080	PASS
5550	14.0	60.0	14.8	13.7	14.2	79.9	19.0	24.0		PASS
5670	10.0	49.2	10.4	10.8	10.4	34.0	15.3	24.0		PASS

PSD

Frequency (MHz)	99% ⁴ BW	Total Power	PSD ² dBm/MHz			Total PSD		Limit		Pass or Fail
			Chain 1	Chain 2	Chain 3	mW/MHz	dBm/MHz	FCC	RSS 210 ³	

20MHz a Mode

5500	16.8	16.6	0.0	-0.8	0.0	2.8	4.5	8.2	11.0	PASS
5580	16.9	17.9	1.1	0.6	0.8	3.6	5.6	8.2	11.0	PASS
5660	16.8	17.9	0.7	1.1	1.2	3.8	5.8	8.2	11.0	PASS
5700	16.9	16.3	-0.6	-0.2	-0.8	2.7	4.2	8.2	11.0	PASS

20MHz Mode

5500	18.1	16.1	-0.6	-1.2	-1.1	2.4	3.8	8.2	11.0	PASS
5580	18.1	20.6	3.4	3.4	3.3	6.5	8.1	8.2	11.0	PASS
5660	18.1	20.4	3.5	3.2	3.3	6.5	8.1	8.2	11.0	PASS
5700	18.0	16.2	-0.9	-0.6	-1.3	2.4	3.8	8.2	11.0	PASS

40MHz Mode

5510	36.4	11.0	-8.9	-9.3	-8.9	0.4	-4.2	8.2	11.0	PASS
5550	36.4	19.0	-0.7	-1.6	-1.1	2.3	3.7	8.2	11.0	PASS
5670	36.3	15.3	-5.2	-4.7	-4.8	1.0	-0.1	8.2	11.0	PASS

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

For Industry Canada, B in the power limit calculation is based on 99% BW instead of 26dB BW

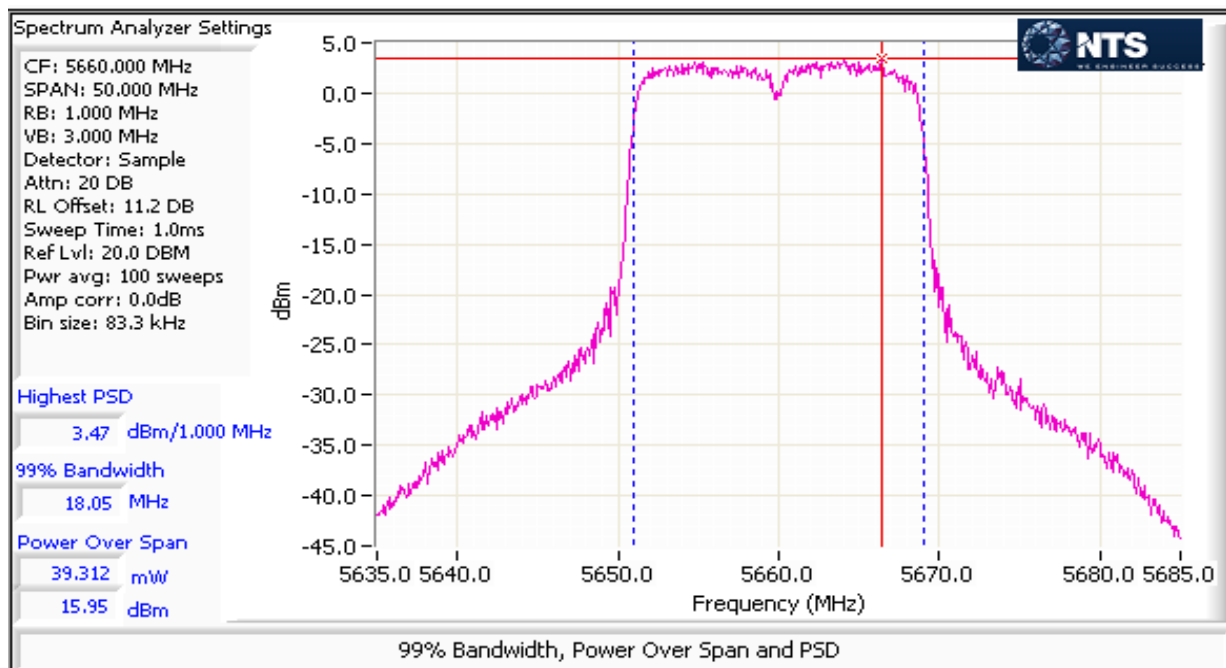
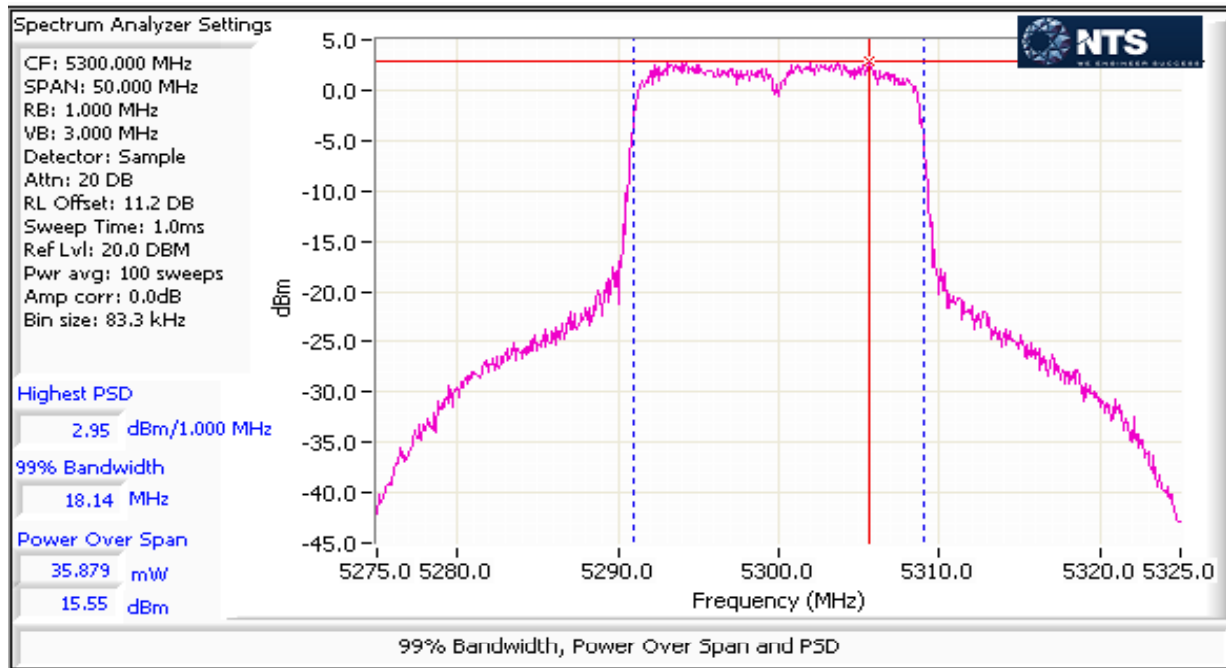
Power

Frequency (MHz)	Software Setting	99% BW (MHz)	Measured Output Power ¹ dBm			Total		Limit (dBm)	Max Power (W)	Pass or Fail
			Chain 1	Chain 2	Chain 3	mW	dBm			
20MHz a Mode										
5500	11.5	16.8	12.4	11.3	11.9	46.2	16.6	20.5	0.062	PASS
5580	13.0	16.9	13.4	13.1	13.0	62.2	17.9	20.5		PASS
5660	13.0	16.8	12.8	13.4	13.1	61.3	17.9	20.5		PASS
5700	11.5	16.9	11.8	11.7	11.1	42.5	16.3	20.5		PASS
20MHz n Mode										
5500	11.0	18.1	11.9	10.8	11.1	40.3	16.1	23.6	0.115	PASS
5580	16.0	18.1	15.8	15.7	16.0	114.8	20.6	23.6		PASS
5660	16.0	18.1	16.0	15.6	15.5	110.7	20.4	23.6		PASS
5700	11.5	18.0	11.7	11.6	11.0	41.8	16.2	23.6		PASS
40MHz Mode										
5510	5.5	36.4	6.5	5.8	6.3	12.5	11.0	24.0	0.080	PASS
5550	14.0	36.4	14.8	13.7	14.2	79.9	19.0	24.0		PASS
5670	10.0	36.3	10.4	10.8	10.4	34.0	15.3	24.0		PASS

EIRP does not exceed 500mW, therefore TPC is not required.

Note 1:	Output power measured using a spectrum analyzer (see plots below). RBW=1MHz, VB=3 MHz, # of points in sweep $\geq 2 \times \text{span} / \text{RBW}$, sample detector, power averaging on (transmitted signal was continuous) and power integration over 50 MHz (method SA-1 of KDB 789033).
Note 2:	Measured using the same analyzer settings used for output power.
Note 3:	For RSS-210 the limit for the 5150 - 5250 MHz band accounts for the antenna gain as the maximum eirp allowed is 10dBm/MHz. The limits are also corrected for instances where the highest measured value of the PSD exceeds the average PSD (calculated from the measured power divided by the measured 99% bandwidth) by more than 3dB by the amount that the measured value exceeds the average by more than 3dB.
Note 4:	99% Bandwidth measured in accordance with RSS GEN - RB > 1% of span and VB $\geq 3 \times \text{RB}$
Note 5:	For MIMO systems, the total output power and total PSD are calculated from the sum of the powers of the individual chains (in linear terms). The antenna gain used to determine the EIRP and limits for PSD/Output power depends on the operating mode of the MIMO device. If the signals on the non-coherent between the transmit chains then the gain used to determine the limits is the highest gain of the individual chains and the EIRP is the sum of the products of gain and power on each chain. If the signals are coherent then the effective antenna gain is the sum (in linear terms) of the gains for each chain and the EIRP is the product of the effective gain and total power. 802.11n modes are treated as not coherent for Power.

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

RSS-210 (LELAN) and FCC 15.407(UNII) Antenna Port Measurements Power, PSD and Bandwidth

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: 4/18/2013, 4/22/2013
 Test Engineer: Deniz Demirci / Rafael Varelas
 Test Location: FT7

Config. Used: 1
 Config Change: None
 EUT Voltage: POE

General Test Configuration

When measuring the conducted emissions from the EUT's antenna port, the antenna port of the EUT was connected to the spectrum analyzer or power meter via a suitable attenuator to prevent overloading the measurement system. All measurements are corrected to allow for the external attenuators and cables used.

Ambient Conditions:

Temperature: 20.9 °C
 Rel. Humidity: 35 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Power, 5250 - 5350MHz	15.407(a) (1), (2)	Pass	802.11a: 46.1 mW 802.11n 20MHz: 73.0 mW 802.11n 40MHz: 120.6 mW
1	PSD, 5250 - 5350MHz	15.407(a) (1), (2)	Pass	802.11a: 5.1 dBm/MHz 802.11n 20MHz: 6.6 dBm/MHz 802.11n 40MHz: 5.7 dBm/MHz
1	Max EIRP 5250 - 5350MHz	TPC required if EIRP ≥ 500mW (27dBm). EIRP ≥ 200mW (23dBm) DFS threshold = -64dBm	Pass	EIRP = 26.9 dBm (490.5 mW)
1	Power, 5470 - 5725MHz	15.407(a) (1), (2)	Pass	802.11a: 46.3 mW 802.11n 20MHz: 74.5 mW 802.11n 40MHz: 116.0 mW
1	PSD, 5470 - 5725MHz	15.407(a) (1), (2)	Pass	802.11a: 5.1 dBm/MHz 802.11n 20MHz: 6.6 dBm/MHz 802.11n 40MHz: 5.3 dBm/MHz

Client:	Flextronics	Job Number:	J89632
Model:	AP3710e	T-Log Number:	T89633
Contact:	Georges Fares	Account Manager:	Christine Krebill
Standard:	15.407, RSS-210	Class:	N/A

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Max EIRP 5470 - 5725MHz	TPC required if EIRP ≥ 500mW (27dBm). EIRP ≥ 200mW (23dBm) DFS threshold = -64dBm.	Pass	EIRP = 26.9 dBm (492.9 mW)
1	26dB Bandwidth	15.407 (Information only)	-	> 20MHz for all modes
1	99% Bandwidth	RSS 210 (Information only)	N/A	802.11a: 16.9 MHz 802.11n 20MHz: 18.1 MHz 802.11n n40MHz: 36.6 MHz

Antenna:

#	Model	Type	Freq. Band (GHz)	Gain (dBi)	Ind/Out	Xpol?	Pt to Pt?
4	Enterasys WS-AI-DX13025	Sector (6 element)	5.2 & 5.6	11.5	Indoor	2 Xpol / 2 Vert	No

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.

Tested w/o 6dB attenuator w/ Low Power script, antenna gain is thus 5.5 dBi

ART GUI (Singleradio test) Or Command Line Script (multiple radio test)

ART GUI Used: No

ART GUI Boot File: -

-

ART GUI Calibration file: -

-

Command Line Script: 3710e Pilot_295948 boot and initialize all 3 radios to NART Command Line Interface from 15T - LOW POWER

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #1: Bandwidth, Output Power and Power Spectral Density - MIMO Systems

MIMO Device - 5250-5350 MHz Band

	Chain 1	Chain 2	Chain 3	Coherent	Effective ⁵	EIRP (mW)	EIRP (dBm)
Legacy Antenna Gain (dBi):	5.5	5.5	5.5	Yes	10.3	490.5	26.9
MIMO Antenna Gain (dBi):	5.5	5.5	5.5	No	5.5	428.0	26.3

Power										
Frequency (MHz)	Software Setting	26dB BW (MHz)	Measured Output Power ¹ dBm			Total		Limit (dBm)	Max Power (W)	Pass or Fail
			Chain 1	Chain 2	Chain 3	mW	dBm			
20MHz a Mode										
5260	10.5	24.7	11.8	11.9	11.0	43.2	16.4	19.7	0.046	PASS
5300	10.5	25.7	11.7	11.9	11.5	44.5	16.5	19.7		PASS
5320	10.5	25.5	11.6	12.4	11.6	46.1	16.6	19.7		PASS
20MHz n Mode										
5260	13.0	26.2	14.2	14.2	13.1	73.0	18.6	24.0	0.073	PASS
5300	13.0	26.2	13.6	13.8	13.5	69.3	18.4	24.0		PASS
5320	13.0	25.2	13.7	14.1	13.6	71.9	18.6	24.0		PASS
40MHz Mode										
5270	15.0	73.3	16.3	16.5	15.2	120.6	20.8	24.0	0.121	PASS
5310	10.0	70.1	11.2	11.4	11.3	40.2	16.0	24.0		PASS
PSD										
Frequency (MHz)	99% ⁴ BW	Total Power	PSD ² dBm/MHz			Total PSD		Limit		Pass or Fail
			Chain 1	Chain 2	Chain 3	mW/MHz	dBm/MHz	FCC	RSS 210 ³	
20MHz a Mode										
5260	16.8	16.4	-0.4	0.3	-0.9	2.8	4.5	6.7	11.0	PASS
5300	16.8	16.5	-0.3	-0.4	0.0	2.9	4.6	6.7	11.0	PASS
5320	16.8	16.6	-0.2	0.8	0.5	3.3	5.1	6.7	11.0	PASS
20MHz n Mode										
5260	18.0	18.6	2.0	2.0	1.5	4.6	6.6	6.7	11.0	PASS
5300	18.0	18.4	1.5	2.0	2.0	4.6	6.6	6.7	11.0	PASS
5320	18.1	18.6	1.4	2.1	1.8	4.5	6.5	6.7	11.0	PASS
40MHz Mode										
5270	36.6	20.8	0.8	1.6	0.2	3.7	5.7	6.7	11.0	PASS
5310	36.5	16.0	-3.9	-3.8	-3.8	1.2	0.9	6.7	11.0	PASS

Client:	Flextronics	Job Number:	J89632
Model:	AP3710e	T-Log Number:	T89633
Contact:	Georges Fares	Account Manager:	Christine Krebill
Standard:	15.407, RSS-210	Class:	N/A

For Industry Canada, B in the power limit calculation is based on 99% BW instead of 26dB BW

Power

Frequency (MHz)	Software Setting	99% BW (MHz)	Measured Output Power ¹ dBm			Total		Limit (dBm)	Max Power (W)	Pass or Fail
			Chain 1	Chain 2	Chain 3	mW	dBm			
20MHz a Mode										
5260	10.5	16.8	11.8	11.9	11.0	43.2	16.4	19.0	0.046	PASS
5300	10.5	16.8	11.7	11.9	11.5	44.5	16.5	19.0		PASS
5320	10.5	16.8	11.6	12.4	11.6	46.1	16.6	19.0		PASS
20MHz n Mode										
5260	13.0	18.0	14.2	14.2	13.1	73.0	18.6	23.6	0.073	PASS
5300	13.0	18.0	13.6	13.8	13.5	69.3	18.4	23.6		PASS
5320	13.0	18.1	13.7	14.1	13.6	71.9	18.6	23.6		PASS
40MHz Mode										
5270	15.0	36.6	16.3	16.5	15.2	120.6	20.8	24.0	0.121	PASS
5310	10.0	36.5	11.2	11.4	11.3	40.2	16.0	24.0		PASS

EIRP does not exceed 500mW, therefore TPC is not required.

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

MIMO Device - 5470-5725 MHz Band

	Chain 1	Chain 2	Chain 3	Coherent	Effective ⁵	EIRP (mW)	EIRP (dBm)
Legacy Antenna Gain (dBi):	5.5	5.5	5.5	Yes	10.3	492.9	26.9
MIMO Antenna Gain (dBi):	5.5	5.5	5.5	No	5.5	411.5	26.1

Power

Frequency (MHz)	Software Setting	26dB BW (MHz)	Measured Output Power ¹ dBm			Total		Limit (dBm)	Max Power (W)	Pass or Fail
			Chain 1	Chain 2	Chain 3	mW	dBm			

20MHz a Mode

5500	11.0	25.0	11.8	11.2	11.1	41.1	16.1	19.7	0.046	PASS
5580	11.5	24.6	12.0	10.6	11.5	41.2	16.2	19.7		PASS
5660	12.0	25.0	12.1	11.3	12.2	46.3	16.7	19.7		PASS
5700	12.0	25.2	11.9	11.5	11.7	44.3	16.5	19.7		PASS

20MHz n Mode

5500	12.0	25.4	13.6	12.2	12.5	57.3	17.6	24.0	0.074	PASS
5580	14.0	25.6	14.1	12.5	13.5	66.4	18.2	24.0		PASS
5660	14.5	25.6	14.1	13.4	14.0	72.7	18.6	24.0		PASS
5700	14.5	25.1	14.0	13.7	14.2	74.5	18.7	24.0		PASS

40MHz Mode

5510	9.0	62.2	10.9	9.6	9.4	30.0	14.8	24.0	0.116	PASS
5550	16.0	54.3	16.6	15.2	15.7	116.0	20.6	24.0		PASS
5670	16.0	49.7	15.0	14.7	15.4	95.8	19.8	24.0		PASS

PSD

Frequency (MHz)	99% ⁴ BW	Total Power	PSD ² dBm/MHz			Total PSD		Limit		Pass or Fail
			Chain 1	Chain 2	Chain 3	mW/MHz	dBm/MHz	FCC	RSS 210 ³	

20MHz a Mode

5500	16.9	16.1	0.2	-0.8	-0.8	2.7	4.4	6.7	11.0	PASS
5580	16.9	16.2	-0.3	-1.4	-0.4	2.6	4.1	6.7	11.0	PASS
5660	16.9	16.7	0.5	-0.4	0.7	3.2	5.1	6.7	11.0	PASS
5700	16.8	16.5	-0.2	-0.6	-0.1	2.8	4.5	6.7	11.0	PASS

20MHz Mode

5500	18.0	17.6	1.2	0.3	0.1	3.4	5.3	6.7	11.0	PASS
5580	18.0	18.2	1.7	0.7	1.3	4.0	6.1	6.7	11.0	PASS
5660	18.0	18.6	1.8	1.3	1.7	4.3	6.3	6.7	11.0	PASS
5700	18.0	18.7	1.8	1.8	2.0	4.6	6.6	6.7	11.0	PASS

40MHz Mode

5510	36.6	14.8	-4.9	-5.6	-6.0	0.9	-0.7	6.7	11.0	PASS
5550	36.6	20.6	1.1	-0.1	0.5	3.4	5.3	6.7	11.0	PASS
5670	36.5	19.8	0.0	-0.2	0.1	3.0	4.7	6.7	11.0	PASS

Client:	Flextronics	Job Number:	J89632
Model:	AP3710e	T-Log Number:	T89633
Contact:	Georges Fares	Account Manager:	Christine Krebill
Standard:	15.407, RSS-210	Class:	N/A

For Industry Canada, B in the power limit calculation is based on 99% BW instead of 26dB BW

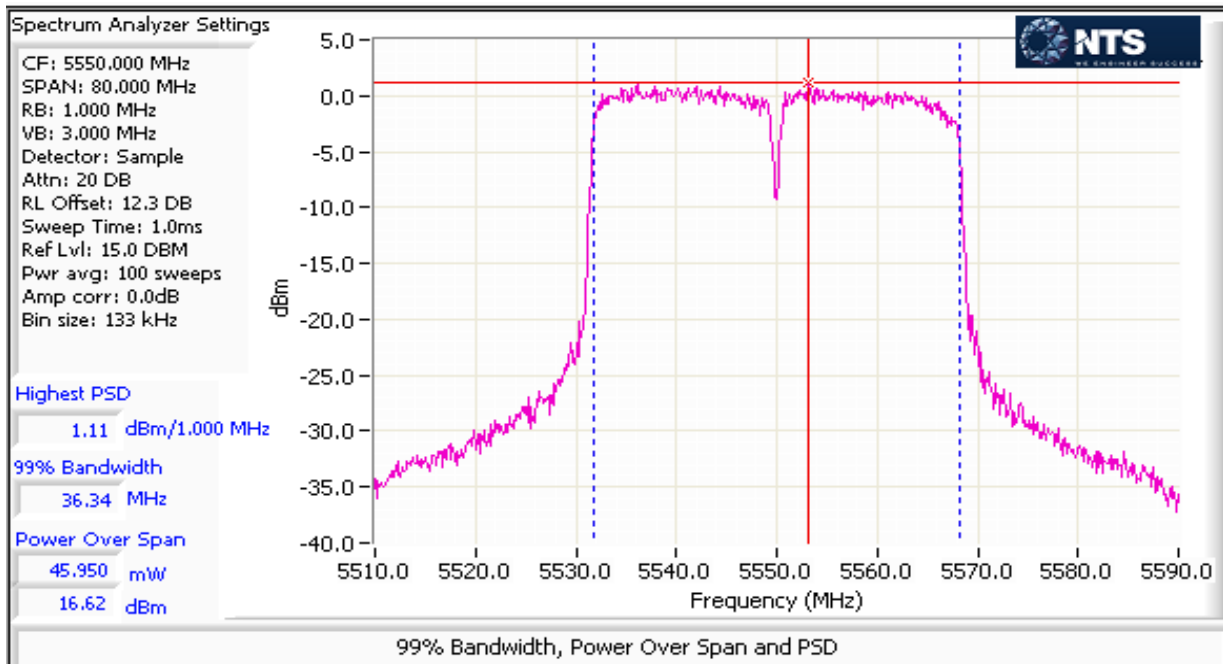
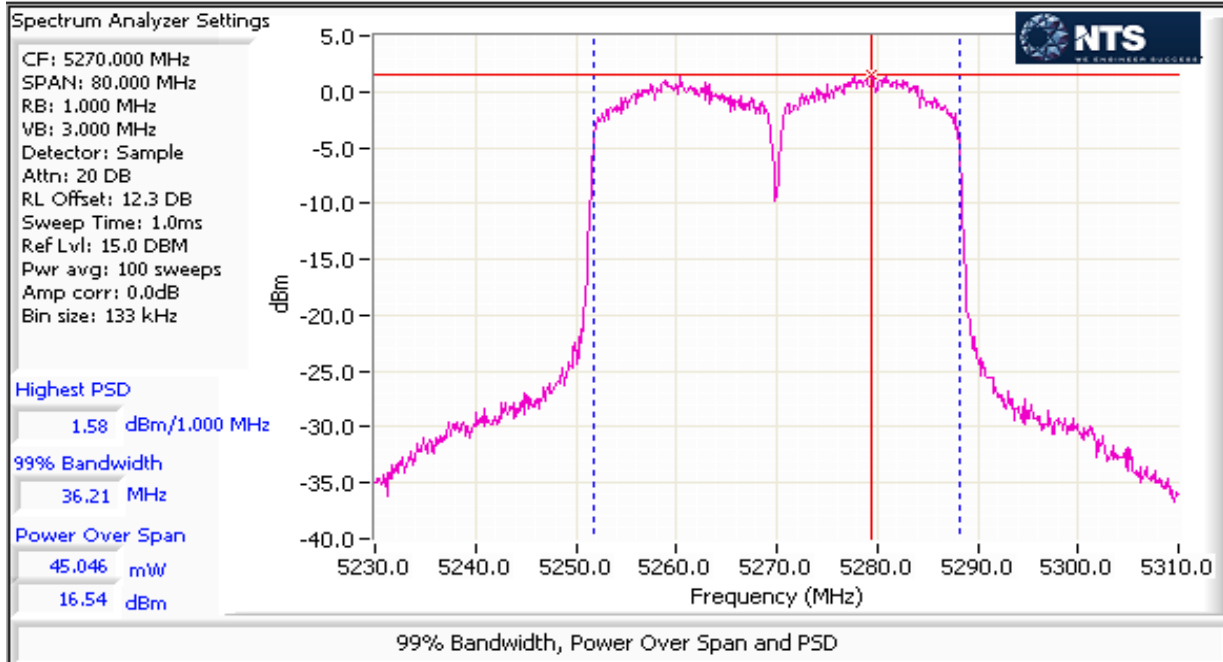
Power

Frequency (MHz)	Software Setting	99% BW (MHz)	Measured Output Power ¹ dBm			Total		Limit (dBm)	Max Power (W)	Pass or Fail
			Chain 1	Chain 2	Chain 3	mW	dBm			
20MHz a Mode										
5500	11.0	16.9	11.8	11.2	11.1	41.1	16.1	19.0	0.046	PASS
5580	11.5	16.9	12.0	10.6	11.5	41.2	16.2	19.0		PASS
5660	12.0	16.9	12.1	11.3	12.2	46.3	16.7	19.0		PASS
5700	12.0	16.8	11.9	11.5	11.7	44.3	16.5	19.0		PASS
20MHz n Mode										
5500	12.0	18.0	13.6	12.2	12.5	57.3	17.6	23.6	0.074	PASS
5580	14.0	18.0	14.1	12.5	13.5	66.4	18.2	23.6		PASS
5660	14.5	18.0	14.1	13.4	14.0	72.7	18.6	23.6		PASS
5700	14.5	18.0	14.0	13.7	14.2	74.5	18.7	23.6		PASS
40MHz Mode										
5510	9.0	36.6	10.9	9.6	9.4	30.0	14.8	24.0	0.116	PASS
5550	16.0	36.6	16.6	15.2	15.7	116.0	20.6	24.0		PASS
5670	16.0	36.5	15.0	14.7	15.4	95.8	19.8	24.0		PASS

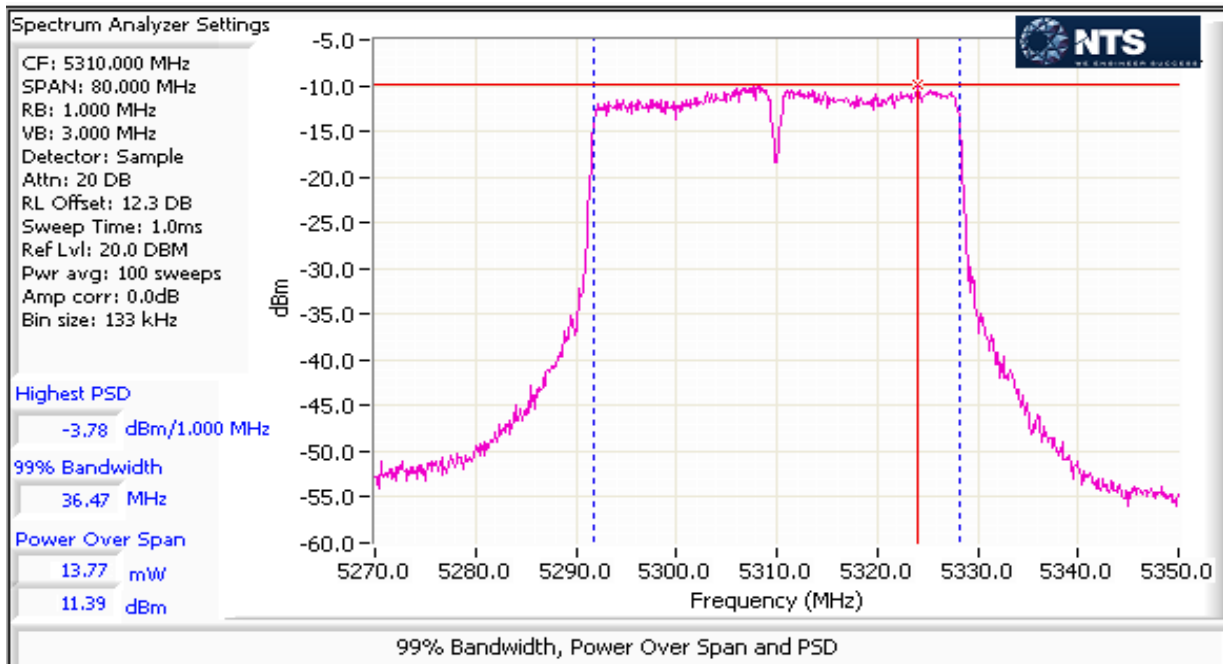
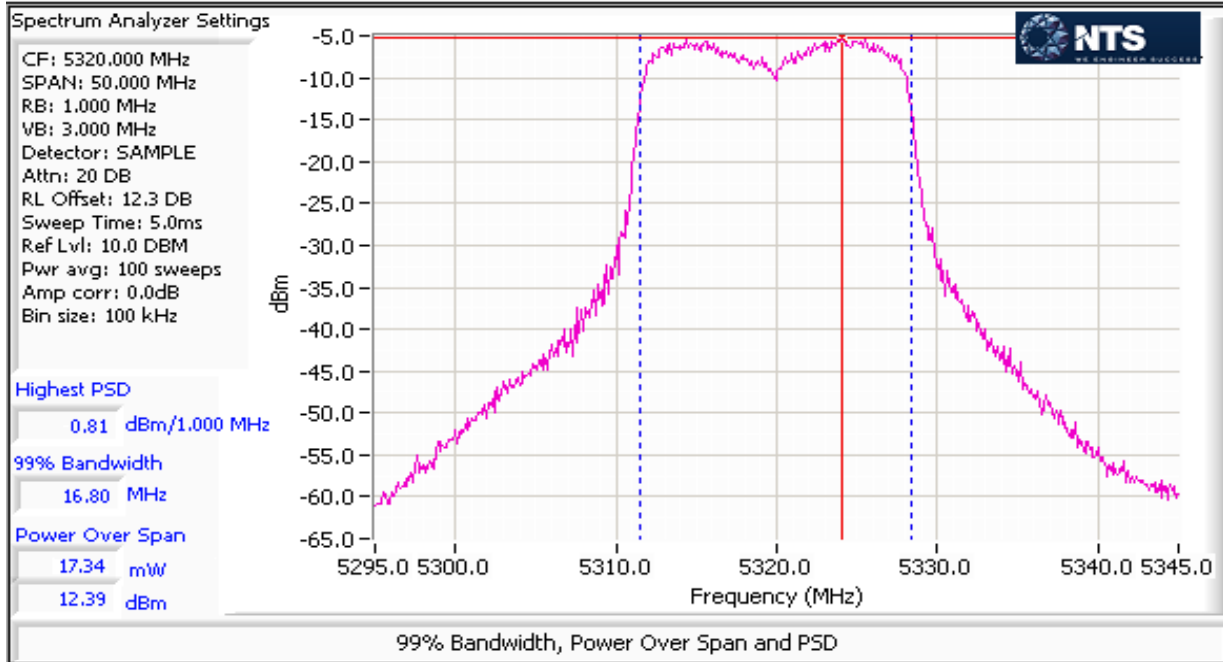
EIRP does not exceed 500mW, therefore TPC is not required.

Note 1:	Output power measured using a spectrum analyzer (see plots below). RBW=1MHz, VB=3 MHz, # of points in sweep $\geq 2 \times \text{span} / \text{RBW}$, sample detector, power averaging on (transmitted signal was continuous) and power integration over 50 MHz (method SA-1 of KDB 789033).
Note 2:	Measured using the same analyzer settings used for output power.
Note 3:	For RSS-210 the limit for the 5150 - 5250 MHz band accounts for the antenna gain as the maximum eirp allowed is 10dBm/MHz. The limits are also corrected for instances where the highest measured value of the PSD exceeds the average PSD (calculated from the measured power divided by the measured 99% bandwidth) by more than 3dB by the amount that the measured value exceeds the average by more than 3dB.
Note 4:	99% Bandwidth measured in accordance with RSS GEN - RB > 1% of span and VB $\geq 3 \times \text{RB}$
Note 5:	For MIMO systems, the total output power and total PSD are calculated from the sum of the powers of the individual chains (in linear terms). The antenna gain used to determine the EIRP and limits for PSD/Output power depends on the operating mode of the MIMO device. If the signals on the non-coherent between the transmit chains then the gain used to determine the limits is the highest gain of the individual chains and the EIRP is the sum of the products of gain and power on each chain. If the signals are coherent then the effective antenna gain is the sum (in linear terms) of the gains for each chain and the EIRP is the product of the effective gain and total power. 802.11n modes are treated as not coherent for Power.

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A



Based on these plots, it is shown that the 20 dB BW for the highest channel is within the 5250-5350 MHz band.

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

RSS 210 and FCC 15.407 (NII) 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.

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane or routed in overhead in the GR-1089 test configuration.

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

Ambient Conditions:

Temperature: 20.4 °C
 Rel. Humidity: 36 %

Summary of Results - Device Operating in the 5250-5350 MHz Band

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
Run # 1	802.11a Chain A+B+C	#64 5320MHz	17.0		Restricted Band Edge at 5350 MHz	15.209	51.6 dBµV/m @ 5350.0 MHz (-2.4 dB)
Run # 2	802.11n20 Chain A+B+C	#64 5320MHz	17.0		Restricted Band Edge at 5350 MHz	15.209	73.2 dBµV/m @ 5352.1 MHz (-0.8 dB)
Run # 3	802.11n40 Chain A+B+C	#62 5310MHz	11.0		Restricted Band Edge at 5350 MHz	15.209	53.0 dBµV/m @ 5350.2 MHz (-1.0 dB)

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Summary of Results - Device Operating in the 5470-5725 MHz Band

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
Run # 4	802.11a Chain A+B+C	#100 5500MHz	14.0		Restricted Band Edge at 5460 MHz	15.209	43.9 dBμV/m @ 5458.7 MHz (-10.1 dB)
		#100 5500MHz	14.0		Band Edge at 5470 MHz	15.407	67.5 dBμV/m @ 5469.8 MHz (-0.8 dB)
		#140 5700MHz	17.0		Band Edge at 5725 MHz	15.407	67.7 dBμV/m @ 5726.0 MHz (-0.6 dB)
Run # 5	802.11n20 Chain A+B+C	#100 5500MHz	13.5		Restricted Band Edge at 5460 MHz	15.209	42.7 dBμV/m @ 5457.5 MHz (-11.3 dB)
		#100 5500MHz	13.5		Band Edge at 5470 MHz	15.407	66.8 dBμV/m @ 5469.6 MHz (-1.5 dB)
		#140 5700MHz	16.5		Band Edge at 5725 MHz	15.407	67.9 dBμV/m @ 5725.6 MHz (-0.4 dB)
Run # 6	802.11n40 Chain A+B+C	#102 5510MHz	8.0		Restricted Band Edge at 5460 MHz	15.209	43.6 dBμV/m @ 5460.0 MHz (-10.4 dB)
		#102 5510MHz	8.0		Band Edge at 5470 MHz	15.407	67.9 dBμV/m @ 5468.2 MHz (-0.4 dB)
		#134 5670MHz	16.0		Band Edge at 5725 MHz	15.407	61.8 dBμV/m @ 5725.7 MHz (-6.5 dB)

Antenna:

#	Model	Type	Freq. Band (GHz)	Gain (dBi)	Ind/Out	Xpol?	Pt to Pt?
1	Laird S2451DBT	Omni	5.2 & 5.6	2	Indoor	No	No



EMC Test Data

Client:	Flextronics	Job Number:	J89632
Model:	AP3710e	T-Log Number:	T89633
		Account Manager:	Christine Krebill
Contact:	Georges Fares		
Standard:	15.407, RSS-210	Class:	N/A

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.

Notes

Antenna: antenna(s) connected
Duty Cycle: 99.0%

ART GUI (Singleradio test) Or Command Line Script (multiple radio test)

ART GUI Used: No
ART GUI Boot File: -
-
ART GUI Calibration file: -
-
Command Line Script: 3710e Pilot_115942 boot and initialize all 3 radios to NART Command Line Interface from 15T - LOW POWER

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run # 1, Band Edge Field Strength - 802.11a, Chain A+B+C

Date of Test: 2/20/2013 & 2/21/2013

Test Location: FT7

Test Engineer: Rafael Varelas/ Jack Liu

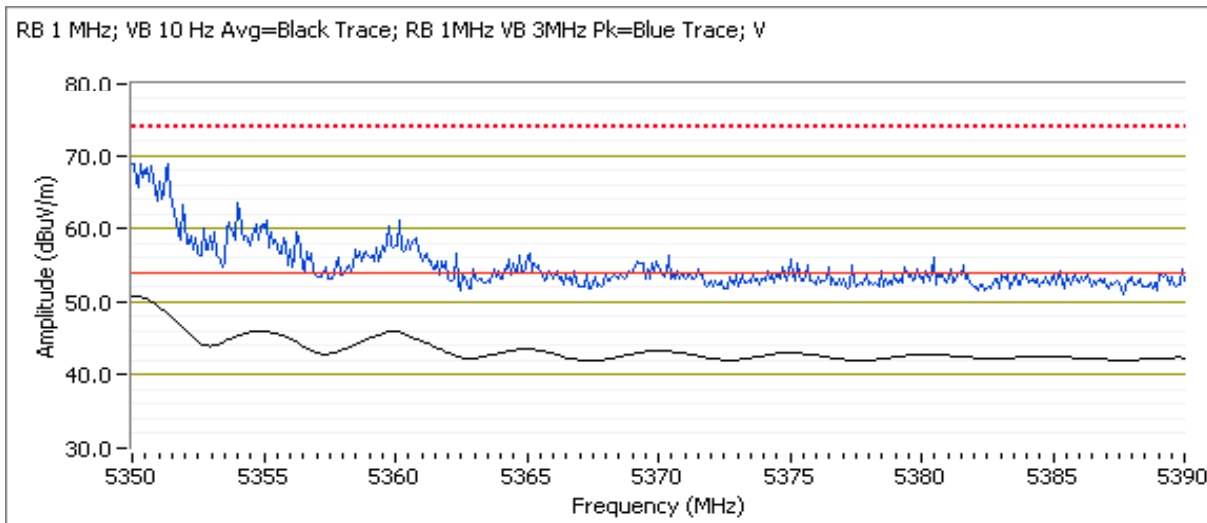
Config Change: None

Run # 1a, EUT on Channel #64 5320MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5320 MHz	17.0
2	2437 MHz	21.0

5350 MHz Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5350.000	51.6	V	54.0	-2.4	AVG	148	1.7	POS; RB 1 MHz; VB: 10 Hz
5350.400	70.5	V	74.0	-3.5	PK	148	1.7	POS; RB 1 MHz; VB: 3 MHz
5350.000	44.1	H	54.0	-9.9	AVG	66	1.0	POS; RB 1 MHz; VB: 10 Hz
5350.400	59.6	H	74.0	-14.4	PK	66	1.0	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

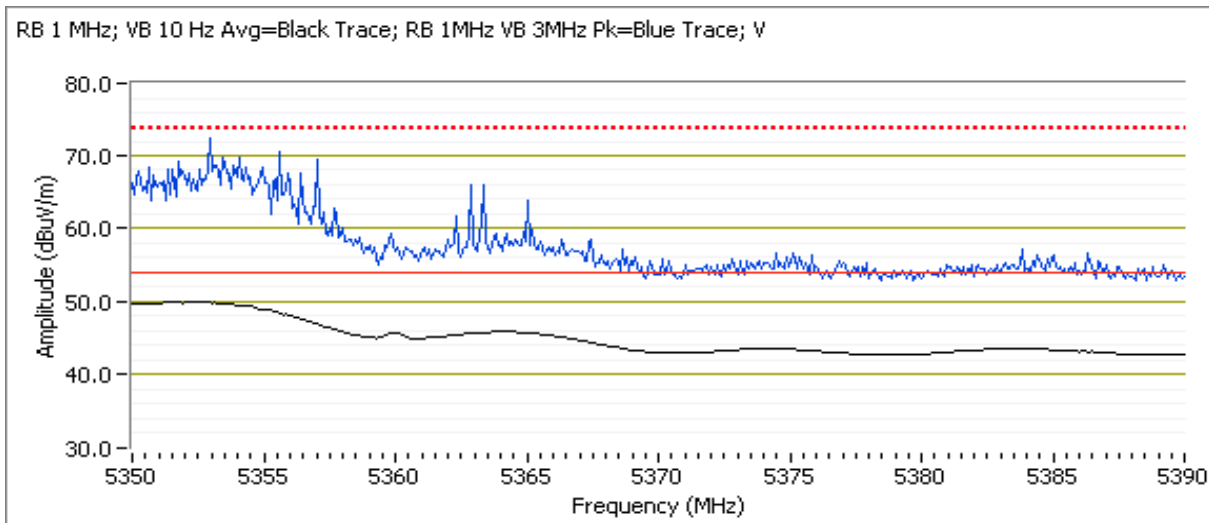
Run # 2, Band Edge Field Strength - 802.11n20, Chain A+B+C

Run # 2a, EUT on Channel #64 5320MHz - 802.11n20, Chain A+B+C

Radio	Freq	Power Setting
1	5320 MHz	17.0
2	2437 MHz	21.0

5350 MHz Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5352.060	73.2	V	74.0	-0.8	PK	134	1.4	POS; RB 1 MHz; VB: 3 MHz
5352.970	50.1	V	54.0	-3.9	AVG	134	1.4	POS; RB 1 MHz; VB: 10 Hz
5350.080	44.5	H	54.0	-9.5	AVG	74	1.0	POS; RB 1 MHz; VB: 10 Hz
5350.850	63.8	H	74.0	-10.2	PK	74	1.0	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

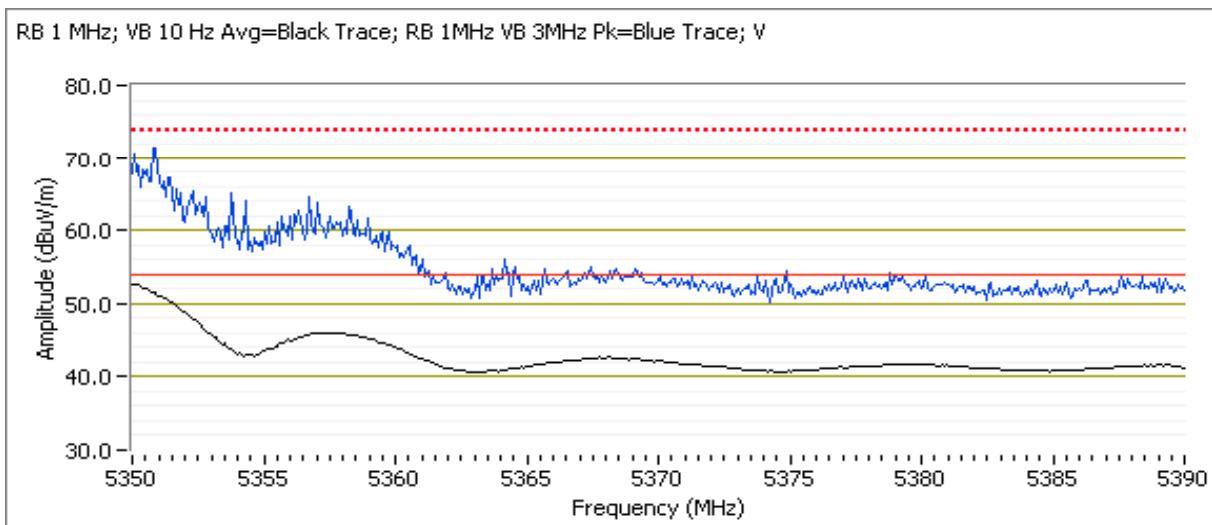
Run # 3, Band Edge Field Strength - 802.11n40, Chain A+B+C

Run # 3a, EUT on Channel #62 5310MHz - 802.11n40, Chain A+B+C

Radio	Freq	Power Setting
1	5310 MHz	11.0
2	2437 MHz	21.0

5350 MHz Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5350.160	53.0	V	54.0	-1.0	AVG	22	1.0	POS; RB 1 MHz; VB: 10 Hz
5350.680	71.4	V	74.0	-2.6	PK	22	1.0	POS; RB 1 MHz; VB: 3 MHz
5352.320	45.4	H	54.0	-8.6	AVG	74	1.0	POS; RB 1 MHz; VB: 10 Hz
5350.400	61.0	H	74.0	-13.0	PK	74	1.0	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

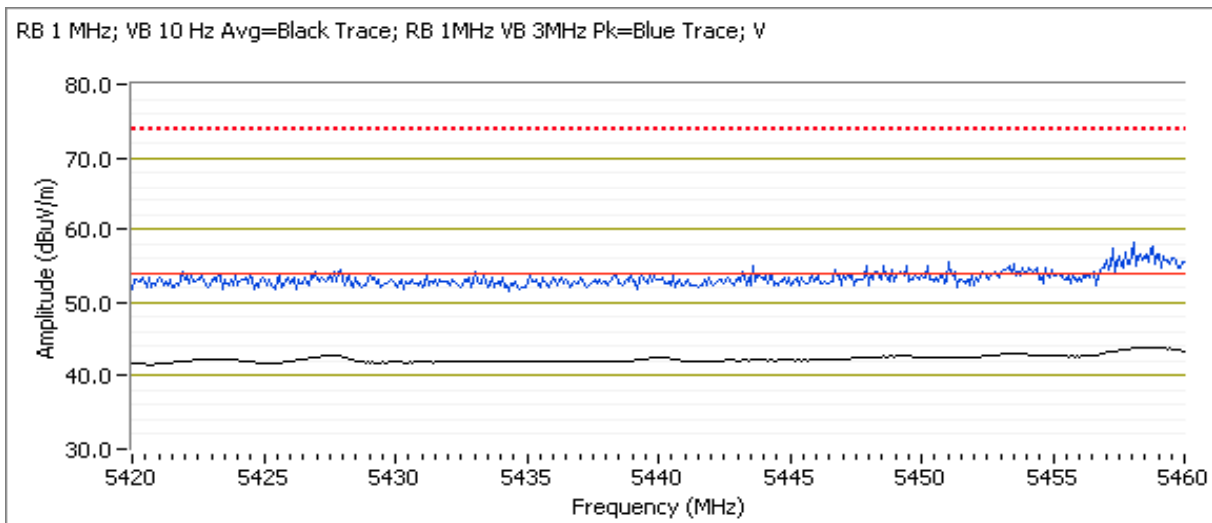
Run # 4, Band Edge Field Strength - 802.11a, Chain A+B+C

Run # 4a, EUT on Channel #100 5500MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5500 MHz	14.0
2	2437 MHz	21.0

5460 MHz Band Edge Signal Field Strength

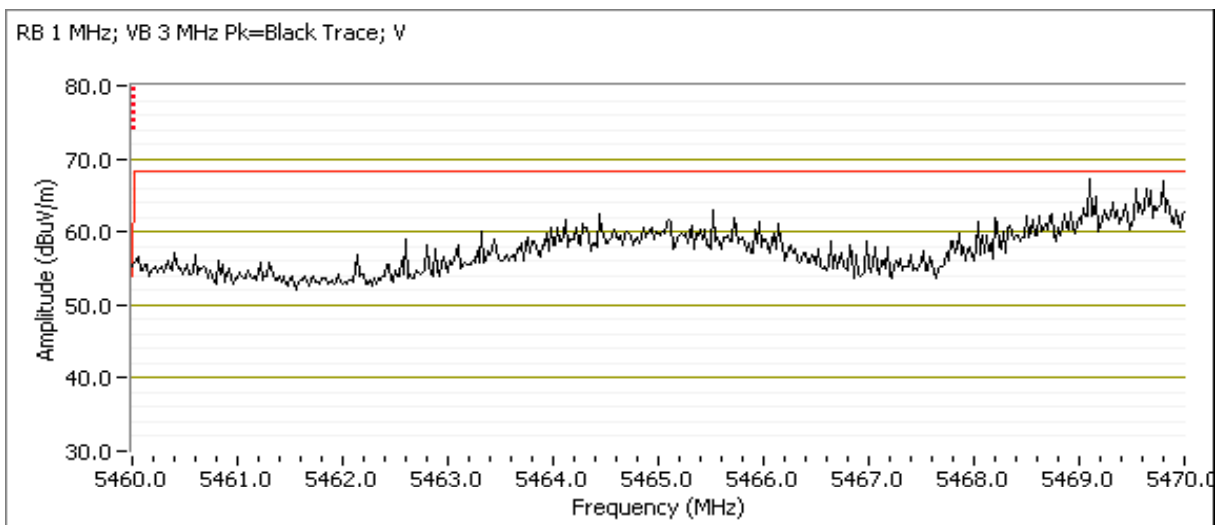
Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5458.720	43.9	V	54.0	-10.1	AVG	17	1.0	POS; RB 1 MHz; VB: 10 Hz
5459.560	58.0	V	74.0	-16.0	PK	17	1.0	POS; RB 1 MHz; VB: 3 MHz
5460.000	41.0	H	54.0	-13.0	AVG	43	1.0	POS; RB 1 MHz; VB: 10 Hz
5428.980	51.5	H	74.0	-22.5	PK	43	1.0	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

5470 MHz Band Edge Signal Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5469.780	67.5	V	68.3	-0.8	PK	27	1.0	POS; RB 1 MHz; VB: 3 MHz
5466.850	58.7	H	68.3	-9.6	PK	71	1.0	POS; RB 1 MHz; VB: 3 MHz



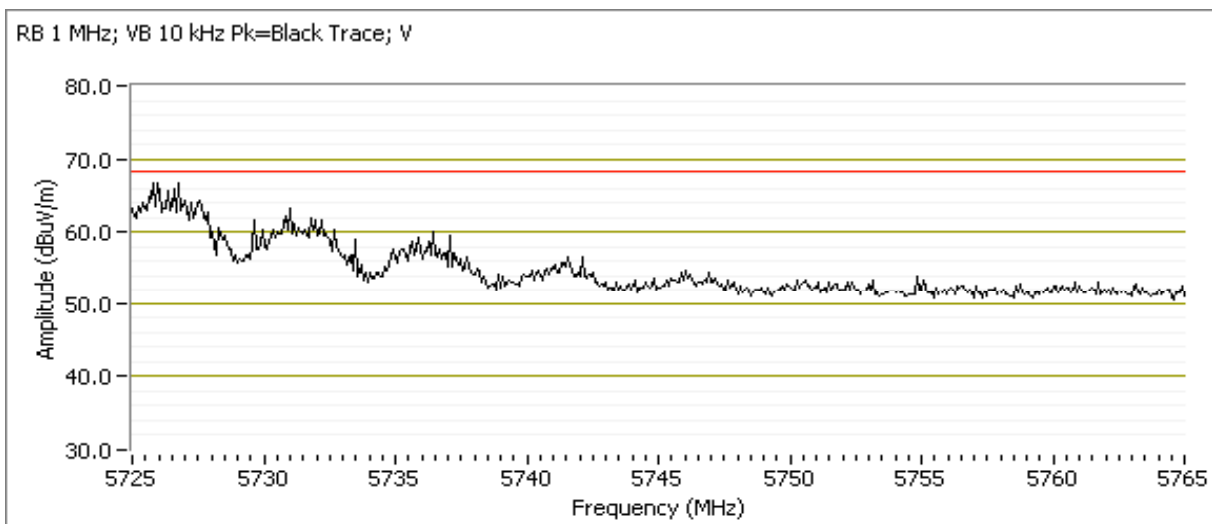
Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run # 4b, EUT on Channel #140 5700MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5700 MHz	17.0
2	2437 MHz	21.0

5725 MHz Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5726.040	67.7	V	68.3	-0.6	PK	7	1.6	POS; RB 1 MHz; VB: 3 MHz
5726.440	59.3	H	68.3	-9.0	PK	70	1.1	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

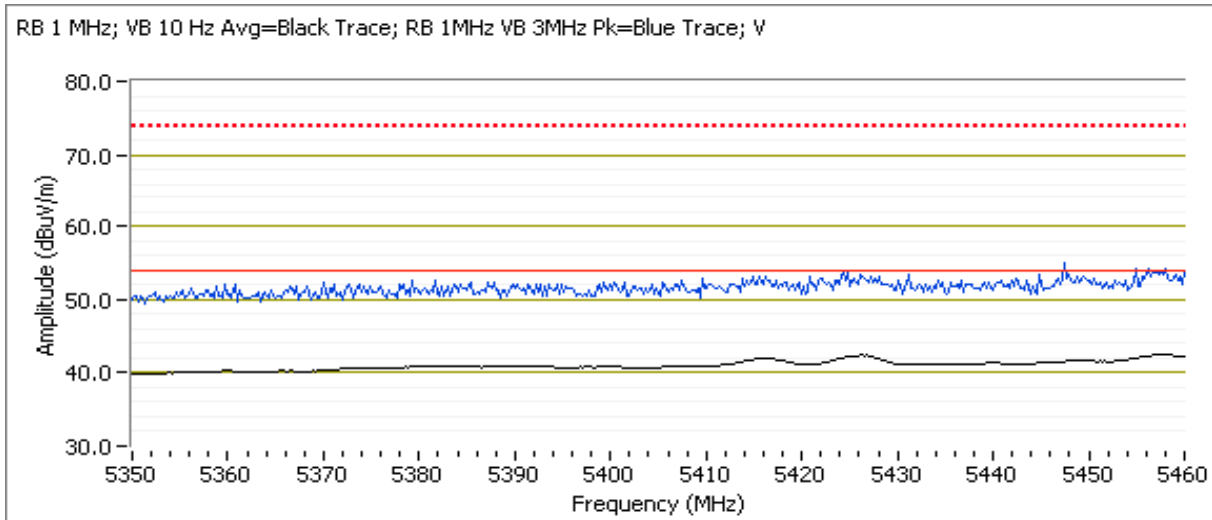
Run # 5, Band Edge Field Strength - 802.11n20, Chain A+B+C

Run # 5a, EUT on Channel #100 5500MHz - 802.11n20, Chain A+B+C

Radio	Freq	Power Setting
1	5500 MHz	13.5
2	2437 MHz	21.0

5460 MHz Band Edge Signal Field Strength

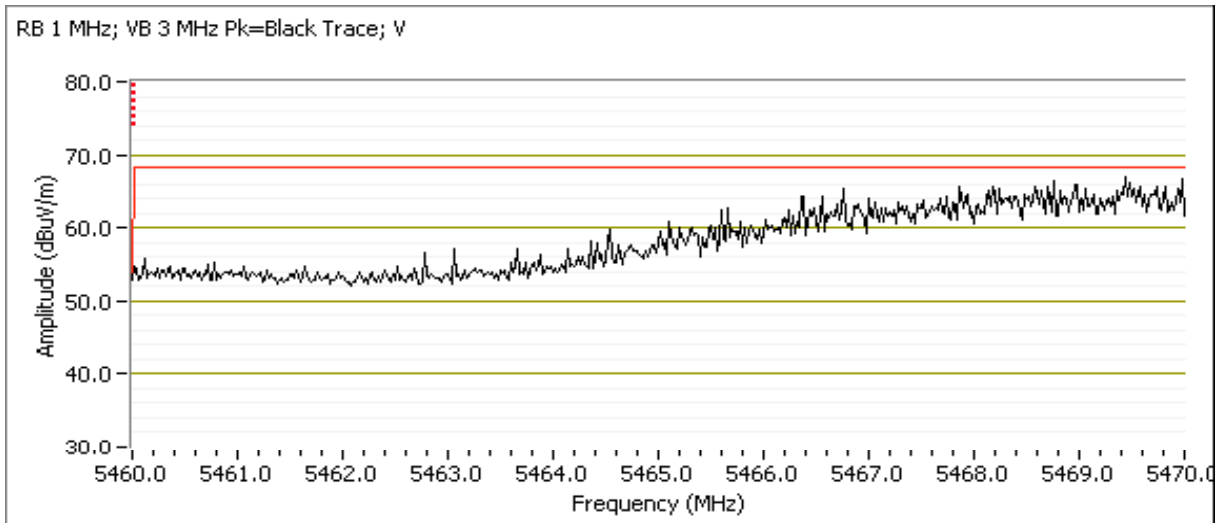
Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5457.520	42.7	V	54.0	-11.3	AVG	14	1.5	POS; RB 1 MHz; VB: 10 Hz
5455.350	55.7	V	74.0	-18.3	PK	14	1.5	POS; RB 1 MHz; VB: 3 MHz
5459.520	40.4	H	54.0	-13.6	AVG	45	1.0	POS; RB 1 MHz; VB: 10 Hz
5434.110	53.4	H	74.0	-20.6	PK	45	1.0	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

5470 MHz Band Edge Signal Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5469.640	66.8	V	68.3	-1.5	PK	21	1.5	POS; RB 1 MHz; VB: 3 MHz
5468.420	57.7	H	68.3	-10.6	PK	44	1.0	POS; RB 1 MHz; VB: 3 MHz
5469.900	69.1	V	68.3	0.8	PK	11	1.4	setting14



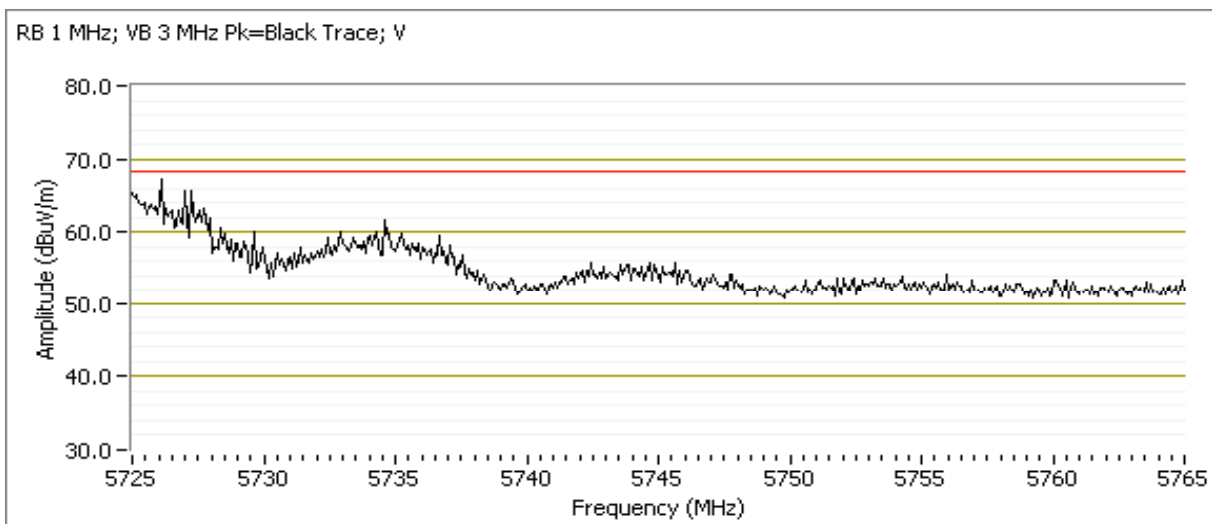
Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run # 5b, EUT on Channel #140 5700MHz - 802.11n20, Chain A+B+C

Radio	Freq	Power Setting
1	5700 MHz	16.5
2	2437 MHz	21.0

5725 MHz Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5725.560	67.9	V	68.3	-0.4	PK	291	1.5	POS; RB 1 MHz; VB: 3 MHz
5725.000	59.2	H	68.3	-9.1	PK	52	1.1	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

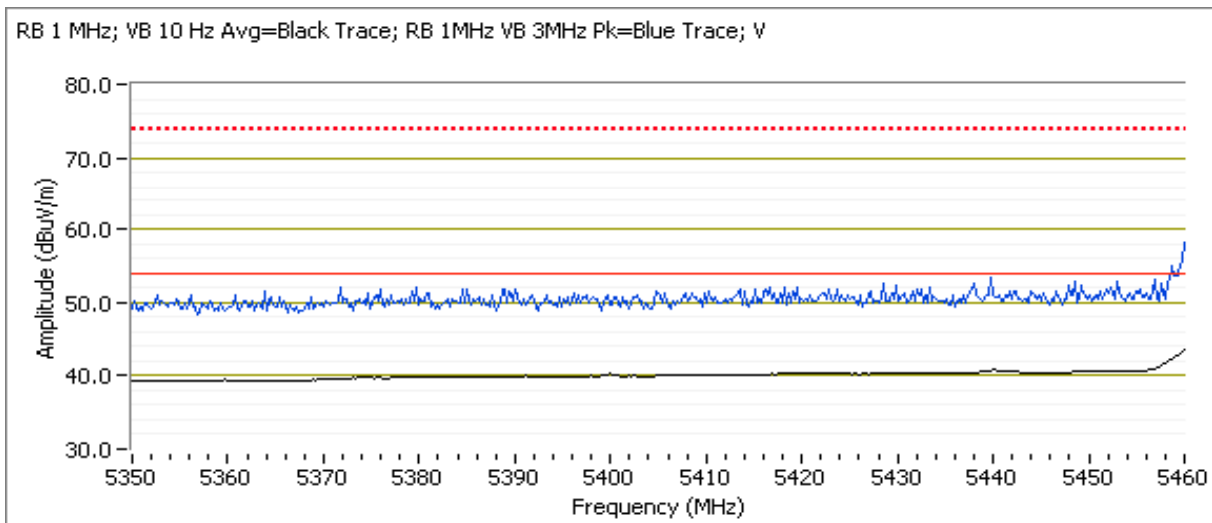
Run # 6, Band Edge Field Strength - 802.11n40, Chain A+B+C

Run # 6a, EUT on Channel #102 5510MHz - 802.11n40, Chain A+B+C

Radio	Freq	Power Setting
1	5510 MHz	8.0
2	2437 MHz	21.0

5460 MHz Band Edge Signal Field Strength

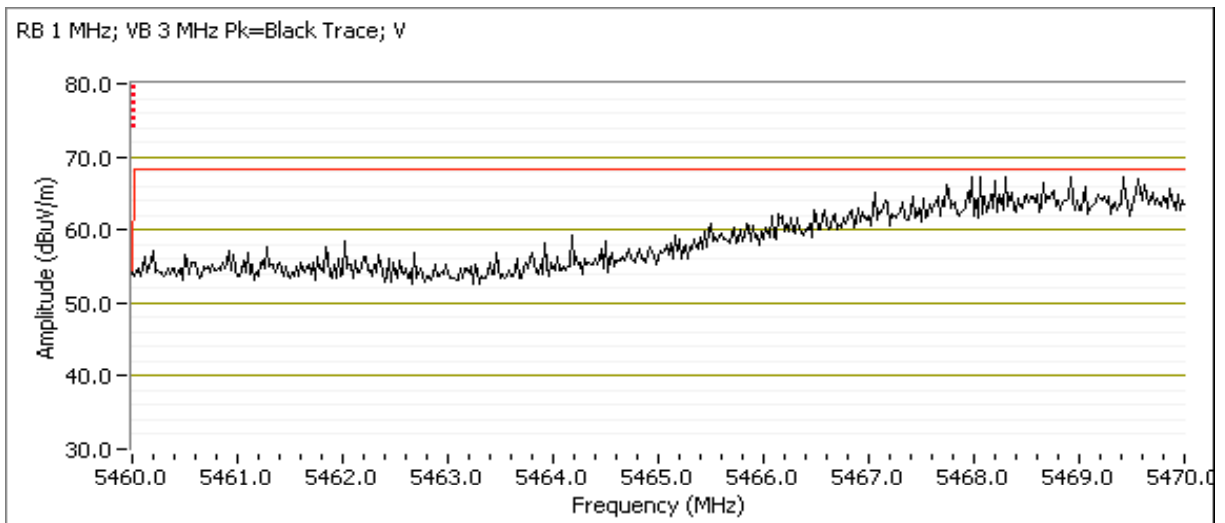
Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5460.000	43.6	V	54.0	-10.4	AVG	7	1.0	POS; RB 1 MHz; VB: 10 Hz
5459.520	55.4	V	74.0	-18.6	PK	7	1.0	POS; RB 1 MHz; VB: 3 MHz
5458.640	40.8	H	54.0	-13.2	AVG	72	1.0	POS; RB 1 MHz; VB: 10 Hz
5458.880	51.7	H	74.0	-22.3	PK	72	1.0	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

5470 MHz Band Edge Signal Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5468.160	67.9	V	68.3	-0.4	PK	359	1.8	POS; RB 1 MHz; VB: 3 MHz
5467.050	60.8	H	68.3	-7.5	PK	70	1.0	POS; RB 1 MHz; VB: 3 MHz



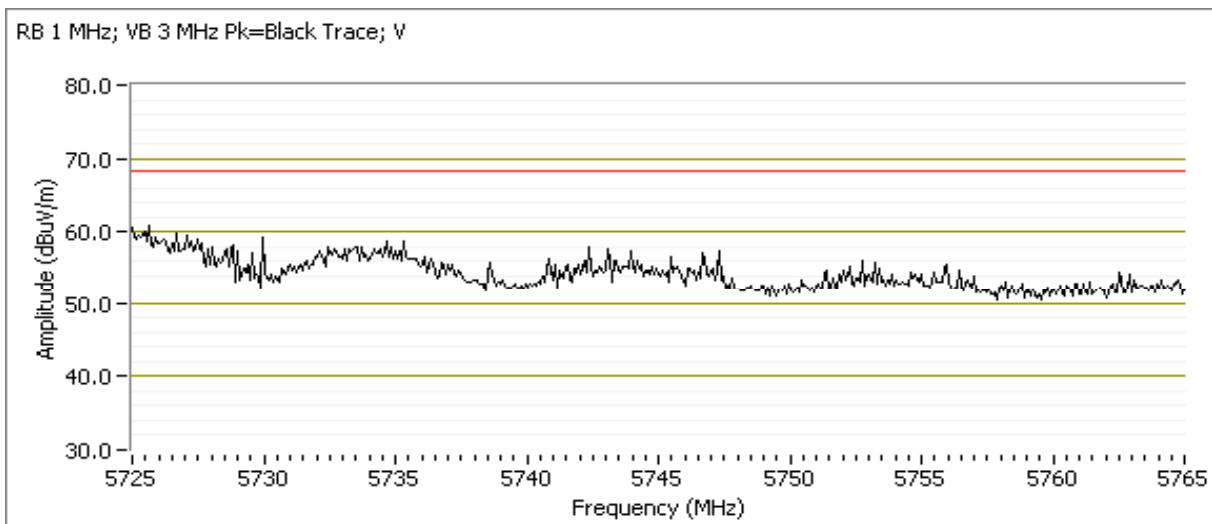
Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run # 6b, EUT on Channel #134 5670MHz - 802.11n40, Chain A+B+C

Radio	Freq	Power Setting
1	5670 MHz	16.0
2	2437 MHz	21.0

5725 MHz Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5725.720	61.8	V	68.3	-6.5	PK	294	1.0	POS; RB 1 MHz; VB: 3 MHz
5725.480	54.3	H	68.3	-14.0	PK	132	1.0	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

RSS 210 and FCC 15.407 (NII) 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.

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane or routed in overhead in the GR-1089 test configuration.

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

Ambient Conditions:

Temperature: 20.5 °C
 Rel. Humidity: 36 %

Summary of Results - Device Operating in the 5250-5350 MHz Band

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
Run # 1	802.11a Chain A+B+C	#64 5320MHz	14.0		Restricted Band Edge at 5350 MHz	15.209	53.0 dBµV/m @ 5350.9 MHz (-1.0 dB)
Run # 2	802.11n20 Chain A+B+C	#64 5320MHz	14.0		Restricted Band Edge at 5350 MHz	15.209	53.9 dBµV/m @ 5350.1 MHz (-0.1 dB)
Run # 3	802.11n40 Chain A+B+C	#62 5310MHz	8.0		Restricted Band Edge at 5350 MHz	15.209	52.1 dBµV/m @ 5350.1 MHz (-1.9 dB)

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Summary of Results - Device Operating in the 5470-5725 MHz Band

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
Run # 4	802.11a Chain A+B+C	#100 5500MHz	12.0		Restricted Band Edge at 5460 MHz	15.209	46.1 dBμV/m @ 5418.5 MHz (-7.9 dB)
		#100 5500MHz	12.0		Band Edge at 5470 MHz	15.407	68.0 dBμV/m @ 5469.9 MHz (-0.3 dB)
		#140 5700MHz	15.0		Band Edge at 5725 MHz	15.407	67.8 dBμV/m @ 5725.1 MHz (-0.5 dB)
Run # 5	802.11n20 Chain A+B+C	#100 5500MHz	11.5		Restricted Band Edge at 5460 MHz	15.209	45.7 dBμV/m @ 5423.1 MHz (-8.3 dB)
		#100 5500MHz	11.5		Band Edge at 5470 MHz	15.407	68.0 dBμV/m @ 5469.8 MHz (-0.3 dB)
		#140 5700MHz	13.5		Band Edge at 5725 MHz	15.407	67.9 dBμV/m @ 5725.6 MHz (-0.4 dB)
Run # 6	802.11n40 Chain A+B+C	#102 5510MHz	6.0		Restricted Band Edge at 5460 MHz	15.209	43.8 dBμV/m @ 5459.9 MHz (-10.2 dB)
		#102 5510MHz	6.0		Band Edge at 5470 MHz	15.407	67.3 dBμV/m @ 5469.4 MHz (-1.0 dB)
		#134 5670MHz	13.0		Band Edge at 5725 MHz	15.407	63.2 dBμV/m @ 5726.0 MHz (-5.1 dB)

Antenna:

#	Model	Type	Freq. Band (GHz)	Gain (dBi)	Ind/Out	Xpol?	Pt to Pt?
2	Enterasys WS-A1-DT05120	Sector	5.2 & 5.6	5	Indoor	2 Xpol / 1 Vert	No

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

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.

Notes

Antenna: antenna(s) connected

Duty Cycle: 99.0%

ART GUI (Singleradio test) Or Command Line Script (multiple radio test)

ART GUI Used: No

ART GUI Boot File: -

-

ART GUI Calibration file: -

-

Command Line Script: 3710e Pilot_115942 boot and initialize all 3 radios to NART Command Line Interface from 15T - LOW POWER

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run # 1, Band Edge Field Strength - 802.11a, Chain A+B+C

Date of Test: 2/19/2013, 2/20/2013

Test Location: FT7

Test Engineer: Jack Liu / R. Varelas

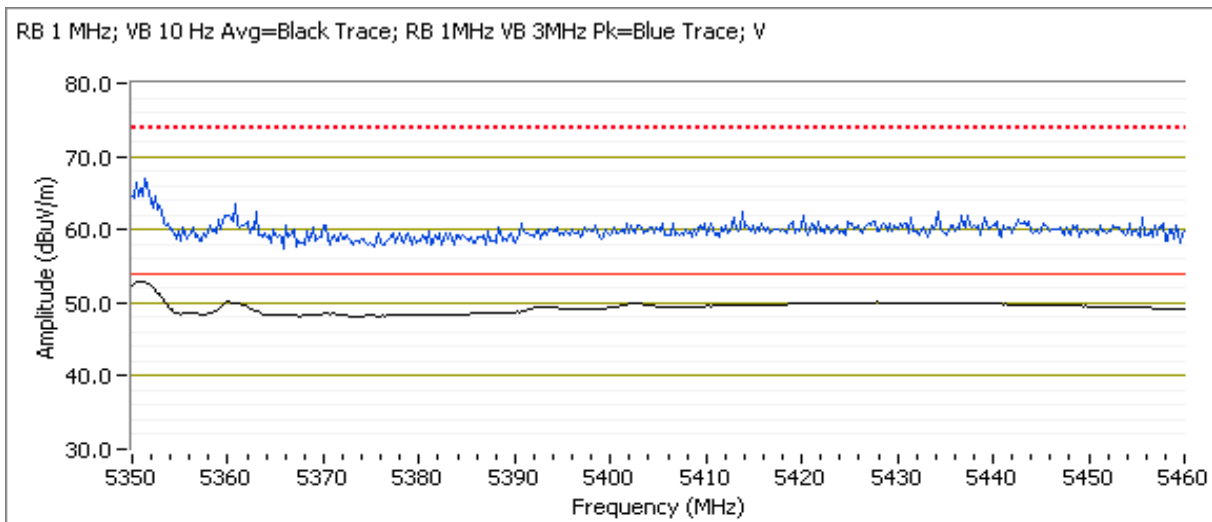
Config Change: None

Run # 1a, EUT on Channel #64 5320MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5320 MHz	14.0
2	2437 MHz	21.0

5350 MHz Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5350.880	53.0	V	54.0	-1.0	AVG	40	1.0	POS; RB 1 MHz; VB: 10 Hz
5351.120	65.3	V	74.0	-8.7	PK	40	1.0	POS; RB 1 MHz; VB: 3 MHz
5428.260	49.5	H	54.0	-4.5	AVG	10	1.9	POS; RB 1 MHz; VB: 10 Hz
5441.040	60.9	H	74.0	-13.1	PK	10	1.9	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

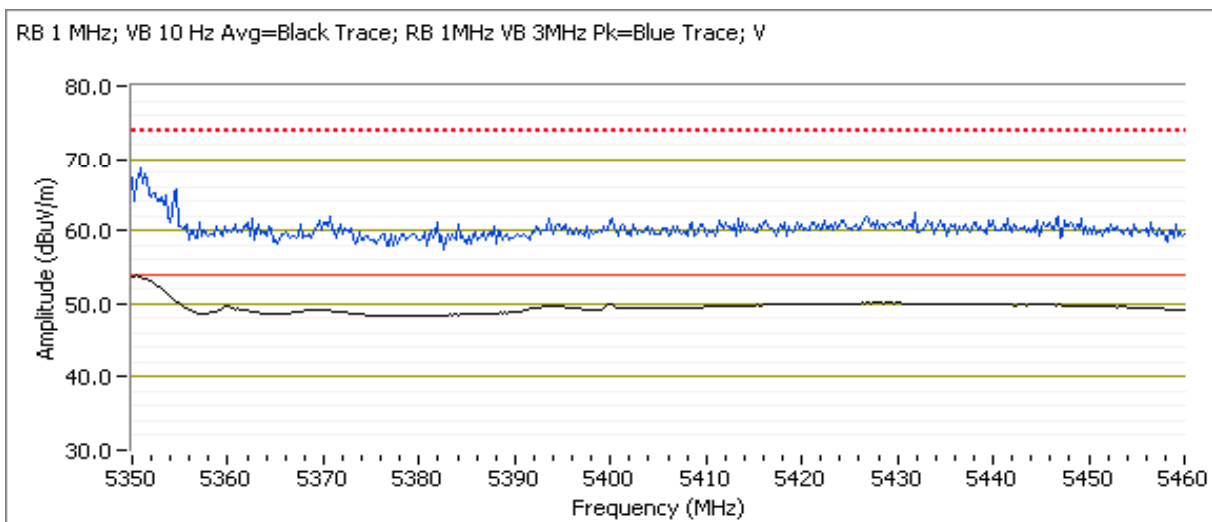
Run # 2, Band Edge Field Strength - 802.11n20, Chain A+B+C

Run # 2a, EUT on Channel #64 5320MHz - 802.11n20, Chain A+B+C

Radio	Freq	Power Setting
1	5320 MHz	14.0
2	2437 MHz	21.0

5350 MHz Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5350.080	53.9	V	54.0	-0.1	AVG	34	1.0	POS; RB 1 MHz; VB: 10 Hz
5352.810	68.0	V	74.0	-6.0	PK	34	1.0	POS; RB 1 MHz; VB: 3 MHz
5350.000	50.9	H	54.0	-3.1	AVG	19	1.1	POS; RB 1 MHz; VB: 10 Hz
5350.320	63.1	H	74.0	-10.9	PK	19	1.1	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

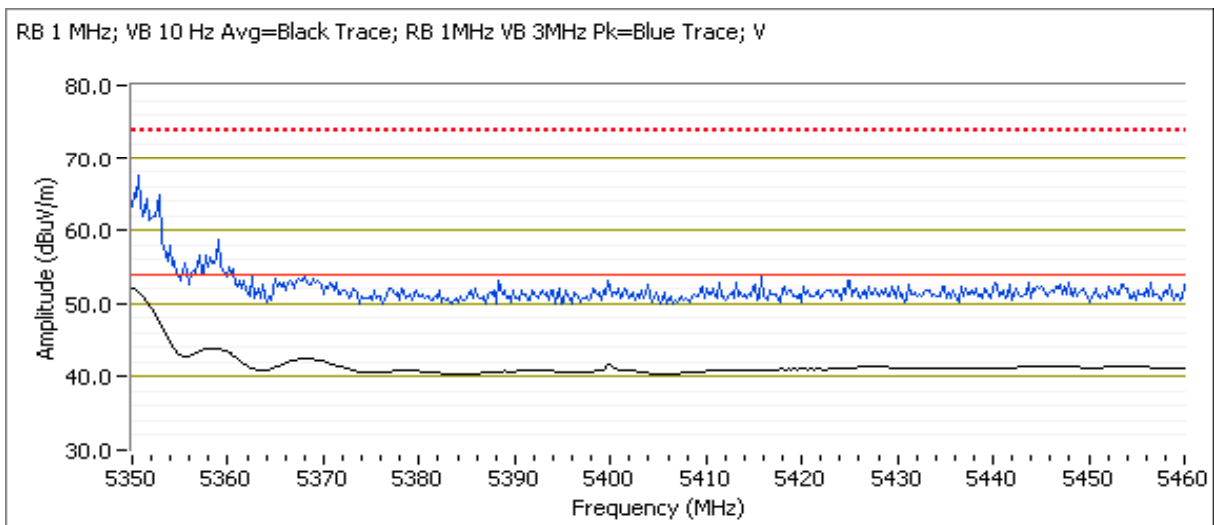
Run # 3, Band Edge Field Strength - 802.11n40, Chain A+B+C

Run # 3a, EUT on Channel #62 5310MHz - 802.11n40, Chain A+B+C

Radio	Freq	Power Setting
1	5310 MHz	8.0
2	2437 MHz	21.0

5350 MHz Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5350.080	52.1	V	54.0	-1.9	AVG	16	1.0	POS; RB 1 MHz; VB: 10 Hz
5350.080	65.1	V	74.0	-8.9	PK	16	1.0	POS; RB 1 MHz; VB: 3 MHz
5350.000	50.7	H	54.0	-3.3	AVG	30	1.0	POS; RB 1 MHz; VB: 10 Hz
5350.080	61.9	H	74.0	-12.1	PK	30	1.0	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

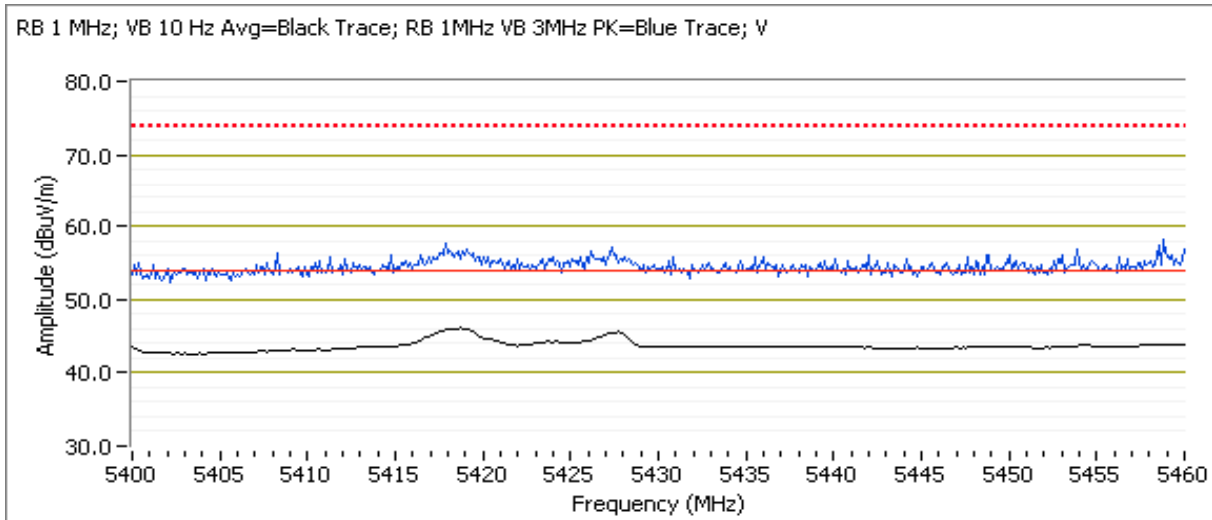
Run # 4, Band Edge Field Strength - 802.11a, Chain A+B+C

Run # 4a, EUT on Channel #100 5500MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5500 MHz	12.0
2	2437 MHz	21.0

5460 MHz Band Edge Signal Field Strength

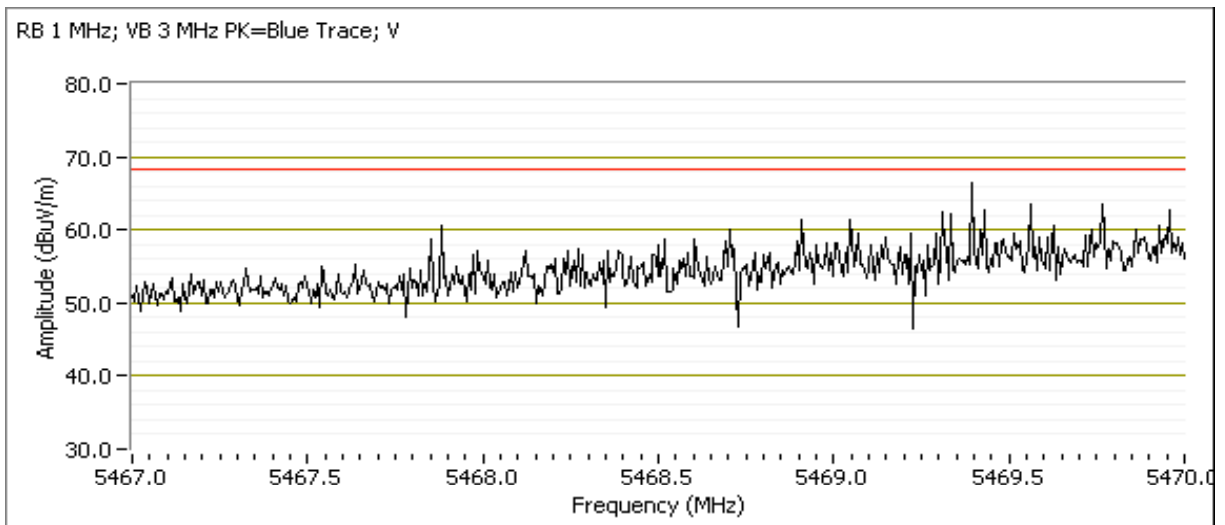
Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5418.520	46.1	V	54.0	-7.9	AVG	26	1.0	POS; RB 1 MHz; VB: 10 Hz
5418.400	57.1	V	74.0	-16.9	PK	26	1.0	POS; RB 1 MHz; VB: 3 MHz
5419.240	43.0	H	54.0	-11.0	AVG	354	1.0	POS; RB 1 MHz; VB: 10 Hz
5424.530	53.2	H	74.0	-20.8	PK	354	1.0	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

5470 MHz Band Edge Signal Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5469.920	68.0	V	68.3	-0.3	PK	30	1.5	POS; RB 1 MHz; VB: 3 MHz
5469.960	61.0	H	68.3	-7.3	PK	358	1.0	POS; RB 1 MHz; VB: 3 MHz



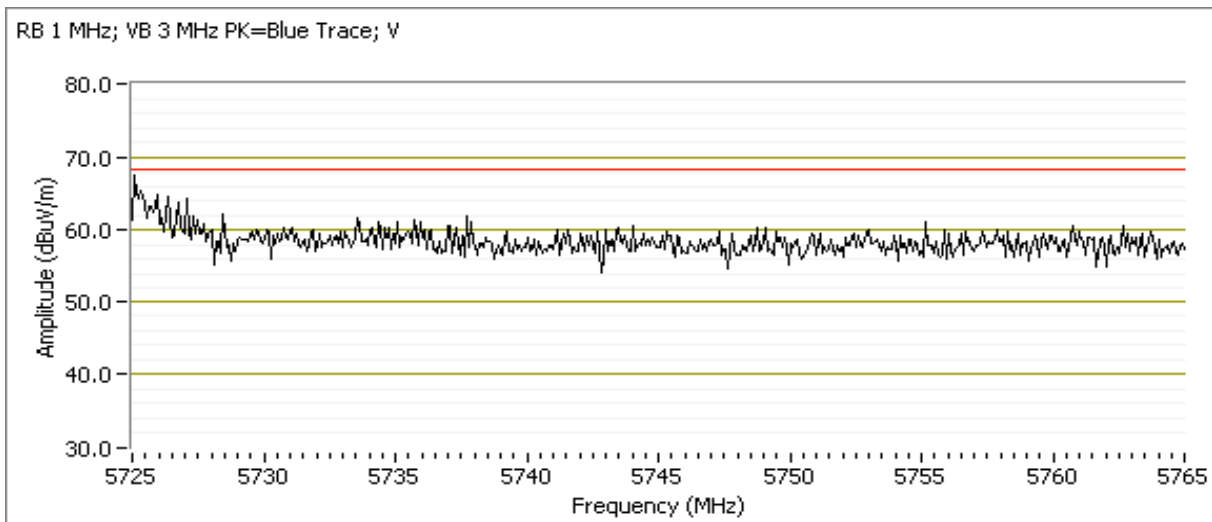
Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run # 4b, EUT on Channel #140 5700MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5700 MHz	15.0
2	2437 MHz	21.0

5725 MHz Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5725.070	67.8	V	68.3	-0.5	PK	47	1.0	POS; RB 1 MHz; VB: 3 MHz
5743.840	65.1	H	68.3	-3.2	PK	13	1.2	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

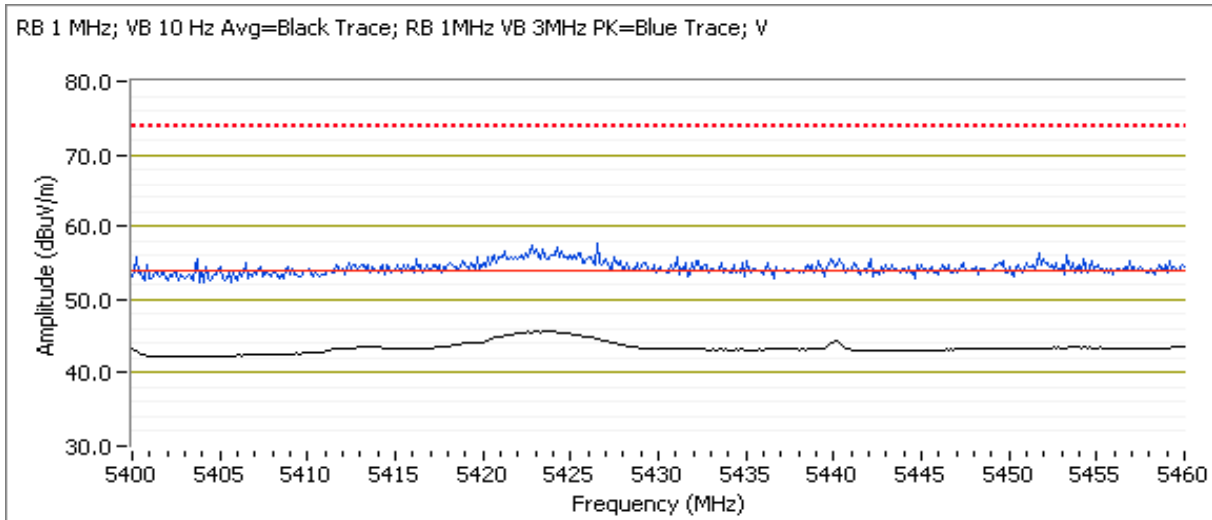
Run # 5, Band Edge Field Strength - 802.11n20, Chain A+B+C

Run # 5a, EUT on Channel #100 5500MHz - 802.11n20, Chain A+B+C

Radio	Freq	Power Setting
1	5500 MHz	11.5
2	2437 MHz	21.0

5460 MHz Band Edge Signal Field Strength

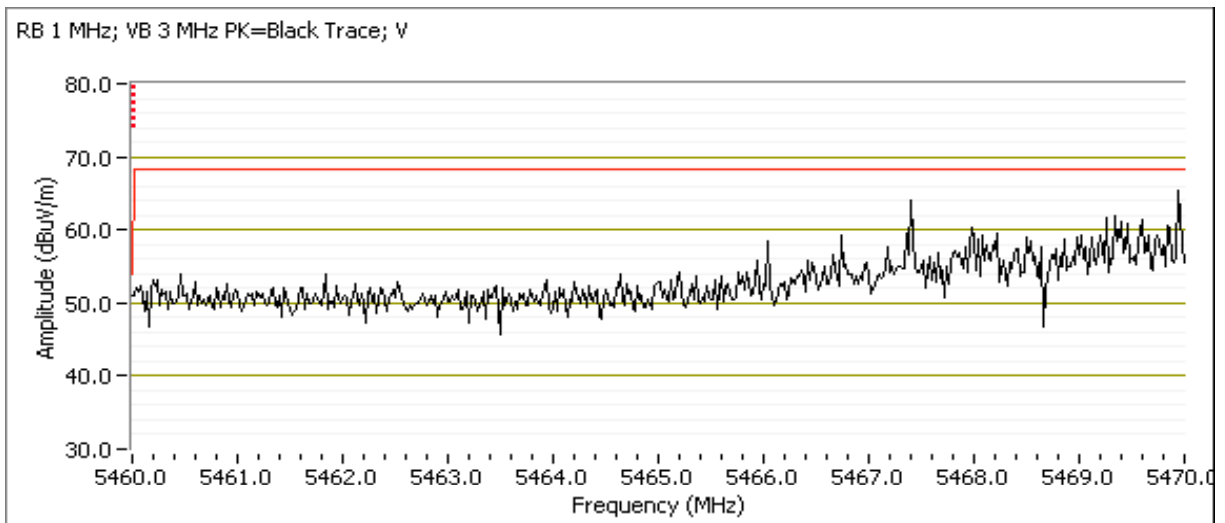
Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5423.130	45.7	V	54.0	-8.3	AVG	28	1.0	POS; RB 1 MHz; VB: 10 Hz
5422.730	55.6	V	74.0	-18.4	PK	28	1.0	POS; RB 1 MHz; VB: 3 MHz
5457.850	43.1	H	54.0	-10.9	AVG	26	1.1	POS; RB 1 MHz; VB: 10 Hz
5459.690	55.6	H	74.0	-18.4	PK	26	1.1	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

5470 MHz Band Edge Signal Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5469.820	68.0	V	68.3	-0.3	PK	46	1.0	POS; RB 1 MHz; VB: 3 MHz
5469.100	60.5	H	68.3	-7.8	PK	0	1.0	POS; RB 1 MHz; VB: 3 MHz



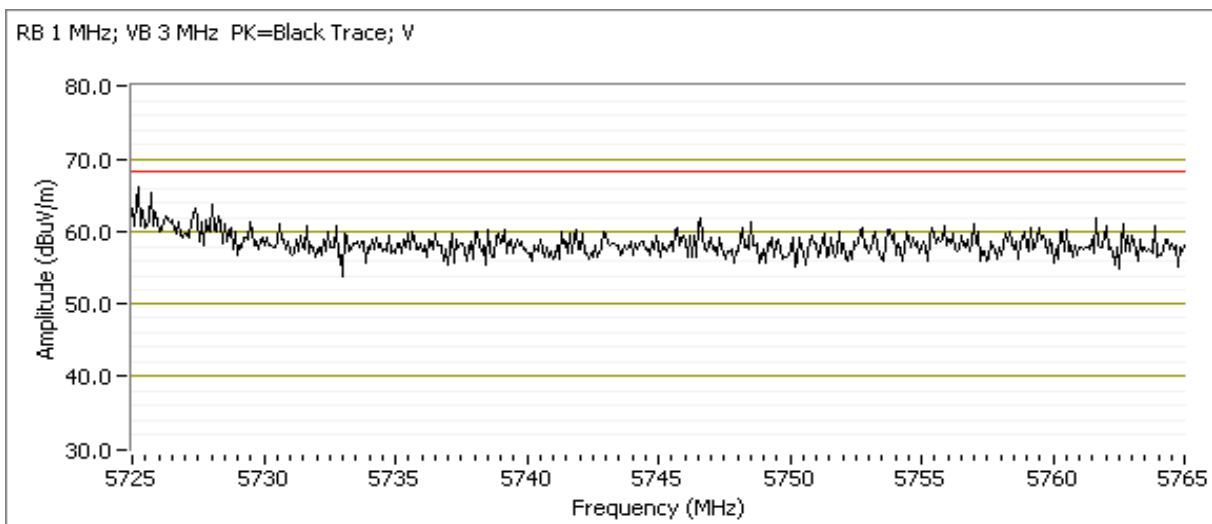
Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run # 5b, EUT on Channel #140 5700MHz - 802.11n20, Chain A+B+C

Radio	Freq	Power Setting
1	5700 MHz	13.5
2	2437 MHz	21.0

5725 MHz Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5725.560	67.9	V	68.3	-0.4	PK	12	1.0	POS; RB 1 MHz; VB: 3 MHz
5725.240	64.3	H	68.3	-4.0	PK	22	1.0	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

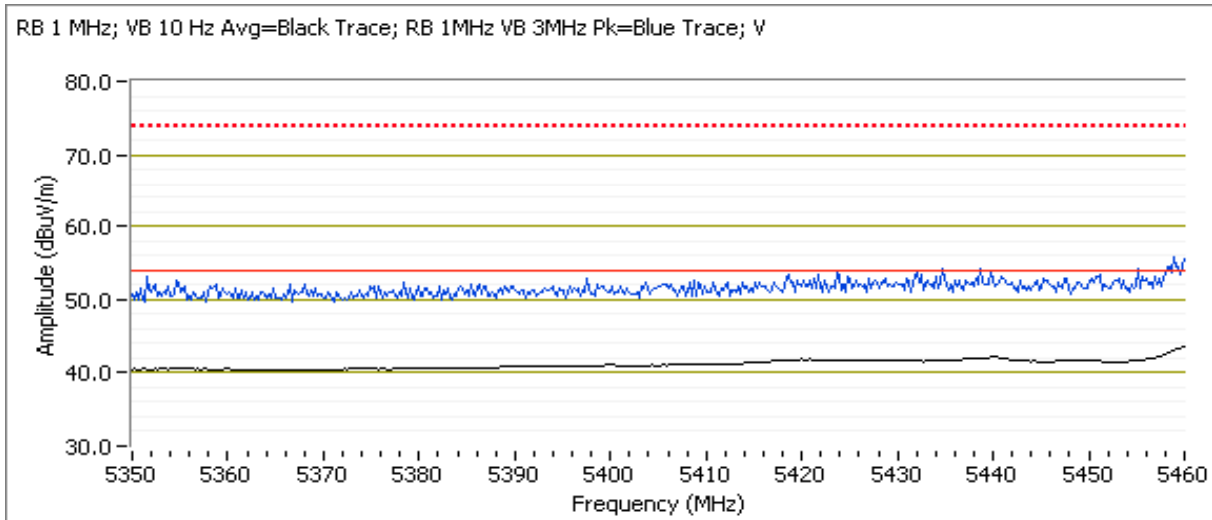
Run # 6, Band Edge Field Strength - 802.11n40, Chain A+B+C

Run # 6a, EUT on Channel #102 5510MHz - 802.11n40, Chain A+B+C

Radio	Freq	Power Setting
1	5510 MHz	6.0
2	2437 MHz	21.0

5460 MHz Band Edge Signal Field Strength

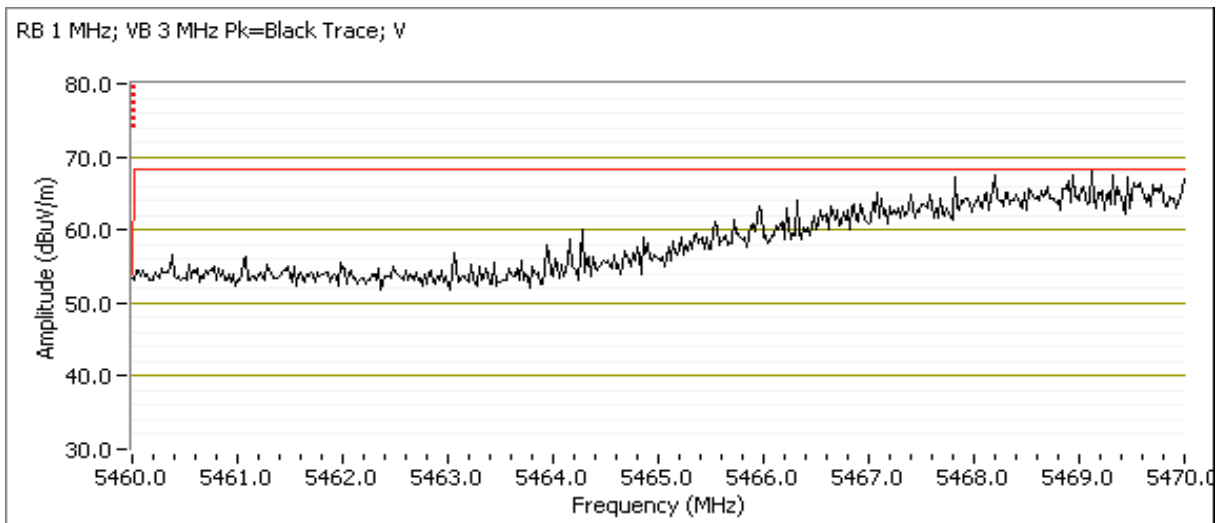
Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5459.920	43.8	V	54.0	-10.2	AVG	46	1.0	POS; RB 1 MHz; VB: 10 Hz
5459.840	55.1	V	74.0	-18.9	PK	46	1.0	POS; RB 1 MHz; VB: 3 MHz
5460.000	42.0	H	54.0	-12.0	AVG	6	1.0	POS; RB 1 MHz; VB: 10 Hz
5450.460	52.6	H	74.0	-21.4	PK	6	1.0	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

5470 MHz Band Edge Signal Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	PK/QP/Avg	degrees	meters	
5469.400	67.3	V	68.3	-1.0	PK	5	1.2	POS; RB 1 MHz; VB: 3 MHz
5469.380	64.6	H	68.3	-3.7	PK	357	1.0	POS; RB 1 MHz; VB: 3 MHz



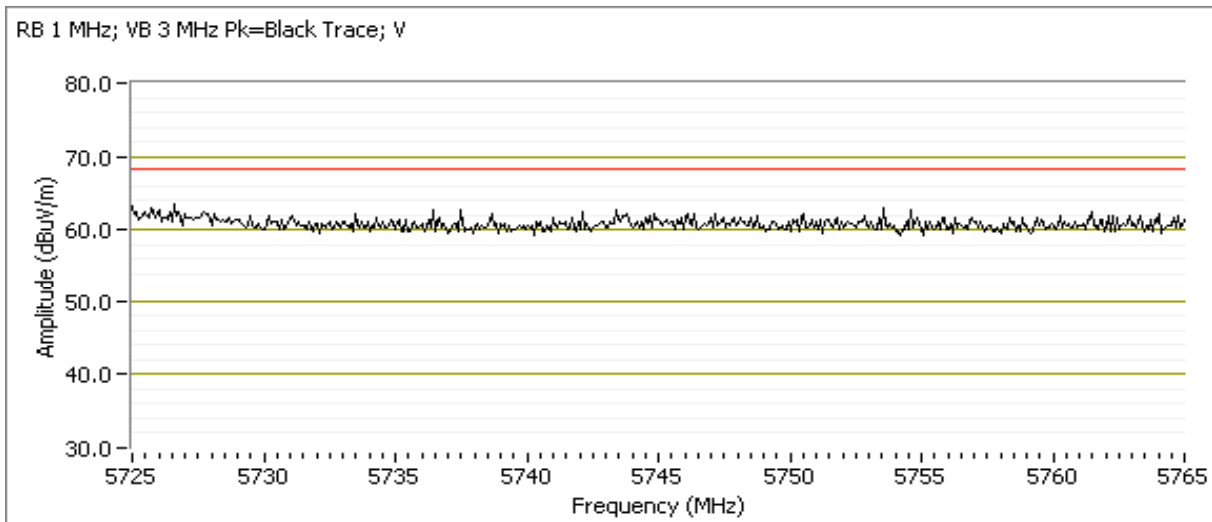
Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run # 6b, EUT on Channel #134 5670MHz - 802.11n40, Chain A+B+C

Radio	Freq	Power Setting
1	5670 MHz	13.0
2	2437 MHz	21.0

5725 MHz Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5725.960	63.2	V	68.3	-5.1	PK	48	1.0	POS; RB 1 MHz; VB: 3 MHz
5726.440	58.1	H	68.3	-10.2	PK	32	1.0	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

RSS 210 and FCC 15.407 (NII) 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.

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane or routed in overhead in the GR-1089 test configuration.

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

Ambient Conditions:

Temperature: 22 °C
 Rel. Humidity: 40 %

Summary of Results - Device Operating in the 5250-5350 MHz Band

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
Run # 1	802.11a Chain A+B+C	#64 5320MHz	14.0		Restricted Band Edge at 5350 MHz	15.209	53.5 dBµV/m @ 5350.4 MHz (-0.5 dB)
Run # 2	802.11n20 Chain A+B+C	#64 5320MHz	14.5		Restricted Band Edge at 5350 MHz	15.209	53.2 dBµV/m @ 5352.3 MHz (-0.8 dB)
Run # 3	802.11n40 Chain A+B+C	#62 5310MHz	8.5		Restricted Band Edge at 5350 MHz	15.209	53.5 dBµV/m @ 5350.1 MHz (-0.5 dB)

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Summary of Results - Device Operating in the 5470-5725 MHz Band

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
Run # 4	802.11a Chain A+B+C	#100 5500MHz	11.5		Restricted Band Edge at 5460 MHz	15.209	45.8 dBμV/m @ 5426.7 MHz (-8.2 dB)
		#100 5500MHz	11.5		Band Edge at 5470 MHz	15.407	68.2 dBμV/m @ 5469.0 MHz (-0.1 dB)
		#140 5700MHz	11.5		Band Edge at 5725 MHz	15.407	67.9 dBμV/m @ 5726.5 MHz (-0.4 dB)
Run # 5	802.11n20 Chain A+B+C	#100 5500MHz	11.0		Restricted Band Edge at 5460 MHz	15.209	44.6 dBμV/m @ 5424.6 MHz (-9.4 dB)
		#100 5500MHz	11.0		Band Edge at 5470 MHz	15.407	68.0 dBμV/m @ 5467.6 MHz (-0.3 dB)
		#140 5700MHz	11.5		Band Edge at 5725 MHz	15.407	67.4 dBμV/m @ 5726.3 MHz (-0.9 dB)
Run # 6	802.11n40 Chain A+B+C	#102 5510MHz	5.5		Restricted Band Edge at 5460 MHz	15.209	45.3 dBμV/m @ 5460.0 MHz (-8.7 dB)
		#102 5510MHz	5.5		Band Edge at 5470 MHz	15.407	67.9 dBμV/m @ 5469.8 MHz (-0.4 dB)
		#134 5670MHz	14.0		Band Edge at 5725 MHz	15.407	66.2 dBμV/m @ 5725.8 MHz (-2.1 dB)

Antenna:

#	Model	Type	Freq. Band (GHz)	Gain (dBi)	Ind/Out	Xpol?	Pt to Pt?
3	Enterasys WS-A1-DT04360	Omni	5.2 & 5.6	4	Indoor	No	No



EMC Test Data

Client:	Flextronics	Job Number:	J89632
Model:	AP3710e	T-Log Number:	T89633
		Account Manager:	Christine Krebill
Contact:	Georges Fares		
Standard:	15.407, RSS-210	Class:	N/A

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.

Notes

Antenna: antenna(s) connected
Duty Cycle: 99.0%

ART GUI (Singleradio test) Or Command Line Script (multiple radio test)

ART GUI Used: No
ART GUI Boot File: -
-
ART GUI Calibration file: -
-
Command Line Script: 3710e Pilot_115942 boot and initialize all 3 radios to NART Command Line Interface from 15T - LOW POWER

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run # 1, Band Edge Field Strength - 802.11a, Chain A+B+C

Date of Test: 2/20/2013

Test Location: FT7

Test Engineer: Jack Liu / R. Varelas

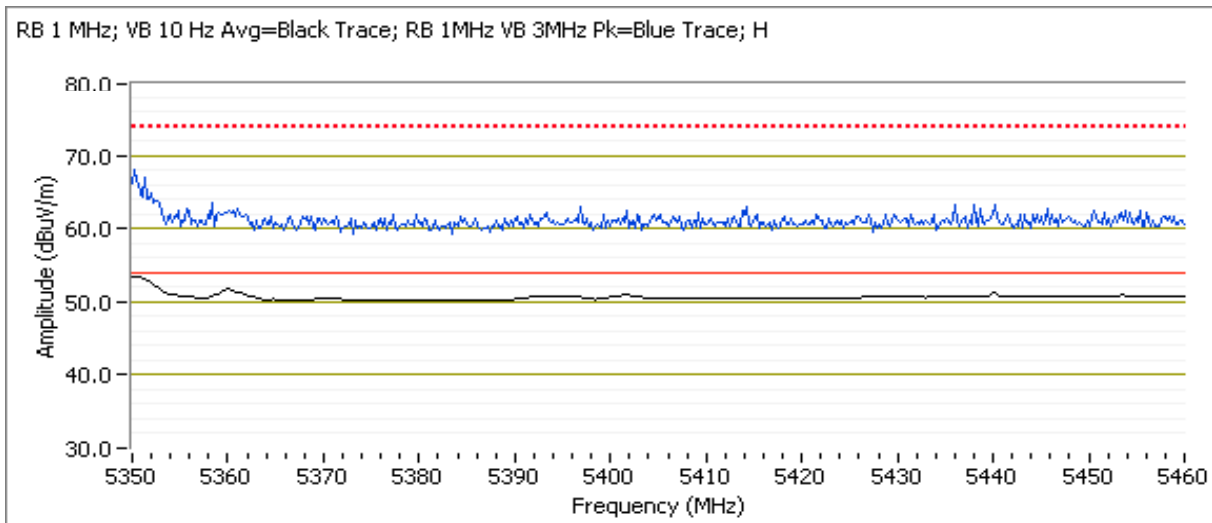
Config Change: None

Run # 1a, EUT on Channel #64 5320MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5320 MHz	14.0
2	2437 MHz	21.0

5350 MHz Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5350.440	53.5	H	54.0	-0.5	AVG	343	1.0	POS; RB 1 MHz; VB: 10 Hz
5351.100	64.5	H	74.0	-9.5	PK	343	1.0	POS; RB 1 MHz; VB: 3 MHz
5350.000	43.4	V	54.0	-10.6	AVG	20	1.5	POS; RB 1 MHz; VB: 10 Hz
5350.220	53.1	V	74.0	-20.9	PK	20	1.5	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

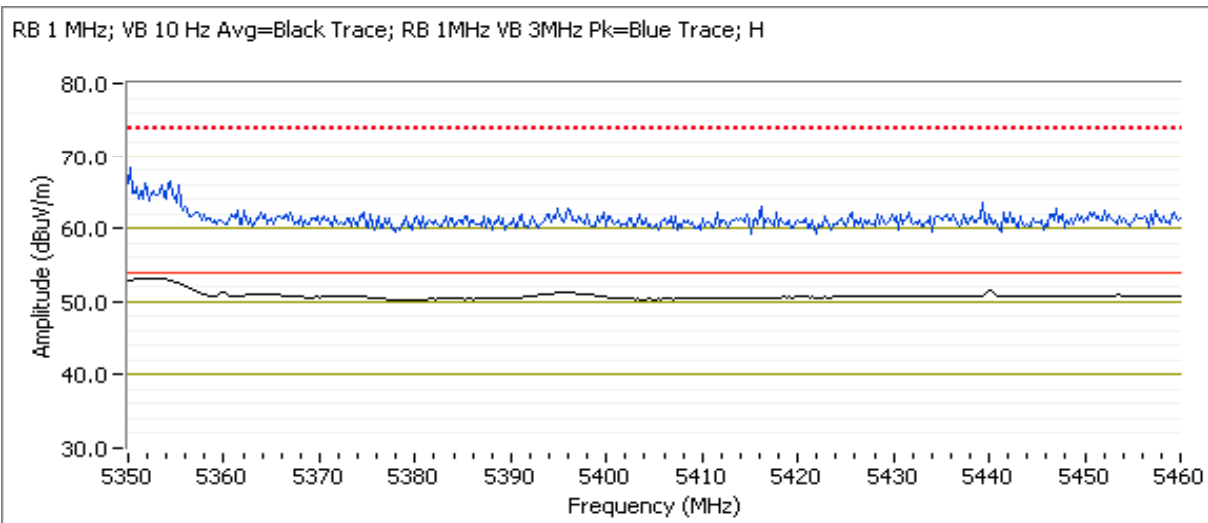
Run # 2, Band Edge Field Strength - 802.11n20, Chain A+B+C

Run # 2a, EUT on Channel #64 5320MHz - 802.11n20, Chain A+B+C

Radio	Freq	Power Setting
1	5320 MHz	14.5
2	2437 MHz	21.0

5350 MHz Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5352.320	53.2	H	54.0	-0.8	AVG	339	1.0	POS; RB 1 MHz; VB: 10 Hz
5352.650	69.9	H	74.0	-4.1	PK	339	1.0	POS; RB 1 MHz; VB: 3 MHz
5350.080	45.2	V	54.0	-8.8	AVG	8	1.8	POS; RB 1 MHz; VB: 10 Hz
5350.720	61.4	V	74.0	-12.6	PK	8	1.8	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

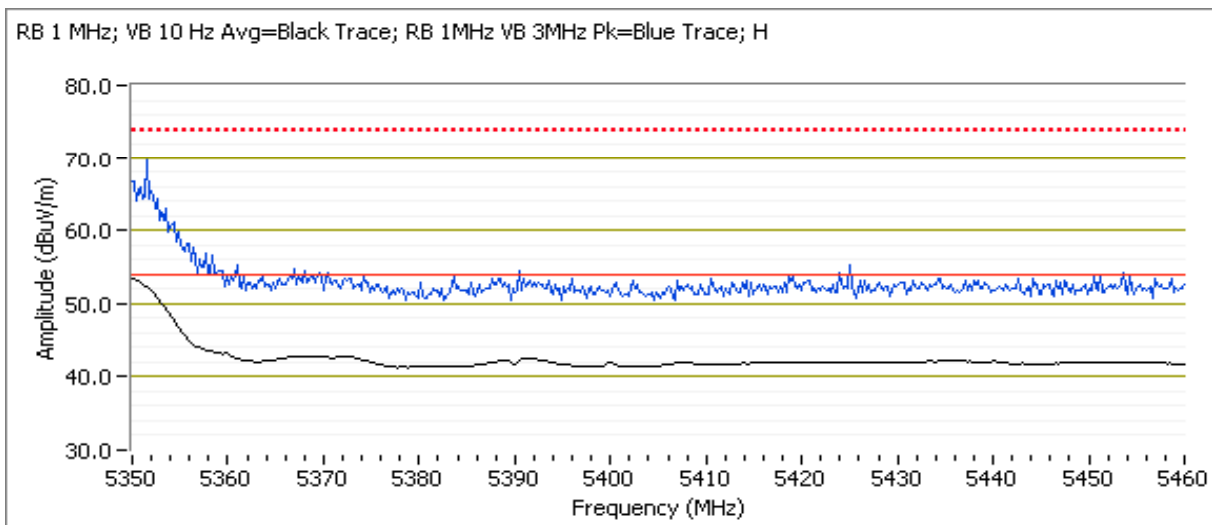
Run # 3, Band Edge Field Strength - 802.11n40, Chain A+B+C

Run # 3a, EUT on Channel #62 5310MHz - 802.11n40, Chain A+B+C

Radio	Freq	Power Setting
1	5310 MHz	8.5
2	2437 MHz	21.0

5350 MHz Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5350.080	53.5	H	54.0	-0.5	AVG	352	1.0	POS; RB 1 MHz; VB: 10 Hz
5351.680	65.0	H	74.0	-9.0	PK	352	1.0	POS; RB 1 MHz; VB: 3 MHz
5353.050	43.2	V	54.0	-10.8	AVG	360	1.4	POS; RB 1 MHz; VB: 10 Hz
5354.810	57.2	V	74.0	-16.8	PK	360	1.4	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

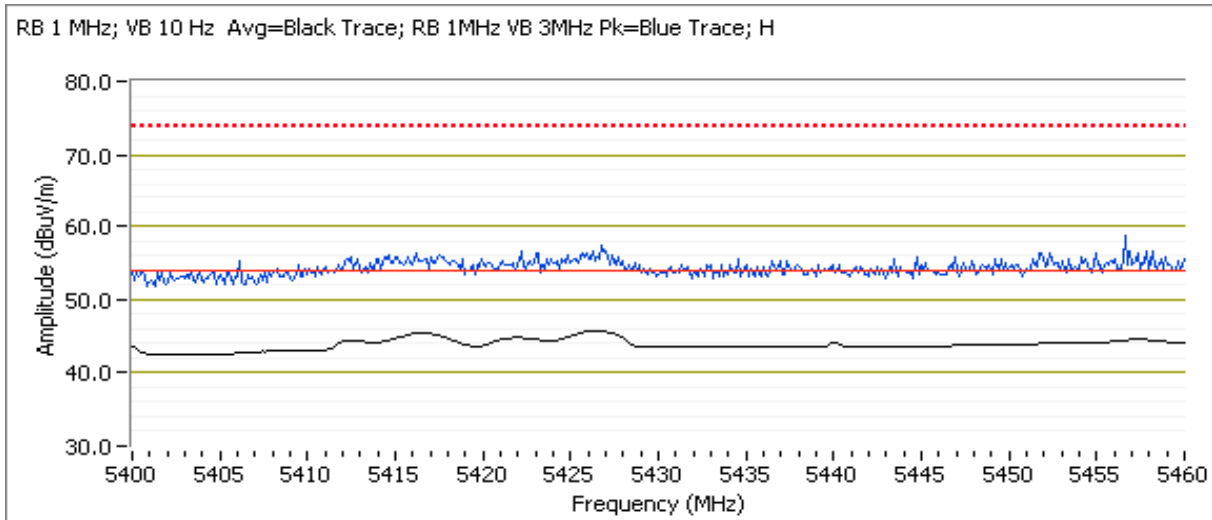
Run # 4, Band Edge Field Strength - 802.11a, Chain A+B+C

Run # 4a, EUT on Channel #100 5500MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5500 MHz	11.5
2	2437 MHz	21.0

5460 MHz Band Edge Signal Field Strength

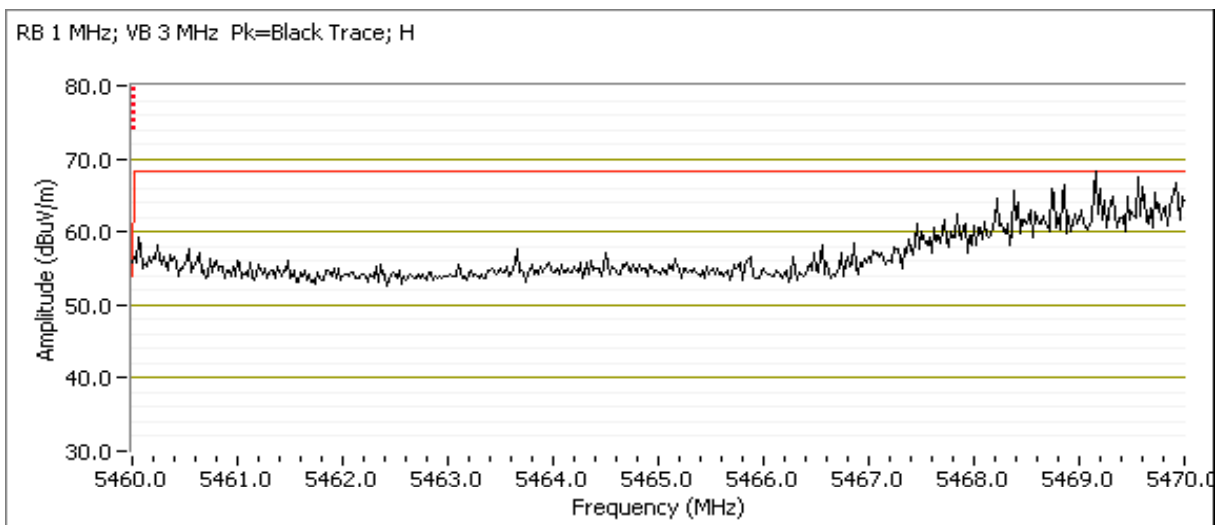
Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5426.650	45.8	H	54.0	-8.2	AVG	78	1.0	POS; RB 1 MHz; VB: 10 Hz
5459.680	56.5	H	74.0	-17.5	PK	78	1.0	POS; RB 1 MHz; VB: 3 MHz
5457.600	40.3	V	54.0	-13.7	AVG	360	1.0	POS; RB 1 MHz; VB: 10 Hz
5450.540	52.0	V	74.0	-22.0	PK	360	1.0	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

5470 MHz Band Edge Signal Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5469.000	68.2	H	68.3	-0.1	PK	340	1.0	POS; RB 1 MHz; VB: 3 MHz
5468.920	57.9	V	68.3	-10.4	PK	262	1.3	POS; RB 1 MHz; VB: 3 MHz



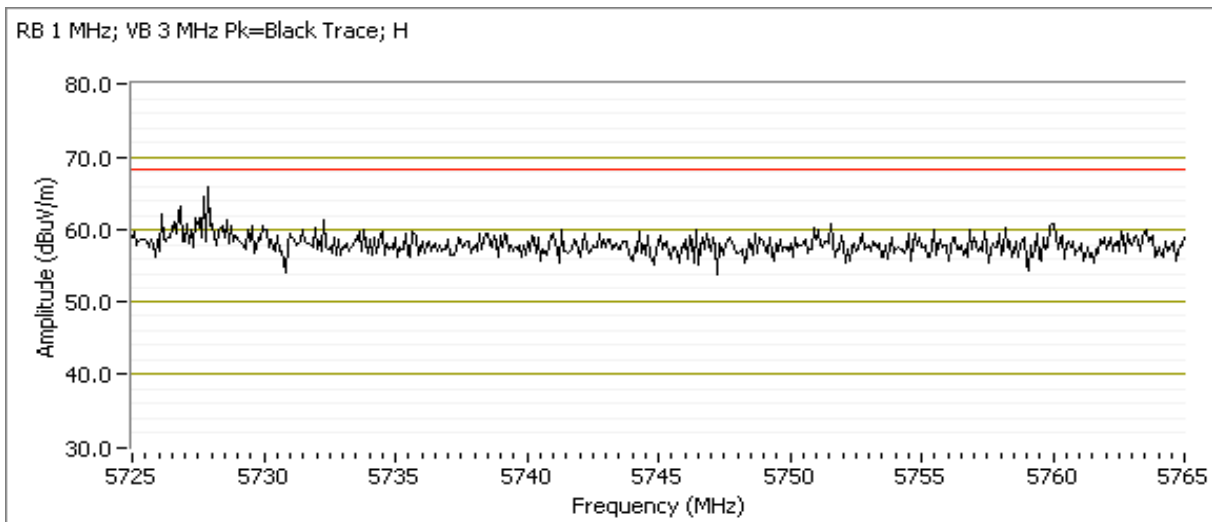
Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run # 4b, EUT on Channel #140 5700MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5700 MHz	11.5
2	2437 MHz	21.0

5725 MHz Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5726.500	67.9	H	68.3	-0.4	PK	69	1.1	POS; RB 1 MHz; VB: 3 MHz
5749.850	54.7	V	68.3	-13.6	PK	292	1.2	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

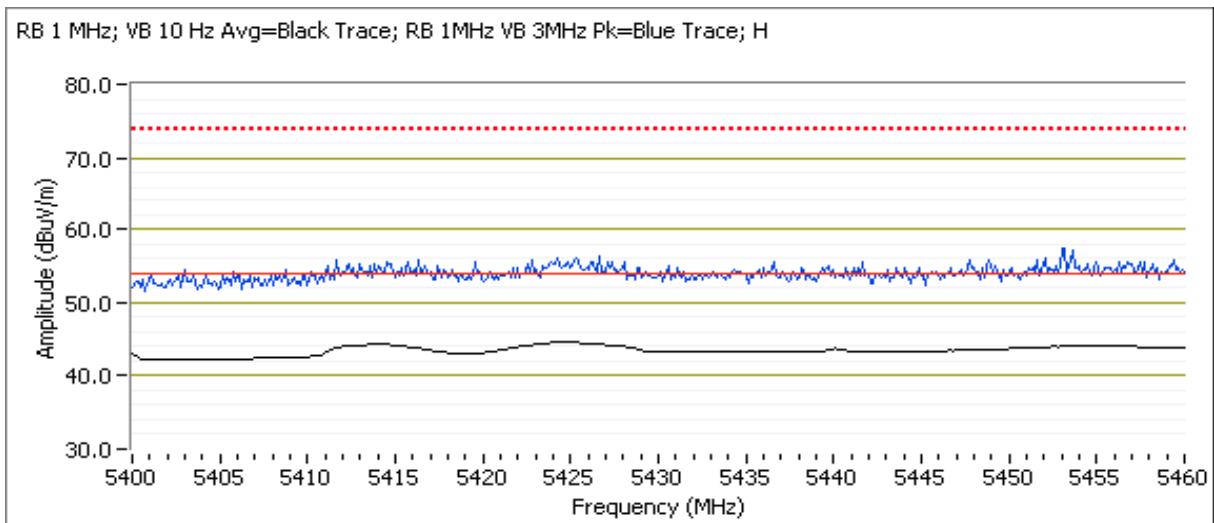
Run # 5, Band Edge Field Strength - 802.11n20, Chain A+B+C

Run # 5a, EUT on Channel #100 5500MHz - 802.11n20, Chain A+B+C

Radio	Freq	Power Setting
1	5500 MHz	11.0
2	2437 MHz	21.0

5460 MHz Band Edge Signal Field Strength

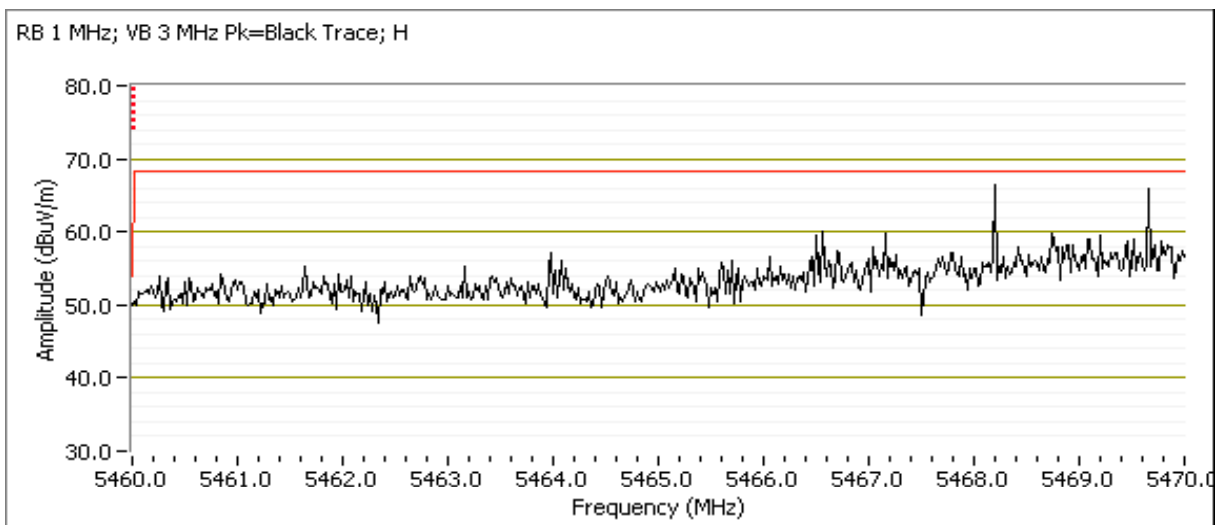
Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5424.570	44.6	H	54.0	-9.4	AVG	78	1.0	POS; RB 1 MHz; VB: 10 Hz
5452.540	57.1	H	74.0	-16.9	PK	78	1.0	POS; RB 1 MHz; VB: 3 MHz
5456.070	40.5	V	54.0	-13.5	AVG	274	2.0	POS; RB 1 MHz; VB: 10 Hz
5452.630	52.5	V	74.0	-21.5	PK	274	2.0	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

5470 MHz Band Edge Signal Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5467.580	68.0	H	68.3	-0.3	PK	68	1.0	POS; RB 1 MHz; VB: 3 MHz
5468.440	54.2	V	68.3	-14.1	PK	244	1.3	POS; RB 1 MHz; VB: 3 MHz



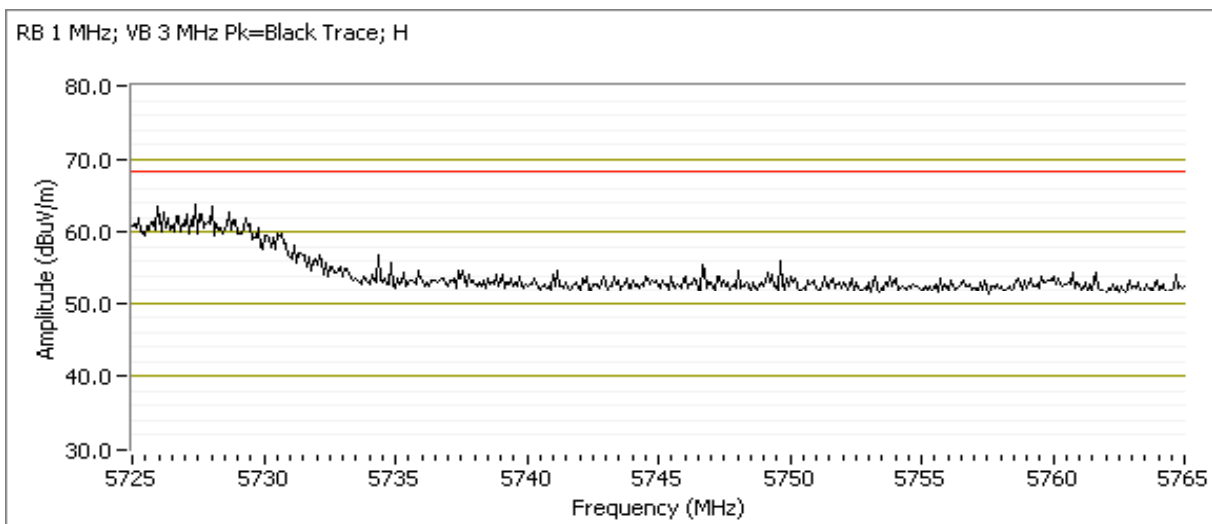
Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run # 5b, EUT on Channel #140 5700MHz - 802.11n20, Chain A+B+C

Radio	Freq	Power Setting
1	5700 MHz	11.5
2	2437 MHz	21.0

5725 MHz Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5726.340	67.4	H	68.3	-0.9	PK	55	1.0	POS; RB 1 MHz; VB: 3 MHz
5726.360	56.3	V	68.3	-12.0	PK	15	1.6	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

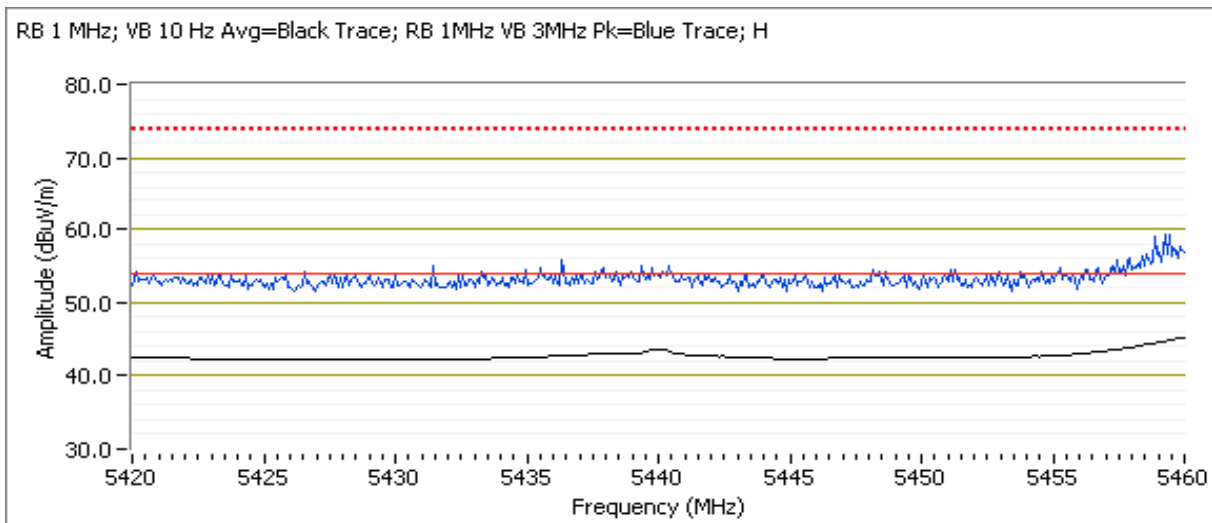
Run # 6, Band Edge Field Strength - 802.11n40, Chain A+B+C

Run # 6a, EUT on Channel #102 5510MHz - 802.11n40, Chain A+B+C

Radio	Freq	Power Setting
1	5510 MHz	5.5
2	2437 MHz	21.0

5460 MHz Band Edge Signal Field Strength

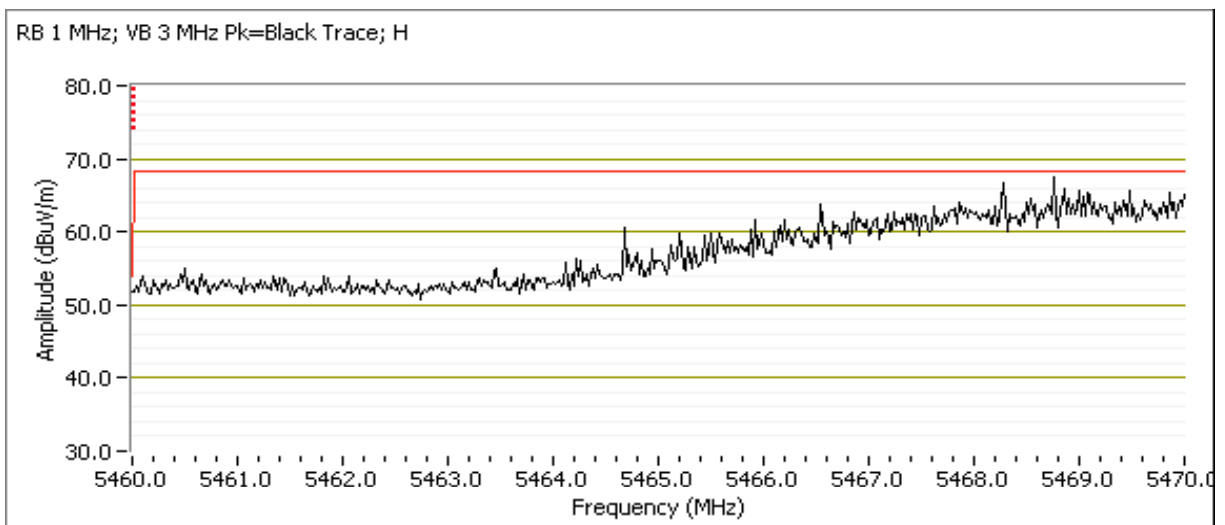
Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5460.000	45.3	H	54.0	-8.7	AVG	78	1.0	POS; RB 1 MHz; VB: 10 Hz
5459.760	56.8	H	74.0	-17.2	PK	78	1.0	POS; RB 1 MHz; VB: 3 MHz
5458.160	40.2	V	54.0	-13.8	AVG	67	1.0	POS; RB 1 MHz; VB: 10 Hz
5427.780	52.0	V	74.0	-22.0	PK	67	1.0	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

5470 MHz Band Edge Signal Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5469.760	67.9	H	68.3	-0.4	PK	342	1.0	POS; RB 1 MHz; VB: 3 MHz
5469.060	56.6	V	68.3	-11.7	PK	260	1.3	POS; RB 1 MHz; VB: 3 MHz



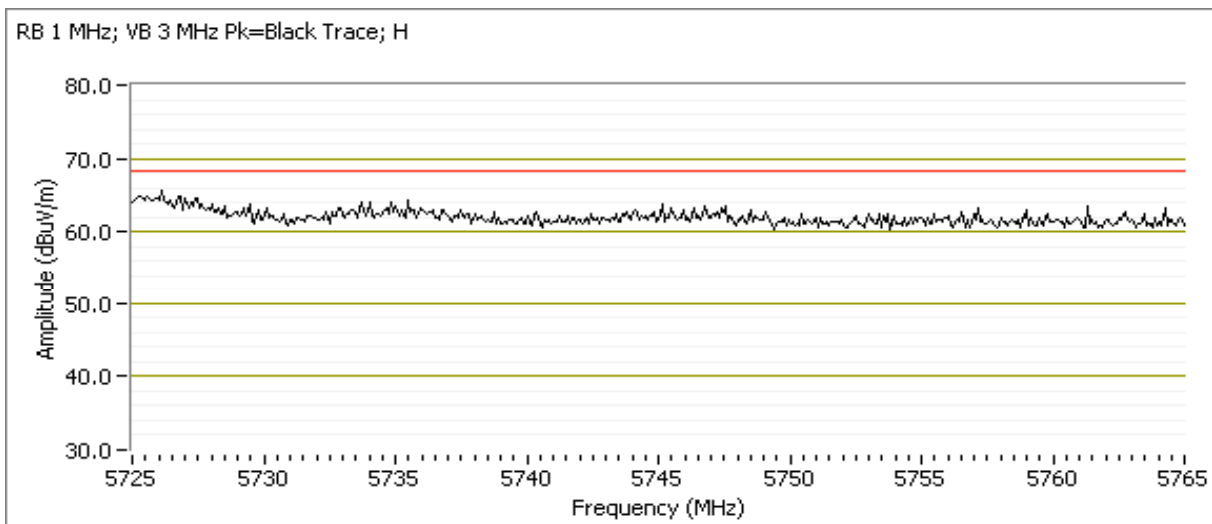
Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run # 6b, EUT on Channel #134 5670MHz - 802.11n40, Chain A+B+C

Radio	Freq	Power Setting
1	5670 MHz	14.0
2	2437 MHz	21.0

5725 MHz Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5725.800	66.2	H	68.3	-2.1	PK	78	1.0	POS; RB 1 MHz; VB: 3 MHz
5742.800	54.8	V	68.3	-13.5	PK	296	1.2	POS; RB 1 MHz; VB: 3 MHz



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

RSS 210 and FCC 15.407 (NII) 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.

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane or routed in overhead in the GR-1089 test configuration.

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

Ambient Conditions:

Temperature: 20.9 °C
 Rel. Humidity: 35 %

Summary of Results - Device Operating in the 5250-5350 MHz Band

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
Run # 1	802.11a Chain A+B+C	#64 5320MHz	15.5		Restricted Band Edge at 5350 MHz	15.209	52.7 dBμV/m @ 5350.3 MHz (-1.3 dB)
Run # 2	802.11n20 Chain A+B+C	#64 5320MHz	15.0		Restricted Band Edge at 5350 MHz	15.209	53.6 dBμV/m @ 5350.1 MHz (-0.4 dB)
Run # 3	802.11n40 Chain A+B+C	#62 5310MHz	10.0		Restricted Band Edge at 5350 MHz	15.209	52.3 dBμV/m @ 5352.6 MHz (-1.7 dB)

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Summary of Results - Device Operating in the 5470-5725 MHz Band

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
Run # 4	802.11a Chain A+B+C	#100 5500MHz	11.0		Restricted Band Edge at 5460 MHz	15.209	53.3 dBμV/m @ 5427.5 MHz (-0.7 dB)
		#100 5500MHz	11.0		Band Edge at 5470 MHz	15.407	66.7 dBμV/m @ 5466.2 MHz (-1.6 dB)
		#140 5700MHz	15.5		Band Edge at 5725 MHz	15.407	67.5 dBμV/m @ 5728.1 MHz (-0.8 dB)
Run # 5	802.11n20 Chain A+B+C	#100 5500MHz	12.0		Restricted Band Edge at 5460 MHz	15.209	53.4 dBμV/m @ 5427.4 MHz (-0.6 dB)
		#100 5500MHz	12.0		Band Edge at 5470 MHz	15.407	66.9 dBμV/m @ 5461.4 MHz (-1.4 dB)
		#140 5700MHz	15.0		Band Edge at 5725 MHz	15.407	67.7 dBμV/m @ 5725.6 MHz (-0.6 dB)
Run # 6	802.11n40 Chain A+B+C	#102 5510MHz	9.0		Restricted Band Edge at 5460 MHz	15.209	47.8 dBμV/m @ 5460.0 MHz (-6.2 dB)
		#102 5510MHz	9.0		Band Edge at 5470 MHz	15.407	67.9 dBμV/m @ 5464.7 MHz (-0.4 dB)
		#134 5670MHz	16.0		Band Edge at 5725 MHz	15.407	47.3 dBμV/m @ 5726.4 MHz (-21.0 dB)

Antenna:

#	Model	Type	Freq. Band (GHz)	Gain (dBi)	Ind/Out	Xpol?	Pt to Pt?
4	Enterasys WS-AI-DX13025	Sector (6 element)	5.6	11.5	Indoor	2 Xpol / 2 Vert	No

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

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.

Tested w/ 6dB attenuator

Sample (S/N:295948)

Notes

Antenna: antenna(s) connected
 Duty Cycle: 99.0%

ART GUI (Singleradio test) Or Command Line Script (multiple radio test)

ART GUI Used: No
 ART GUI Boot File: -
 -
 ART GUI Calibration file: -
 -

Command Line Script: 3710e Pilot_295948 boot and initialize all 3 radios to NART Command Line Interface from 15T - LOW POWER

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run # 1, Band Edge Field Strength - 802.11a, Chain A+B+C

Date of Test: 4/18/2013, 4/19/2013

Test Location: FT7

Test Engineer: Rafael Varelas, Deniz Demirci

Config Change: None

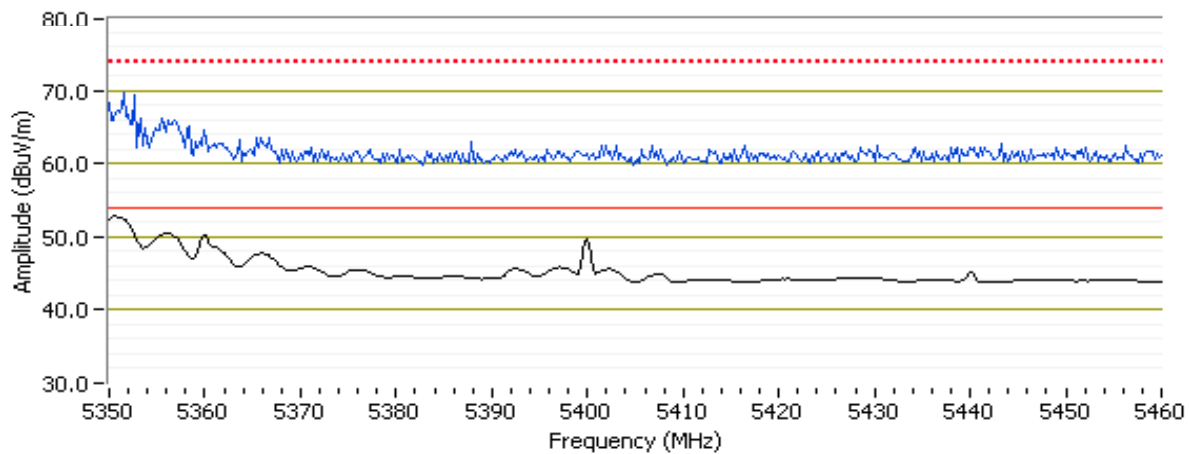
Run # 1a, EUT on Channel #64 5320MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5320 MHz	15.5
2	2437 MHz	19.0

5350 MHz Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5350.320	52.7	V	54.0	-1.3	AVG	0	1.0	POS; RB 1 MHz; VB: 10 Hz
5355.210	69.4	V	74.0	-4.6	PK	0	1.0	POS; RB 1 MHz; VB: 3 MHz
5350.080	48.4	H	54.0	-5.6	AVG	360	1.1	POS; RB 1 MHz; VB: 10 Hz
5352.650	59.9	H	74.0	-14.1	PK	360	1.1	POS; RB 1 MHz; VB: 3 MHz

RB 1 MHz; VB 10 Hz Avg=Black Trace; RB 1MHz VB 3MHz PK= Blue Trace; V



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run # 2, Band Edge Field Strength - 802.11n20, Chain A+B+C

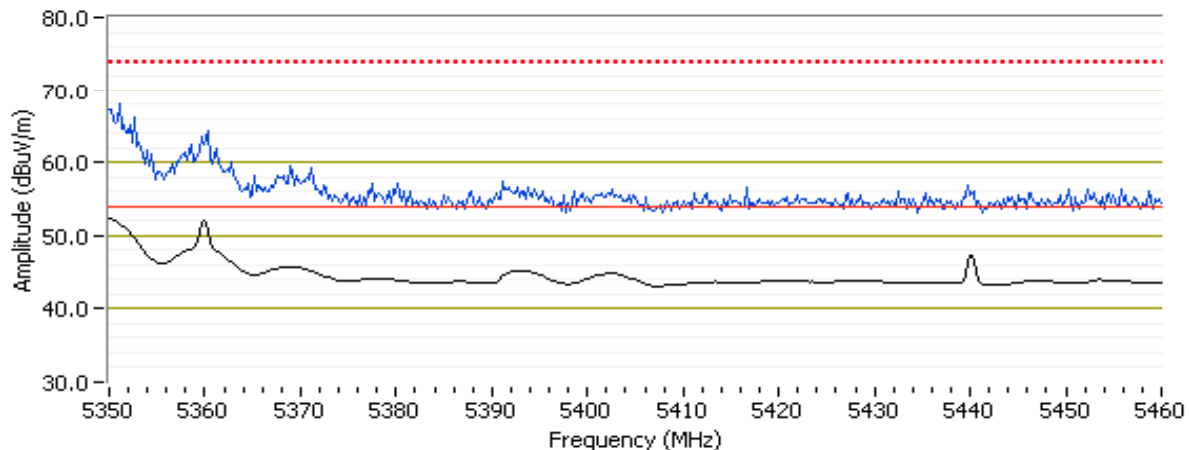
Run # 2a, EUT on Channel #64 5320MHz - 802.11n20, Chain A+B+C

Radio	Freq	Power Setting
1	5320 MHz	15.0
2	2437 MHz	19.0

5350 MHz Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5350.080	53.6	V	54.0	-0.4	AVG	0	1.3	POS; RB 1 MHz; VB: 10 Hz
5350.930	70.9	V	74.0	-3.1	PK	0	1.3	POS; RB 1 MHz; VB: 3 MHz
5350.080	49.2	H	54.0	-4.8	AVG	0	1.0	POS; RB 1 MHz; VB: 10 Hz
5350.240	63.0	H	74.0	-11.0	PK	0	1.0	POS; RB 1 MHz; VB: 3 MHz

RB 1 MHz; VB 10 Hz Avg=Black Trace; RB 1MHz VB 3MHz PK= Blue Trace; V



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run # 3, Band Edge Field Strength - 802.11n40, Chain A+B+C

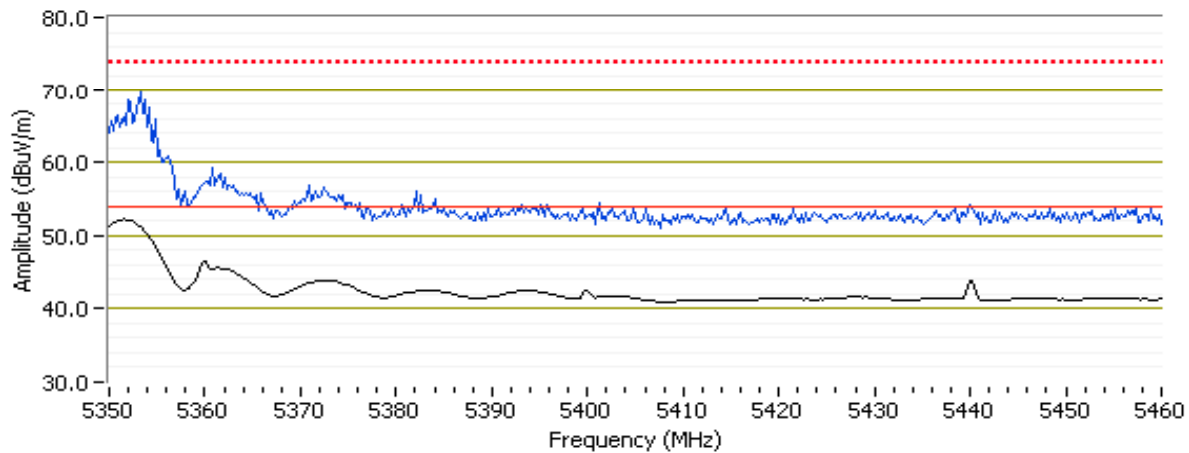
Run # 3a, EUT on Channel #62 5310MHz - 802.11n40, Chain A+B+C

Radio	Freq	Power Setting
1	5310 MHz	10.0
2	2437 MHz	19.0

5350 MHz Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5352.580	52.3	V	54.0	-1.7	AVG	0	1.1	POS; RB 1 MHz; VB: 10 Hz
5352.900	70.1	V	74.0	-3.9	PK	0	1.1	POS; RB 1 MHz; VB: 3 MHz
5350.080	47.6	H	54.0	-6.4	AVG	360	1.0	POS; RB 1 MHz; VB: 10 Hz
5350.640	63.3	H	74.0	-10.7	PK	360	1.0	POS; RB 1 MHz; VB: 3 MHz

RB 1 MHz; VB 10 Hz Avg=Black Trace; RB 1MHz VB 3MHz PK= Blue Trace; V



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run # 4, Band Edge Field Strength - 802.11a, Chain A+B+C

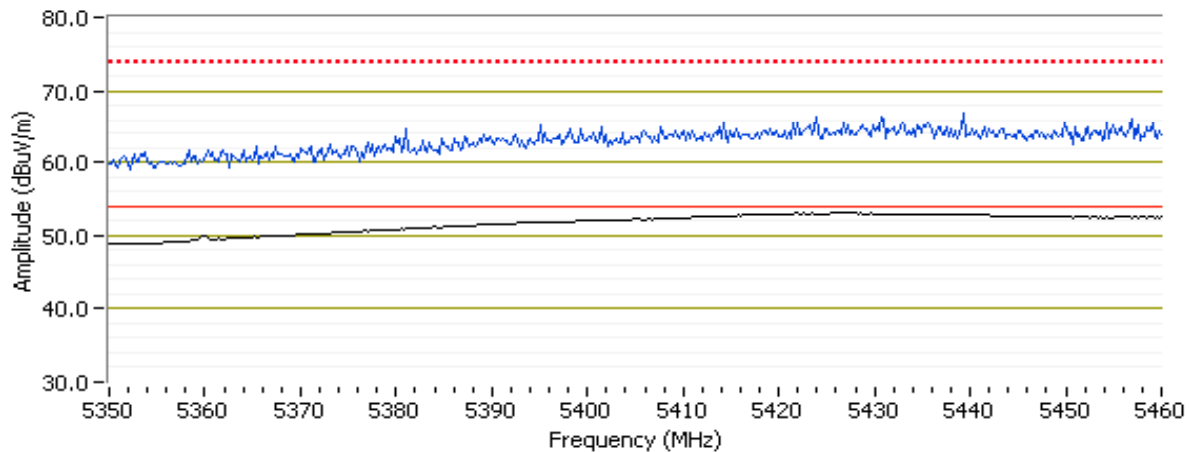
Run # 4a, EUT on Channel #100 5500MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5500 MHz	11.0
2	2437 MHz	19.0

5460 MHz Band Edge Signal Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5427.540	53.3	V	54.0	-0.7	AVG	2	1.2	POS; RB 1 MHz; VB: 10 Hz
5451.820	67.0	V	74.0	-7.0	PK	2	1.2	POS; RB 1 MHz; VB: 3 MHz
5427.940	46.7	H	54.0	-7.3	AVG	0	1.0	POS; RB 1 MHz; VB: 10 Hz
5424.810	58.2	H	74.0	-15.8	PK	0	1.0	POS; RB 1 MHz; VB: 3 MHz

RB 1 MHz; VB 10 Hz Avg=Black Trace; RB 1MHz VB 3MHz PK= Blue Trace; V

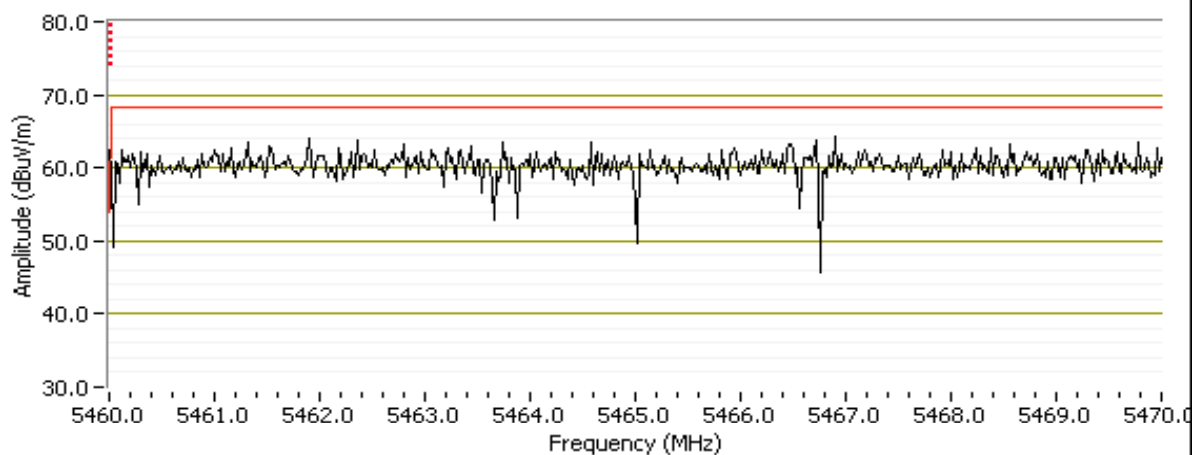


Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

5470 MHz Band Edge Signal Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5466.170	66.7	V	68.3	-1.6	PK	2	1.2	POS; RB 1 MHz; VB: 3 MHz
5469.320	58.4	H	68.3	-9.9	PK	0	1.0	POS; RB 1 MHz; VB: 3 MHz

RB 1 MHz; VB 3 MHz PK= Blue Trace; V



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

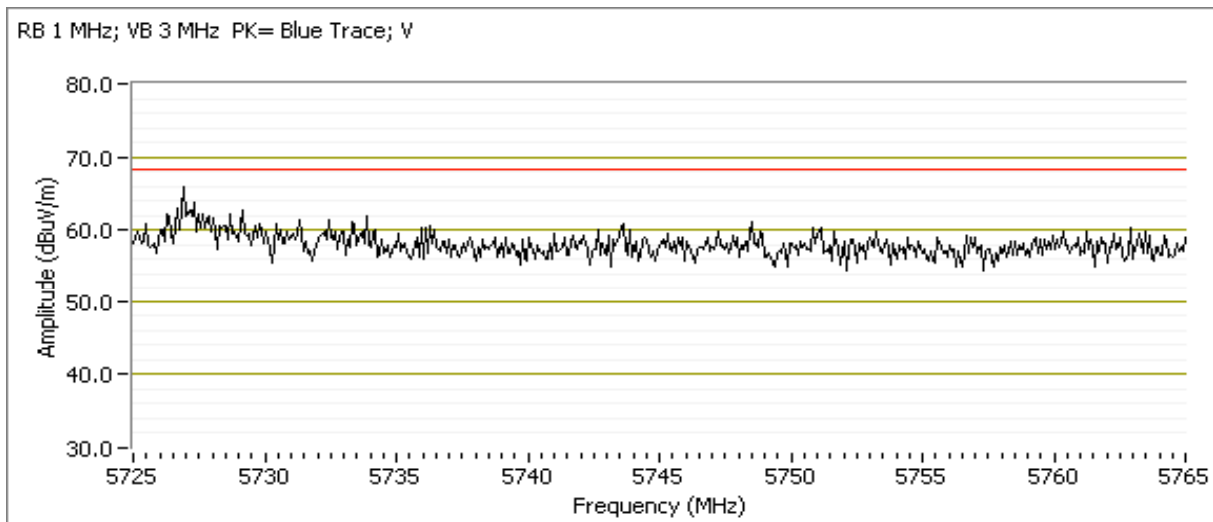
Run # 4b, EUT on Channel #140 5700MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5700 MHz	15.5
2	2437 MHz	19.0

5725 MHz Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5728.050	67.5	V	68.3	-0.8	PK	6	1.0	POS; RB 1 MHz; VB: 3 MHz
5725.080	60.6	H	68.3	-7.7	PK	0	1.0	POS; RB 1 MHz; VB: 3 MHz

RB 1 MHz; VB 3 MHz PK= Blue Trace; V



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

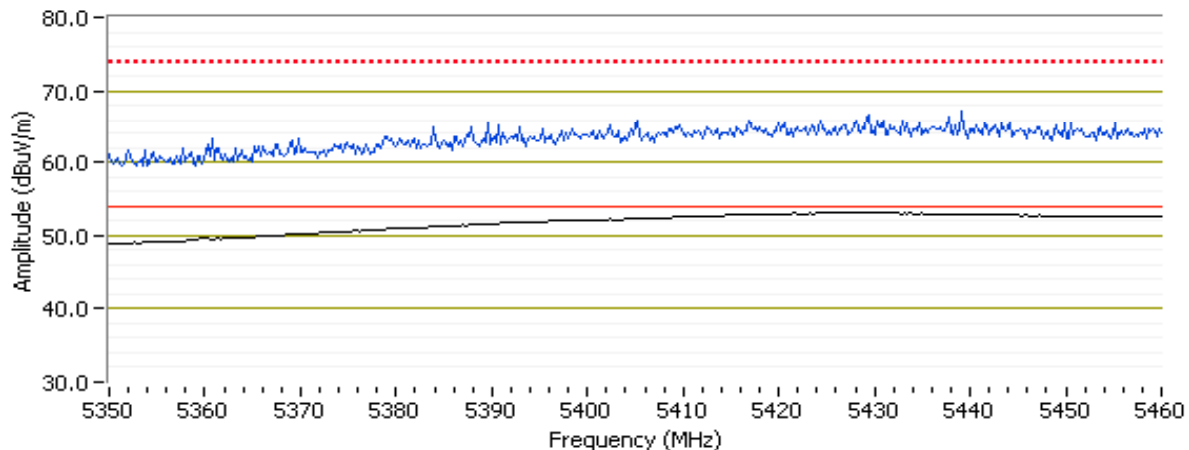
Run # 5, Band Edge Field Strength - 802.11n20, Chain A+B+C
 Run # 5a, EUT on Channel #100 5500MHz - 802.11n20, Chain A+B+C

Radio	Freq	Power Setting
1	5500 MHz	12.0
2	2437 MHz	19.0

5460 MHz Band Edge Signal Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5427.420	53.4	V	54.0	-0.6	AVG	0	1.2	POS; RB 1 MHz; VB: 10 Hz
5456.270	66.4	V	74.0	-7.6	PK	0	1.2	POS; RB 1 MHz; VB: 3 MHz
5427.210	47.7	H	54.0	-6.3	AVG	360	1.0	POS; RB 1 MHz; VB: 10 Hz
5450.780	59.6	H	74.0	-14.4	PK	360	1.0	POS; RB 1 MHz; VB: 3 MHz

RB 1 MHz; VB 10 Hz Avg=Black Trace; RB 1MHz VB 3MHz PK= Blue Trace; V

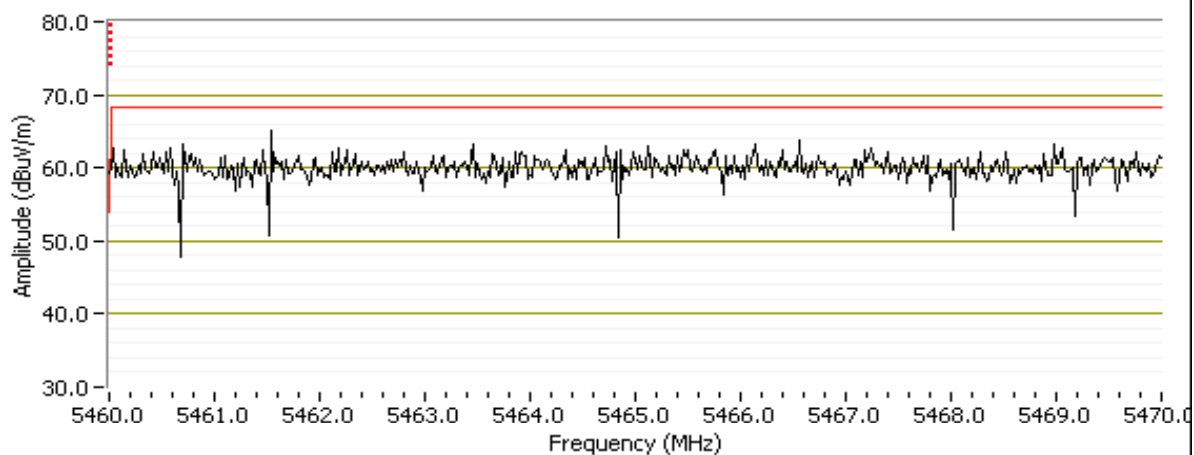


Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

5470 MHz Band Edge Signal Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5461.380	66.9	V	68.3	-1.4	PK	0	1.2	POS; RB 1 MHz; VB: 3 MHz
5462.540	62.1	H	68.3	-6.2	PK	360	1.0	POS; RB 1 MHz; VB: 3 MHz

RB 1 MHz; VB 3 MHz PK= Blue Trace; V



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

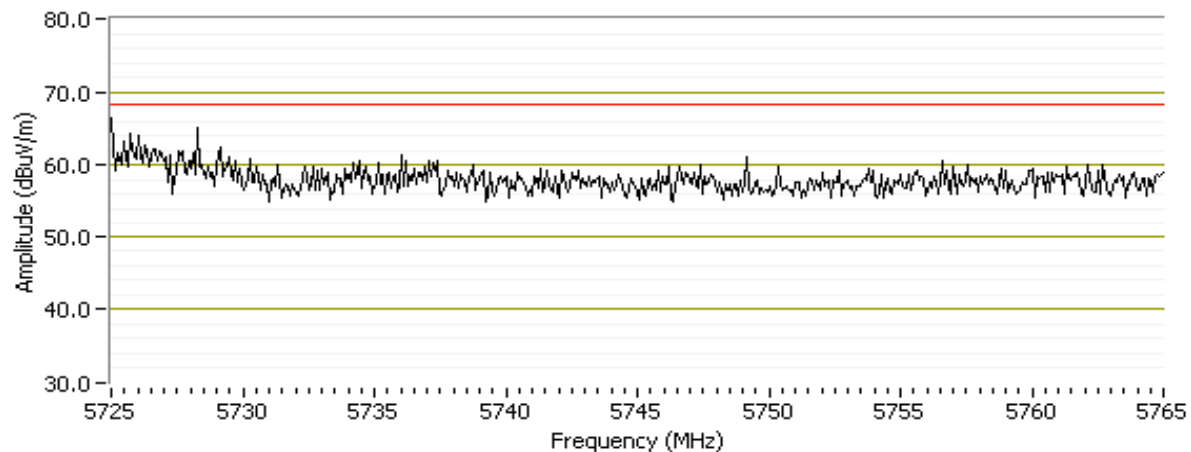
Run # 5b, EUT on Channel #140 5700MHz - 802.11n20, Chain A+B+C

Radio	Freq	Power Setting
1	5700 MHz	15.0
2	2437 MHz	19.0

5725 MHz Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5725.560	67.7	V	68.3	-0.6	PK	0	1.0	POS; RB 1 MHz; VB: 3 MHz
5725.320	60.2	H	68.3	-8.1	PK	8	1.0	POS; RB 1 MHz; VB: 3 MHz

RB 1 MHz; VB 3 MHz PK= Black Trace; V



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

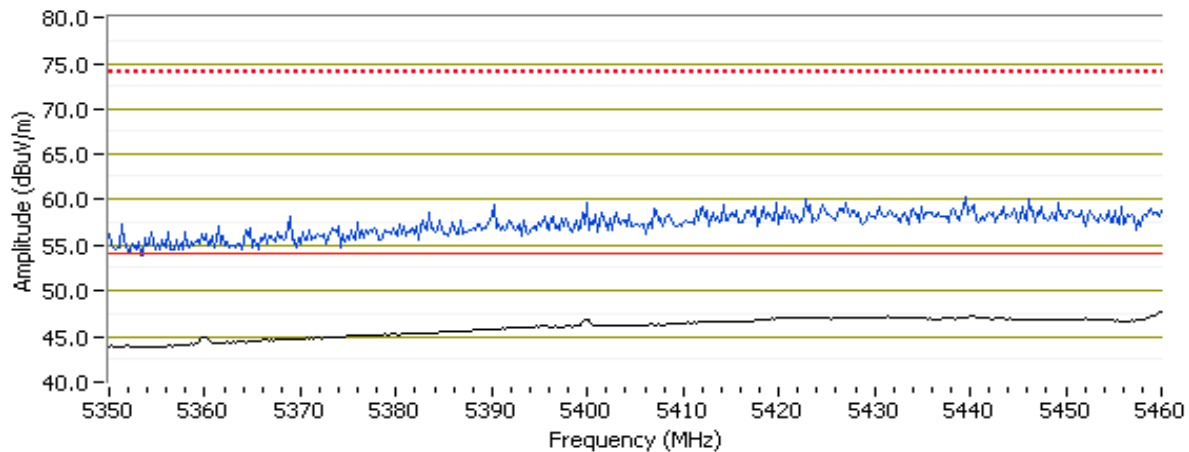
Run # 6, Band Edge Field Strength - 802.11n40, Chain A+B+C
 Run # 6a, EUT on Channel #102 5510MHz - 802.11n40, Chain A+B+C

Radio	Freq	Power Setting
1	5510 MHz	9.0
2	2437 MHz	19.0

5460 MHz Band Edge Signal Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5460.000	47.8	V	54.0	-6.2	AVG	0	1.0	POS; RB 1 MHz; VB: 10 Hz
5460.000	44.3	H	54.0	-9.7	AVG	360	1.0	POS; RB 1 MHz; VB: 10 Hz
5446.550	60.1	V	74.0	-13.9	PK	0	1.0	POS; RB 1 MHz; VB: 3 MHz
5443.690	56.6	H	74.0	-17.4	PK	360	1.0	POS; RB 1 MHz; VB: 3 MHz

RB 1 MHz; VB 10 Hz AV= Black Trace; RB 1 MHz VB 3 MHz PK=Blue Trace V-pol

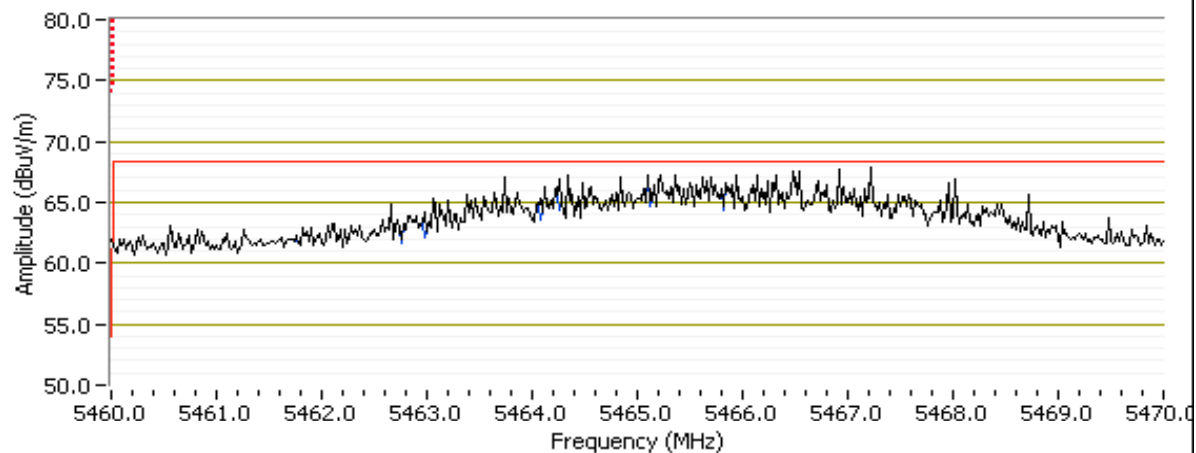


Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

5470 MHz Band Edge Signal Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	PK/QP/Avg	degrees	meters	
5464.650	67.9	V	68.3	-0.4	PK	2	1.3	POS; RB 1 MHz; VB: 3 MHz
5469.380	63.3	H	68.3	-5.0	PK	360	1.0	POS; RB 1 MHz; VB: 3 MHz

RB 1 MHz; VB 3 MHz PK= Black Trace V-pol



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

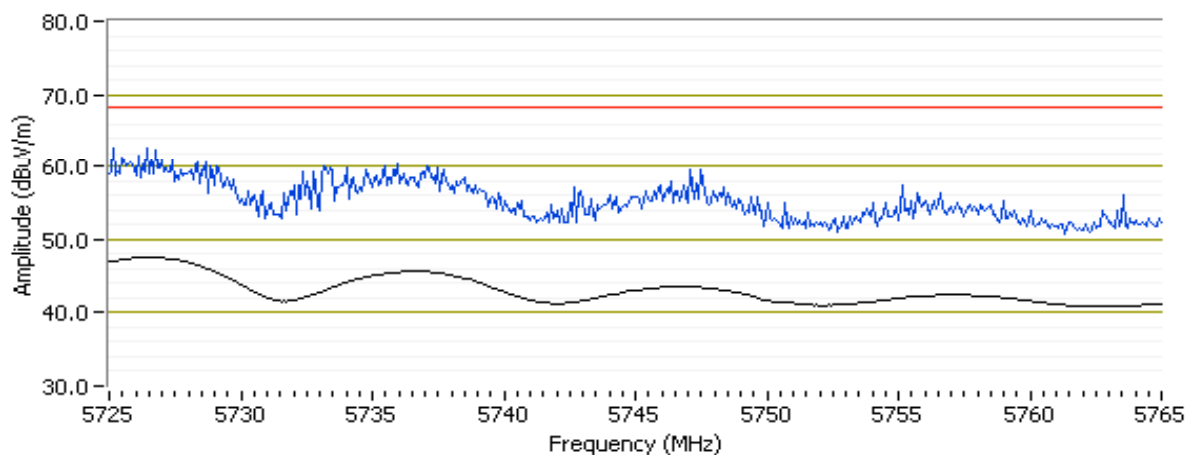
Run # 6b, EUT on Channel #134 5670MHz - 802.11n40, Chain A+B+C

Radio	Freq	Power Setting
1	5670 MHz	16.0
2	2437 MHz	19.0

5725 MHz Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5726.440	47.3	V	68.3	-21.0	AVG	360	1.0	POS; RB 1 MHz; VB: 10 Hz
5725.000	42.2	H	68.3	-26.1	AVG	3	1.1	POS; RB 1 MHz; VB: 10 Hz
5726.520	62.1	V	88.3	-26.2	PK	360	1.0	POS; RB 1 MHz; VB: 3 MHz
5726.600	54.9	H	88.3	-33.4	PK	3	1.1	POS; RB 1 MHz; VB: 3 MHz

RB 1 MHz; VB 10 Hz AV= Black Trace; RB 1 MHz VB 3 MHz PK=Blue Trace V-pol



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

RSS 210 and FCC 15.407 (NII) 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.

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane or routed in overhead in the GR-1089 test configuration.

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

Ambient Conditions:

Temperature: 21.4 °C
 Rel. Humidity: 35 %

Summary of Results - Device Operating in the 5150-5250 MHz Band

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
Run #1	802.11b	2412 MHz	19		Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15.407	43.5 dBµV/m @ 5440.0 MHz (-10.5 dB)
		5260 MHz	19				
		2437 MHz	19				44.5 dBµV/m @ 5440.0 MHz (-9.5 dB)
		5300 MHz	19				
	802.11a	2462 MHz	19				47.2 dBµV/m @ 5440.1 MHz (-6.8 dB)
		5320 MHz	19				
	Chain A+B+C	2412 MHz	19				40.8 dBµV/m @ 1666.7 MHz (-13.2 dB)
		5500 MHz	19				
		2437 MHz	19				43.5 dBµV/m @ 5360.0 MHz (-10.5 dB)
		5580 MHz	19				
		2462 MHz	19				43.0 dBµV/m @ 5040.0 MHz (-11.0 dB)
		5700 MHz	19				

EMC Test Data

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
Run #2	802.11g	2412 MHz	19		Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15.407	46.0 dBμV/m @ 5453.3 MHz (-8.0 dB)
		5260 MHz	19				47.3 dBμV/m @ 5440.0 MHz (-6.7 dB)
		2437 MHz	19				46.4 dBμV/m @ 5040.0 MHz (-7.6 dB)
		5300 MHz	19				43.2 dBμV/m @ 1608.0 MHz (-10.8 dB)
	802.11a	2462 MHz	19				41.4 dBμV/m @ 1624.7 MHz (-12.6 dB)
		5320 MHz	19				43.9 dBμV/m @ 5360.0 MHz (-10.1 dB)
		2412 MHz	19				
		5500 MHz	19				
Run #3	802.11n20	2437 MHz	19		Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15.407	49.1 dBμV/m @ 5439.9 MHz (-4.9 dB)
		5260 MHz	20				48.7 dBμV/m @ 5440.1 MHz (-5.3 dB)
		2412 MHz	20				45.6 dBμV/m @ 5439.9 MHz (-8.4 dB)
		5300 MHz	20				43.7 dBμV/m @ 5359.9 MHz (-10.3 dB)
	802.11n20	2462 MHz	20				43.8 dBμV/m @ 5359.9 MHz (-10.2 dB)
		5320 MHz	20				43.7 dBμV/m @ 5360.0 MHz (-10.3 dB)
		2412 MHz	20				
		5500 MHz	20				
Run #4	802.11n40	2437 MHz	20		Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15.247	45.1 dBμV/m @ 5040.0 MHz (-8.9 dB)
		5270 MHz	17				44.3 dBμV/m @ 5040.0 MHz (-9.7 dB)
		2452 MHz	16				41.6 dBμV/m @ 5359.9 MHz (-12.4 dB)
		5310 MHz	17				42.7 dBμV/m @ 5360.0 MHz (-11.3 dB)
	802.11n40	2422 MHz	16				42.0 dBμV/m @ 5360.0 MHz (-12.0 dB)
		5510 MHz	17				
		2452 MHz	16				
		5670 MHz	17				
Run #4	Chain A+B+C	2437 MHz	16				
		5550 MHz	17				

Client:	Flextronics	Job Number:	J89632
Model:	AP3710e	T-Log Number:	T89633
Contact:	Georges Fares	Account Manager:	Christine Krebill
Standard:	15.407, RSS-210	Class:	N/A

Antenna:							
#	Model	Type	Freq. Band (GHz)	Gain (dBi)	Ind/Out	Xpol?	Pt to Pt?
1	Laird S2451DBT	Omni	5.2 & 5.6	2	Indoor	No	No

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.

Notes

Antenna: antenna(s) connected
Duty Cycle: 99.0%

ART GUI (Singleradio test) Or Command Line Script (multiple radio test)

ART GUI Used: No
ART GUI Boot File: -
-
ART GUI Calibration file: -
-
Command Line Script: 3710e Pilot_115942 boot and initialize all 3 radios to NART Command Line Interface from 15T - LOW POWER

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #1, Radiated Spurious Emissions, 1-40GHz, 802.11b/802.11a, Chain A+B+C

Run #1a, EUT on Channel #1 2412MHz - 802.11b and Channel #52 5260MHz - 802.11a - Chain A+B+C

Date of Test: 3/5/2013
 Test Engineer: Rafael Varelas / Jack Liu

Test Location: FT7
 Config Change: None

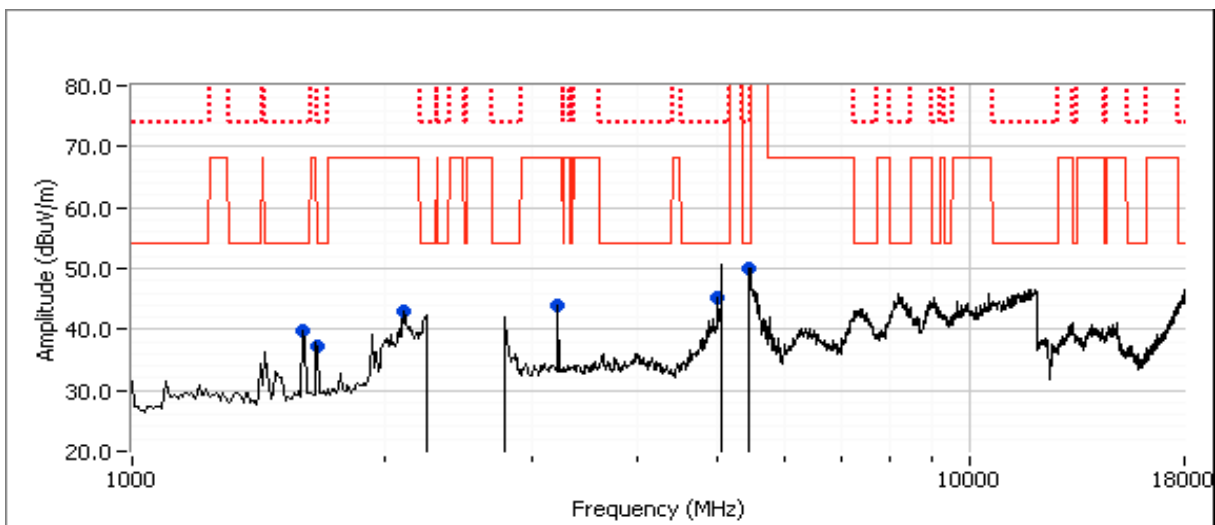
Radio	Freq	Power Setting
1	5260 MHz	19.0
2	2412 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5440.030	43.5	V	54.0	-10.5	AVG	53	1.0	RB 1 MHz;VB 10 Hz;Peak
5443.830	52.0	V	74.0	-22.0	PK	53	1.0	RB 1 MHz;VB 3 MHz;Peak
3216.050	46.4	V	68.3	-21.9	PK	304	1.0	Note 1
2112.210	49.1	V	68.3	-19.2	PK	270	1.0	Note 1
1607.920	38.6	V	54.0	-15.4	AVG	260	1.0	RB 1 MHz;VB 10 Hz;Peak
1607.850	41.8	V	74.0	-32.2	PK	260	1.0	RB 1 MHz;VB 3 MHz;Peak
1666.580	37.2	V	54.0	-16.8	AVG	202	1.3	RB 1 MHz;VB 10 Hz;Peak
1666.540	41.8	V	74.0	-32.2	PK	202	1.3	RB 1 MHz;VB 3 MHz;Peak
4999.960	39.4	V	54.0	-14.6	AVG	75	1.5	RB 1 MHz;VB 10 Hz;Peak
4999.440	50.6	V	74.0	-23.4	PK	75	1.5	RB 1 MHz;VB 3 MHz;Peak

Note 1:

For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

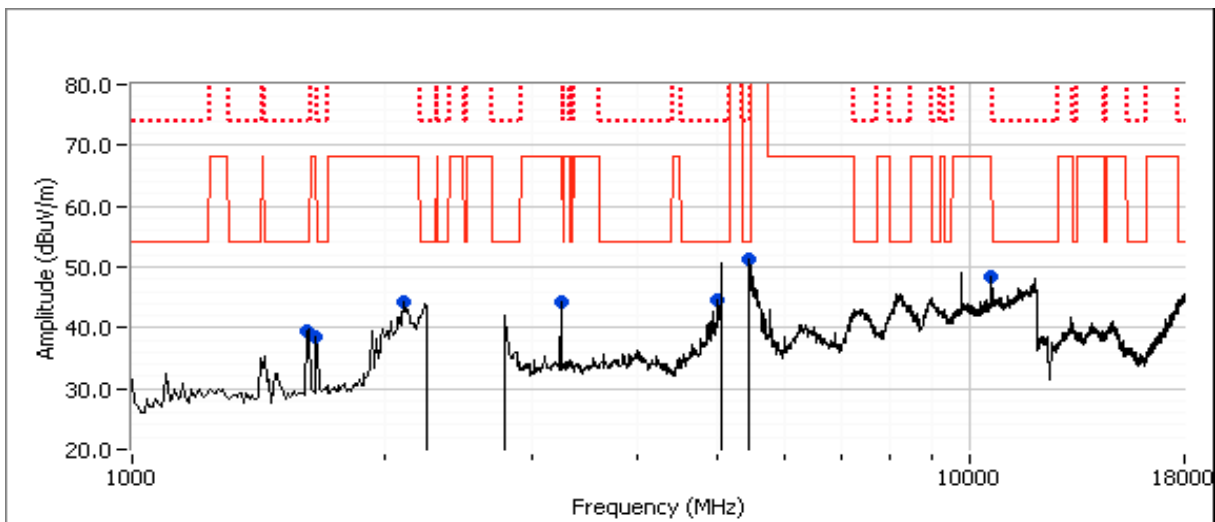
Run #1b: , EUT on Channel #6 2437MHz - 802.11b and Channel #60 5300MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5300 MHz	19.0
2	2437 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5440.030	44.5	V	54.0	-9.5	AVG	346	1.1	RB 1 MHz;VB 10 Hz;Peak
5439.940	53.7	V	74.0	-20.3	PK	346	1.1	RB 1 MHz;VB 3 MHz;Peak
3249.300	48.1	V	68.3	-20.2	PK	0	1.4	Note 1
4999.730	38.8	V	54.0	-15.2	AVG	72	1.4	RB 1 MHz;VB 10 Hz;Peak
5000.900	49.1	V	74.0	-24.9	PK	72	1.4	RB 1 MHz;VB 3 MHz;Peak
10600.880	43.3	H	54.0	-10.7	AVG	127	1.2	RB 1 MHz;VB 10 Hz;Peak
10599.650	54.5	H	74.0	-19.5	PK	127	1.2	RB 1 MHz;VB 3 MHz;Peak
1666.640	37.1	V	54.0	-16.9	AVG	202	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.600	41.5	V	74.0	-32.5	PK	202	1.0	RB 1 MHz;VB 3 MHz;Peak
1624.670	39.4	V	54.0	-14.6	AVG	266	1.0	RB 1 MHz;VB 10 Hz;Peak
1624.680	42.7	V	74.0	-31.3	PK	266	1.0	RB 1 MHz;VB 3 MHz;Peak
2119.980	49.6	V	68.3	-18.7	PK	273	1.0	Note 1

Note 1:	For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.
Note 2:	Scans made between 18 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

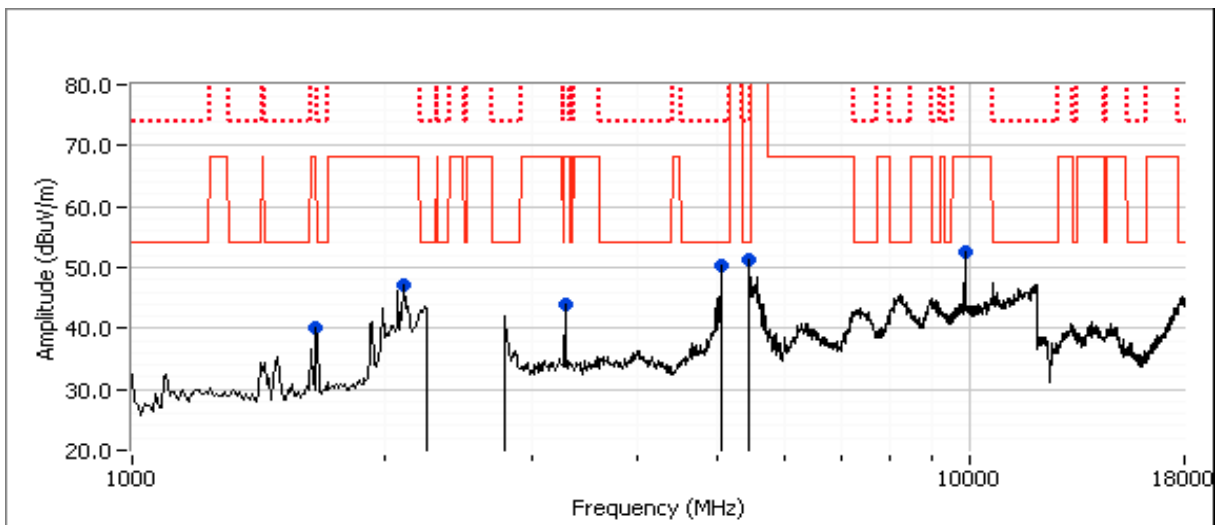
Run #1c: , EUT on Channel #11 2462MHz - 802.11b and Channel #64 5320MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5320 MHz	19.0
2	2462 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5440.060	47.2	V	54.0	-6.8	AVG	92	1.9	RB 1 MHz;VB 10 Hz;Peak
5445.130	56.0	V	74.0	-18.0	PK	92	1.9	RB 1 MHz;VB 3 MHz;Peak
5039.970	46.6	V	54.0	-7.4	AVG	81	1.8	RB 1 MHz;VB 10 Hz;Peak
5040.020	53.6	V	74.0	-20.4	PK	81	1.8	RB 1 MHz;VB 3 MHz;Peak
1666.650	39.0	V	54.0	-15.0	AVG	190	1.2	RB 1 MHz;VB 10 Hz;Peak
1666.580	41.9	V	74.0	-32.1	PK	190	1.2	RB 1 MHz;VB 3 MHz;Peak
2129.200	50.6	V	68.3	-17.7	PK	271	1.0	Note 1
3282.650	47.9	V	68.3	-20.4	PK	360	1.3	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

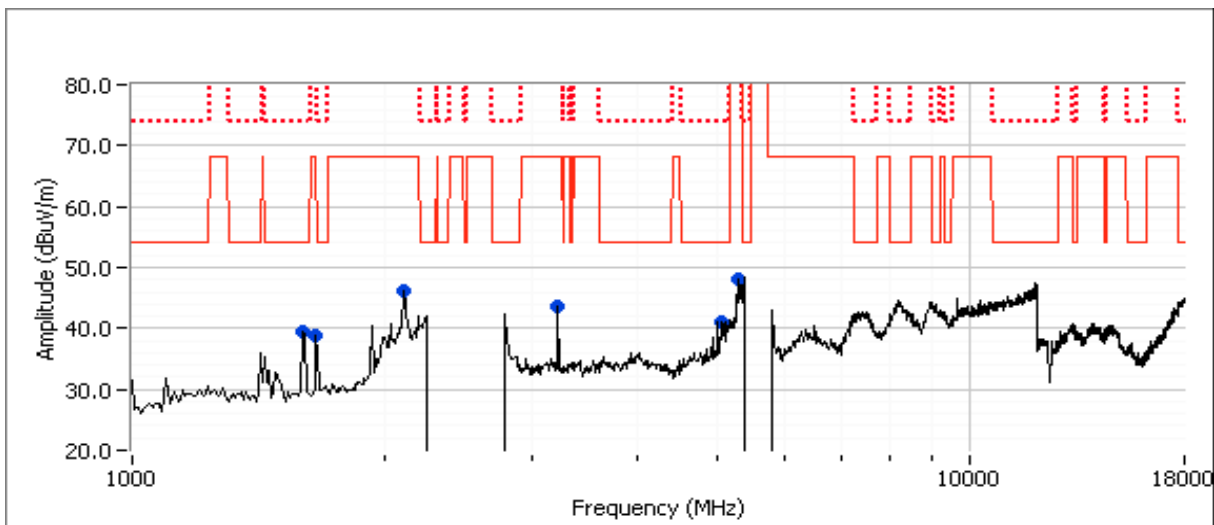
Run #1d, EUT on Channel #1 2412MHz - 802.11b and Channel #100 5500MHz - 802.11a - Chain A+B+C

Radio	Freq	Power Setting
1	5500 MHz	19.0
2	2412 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1666.650	40.8	H	54.0	-13.2	AVG	148	1.2	RB 1 MHz;VB 10 Hz;Peak
1666.660	43.4	H	74.0	-30.6	PK	148	1.2	RB 1 MHz;VB 3 MHz;Peak
5039.950	38.6	V	54.0	-15.4	AVG	86	1.5	RB 1 MHz;VB 10 Hz;Peak
5039.950	46.1	V	74.0	-27.9	PK	86	1.5	RB 1 MHz;VB 3 MHz;Peak
1608.020	38.8	V	54.0	-15.2	AVG	264	1.0	RB 1 MHz;VB 10 Hz;Peak
1607.920	41.6	V	74.0	-32.4	PK	264	1.0	RB 1 MHz;VB 3 MHz;Peak
2112.130	49.3	V	68.3	-19.0	PK	277	1.0	Note 1
5350.000	49.4	V	68.3	-18.9	PK	348	1.0	Note 1
3216.000	46.7	V	68.3	-21.6	PK	117	1.1	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #1e: , EUT on Channel #6 2437MHz - 802.11b and Channel #116 5580MHz - 802.11a, Chain A+B+C

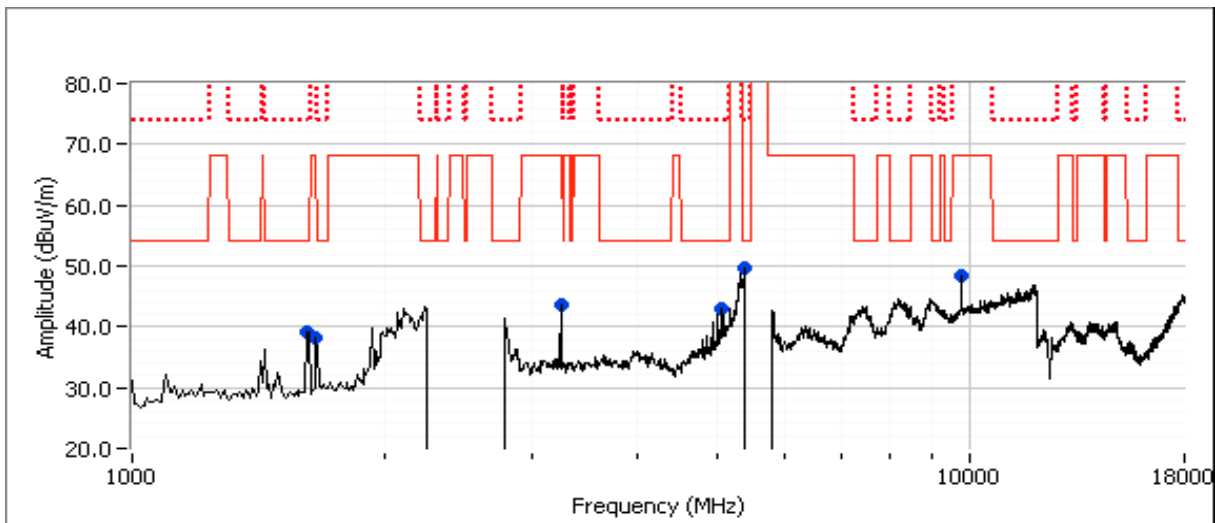
Radio	Freq	Power Setting
1	5580 MHz	19.0
2	2437 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5359.980	43.5	V	54.0	-10.5	AVG	318	1.2	RB 1 MHz;VB 10 Hz;Peak
5360.080	53.4	V	74.0	-20.6	PK	318	1.2	RB 1 MHz;VB 3 MHz;Peak
9748.120	52.6	V	68.3	-15.7	PK	38	1.3	Note 1
5039.950	38.3	V	54.0	-15.7	AVG	80	1.5	RB 1 MHz;VB 10 Hz;Peak
5040.100	45.1	V	74.0	-28.9	PK	80	1.5	RB 1 MHz;VB 3 MHz;Peak
3249.280	45.9	V	68.3	-22.4	PK	238	1.0	Note 1
1666.660	37.9	H	54.0	-16.1	AVG	249	1.3	RB 1 MHz;VB 10 Hz;Peak
1666.580	41.5	H	74.0	-32.5	PK	249	1.3	RB 1 MHz;VB 3 MHz;Peak
1624.700	39.2	V	54.0	-14.8	AVG	269	1.0	RB 1 MHz;VB 10 Hz;Peak
1624.600	42.2	V	74.0	-31.8	PK	269	1.0	RB 1 MHz;VB 3 MHz;Peak

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.

Note 2: Scans made between 18 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #1f: , EUT on Channel #11 2462MHz - 802.11b and Channel #140 5700MHz - 802.11a, Chain A+B+C

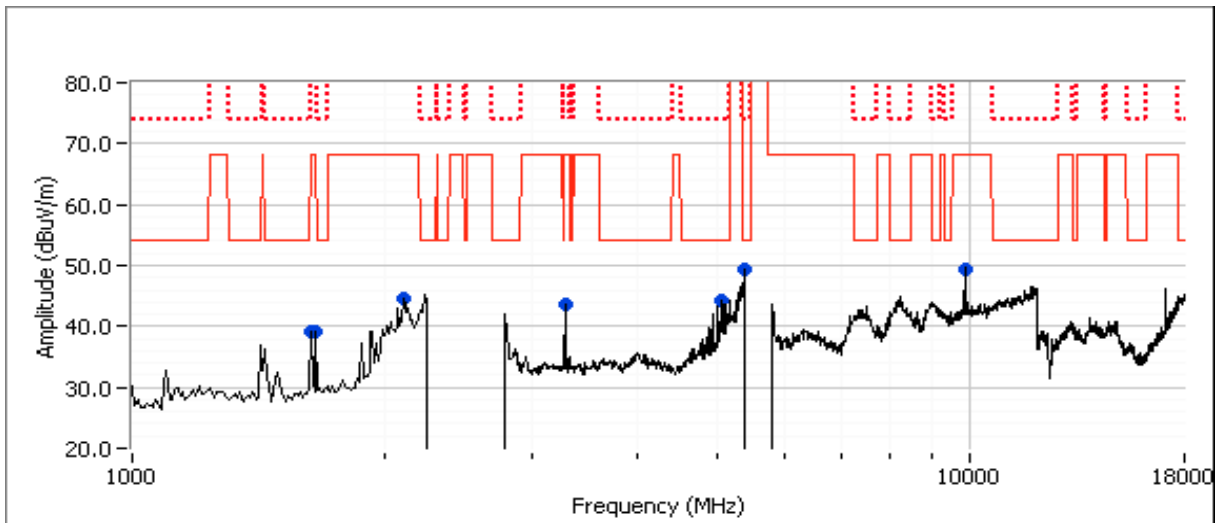
Radio	Freq	Power Setting
1	5700 MHz	19.0
2	2462 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5039.950	43.0	V	54.0	-11.0	AVG	78	1.4	RB 1 MHz;VB 10 Hz;Peak
5039.920	48.9	V	74.0	-25.1	PK	78	1.4	RB 1 MHz;VB 3 MHz;Peak
5359.880	42.6	V	54.0	-11.4	AVG	337	1.2	RB 1 MHz;VB 10 Hz;Peak
5358.620	52.7	V	74.0	-21.3	PK	337	1.2	RB 1 MHz;VB 3 MHz;Peak
3282.580	47.0	V	68.3	-21.3	PK	360	1.1	Note 1
1641.310	40.7	V	68.3	-27.6	PK	261	1.4	Note 1
2112.110	51.1	V	68.3	-17.2	PK	268	1.0	Note 1
1666.530	41.2	H	54.0	-12.8	AVG	146	1.2	RB 1 MHz;VB 10 Hz;Peak
1666.570	44.6	H	74.0	-29.4	PK	146	1.2	RB 1 MHz;VB 3 MHz;Peak
9850.770	50.4	V	68.3	-17.9	PK	42	1.0	Note 1

Note 1:

For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #2, Radiated Spurious Emissions, 1-40GHz, 802.11g/802.11a, Chain A+B+C

Run #2a, EUT on Channel #1 2412MHz - 802.11g and Channel #52 5260MHz - 802.11a - Chain A+B+C

Date of Test: 3/5/2013 Test Location: FT7
 Test Engineer: Rafael Varelas / Jack Liu Config Change: None

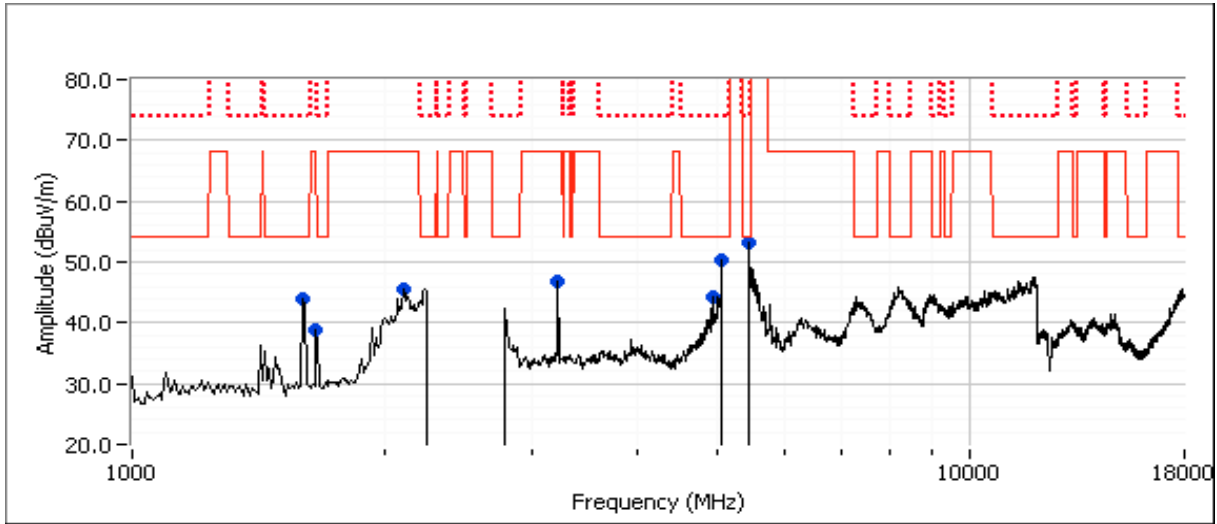
Radio	Freq	Power Setting
1	5260 MHz	19.0
2	2412 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5453.330	46.0	V	54.0	-8.0	AVG	336	1.8	RB 1 MHz;VB 10 Hz;Peak
5445.330	55.4	V	74.0	-18.6	PK	336	1.8	RB 1 MHz;VB 3 MHz;Peak
4920.050	37.8	V	54.0	-16.2	AVG	78	1.5	RB 1 MHz;VB 10 Hz;Peak
4919.920	45.9	V	74.0	-28.1	PK	78	1.5	RB 1 MHz;VB 3 MHz;Peak
5039.990	44.4	V	54.0	-9.6	AVG	84	1.4	RB 1 MHz;VB 10 Hz;Peak
5034.390	52.7	V	74.0	-21.3	PK	84	1.4	RB 1 MHz;VB 3 MHz;Peak
1666.650	38.3	H	54.0	-15.7	AVG	140	1.6	RB 1 MHz;VB 10 Hz;Peak
1666.680	42.3	H	74.0	-31.7	PK	140	1.6	RB 1 MHz;VB 3 MHz;Peak
2111.960	49.5	V	68.3	-18.8	PK	211	1.6	Note 1
1608.000	43.3	V	54.0	-10.7	AVG	264	1.0	RB 1 MHz;VB 10 Hz;Peak
1608.050	46.0	V	74.0	-28.0	PK	264	1.0	RB 1 MHz;VB 3 MHz;Peak
3216.040	49.1	V	68.3	-19.2	PK	360	1.6	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #2b: , EUT on Channel #6 2437MHz - 802.11g and Channel #60 5300MHz - 802.11a, Chain A+B+C

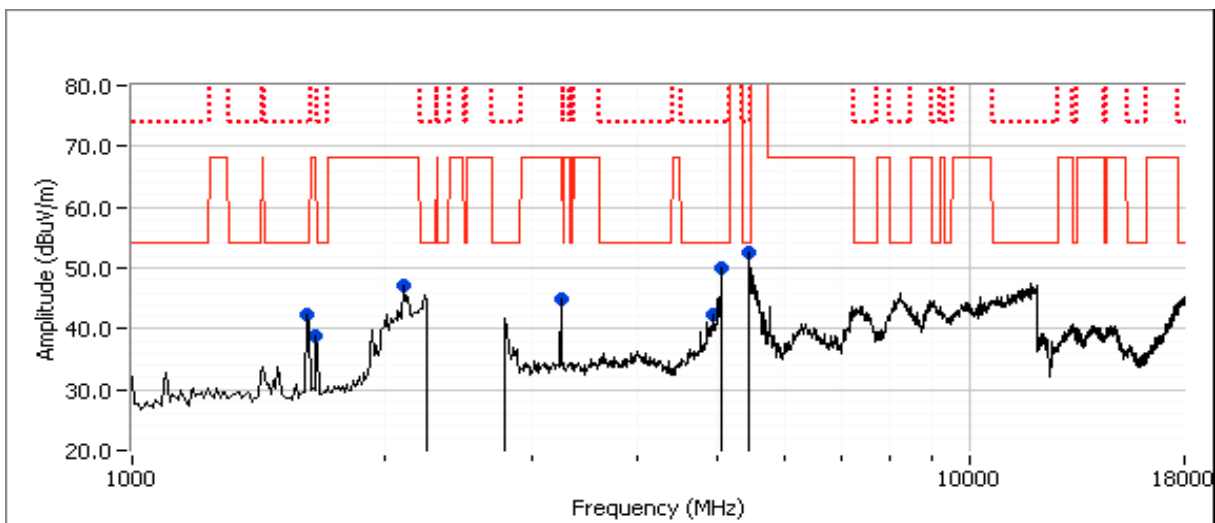
Radio	Freq	Power Setting
1	5300 MHz	19.0
2	2437 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	PK/QP/Avg	degrees	meters	
5440.000	47.3	V	54.0	-6.7	AVG	221	1.4	RB 1 MHz;VB 10 Hz;Peak
5439.460	55.4	V	74.0	-18.6	PK	221	1.4	RB 1 MHz;VB 3 MHz;Peak
4920.050	38.0	V	54.0	-16.0	AVG	86	1.3	RB 1 MHz;VB 10 Hz;Peak
4919.640	45.9	V	74.0	-28.1	PK	86	1.3	RB 1 MHz;VB 3 MHz;Peak
5040.040	46.7	V	54.0	-7.3	AVG	80	1.8	RB 1 MHz;VB 10 Hz;Peak
5039.920	55.3	V	74.0	-18.7	PK	80	1.8	RB 1 MHz;VB 3 MHz;Peak
1666.780	38.0	H	54.0	-16.0	AVG	146	1.6	RB 1 MHz;VB 10 Hz;Peak
1666.750	41.9	H	74.0	-32.1	PK	146	1.6	RB 1 MHz;VB 3 MHz;Peak
1624.690	41.4	V	54.0	-12.6	AVG	268	1.0	RB 1 MHz;VB 10 Hz;Peak
1624.640	44.2	V	74.0	-29.8	PK	268	1.0	RB 1 MHz;VB 3 MHz;Peak
2112.060	51.6	V	68.3	-16.7	PK	272	1.0	Note 1
3249.320	47.3	V	68.3	-21.0	PK	358	1.4	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.

Note 2: Scans made between 18 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

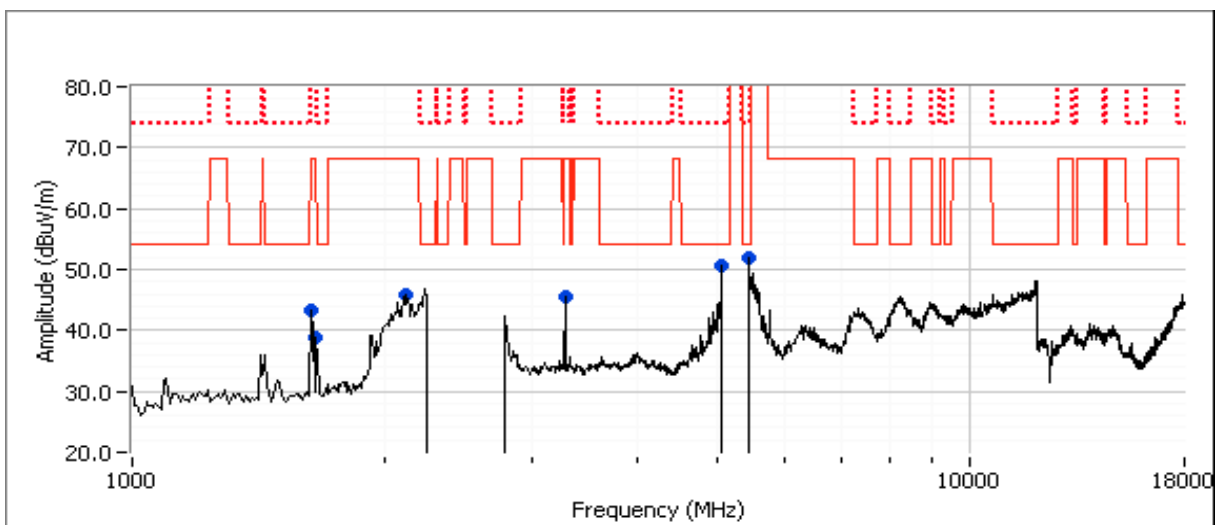
Run #2c: , EUT on Channel #11 2462MHz - 802.11g and Channel #64 5320MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5320 MHz	19.0
2	2462 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5039.990	46.4	V	54.0	-7.6	AVG	84	1.4	RB 1 MHz;VB 10 Hz;Peak
5039.770	53.4	V	74.0	-20.6	PK	84	1.4	RB 1 MHz;VB 3 MHz;Peak
1666.660	38.2	V	54.0	-15.8	AVG	198	1.2	RB 1 MHz;VB 10 Hz;Peak
1666.760	42.4	V	74.0	-31.6	PK	198	1.2	RB 1 MHz;VB 3 MHz;Peak
1641.230	45.7	V	68.3	-22.6	PK	284	1.3	Note 1
2137.470	53.0	V	68.3	-15.3	PK	272	1.0	Note 1
5440.000	45.0	V	54.0	-9.0	AVG	324	1.3	RB 1 MHz;VB 10 Hz;Peak
5439.800	54.1	V	74.0	-19.9	PK	324	1.3	RB 1 MHz;VB 3 MHz;Peak
3282.660	48.6	V	68.3	-19.7	PK	359	1.1	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #2d, EUT on Channel #1 2412MHz - 802.11g and Channel #100 5500MHz - 802.11a - Chain A+B+C

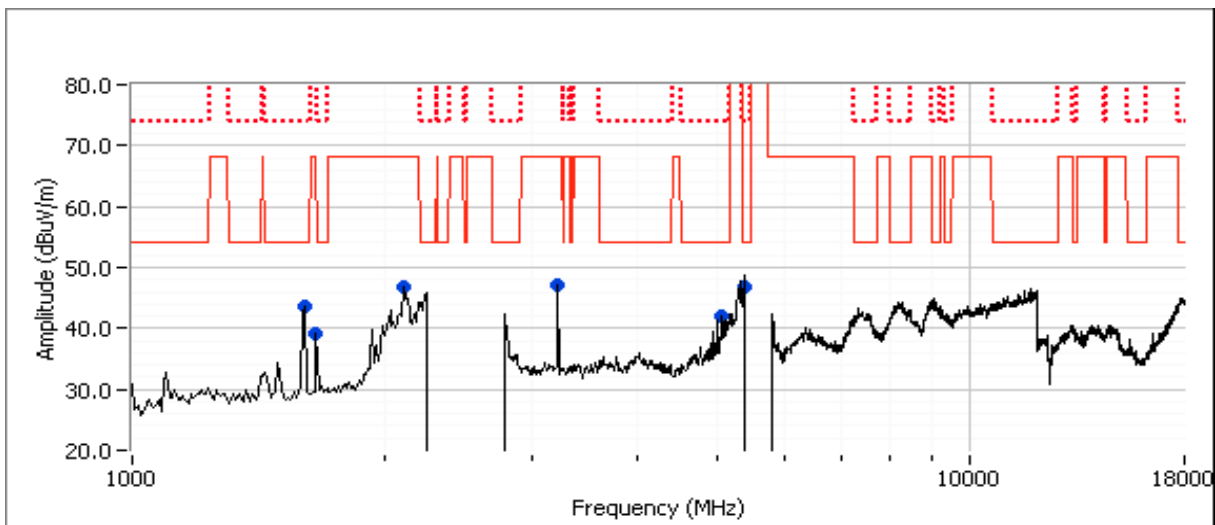
Radio	Freq	Power Setting
1	5500 MHz	19.0
2	2412 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1607.980	43.2	V	54.0	-10.8	AVG	264	1.0	RB 1 MHz;VB 10 Hz;Peak
1607.950	46.2	V	74.0	-27.8	PK	264	1.0	RB 1 MHz;VB 3 MHz;Peak
5359.970	40.9	V	54.0	-13.1	AVG	276	1.0	RB 1 MHz;VB 10 Hz;Peak
5359.790	50.7	V	74.0	-23.3	PK	276	1.0	RB 1 MHz;VB 3 MHz;Peak
5039.980	37.7	V	54.0	-16.3	AVG	86	1.5	RB 1 MHz;VB 10 Hz;Peak
5039.960	45.2	V	74.0	-28.8	PK	86	1.5	RB 1 MHz;VB 3 MHz;Peak
1666.740	40.8	H	54.0	-13.2	AVG	148	1.2	RB 1 MHz;VB 10 Hz;Peak
1666.530	45.1	H	74.0	-28.9	PK	148	1.2	RB 1 MHz;VB 3 MHz;Peak
2119.430	50.3	V	68.3	-18.0	PK	195	1.0	Note 1
3216.070	49.2	V	68.3	-19.1	PK	358	1.0	Note 1

Note 1:

For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #2e: , EUT on Channel #6 2437MHz - 802.11g and Channel #116 5580MHz - 802.11a, Chain A+B+C

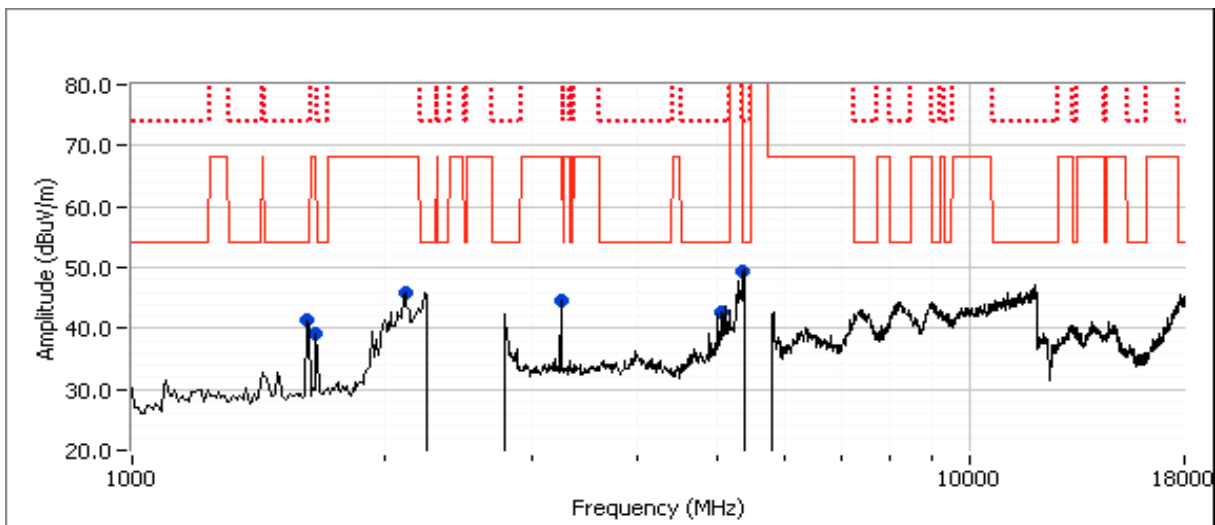
Radio	Freq	Power Setting
1	5580 MHz	19.0
2	2437 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1624.660	41.4	V	54.0	-12.6	AVG	265	1.0	RB 1 MHz;VB 10 Hz;Peak
1624.640	44.6	V	74.0	-29.4	PK	265	1.0	RB 1 MHz;VB 3 MHz;Peak
2124.240	52.9	V	68.3	-15.4	PK	334	1.2	Note 1
5039.950	40.0	V	54.0	-14.0	AVG	213	1.0	RB 1 MHz;VB 10 Hz;Peak
5039.950	46.0	V	74.0	-28.0	PK	213	1.0	RB 1 MHz;VB 3 MHz;Peak
1666.650	40.0	H	54.0	-14.0	AVG	154	1.2	RB 1 MHz;VB 10 Hz;Peak
1666.600	44.1	H	74.0	-29.9	PK	154	1.2	RB 1 MHz;VB 3 MHz;Peak
3249.230	47.2	V	68.3	-21.1	PK	114	1.1	Note 1
5335.500	51.7	V	68.3	-16.6	PK	101	1.4	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.

Note 2: Scans made between 18 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

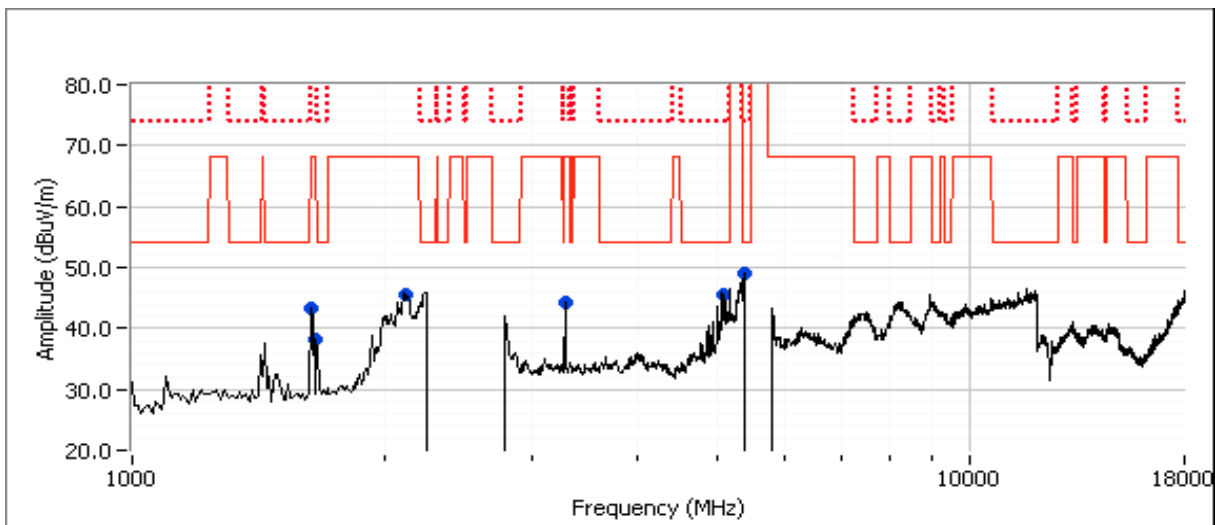
Run #2f: , EUT on Channel #11 2462MHz - 802.11g and Channel #140 5700MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5700 MHz	19.0
2	2462 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5360.040	43.9	V	54.0	-10.1	AVG	321	1.5	RB 1 MHz;VB 10 Hz;Peak
5358.040	51.7	V	74.0	-22.3	PK	321	1.5	RB 1 MHz;VB 3 MHz;Peak
1666.660	39.4	H	54.0	-14.6	AVG	141	1.2	RB 1 MHz;VB 10 Hz;Peak
1666.710	43.3	H	74.0	-30.7	PK	141	1.2	RB 1 MHz;VB 3 MHz;Peak
5079.960	40.6	V	54.0	-13.4	AVG	209	1.4	RB 1 MHz;VB 10 Hz;Peak
5080.120	47.7	V	74.0	-26.3	PK	209	1.4	RB 1 MHz;VB 3 MHz;Peak
2135.400	53.0	V	68.3	-15.3	PK	272	1.0	Note 1
1641.260	45.7	V	68.3	-22.6	PK	276	1.4	Note 1
3282.660	48.1	V	68.3	-20.2	PK	354	1.1	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #3, Radiated Spurious Emissions, 1-40GHz, 802.11n20/802.11n20, Chain A+B+C

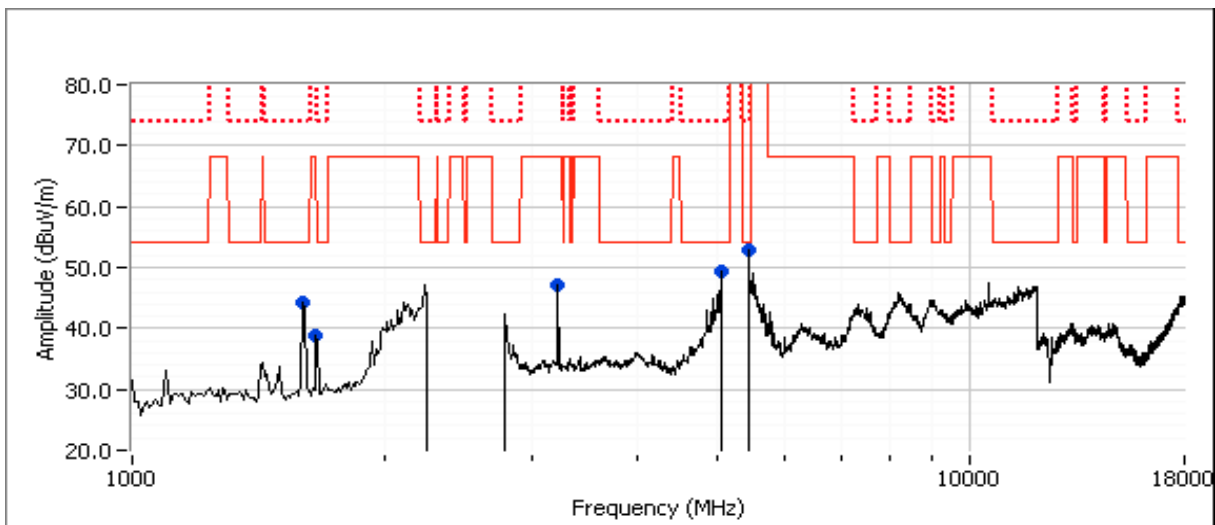
Run #3a, EUT on Channel #1 2412MHz - 802.11n20 and Channel #52 5260MHz - 802.11n20 - Chain A+B+C

Radio	Freq	Power Setting
1	5260 MHz	20.0
2	2412 MHz	20.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5439.930	49.1	V	54.0	-4.9	AVG	96	1.9	RB 1 MHz;VB 10 Hz;Peak
5449.800	56.9	V	74.0	-17.1	PK	96	1.9	RB 1 MHz;VB 3 MHz;Peak
3215.920	48.6	V	68.3	-19.7	PK	355	1.6	Note 1
1666.480	37.6	H	54.0	-16.4	AVG	146	1.1	RB 1 MHz;VB 10 Hz;Peak
1666.650	42.4	H	74.0	-31.6	PK	146	1.1	RB 1 MHz;VB 3 MHz;Peak
5039.990	44.2	V	54.0	-9.8	AVG	327	1.3	RB 1 MHz;VB 10 Hz;Peak
5040.170	53.9	V	74.0	-20.1	PK	327	1.3	RB 1 MHz;VB 3 MHz;Peak
1608.000	43.1	V	54.0	-10.9	AVG	268	1.0	RB 1 MHz;VB 10 Hz;Peak
1608.030	46.4	V	74.0	-27.6	PK	268	1.0	RB 1 MHz;VB 3 MHz;Peak

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #3b: , EUT on Channel #6 2437MHz - 802.11n20 and Channel #60 5300MHz - 802.11n20, Chain A+B+C

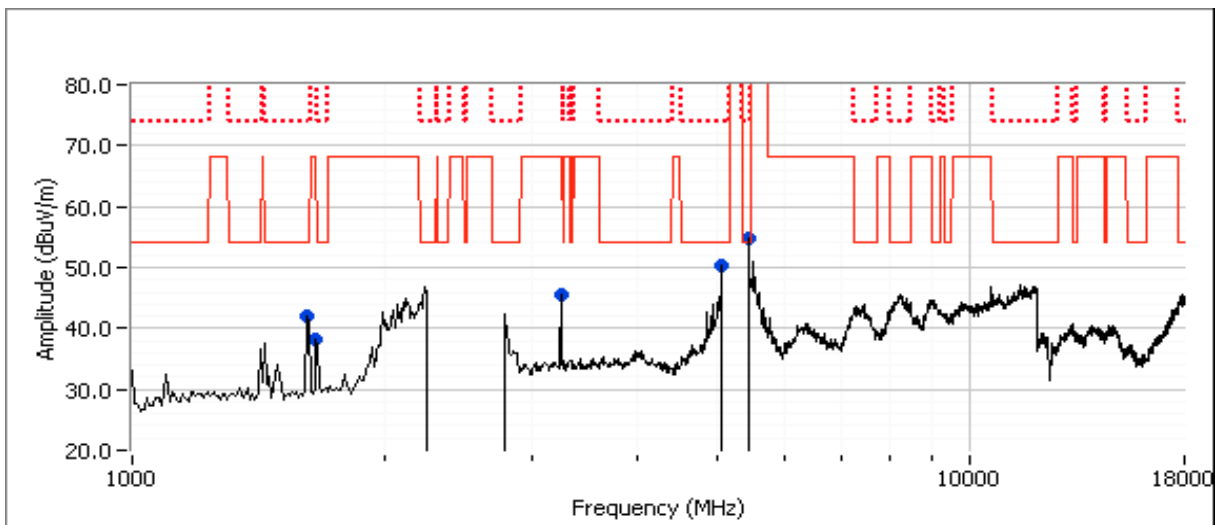
Radio	Freq	Power Setting
1	5300 MHz	20.0
2	2437 MHz	20.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5440.060	48.7	V	54.0	-5.3	AVG	96	1.9	RB 1 MHz;VB 10 Hz;Peak
5453.060	55.9	V	74.0	-18.1	PK	96	1.9	RB 1 MHz;VB 3 MHz;Peak
5039.920	44.8	V	54.0	-9.2	AVG	92	1.0	RB 1 MHz;VB 10 Hz;Peak
5040.070	52.7	V	74.0	-21.3	PK	92	1.0	RB 1 MHz;VB 3 MHz;Peak
3249.370	46.8	V	68.3	-21.5	PK	127	1.3	Note 1
1666.660	39.2	H	54.0	-14.8	AVG	145	1.6	RB 1 MHz;VB 10 Hz;Peak
1666.500	41.8	H	74.0	-32.2	PK	145	1.6	RB 1 MHz;VB 3 MHz;Peak
1624.650	41.3	V	54.0	-12.7	AVG	284	1.0	RB 1 MHz;VB 10 Hz;Peak
1624.640	44.4	V	74.0	-29.6	PK	284	1.0	RB 1 MHz;VB 3 MHz;Peak

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.

Note 2: Scans made between 18 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

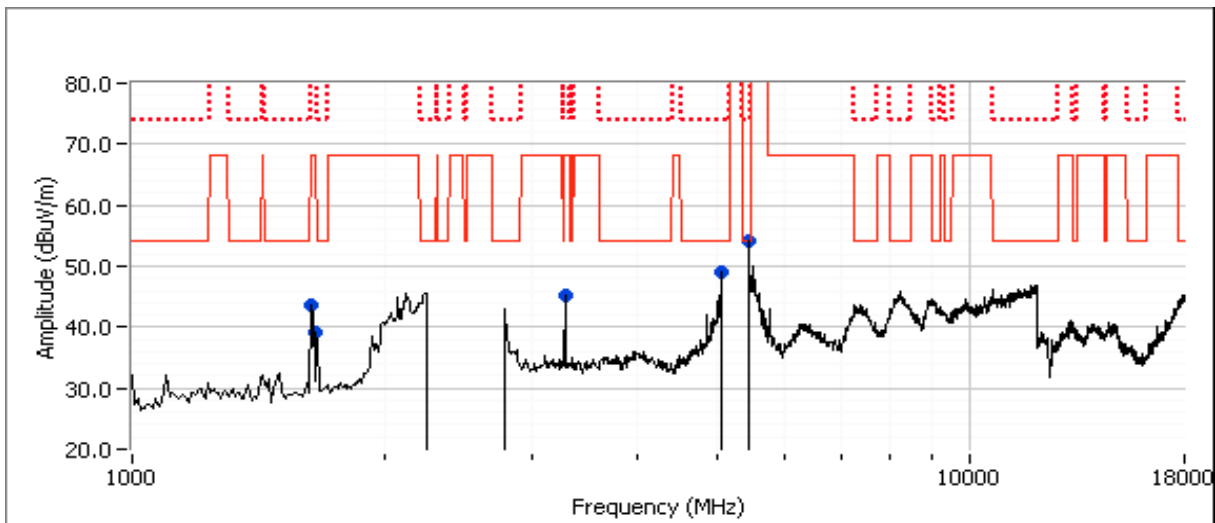
Run #3c: , EUT on Channel #11 2462MHz - 802.11n20 and Channel #64 5320MHz - 802.11n20, Chain A+B+C

Radio	Freq	Power Setting
1	5320 MHz	20.0
2	2462 MHz	20.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5439.930	45.6	V	54.0	-8.4	AVG	351	1.4	RB 1 MHz;VB 10 Hz;Peak
5448.930	53.0	V	74.0	-21.0	PK	351	1.4	RB 1 MHz;VB 3 MHz;Peak
5040.040	44.7	V	54.0	-9.3	AVG	85	1.5	RB 1 MHz;VB 10 Hz;Peak
5040.150	53.5	V	74.0	-20.5	PK	85	1.5	RB 1 MHz;VB 3 MHz;Peak
3282.640	47.7	V	68.3	-20.6	PK	116	1.5	Note 1
1666.630	39.9	H	54.0	-14.1	AVG	155	1.1	RB 1 MHz;VB 10 Hz;Peak
1666.600	43.5	H	74.0	-30.5	PK	155	1.1	RB 1 MHz;VB 3 MHz;Peak
1641.460	45.6	V	68.3	-22.7	PK	285	1.3	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #3d, EUT on Channel #1 2412MHz - 802.11n20 and Channel #100 5500MHz - 802.11n20 - Chain A+B+C

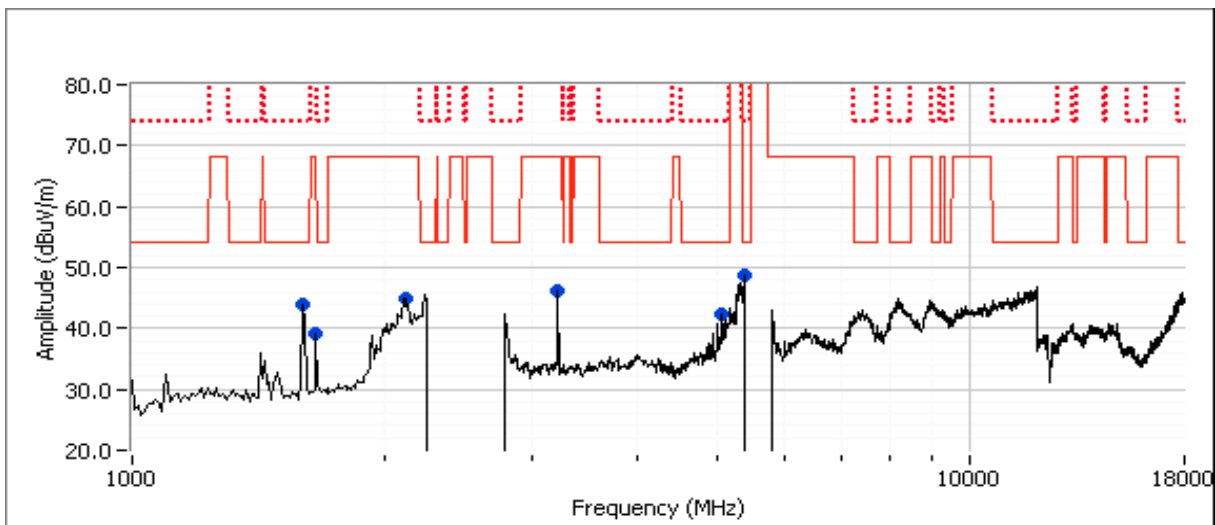
Radio	Freq	Power Setting
1	5500 MHz	20.0
2	2412 MHz	20.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5359.940	43.7	V	54.0	-10.3	AVG	203	1.1	RB 1 MHz;VB 10 Hz;Peak
5360.150	53.2	V	74.0	-20.8	PK	203	1.1	RB 1 MHz;VB 3 MHz;Peak
2124.510	52.1	V	68.3	-16.2	PK	324	1.6	RB 1 MHz;VB 3 MHz;Peak
1607.990	42.5	V	54.0	-11.5	AVG	260	1.0	RB 1 MHz;VB 10 Hz;Peak
1607.940	45.8	V	74.0	-28.2	PK	260	1.0	RB 1 MHz;VB 3 MHz;Peak
3216.090	49.8	V	68.3	-18.5	PK	118	1.1	RB 1 MHz;VB 3 MHz;Peak
5040.010	38.9	V	54.0	-15.1	AVG	83	1.6	RB 1 MHz;VB 10 Hz;Peak
5039.770	45.9	V	74.0	-28.1	PK	83	1.6	RB 1 MHz;VB 3 MHz;Peak
1666.610	38.2	V	54.0	-15.8	AVG	80	1.4	RB 1 MHz;VB 10 Hz;Peak
1666.630	42.6	V	74.0	-31.4	PK	80	1.4	RB 1 MHz;VB 3 MHz;Peak

Note 1:

For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

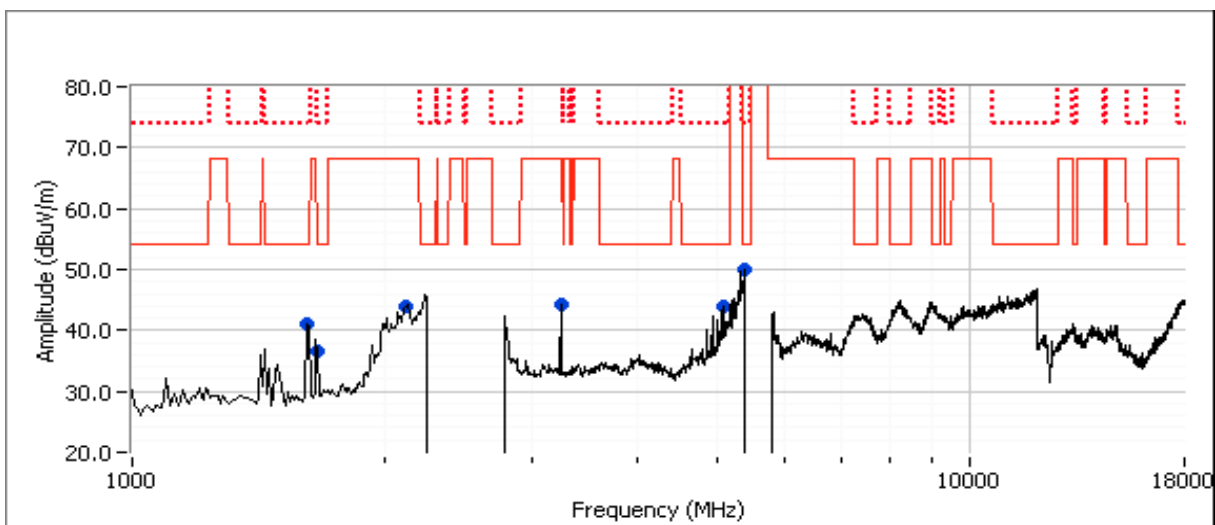
Run #3e: , EUT on Channel #6 2437MHz - 802.11n20 and Channel #116 5580MHz - 802.11n20, Chain A+B+C

Radio	Freq	Power Setting
1	5580 MHz	20.0
2	2437 MHz	20.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5359.900	43.8	V	54.0	-10.2	AVG	89	1.4	RB 1 MHz;VB 10 Hz;Peak
5358.700	53.4	V	74.0	-20.6	PK	89	1.4	RB 1 MHz;VB 3 MHz;Peak
3249.390	46.9	V	68.3	-21.4	PK	122	1.5	RB 1 MHz;VB 3 MHz;Peak
1666.580	36.0	V	54.0	-18.0	AVG	207	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.700	41.4	V	74.0	-32.6	PK	207	1.0	RB 1 MHz;VB 3 MHz;Peak
5079.980	40.3	V	54.0	-13.7	AVG	248	1.5	RB 1 MHz;VB 10 Hz;Peak
5080.080	47.3	V	74.0	-26.7	PK	248	1.5	RB 1 MHz;VB 3 MHz;Peak
1624.670	41.2	V	54.0	-12.8	AVG	268	1.0	RB 1 MHz;VB 10 Hz;Peak
1624.780	44.5	V	74.0	-29.5	PK	268	1.0	RB 1 MHz;VB 3 MHz;Peak
2117.310	51.8	V	68.3	-16.5	PK	339	1.5	Note 1

- Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.
- Note 2: Scans made between 18 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

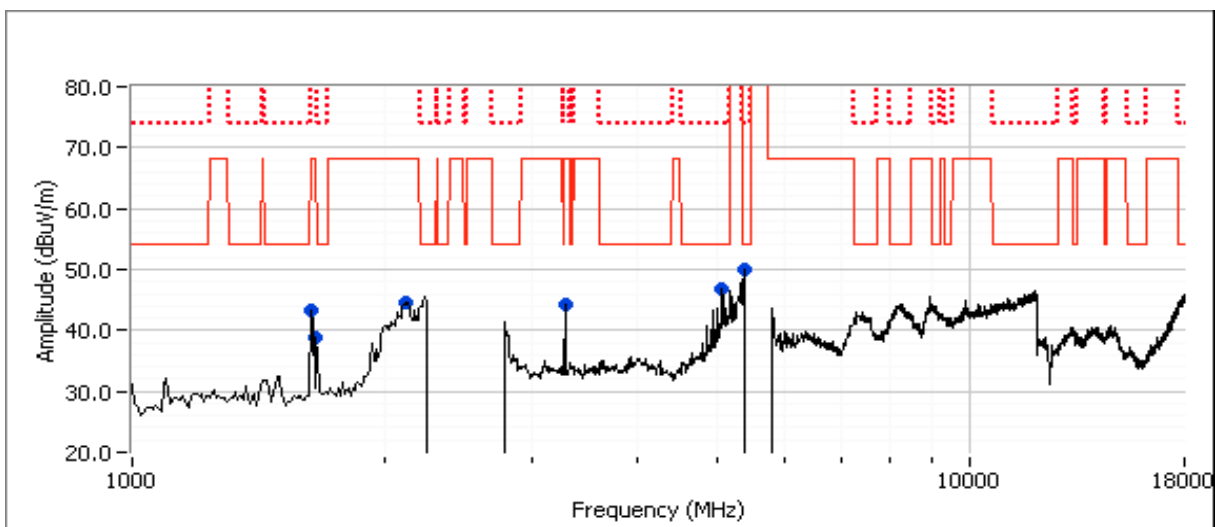
Run #3f: , EUT on Channel #11 2462MHz - 802.11n20 and Channel #140 5700MHz - 802.11n20, Chain A+B+C

Radio	Freq	Power Setting
1	5700 MHz	20.0
2	2462 MHz	20.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5359.980	43.7	V	54.0	-10.3	AVG	208	1.0	RB 1 MHz;VB 10 Hz;Peak
5359.140	52.5	V	74.0	-21.5	PK	208	1.0	RB 1 MHz;VB 3 MHz;Peak
3282.690	47.9	V	68.3	-20.4	PK	358	1.2	Note 1
2126.110	51.8	V	68.3	-16.5	PK	323	1.6	Note 1
1641.350	45.9	V	68.3	-22.4	PK	281	1.3	Note 1
1666.610	41.0	H	54.0	-13.0	AVG	151	1.2	RB 1 MHz;VB 10 Hz;Peak
1666.470	44.7	H	74.0	-29.3	PK	151	1.2	RB 1 MHz;VB 3 MHz;Peak
5039.960	41.5	V	54.0	-12.5	AVG	79	1.8	RB 1 MHz;VB 10 Hz;Peak
5039.940	50.5	V	74.0	-23.5	PK	79	1.8	RB 1 MHz;VB 3 MHz;Peak

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #4, Radiated Spurious Emissions, 1-40GHz, 802.11n40/802.11n40, Chain A+B+C

Run #4a, EUT on Channel #3 2422MHz - 802.11n40 and Channel #54 5270MHz - 802.11n40 - Chain A+B+C

Date of Test: 3/5/2013
 Test Engineer: Rafael Varelas / Jack Liu
 Test Location: FT7
 Config Change: None

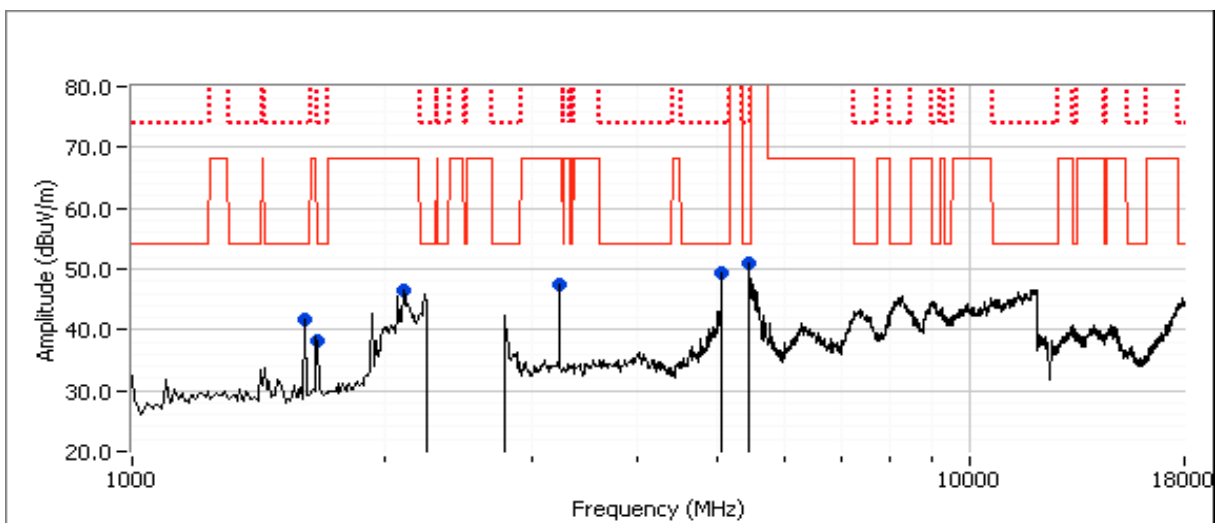
Radio	Freq	Power Setting
1	5270 MHz	17.0
2	2422 MHz	16.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5039.990	45.1	V	54.0	-8.9	AVG	84	1.5	RB 1 MHz;VB 10 Hz;Peak
5040.210	53.1	V	74.0	-20.9	PK	84	1.5	RB 1 MHz;VB 3 MHz;Peak
1614.530	41.2	V	54.0	-12.8	AVG	267	1.0	RB 1 MHz;VB 10 Hz;Peak
1614.590	43.6	V	74.0	-30.4	PK	267	1.0	RB 1 MHz;VB 3 MHz;Peak
2112.030	52.3	V	68.3	-16.0	PK	278	1.0	Note 1
5449.990	43.0	V	54.0	-11.0	AVG	207	1.2	RB 1 MHz;VB 10 Hz;Peak
5449.220	53.2	V	74.0	-20.8	PK	207	1.2	RB 1 MHz;VB 3 MHz;Peak
1666.560	40.1	H	54.0	-13.9	AVG	153	1.1	RB 1 MHz;VB 10 Hz;Peak
1666.580	44.0	H	74.0	-30.0	PK	153	1.1	RB 1 MHz;VB 3 MHz;Peak
3229.250	49.1	V	68.3	-19.2	PK	0	1.2	Note 1

Note 1:

For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #4b: , EUT on Channel #9 2452MHz - 802.11n40 and Channel #62 5310MHz - 802.11n40, Chain A+B+C

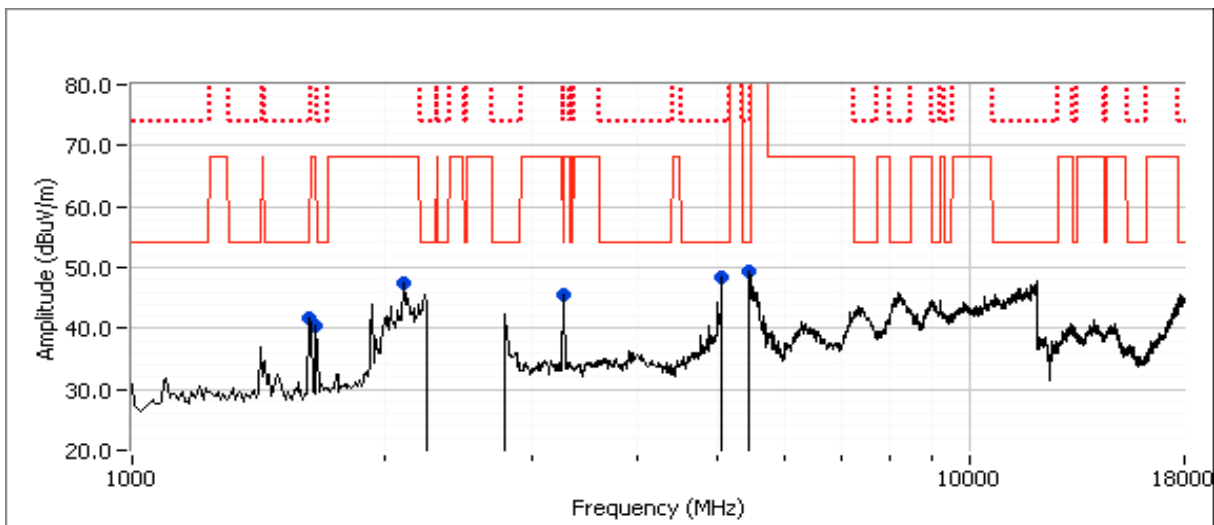
Radio	Freq	Power Setting
1	5310 MHz	17.0
2	2452 MHz	16.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5040.040	44.3	V	54.0	-9.7	AVG	87	1.6	RB 1 MHz;VB 10 Hz;Peak
5039.860	53.8	V	74.0	-20.2	PK	87	1.6	RB 1 MHz;VB 3 MHz;Peak
3269.290	49.1	V	68.3	-19.2	PK	0	1.1	Note 1
1666.650	40.4	H	54.0	-13.6	AVG	154	1.1	RB 1 MHz;VB 10 Hz;Peak
1666.660	43.8	H	74.0	-30.2	PK	154	1.1	RB 1 MHz;VB 3 MHz;Peak
1634.810	43.4	V	68.3	-24.9	PK	272	1.3	Note 1
2119.820	51.6	V	68.3	-16.7	PK	282	1.0	Note 1
5440.020	43.9	V	54.0	-10.1	AVG	342	1.3	RB 1 MHz;VB 10 Hz;Peak
5443.460	48.0	V	74.0	-26.0	PK	342	1.3	RB 1 MHz;VB 3 MHz;Peak

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.

Note 2: Scans made between 18 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #4c: , EUT on Channel #3 2422MHz - 802.11n40 and Channel #102 5510MHz - 802.11n40, Chain A+B+C

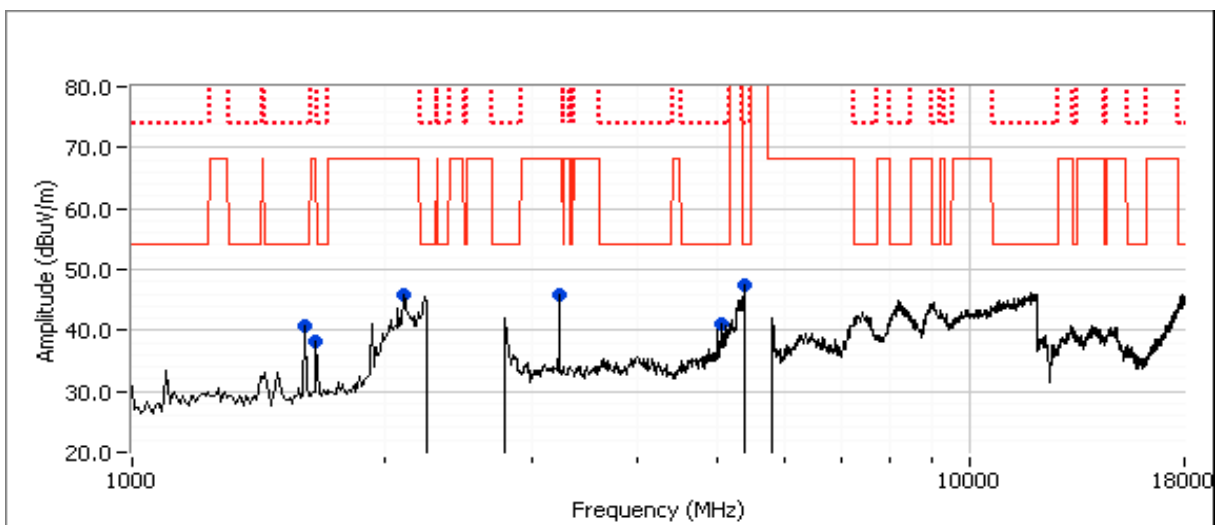
Radio	Freq	Power Setting
1	5510 MHz	17.0
2	2422 MHz	16.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5359.920	41.6	V	54.0	-12.4	AVG	83	1.3	RB 1 MHz;VB 10 Hz;Peak
5359.390	52.1	V	74.0	-21.9	PK	83	1.3	RB 1 MHz;VB 3 MHz;Peak
5039.970	37.5	V	54.0	-16.5	AVG	85	1.6	RB 1 MHz;VB 10 Hz;Peak
5040.360	46.0	V	74.0	-28.0	PK	85	1.6	RB 1 MHz;VB 3 MHz;Peak
1666.590	35.3	V	54.0	-18.7	AVG	177	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.590	40.6	V	74.0	-33.4	PK	177	1.0	RB 1 MHz;VB 3 MHz;Peak
1614.660	41.6	V	54.0	-12.4	AVG	263	1.0	RB 1 MHz;VB 10 Hz;Peak
1614.670	43.2	V	74.0	-30.8	PK	263	1.0	RB 1 MHz;VB 3 MHz;Peak
2112.070	51.8	V	68.3	-16.5	PK	270	1.0	Note 1
3229.210	47.2	V	68.3	-21.1	PK	358	1.1	Note 1

Note 1:

For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

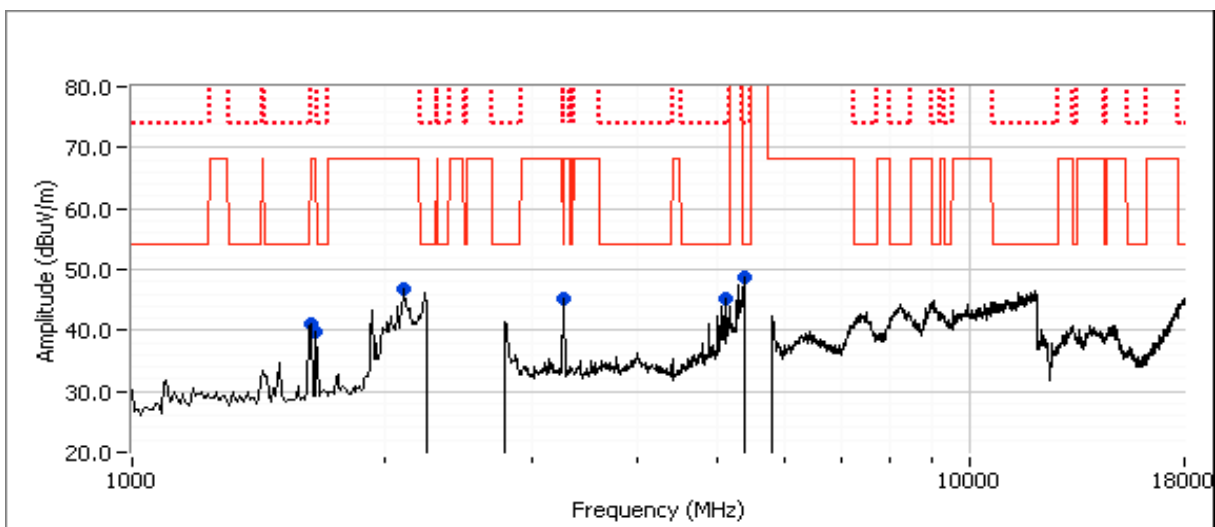
Run #4d: , EUT on Channel #9 2452MHz - 802.11n40 and Channel #134 5670MHz - 802.11n40, Chain A+B+C

Radio	Freq	Power Setting
1	5670 MHz	17.0
2	2452 MHz	16.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5359.960	42.7	V	54.0	-11.3	AVG	319	1.3	RB 1 MHz;VB 10 Hz;Peak
5360.030	52.0	V	74.0	-22.0	PK	319	1.3	RB 1 MHz;VB 3 MHz;Peak
1634.730	43.9	V	68.3	-24.4	PK	272	1.3	Note 1
2112.210	52.9	V	68.3	-15.4	PK	274	1.0	Note 1
1666.630	41.1	H	54.0	-12.9	AVG	154	1.2	RB 1 MHz;VB 10 Hz;Peak
1666.580	44.7	H	74.0	-29.3	PK	154	1.2	RB 1 MHz;VB 3 MHz;Peak
5119.930	39.2	V	54.0	-14.8	AVG	94	1.0	RB 1 MHz;VB 10 Hz;Peak
5119.970	47.0	V	74.0	-27.0	PK	94	1.0	RB 1 MHz;VB 3 MHz;Peak
3269.350	48.4	V	68.3	-19.9	PK	0	1.1	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #4e: , EUT on Channel #6 2437MHz - 802.11n40 and Channel #110 5550MHz - 802.11n40, Chain A+B+C

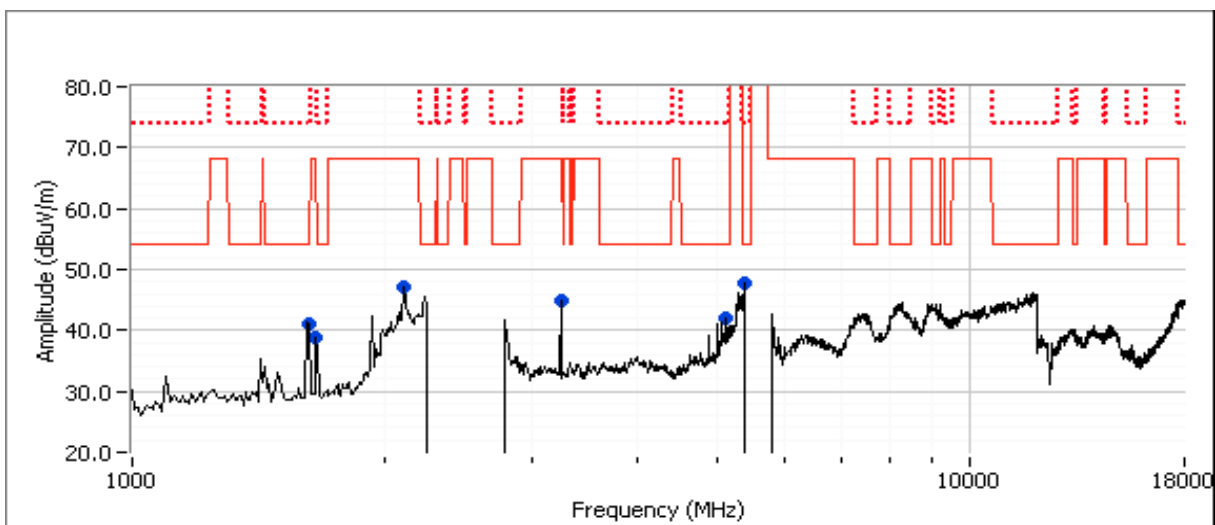
Radio	Freq	Power Setting
1	5550 MHz	17.0
2	2437 MHz	16.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5359.950	42.0	V	54.0	-12.0	AVG	324	1.2	RB 1 MHz;VB 10 Hz;Peak
5359.940	51.8	V	74.0	-22.2	PK	324	1.2	RB 1 MHz;VB 3 MHz;Peak
2112.150	52.6	V	68.3	-15.7	PK	83	1.2	Note 1
3249.320	47.2	V	68.3	-21.1	PK	122	1.5	Note 1
1666.670	41.2	H	54.0	-12.8	AVG	154	1.2	RB 1 MHz;VB 10 Hz;Peak
1666.640	44.1	H	74.0	-29.9	PK	154	1.2	RB 1 MHz;VB 3 MHz;Peak
5119.910	35.2	V	54.0	-18.8	AVG	261	1.4	RB 1 MHz;VB 10 Hz;Peak
5132.810	44.1	V	74.0	-29.9	PK	261	1.4	RB 1 MHz;VB 3 MHz;Peak
1624.640	40.5	V	54.0	-13.5	AVG	262	1.0	RB 1 MHz;VB 10 Hz;Peak
1624.580	43.4	V	74.0	-30.6	PK	262	1.0	RB 1 MHz;VB 3 MHz;Peak

Note 1:

For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

RSS 210 and FCC 15.407 (NII) 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.

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane or routed in overhead in the GR-1089 test configuration.

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

Ambient Conditions:

Temperature: 21.6 °C
 Rel. Humidity: 37 %

Summary of Results - Device Operating in the 5150-5250 MHz Band

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
Run #1	802.11b	2412 MHz	19		Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15.407	51.0 dBµV/m @ 5440.0 MHz (-3.0 dB)
		5260 MHz	16				50.3 dBµV/m @ 5440.0 MHz (-3.7 dB)
		2437 MHz	19				46.7 dBµV/m @ 5439.9 MHz (-7.3 dB)
		5300 MHz	16				44.6 dBµV/m @ 5360.0 MHz (-9.4 dB)
	802.11a	2462 MHz	19				44.8 dBµV/m @ 5372.0 MHz (-9.2 dB)
		5320 MHz	16				45.0 dBµV/m @ 5359.9 MHz (-9.0 dB)
	Chain A+B+C	2412 MHz	19				
		5500 MHz	16				
		2437 MHz	19				
		5580 MHz	16				

EMC Test Data

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
Run #2	802.11g	2412 MHz	19		Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15.407	49.8 dBµV/m @ 5440.0 MHz (-4.2 dB)
		5260 MHz	16				52.7 dBµV/m @ 5439.9 MHz (-1.3 dB)
		2437 MHz	19				51.1 dBµV/m @ 5439.9 MHz (-2.9 dB)
		5300 MHz	16				44.9 dBµV/m @ 5360.0 MHz (-9.1 dB)
	802.11a	2462 MHz	19				42.0 dBµV/m @ 5360.0 MHz (-12.0 dB)
		5320 MHz	16				45.7 dBµV/m @ 5360.0 MHz (-8.3 dB)
		2412 MHz	19				
		5500 MHz	16				
Run #3	802.11n20	2412 MHz	20		Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15.407	47.6 dBµV/m @ 5440.0 MHz (-6.4 dB)
		5260 MHz	16.5				52.9 dBµV/m @ 5440.0 MHz (-1.1 dB)
		2437 MHz	20				51.3 dBµV/m @ 5440.0 MHz (-2.7 dB)
		5300 MHz	17				45.2 dBµV/m @ 5360.0 MHz (-8.8 dB)
	802.11n20	2462 MHz	20				48.7 dBµV/m @ 5355.0 MHz (-5.3 dB)
		5320 MHz	17				50.1 dBµV/m @ 5360.0 MHz (-3.9 dB)
		2412 MHz	20				
		5500 MHz	17				
Run #4	802.11n40	2422 MHz	16		Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15.247	48.2 dBµV/m @ 5440.0 MHz (-5.8 dB)
		5270 MHz	14				48.5 dBµV/m @ 5439.9 MHz (-5.5 dB)
		2452 MHz	16				43.7 dBµV/m @ 5359.9 MHz (-10.3 dB)
	802.11n40	5310 MHz	14				44.6 dBµV/m @ 5360.0 MHz (-9.4 dB)
		2422 MHz	16				43.1 dBµV/m @ 5359.9 MHz (-10.9 dB)
		5510 MHz	14				
		2452 MHz	16				
	Chain A+B+C	5670 MHz	14				
		2437 MHz	16				
		5550 MHz	14				



EMC Test Data

Client:	Flextronics	Job Number:	J89632
Model:	AP3710e	T-Log Number:	T89633
Contact:	Georges Fares	Account Manager:	Christine Krebill
Standard:	15.407, RSS-210	Class:	N/A

Antenna:							
#	Model	Type	Freq. Band (GHz)	Gain (dBi)	Ind/Out	Xpol?	Pt to Pt?
2	Enterasys WS-A1-DT05120	Sector	5.2 & 5.6	5	Indoor	2 Xpol / 1 Vert	No

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.

Notes

Antenna: antenna(s) connected
Duty Cycle: 99.0%

ART GUI (Singleradio test) Or Command Line Script (multiple radio test)

ART GUI Used: No
ART GUI Boot File: -
-
ART GUI Calibration file: -
-
Command Line Script: 3710e Pilot_115942 boot and initialize all 3 radios to NART Command Line Interface from 15T - LOW POWER

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #1, Radiated Spurious Emissions, 1-40GHz, 802.11b/802.11a, Chain A+B+C

Run #1a, EUT on Channel #1 2412MHz - 802.11b and Channel #52 5260MHz - 802.11a - Chain A+B+C

Date of Test: 2/28/2013 & 3/2/13

Test Location: FT7

Test Engineer: Jack Liu / Rafael varelas

Config Change: None

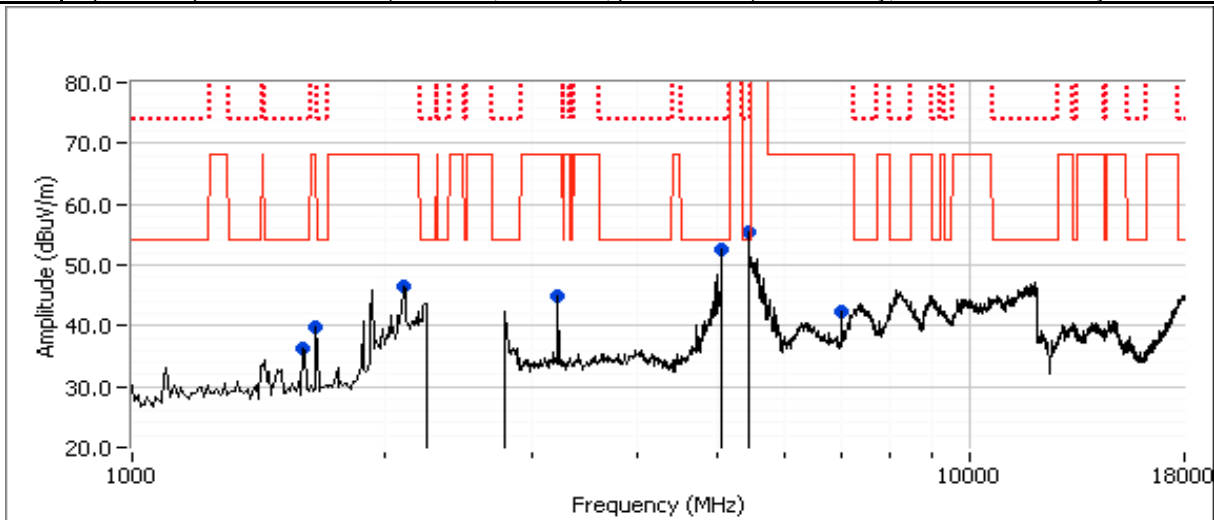
Radio	Freq	Power Setting
1	5260 MHz	16.0
2	2412 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5440.000	51.0	V	54.0	-3.0	AVG	360	1.4	RB 1 MHz;VB 10 Hz;Peak
5448.200	59.3	V	74.0	-14.7	PK	360	1.4	RB 1 MHz;VB 3 MHz;Peak
5039.940	46.9	V	54.0	-7.1	AVG	4	1.4	RB 1 MHz;VB 10 Hz;Peak
5040.020	54.0	V	74.0	-20.0	PK	4	1.4	RB 1 MHz;VB 3 MHz;Peak
1666.680	37.6	V	54.0	-16.4	AVG	25	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.650	42.3	V	74.0	-31.7	PK	25	1.0	RB 1 MHz;VB 3 MHz;Peak
1608.000	34.0	V	54.0	-20.0	AVG	320	1.0	RB 1 MHz;VB 10 Hz;Peak
1608.030	39.5	V	74.0	-34.5	PK	320	1.0	RB 1 MHz;VB 3 MHz;Peak
2112.000	48.2	V	68.3	-20.1	PK	360	1.0	Note 1
7013.300	48.2	V	68.3	-20.1	PK	0	1.0	Note 1
3215.800	46.4	V	68.3	-21.9	PK	29	1.2	Note 1

Note 1:

For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #1b: , EUT on Channel #6 2437MHz - 802.11b and Channel #60 5300MHz - 802.11a, Chain A+B+C

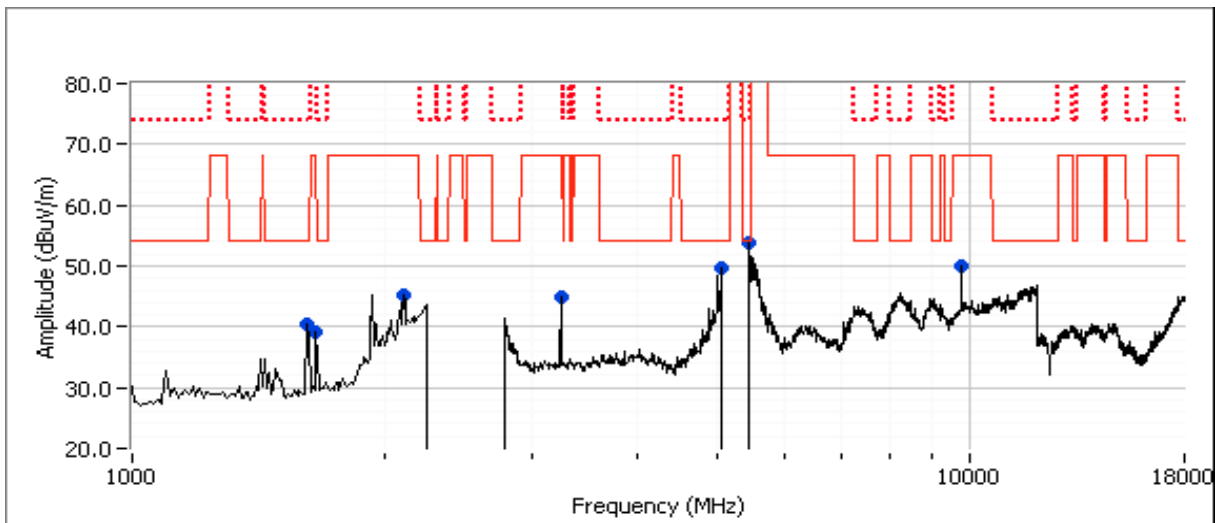
Radio	Freq	Power Setting
1	5300 MHz	16.0
2	2437 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5440.000	50.3	V	54.0	-3.7	AVG	12	1.4	RB 1 MHz;VB 10 Hz;Peak
5443.330	59.5	V	74.0	-14.5	PK	12	1.4	RB 1 MHz;VB 3 MHz;Peak
5039.990	48.5	V	54.0	-5.5	AVG	6	1.1	RB 1 MHz;VB 10 Hz;Peak
5040.020	55.8	V	74.0	-18.2	PK	6	1.1	RB 1 MHz;VB 3 MHz;Peak
1666.660	36.7	H	54.0	-17.3	AVG	191	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.610	41.6	H	74.0	-32.4	PK	191	1.0	RB 1 MHz;VB 3 MHz;Peak
1624.670	39.8	V	54.0	-14.2	AVG	322	1.0	RB 1 MHz;VB 10 Hz;Peak
1624.650	42.8	V	74.0	-31.2	PK	322	1.0	RB 1 MHz;VB 3 MHz;Peak
2111.960	50.7	V	68.3	-17.6	PK	360	1.0	Note 1
3249.320	46.6	V	68.3	-21.7	PK	27	1.0	Note 1
9748.150	55.3	V	68.3	-13.0	PK	125	1.0	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.

Note 2: Scans made between 18 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

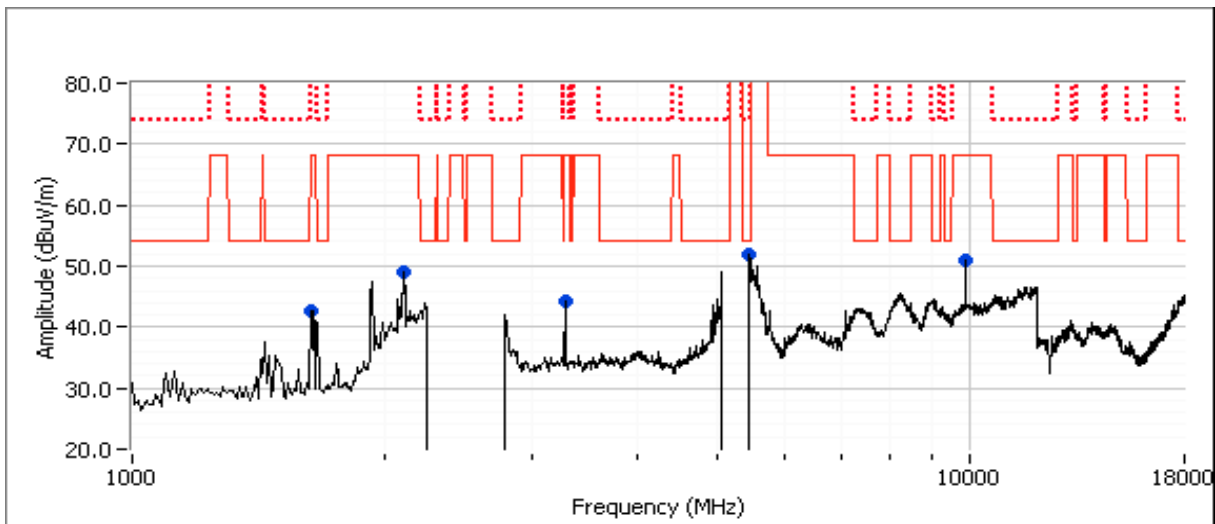
Run #1c: , EUT on Channel #11 2462MHz - 802.11b and Channel #64 5320MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5320 MHz	16.0
2	2462 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5439.940	46.7	V	54.0	-7.3	AVG	340	1.0	RB 1 MHz;VB 10 Hz;Peak
5439.640	56.0	V	74.0	-18.0	PK	340	1.0	RB 1 MHz;VB 3 MHz;Peak
1641.310	46.8	V	68.3	-21.5	PK	322	1.3	Note 1
9847.710	55.1	V	68.3	-13.2	PK	134	1.0	Note 1
2120.230	50.4	V	68.3	-17.9	PK	28	1.1	Note 1
3282.690	48.4	V	68.3	-19.9	PK	19	1.0	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #1d, EUT on Channel #1 2412MHz - 802.11b and Channel #100 5500MHz - 802.11a - Chain A+B+C

Date of Test: 2/28/2013 & 3/2/13
 Test Engineer: Rafael Varelas / Jack Liu

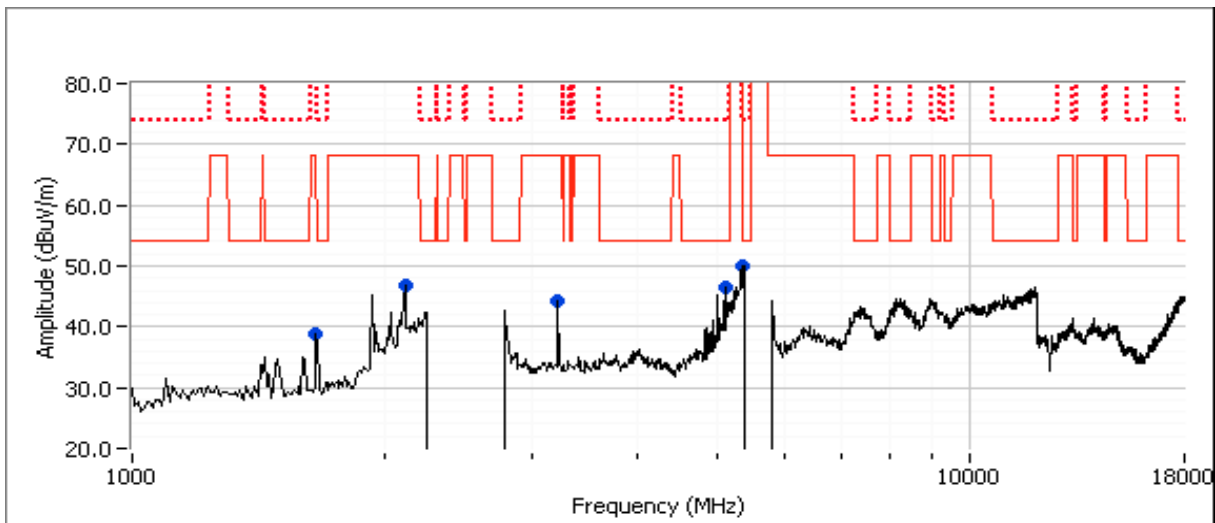
Test Location: FT7
 Config Change: None

Radio	Freq	Power Setting
1	5500 MHz	16.0
2	2412 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5359.970	44.6	V	54.0	-9.4	AVG	20	1.1	RB 1 MHz;VB 10 Hz;Peak
5355.610	54.2	V	74.0	-19.8	PK	20	1.1	RB 1 MHz;VB 3 MHz;Peak
1666.660	37.4	V	54.0	-16.6	AVG	0	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.740	41.6	V	74.0	-32.4	PK	0	1.0	RB 1 MHz;VB 3 MHz;Peak
5119.980	43.7	V	54.0	-10.3	AVG	10	1.0	RB 1 MHz;VB 10 Hz;Peak
5119.910	50.4	V	74.0	-23.6	PK	10	1.0	RB 1 MHz;VB 3 MHz;Peak
3215.960	46.2	V	68.3	-22.1	PK	28	1.2	Note 1
2119.940	49.7	H	68.3	-18.6	PK	32	1.0	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #1e: , EUT on Channel #6 2437MHz - 802.11b and Channel #116 5580MHz - 802.11a, Chain A+B+C

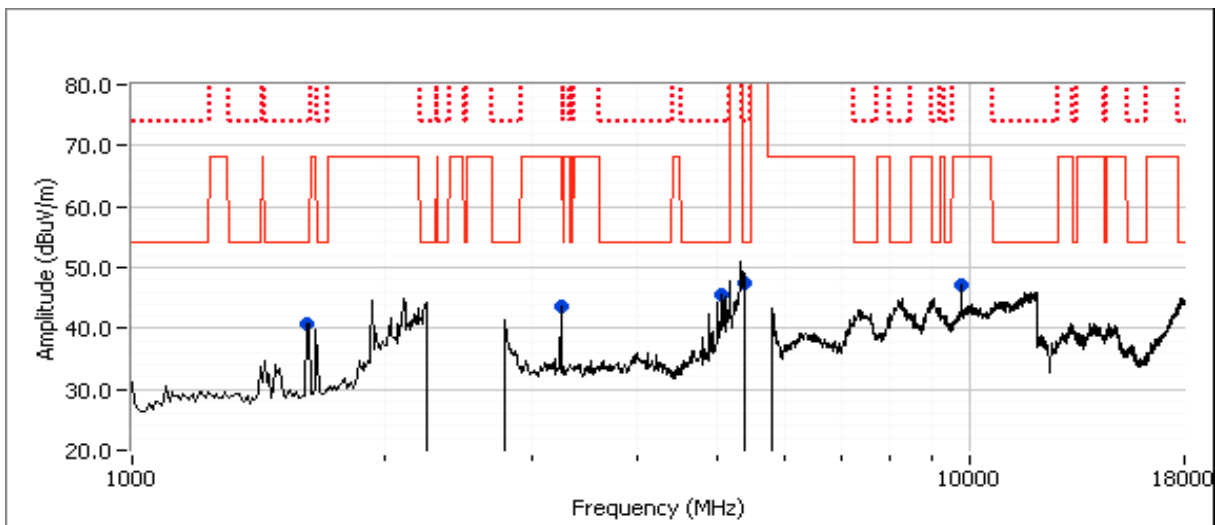
Radio	Freq	Power Setting
1	5580 MHz	16.0
2	2437 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5372.040	44.8	V	54.0	-9.2	AVG	11	1.4	RB 1 MHz;VB 10 Hz;Peak
5374.020	55.7	V	74.0	-18.3	PK	11	1.4	RB 1 MHz;VB 3 MHz;Peak
5040.020	38.4	V	54.0	-15.6	AVG	10	1.1	RB 1 MHz;VB 10 Hz;Peak
5039.900	47.5	V	74.0	-26.5	PK	10	1.1	RB 1 MHz;VB 3 MHz;Peak
1624.650	40.1	V	54.0	-13.9	AVG	322	1.0	RB 1 MHz;VB 10 Hz;Peak
1624.740	43.5	V	74.0	-30.5	PK	322	1.0	RB 1 MHz;VB 3 MHz;Peak
3249.300	46.6	V	68.3	-41.7	PK	30	1.0	Note 1
9747.960	52.0	H	68.3	-36.3	PK	238	1.4	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.

Note 2: Scans made between 18 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

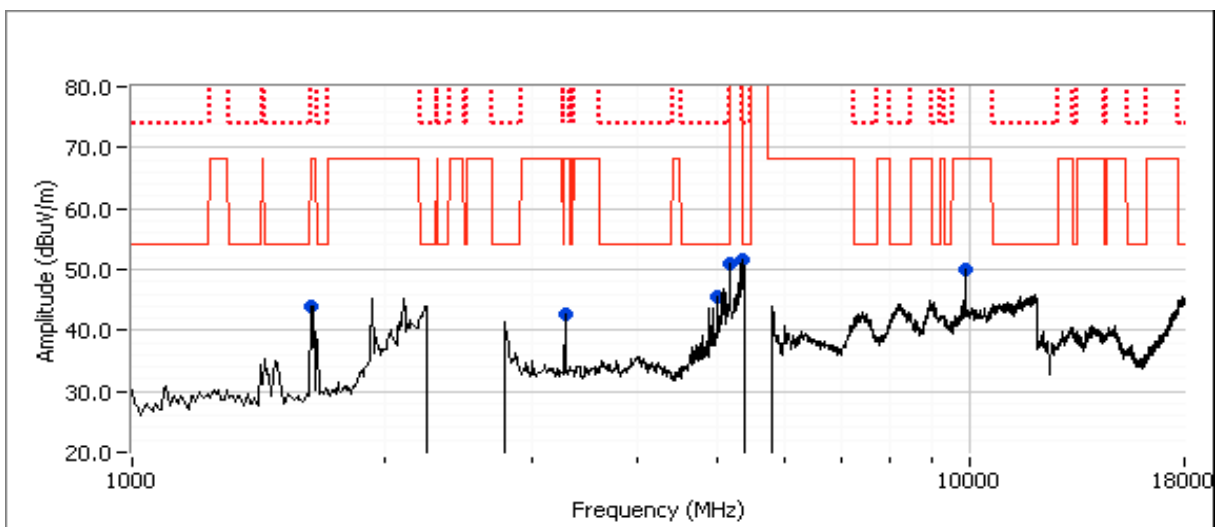
Run #1f: , EUT on Channel #11 2462MHz - 802.11b and Channel #140 5700MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5700 MHz	16.0
2	2462 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5359.940	45.0	V	54.0	-9.0	AVG	16	1.3	RB 1 MHz;VB 10 Hz;Peak
5359.880	54.5	V	74.0	-19.5	PK	16	1.3	RB 1 MHz;VB 3 MHz;Peak
4999.320	40.0	H	54.0	-14.0	AVG	350	1.0	RB 1 MHz;VB 10 Hz;Peak
4999.090	50.0	H	74.0	-24.0	PK	350	1.0	RB 1 MHz;VB 3 MHz;Peak
1641.250	45.2	V	68.3	-23.1	PK	317	1.3	Note 1
9848.030	55.3	V	68.3	-13.0	PK	132	1.0	Note 1
3282.720	45.8	V	68.3	-22.5	PK	22	1.0	Note 1
5160.000	53.4	V	68.3	-14.9	PK	10	1.0	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #2, Radiated Spurious Emissions, 1-40GHz, 802.11g/802.11a, Chain A+B+C

Run #2a, EUT on Channel #1 2412MHz - 802.11g and Channel #52 5260MHz - 802.11a - Chain A+B+C

Date of Test: 2/28/2013 & 3/2/13
 Test Engineer: Rafael Varelas / Jack Liu

Test Location: FT7
 Config Change: None

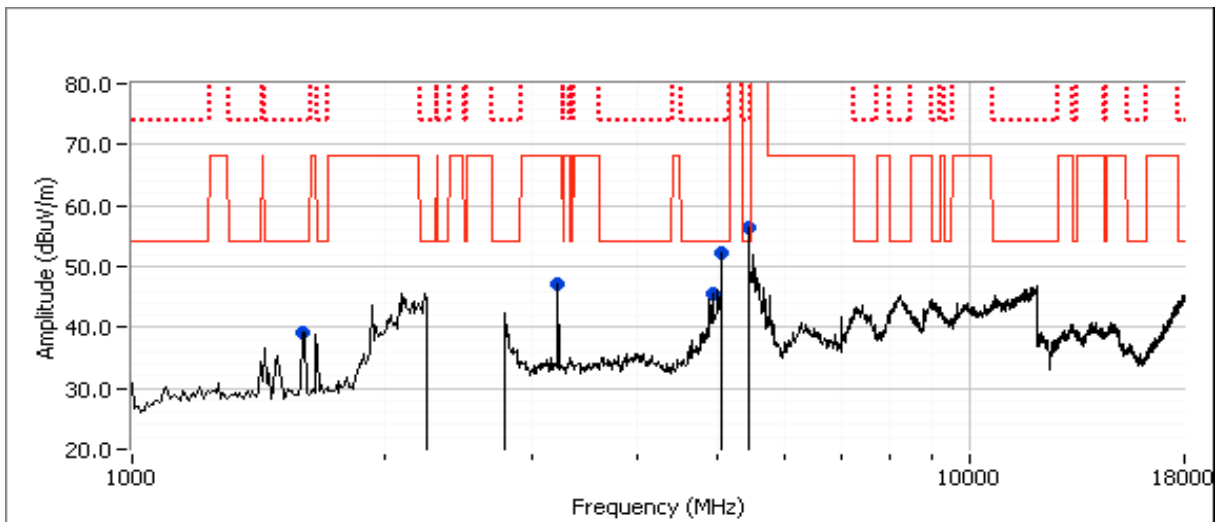
Radio	Freq	Power Setting
1	5260 MHz	16.0
2	2412 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5439.980	49.8	V	54.0	-4.2	AVG	15	1.1	RB 1 MHz;VB 10 Hz;Peak
5440.020	59.3	V	74.0	-14.7	PK	15	1.1	RB 1 MHz;VB 3 MHz;Peak
1608.010	40.3	H	54.0	-13.7	AVG	1	1.0	RB 1 MHz;VB 10 Hz;Peak
1608.040	43.1	H	74.0	-30.9	PK	1	1.0	RB 1 MHz;VB 3 MHz;Peak
5040.020	45.8	V	54.0	-8.2	AVG	10	1.0	RB 1 MHz;VB 10 Hz;Peak
5039.950	54.5	V	74.0	-19.5	PK	10	1.0	RB 1 MHz;VB 3 MHz;Peak
4920.000	40.5	V	54.0	-13.5	AVG	19	1.0	RB 1 MHz;VB 10 Hz;Peak
4920.210	47.2	V	74.0	-26.8	PK	19	1.0	RB 1 MHz;VB 3 MHz;Peak
3215.970	49.3	V	68.3	-19.0	PK	31	1.2	Note 1

Note 1:

For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #2b: , EUT on Channel #6 2437MHz - 802.11g and Channel #60 5300MHz - 802.11a, Chain A+B+C

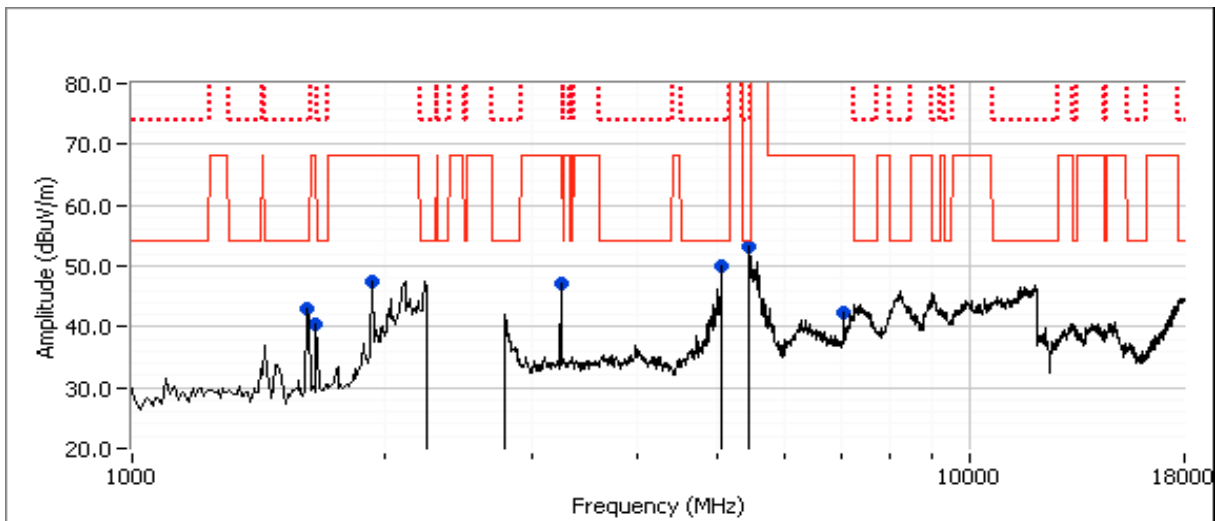
Radio	Freq	Power Setting
1	5300 MHz	16.0
2	2437 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5439.860	52.7	V	54.0	-1.3	AVG	2	1.2	RB 1 MHz;VB 10 Hz;Peak
5440.000	59.3	V	74.0	-14.7	PK	2	1.2	RB 1 MHz;VB 3 MHz;Peak
5040.020	45.7	V	54.0	-8.3	AVG	10	1.0	RB 1 MHz;VB 10 Hz;Peak
5039.750	54.5	V	74.0	-19.5	PK	10	1.0	RB 1 MHz;VB 3 MHz;Peak
1624.690	43.1	H	54.0	-10.9	AVG	360	1.0	RB 1 MHz;VB 10 Hz;Peak
1624.670	45.9	H	74.0	-28.1	PK	360	1.0	RB 1 MHz;VB 3 MHz;Peak
1666.660	38.7	H	54.0	-15.3	AVG	239	1.2	RB 1 MHz;VB 10 Hz;Peak
1666.780	43.2	H	74.0	-30.8	PK	239	1.2	RB 1 MHz;VB 3 MHz;Peak
7066.580	49.2	V	68.3	-19.1	PK	1	1.0	Note 1
1935.980	48.3	V	68.3	-20.0	PK	13	1.0	Note 1
3249.350	47.0	V	68.3	-21.3	PK	45	1.3	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.

Note 2: Scans made between 18 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

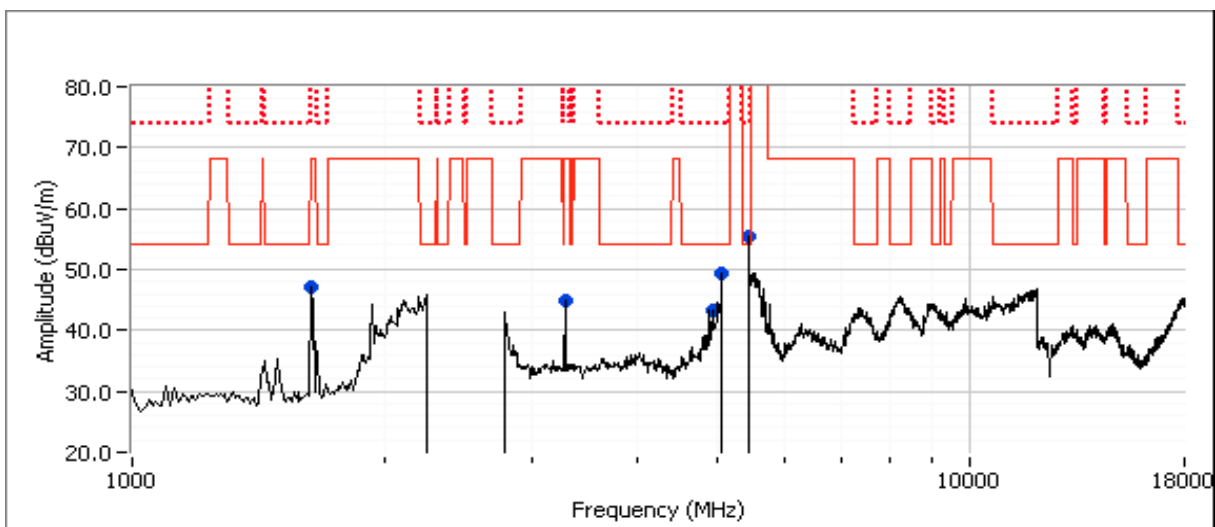
Run #2c: , EUT on Channel #11 2462MHz - 802.11g and Channel #64 5320MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5320 MHz	16.0
2	2462 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5439.860	51.1	V	54.0	-2.9	AVG	15	1.0	RB 1 MHz;VB 10 Hz;Peak
5440.200	59.7	V	74.0	-14.3	PK	15	1.0	RB 1 MHz;VB 3 MHz;Peak
5039.900	43.1	V	54.0	-10.9	AVG	3	1.3	RB 1 MHz;VB 10 Hz;Peak
5035.340	53.0	V	74.0	-21.0	PK	3	1.3	RB 1 MHz;VB 3 MHz;Peak
4919.970	41.7	V	54.0	-12.3	AVG	3	1.4	RB 1 MHz;VB 10 Hz;Peak
4919.840	48.4	V	74.0	-25.6	PK	3	1.4	RB 1 MHz;VB 3 MHz;Peak
1641.300	48.7	H	68.3	-19.6	PK	360	1.0	RB 1 MHz;VB 3 MHz;Peak
3282.800	47.6	V	68.3	-20.7	PK	34	1.0	RB 1 MHz;VB 3 MHz;Peak

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #2d, EUT on Channel #1 2412MHz - 802.11g and Channel #100 5500MHz - 802.11a - Chain A+B+C

Date of Test: 3/1/2013 & 3/2/13
 Test Engineer: Rafael Varelas / Jack Liu

Test Location: FT7
 Config Change: None

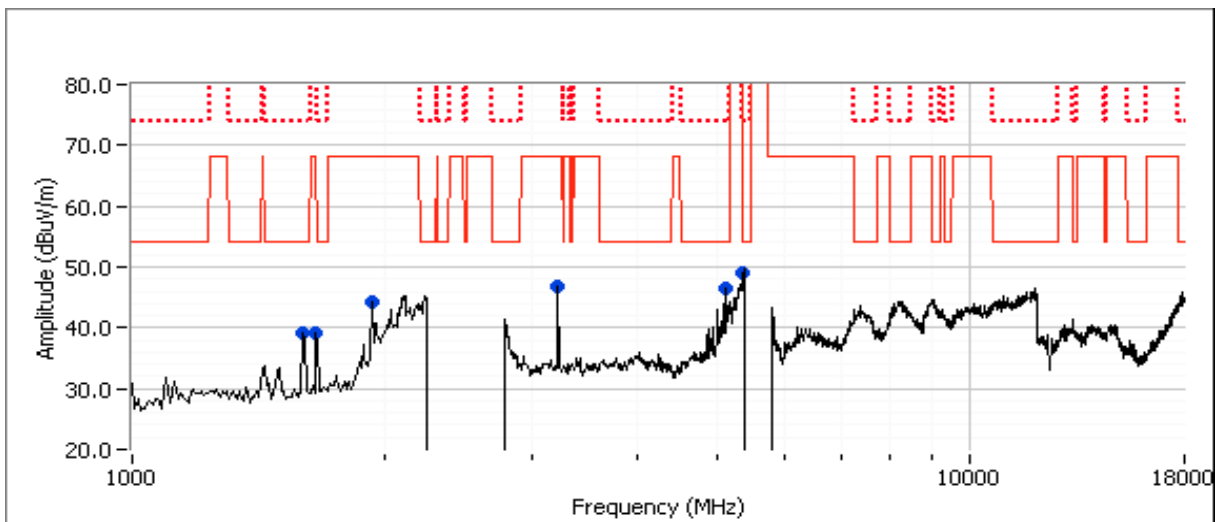
Radio	Freq	Power Setting
1	5500 MHz	16.0
2	2412 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5359.990	44.9	V	54.0	-9.1	AVG	20	1.1	RB 1 MHz;VB 10 Hz;Peak
5359.730	54.7	V	74.0	-19.3	PK	20	1.1	RB 1 MHz;VB 3 MHz;Peak
1608.010	38.9	H	54.0	-15.1	AVG	10	1.0	RB 1 MHz;VB 10 Hz;Peak
1607.860	42.5	H	74.0	-31.5	PK	10	1.0	RB 1 MHz;VB 3 MHz;Peak
5119.940	40.0	V	54.0	-14.0	AVG	13	1.0	RB 1 MHz;VB 10 Hz;Peak
5120.030	49.2	V	74.0	-24.8	PK	13	1.0	RB 1 MHz;VB 3 MHz;Peak
1935.930	48.1	V	68.3	-20.2	PK	13	1.0	Note 1
3216.020	49.0	V	68.3	-19.3	PK	40	1.3	Note 1
1666.660	31.3	H	54.0	-22.7	AVG	264	1.5	RB 1 MHz;VB 10 Hz;Peak
1666.680	38.6	H	74.0	-35.4	PK	264	1.5	RB 1 MHz;VB 3 MHz;Peak

Note 1:

For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

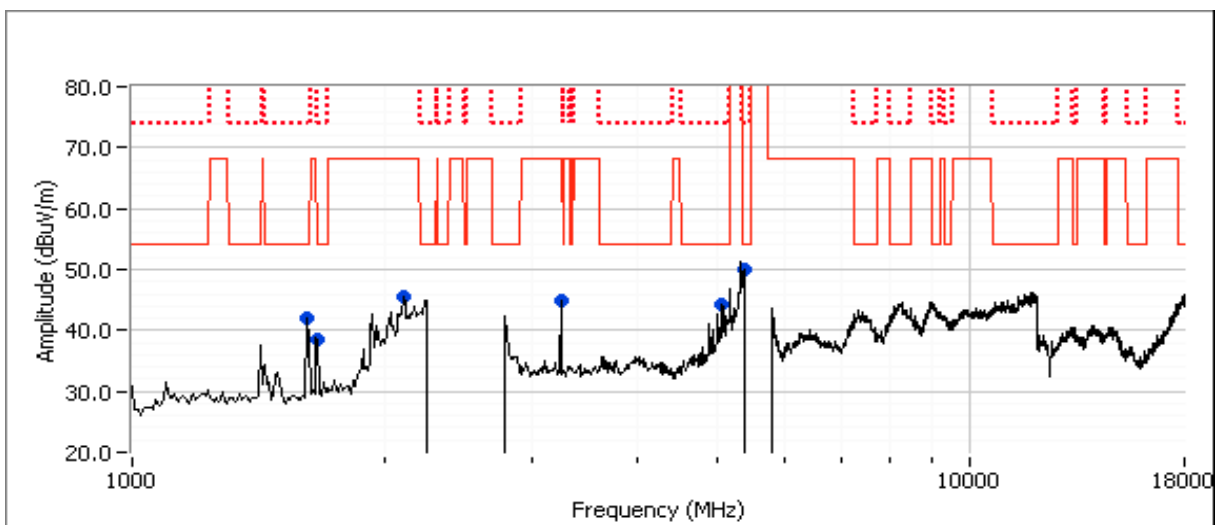
Run #2e: , EUT on Channel #6 2437MHz - 802.11g and Channel #116 5580MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5580 MHz	16.0
2	2437 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5359.990	42.0	V	54.0	-12.0	AVG	338	1.0	RB 1 MHz;VB 10 Hz;Peak
5357.180	51.3	V	74.0	-22.7	PK	338	1.0	RB 1 MHz;VB 3 MHz;Peak
1666.670	37.0	V	54.0	-17.0	AVG	284	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.660	41.3	V	74.0	-32.7	PK	284	1.0	RB 1 MHz;VB 3 MHz;Peak
1624.640	41.8	H	54.0	-12.2	AVG	10	1.0	RB 1 MHz;VB 10 Hz;Peak
1624.580	44.7	H	74.0	-29.3	PK	10	1.0	RB 1 MHz;VB 3 MHz;Peak
5039.880	38.8	V	54.0	-15.2	AVG	10	1.0	RB 1 MHz;VB 10 Hz;Peak
5040.100	47.2	V	74.0	-26.8	PK	10	1.0	RB 1 MHz;VB 3 MHz;Peak
2111.690	51.9	H	68.3	-16.4	PK	31	1.0	Note 1
3249.260	47.2	V	68.3	-21.1	PK	30	1.0	Note 1

- Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.
- Note 2: Scans made between 18 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

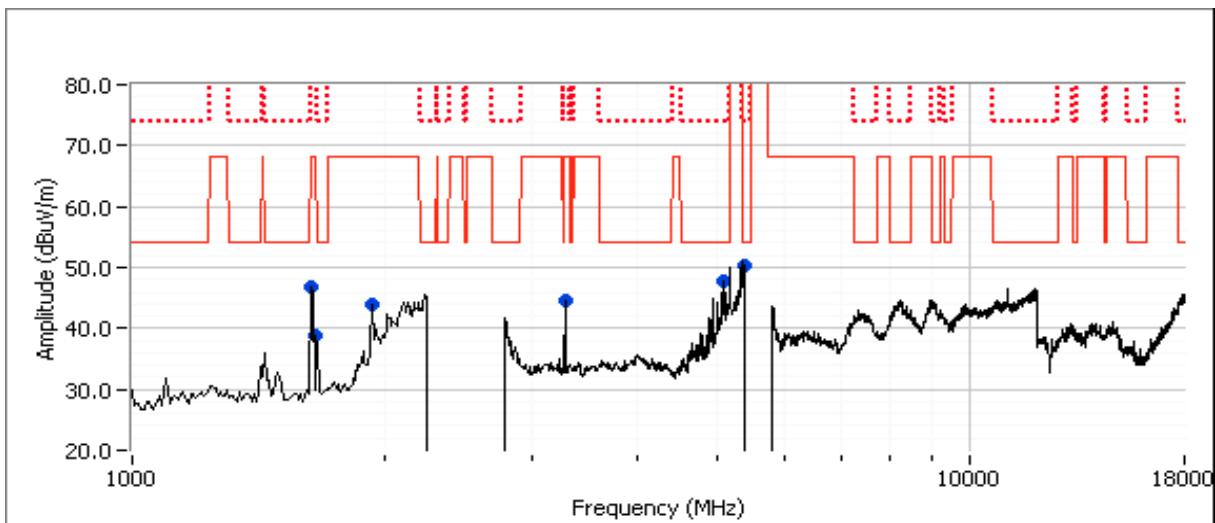
Run #2f: , EUT on Channel #11 2462MHz - 802.11g and Channel #140 5700MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5700 MHz	16.0
2	2462 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5360.030	45.7	V	54.0	-8.3	AVG	11	1.4	RB 1 MHz;VB 10 Hz;Peak
5360.130	54.4	V	74.0	-19.6	PK	11	1.4	RB 1 MHz;VB 3 MHz;Peak
1935.900	41.5	V	68.3	-26.8	AVG	11	1.0	RB 1 MHz;VB 10 Hz;Peak
1935.920	47.5	V	88.3	-40.8	PK	11	1.0	RB 1 MHz;VB 3 MHz;Peak
5079.950	44.9	V	54.0	-9.1	AVG	9	1.2	RB 1 MHz;VB 10 Hz;Peak
5080.140	51.2	V	74.0	-22.8	PK	9	1.2	RB 1 MHz;VB 3 MHz;Peak
1666.630	37.9	V	54.0	-16.1	AVG	294	1.6	RB 1 MHz;VB 10 Hz;Peak
1666.710	41.7	V	74.0	-32.3	PK	294	1.6	RB 1 MHz;VB 3 MHz;Peak
1641.350	48.8	H	68.3	-19.5	PK	360	1.0	Note 1
3282.550	46.9	V	68.3	-21.4	PK	36	1.0	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.





EMC Test Data

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #3, Radiated Spurious Emissions, 1-40GHz, 802.11n20/802.11n20, Chain A+B+C

Run #3a, EUT on Channel #1 2412MHz - 802.11n20 and Channel #52 5260MHz - 802.11n20 - Chain A+B+C

Date of Test: 3/1/2013 & 3/2/13

Test Location: FT7

Test Engineer: Rafael Varelas / Jack Liu

Config Change: None

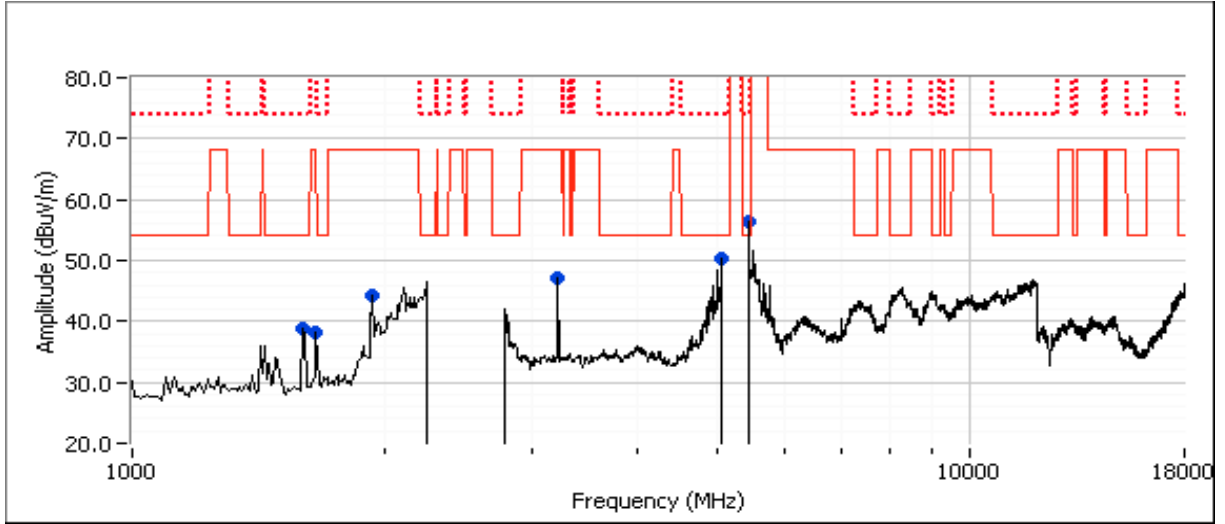
Radio	Freq	Power Setting
1	5260 MHz	16.5
2	2412 MHz	20.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5440.000	47.6	V	54.0	-6.4	AVG	345	1.0	RB 1 MHz;VB 10 Hz;Peak
5459.000	56.4	V	74.0	-17.6	PK	345	1.0	RB 1 MHz;VB 3 MHz;Peak
1666.750	36.7	V	54.0	-17.3	AVG	358	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.700	41.8	V	74.0	-32.2	PK	358	1.0	RB 1 MHz;VB 3 MHz;Peak
5040.000	45.2	V	54.0	-8.8	AVG	0	1.7	RB 1 MHz;VB 10 Hz;Peak
5039.940	52.6	V	74.0	-21.4	PK	0	1.7	RB 1 MHz;VB 3 MHz;Peak
1608.030	40.3	H	54.0	-13.7	AVG	0	1.1	RB 1 MHz;VB 10 Hz;Peak
1607.820	43.3	H	74.0	-30.7	PK	0	1.1	RB 1 MHz;VB 3 MHz;Peak
3216.220	48.8	V	68.3	-19.5	PK	32	1.3	Note 1
1935.910	47.3	V	68.3	-21.0	PK	13	1.0	Note 1
5440.060	54.4	V	54.0	0.4	AVG	3	1.3	5GHz Pwr Setting 17
5452.400	60.1	V	74.0	-13.9	PK	3	1.3	5GHz Pwr Setting 17

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #3b: , EUT on Channel #6 2437MHz - 802.11n20 and Channel #60 5300MHz - 802.11n20, Chain A+B+C

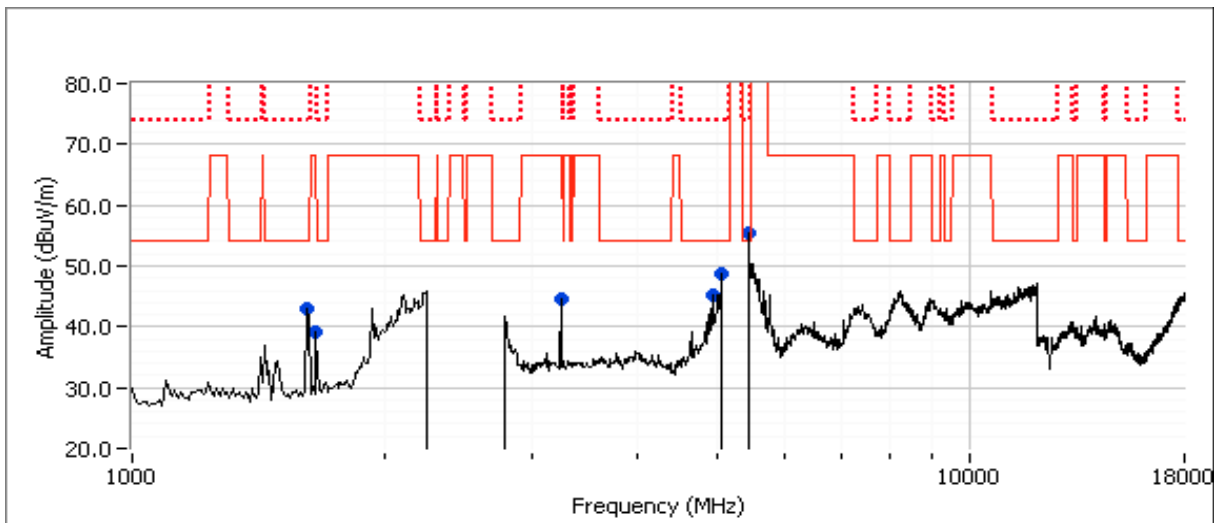
Radio	Freq	Power Setting
1	5300 MHz	17.0
2	2437 MHz	20.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5440.000	52.9	V	54.0	-1.1	AVG	12	1.4	RB 1 MHz;VB 10 Hz;Peak
5453.330	60.1	V	74.0	-13.9	PK	12	1.4	RB 1 MHz;VB 3 MHz;Peak
1624.670	42.2	H	54.0	-11.8	AVG	13	1.0	RB 1 MHz;VB 10 Hz;Peak
1624.650	44.8	H	74.0	-29.2	PK	13	1.0	RB 1 MHz;VB 3 MHz;Peak
5039.900	44.9	V	54.0	-9.1	AVG	2	1.5	RB 1 MHz;VB 10 Hz;Peak
5032.640	53.5	V	74.0	-20.5	PK	2	1.5	RB 1 MHz;VB 3 MHz;Peak
4919.950	41.4	V	54.0	-12.6	AVG	14	1.2	RB 1 MHz;VB 10 Hz;Peak
4920.040	48.6	V	74.0	-25.4	PK	14	1.2	RB 1 MHz;VB 3 MHz;Peak
1666.650	39.0	H	54.0	-15.0	AVG	238	1.3	RB 1 MHz;VB 10 Hz;Peak
1666.710	43.4	H	74.0	-30.6	PK	238	1.3	RB 1 MHz;VB 3 MHz;Peak
3249.270	47.1	V	68.3	-21.2	PK	32	1.0	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.

Note 2: Scans made between 18 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

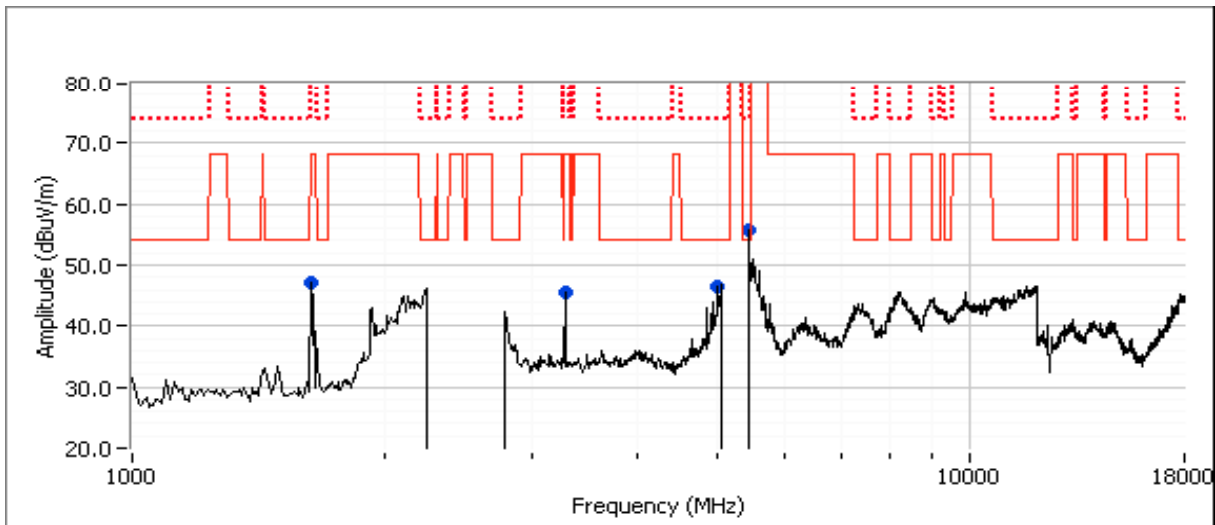
Run #3c: , EUT on Channel #11 2462MHz - 802.11n20 and Channel #64 5320MHz - 802.11n20, Chain A+B+C

Radio	Freq	Power Setting
1	5320 MHz	17.0
2	2462 MHz	20.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5440.000	51.3	V	54.0	-2.7	AVG	4	1.4	RB 1 MHz;VB 10 Hz;Peak
5444.260	59.3	V	74.0	-14.7	PK	4	1.4	RB 1 MHz;VB 3 MHz;Peak
4999.330	42.0	H	54.0	-12.0	AVG	347	1.0	RB 1 MHz;VB 10 Hz;Peak
5002.730	50.8	H	74.0	-23.2	PK	347	1.0	RB 1 MHz;VB 3 MHz;Peak
1641.330	48.4	H	68.3	-19.9	PK	358	1.0	Note 1
3282.710	48.2	V	68.3	-20.1	PK	33	1.0	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #3d, EUT on Channel #1 2412MHz - 802.11n20 and Channel #100 5500MHz - 802.11n20 - Chain A+B+C

Date of Test: 3/1/2013 & 3/2/13
 Test Engineer: Rafael Varelas / Jack Liu

Test Location: FT7
 Config Change: None

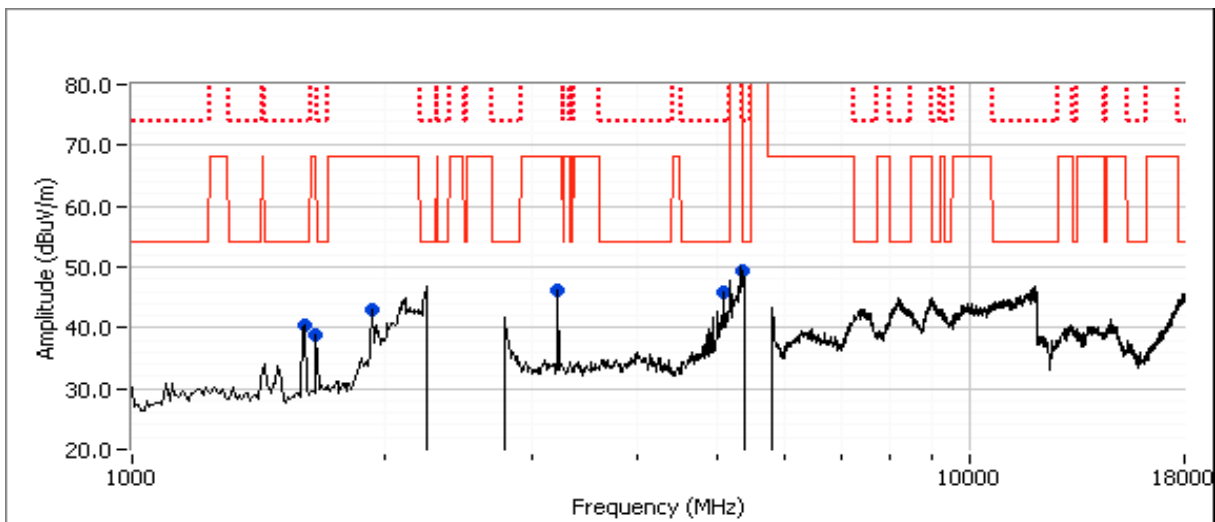
Radio	Freq	Power Setting
1	5500 MHz	17.0
2	2412 MHz	20.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5359.960	45.2	V	54.0	-8.8	AVG	15	1.0	RB 1 MHz;VB 10 Hz;Peak
5359.770	55.0	V	74.0	-19.0	PK	15	1.0	RB 1 MHz;VB 3 MHz;Peak
1666.440	37.4	H	54.0	-16.6	AVG	328	1.3	RB 1 MHz;VB 10 Hz;Peak
1666.460	41.8	H	74.0	-32.2	PK	328	1.3	RB 1 MHz;VB 3 MHz;Peak
1608.010	39.5	H	54.0	-14.5	AVG	10	1.0	RB 1 MHz;VB 10 Hz;Peak
1608.020	42.6	H	74.0	-31.4	PK	10	1.0	RB 1 MHz;VB 3 MHz;Peak
5079.940	42.5	V	54.0	-11.5	AVG	6	1.2	RB 1 MHz;VB 10 Hz;Peak
5079.970	49.3	V	74.0	-24.7	PK	6	1.2	RB 1 MHz;VB 3 MHz;Peak
1935.970	47.2	V	68.3	-21.1	PK	7	1.0	Note 1
3215.990	48.8	V	68.3	-19.5	PK	33	1.0	Note 1

Note 1:

For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #3e: , EUT on Channel #6 2437MHz - 802.11n20 and Channel #116 5580MHz - 802.11n20, Chain A+B+C

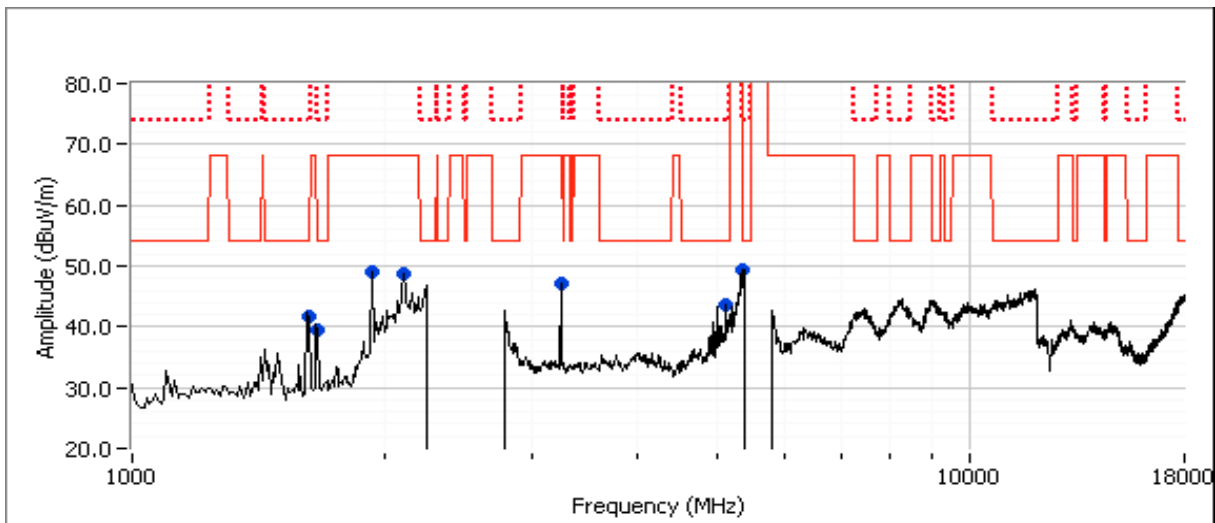
Radio	Freq	Power Setting
1	5580 MHz	17.0
2	2437 MHz	20.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5355.010	48.7	V	54.0	-5.3	AVG	10	1.3	RB 1 MHz;VB 10 Hz;Peak
5364.310	47.0	V	74.0	-27.0	PK	10	1.3	RB 1 MHz;VB 3 MHz;Peak
5120.000	44.8	V	54.0	-9.2	AVG	8	1.4	RB 1 MHz;VB 10 Hz;Peak
5120.200	49.8	V	74.0	-24.2	PK	8	1.4	RB 1 MHz;VB 3 MHz;Peak
1624.680	42.9	H	54.0	-11.1	AVG	359	1.1	RB 1 MHz;VB 10 Hz;Peak
1624.650	45.7	H	74.0	-28.3	PK	359	1.1	RB 1 MHz;VB 3 MHz;Peak
1666.640	40.5	H	54.0	-13.5	AVG	240	1.2	RB 1 MHz;VB 10 Hz;Peak
1666.550	43.8	H	74.0	-30.2	PK	240	1.2	RB 1 MHz;VB 3 MHz;Peak
3249.320	47.1	V	68.3	-21.2	PK	28	1.2	Note 1
2112.400	51.8	V	68.3	-16.5	PK	47	1.1	Note 1
1936.130	47.9	V	68.3	-20.4	PK	10	1.0	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.

Note 2: Scans made between 18 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

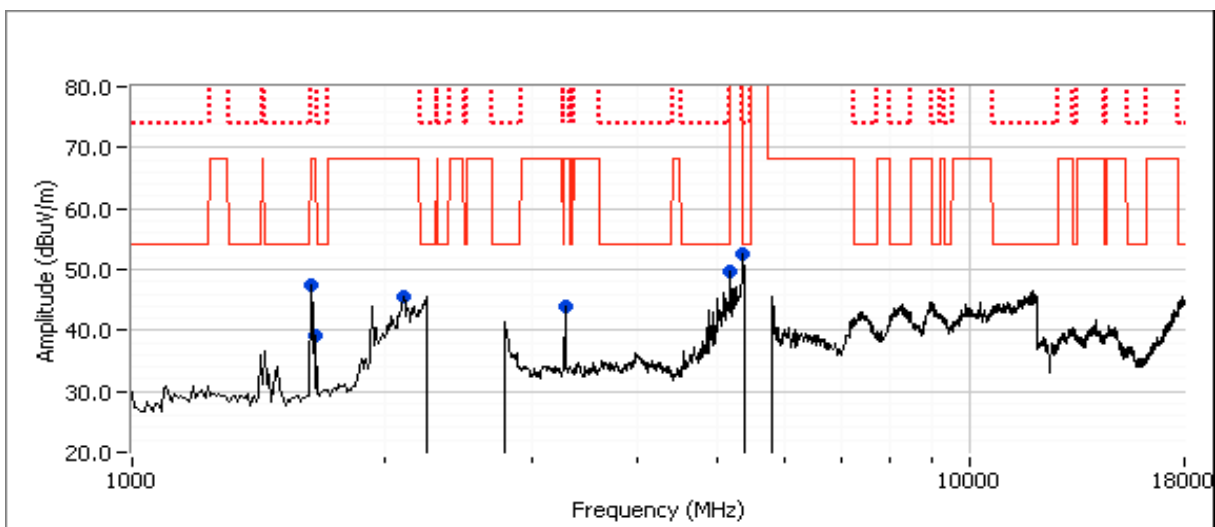
Run #3f: , EUT on Channel #11 2462MHz - 802.11n20 and Channel #140 5700MHz - 802.11n20, Chain A+B+C

Radio	Freq	Power Setting
1	5700 MHz	17.0
2	2462 MHz	20.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5360.030	50.1	V	54.0	-3.9	AVG	13	1.3	RB 1 MHz;VB 10 Hz;Peak
5360.010	57.5	V	74.0	-16.5	PK	13	1.3	RB 1 MHz;VB 3 MHz;Peak
5160.000	44.3	V	105.3	-61.0	AVG	16	1.1	RB 1 MHz;VB 10 Hz;Peak
5159.900	51.9	V	125.3	-73.4	PK	16	1.1	RB 1 MHz;VB 3 MHz;Peak
1666.760	39.3	H	54.0	-14.7	AVG	239	1.2	RB 1 MHz;VB 10 Hz;Peak
1666.630	43.9	H	74.0	-30.1	PK	239	1.2	RB 1 MHz;VB 3 MHz;Peak
1641.360	48.4	H	68.3	-19.9	PK	359	1.1	Note 1
3282.760	47.2	V	68.3	-21.1	PK	36	1.0	Note 1
2112.260	50.3	H	68.3	-18.0	PK	37	1.0	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.





EMC Test Data

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #4, Radiated Spurious Emissions, 1-40GHz, 802.11n40/802.11n40, Chain A+B+C

Run #4a, EUT on Channel #3 2422MHz - 802.11n40 and Channel #54 5270MHz - 802.11n40 - Chain A+B+C

Date of Test: 3/1/2013 & 3/2/13

Test Location: FT7

Test Engineer: Rafael Varelas / Jack Liu

Config Change: None

Radio	Freq	Power Setting
1	5270 MHz	14.0
2	2422 MHz	16.0

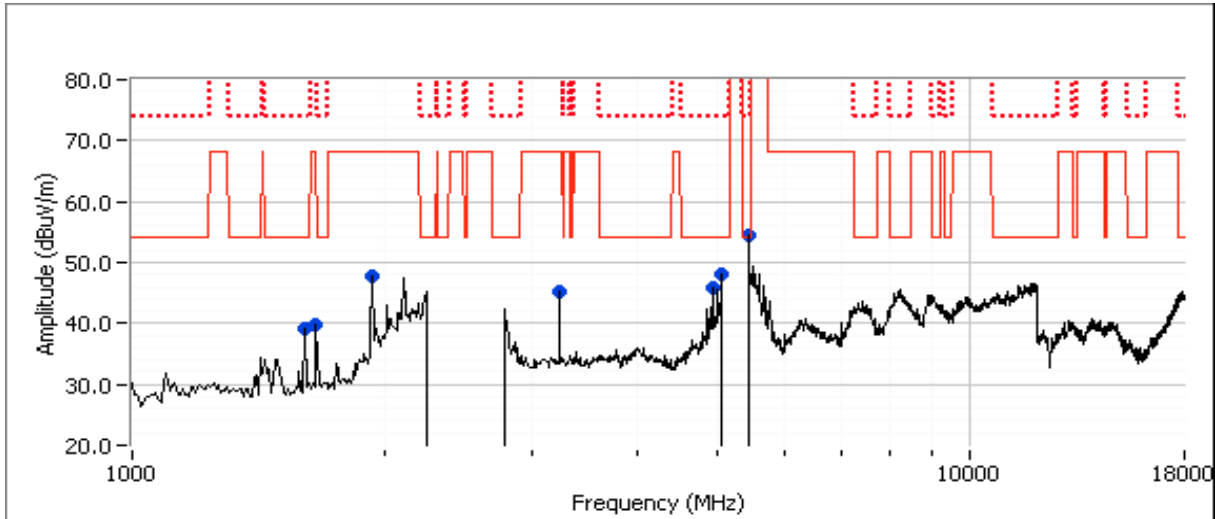
Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5440.000	48.2	V	54.0	-5.8	AVG	10	1.3	RB 1 MHz;VB 10 Hz;Peak
5439.970	57.5	V	74.0	-16.5	PK	10	1.3	RB 1 MHz;VB 3 MHz;Peak
4919.930	39.3	V	54.0	-14.7	AVG	18	1.0	RB 1 MHz;VB 10 Hz;Peak
4920.110	45.9	V	74.0	-28.1	PK	18	1.0	RB 1 MHz;VB 3 MHz;Peak
5039.910	45.2	V	54.0	-8.8	AVG	10	1.0	RB 1 MHz;VB 10 Hz;Peak
5040.170	53.2	V	74.0	-20.8	PK	10	1.0	RB 1 MHz;VB 3 MHz;Peak
1666.660	34.7	H	54.0	-19.3	AVG	258	1.3	RB 1 MHz;VB 10 Hz;Peak
1666.430	39.9	H	74.0	-34.1	PK	258	1.3	RB 1 MHz;VB 3 MHz;Peak
1614.680	34.9	V	54.0	-19.1	AVG	323	1.9	RB 1 MHz;VB 10 Hz;Peak
1614.580	39.5	V	74.0	-34.5	PK	323	1.9	RB 1 MHz;VB 3 MHz;Peak
1935.980	50.2	V	68.3	-18.1	PK	14	1.0	Note 1
3229.390	46.7	V	68.3	-21.6	PK	30	1.2	Note 1

Note 1:

For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #4b: , EUT on Channel #9 2452MHz - 802.11n40 and Channel #62 5310MHz - 802.11n40, Chain A+B+C

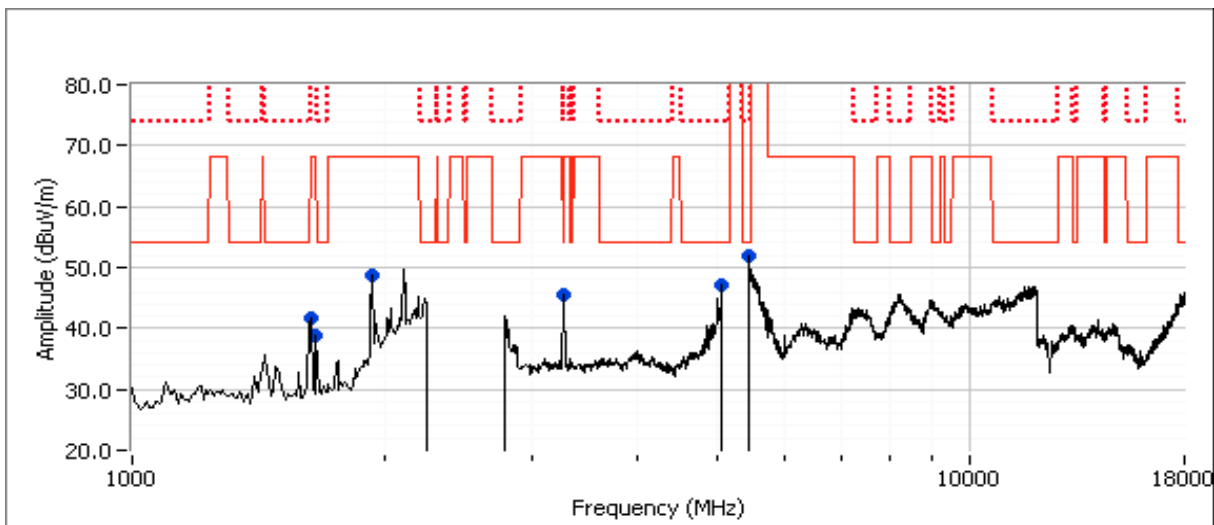
Radio	Freq	Power Setting
1	5310 MHz	14.0
2	2452 MHz	16.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5439.940	48.5	V	54.0	-5.5	AVG	22	1.3	RB 1 MHz;VB 10 Hz;Peak
5439.870	57.5	V	74.0	-16.5	PK	22	1.3	RB 1 MHz;VB 3 MHz;Peak
1666.610	36.6	H	54.0	-17.4	AVG	226	1.7	RB 1 MHz;VB 10 Hz;Peak
1666.530	41.3	H	74.0	-32.7	PK	226	1.7	RB 1 MHz;VB 3 MHz;Peak
5039.980	45.3	V	54.0	-8.7	AVG	9	1.0	RB 1 MHz;VB 10 Hz;Peak
5039.950	55.0	V	74.0	-19.0	PK	9	1.0	RB 1 MHz;VB 3 MHz;Peak
1634.580	43.6	V	68.3	-24.7	PK	316	1.0	Note 1
1935.960	51.2	V	68.3	-17.1	PK	3	1.0	Note 1
3269.370	48.0	V	68.3	-20.3	PK	20	1.0	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.

Note 2: Scans made between 18 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #4c: , EUT on Channel #3 2422MHz - 802.11n40 and Channel #102 5510MHz - 802.11n40, Chain A+B+C

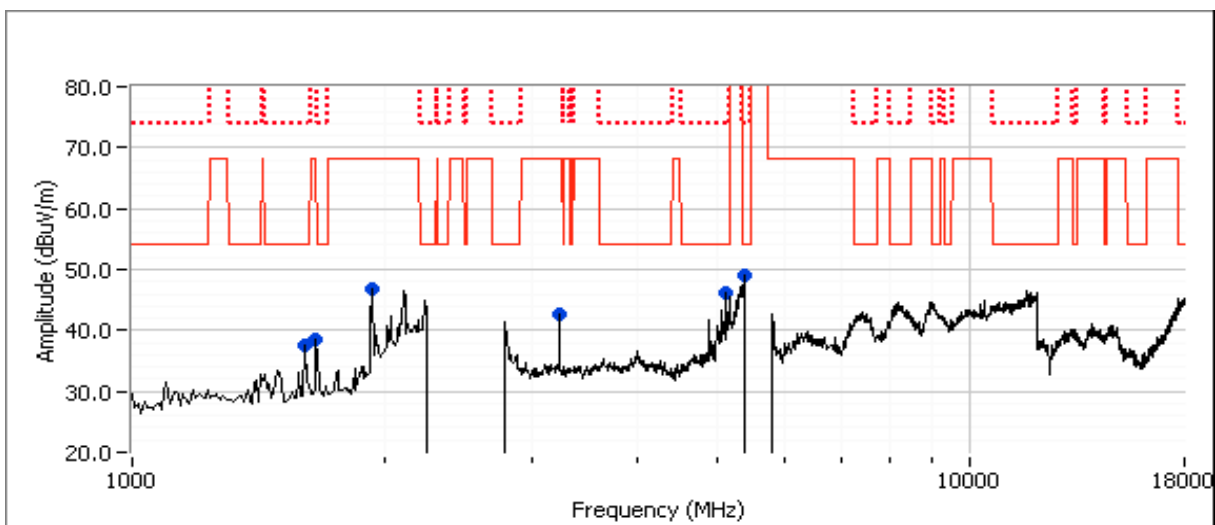
Radio	Freq	Power Setting
1	5510 MHz	14.0
2	2422 MHz	16.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5359.940	43.7	V	54.0	-10.3	AVG	6	1.3	RB 1 MHz;VB 10 Hz;Peak
5359.410	52.3	V	74.0	-21.7	PK	6	1.3	RB 1 MHz;VB 3 MHz;Peak
1614.690	37.5	H	54.0	-16.5	AVG	0	1.1	RB 1 MHz;VB 10 Hz;Peak
1614.790	41.1	H	74.0	-32.9	PK	0	1.1	RB 1 MHz;VB 3 MHz;Peak
1666.550	37.1	V	54.0	-16.9	AVG	0	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.610	41.5	V	74.0	-32.5	PK	0	1.0	RB 1 MHz;VB 3 MHz;Peak
5119.940	42.6	V	54.0	-11.4	AVG	8	1.1	RB 1 MHz;VB 10 Hz;Peak
5120.170	49.5	V	74.0	-24.5	PK	8	1.1	RB 1 MHz;VB 3 MHz;Peak
1935.960	49.4	V	68.3	-18.9	PK	11	1.0	Note 1
3229.390	46.3	H	68.3	-22.0	PK	21	1.1	Note 1

Note 1:

For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #4d: , EUT on Channel #9 2452MHz - 802.11n40 and Channel #134 5670MHz - 802.11n40, Chain A+B+C

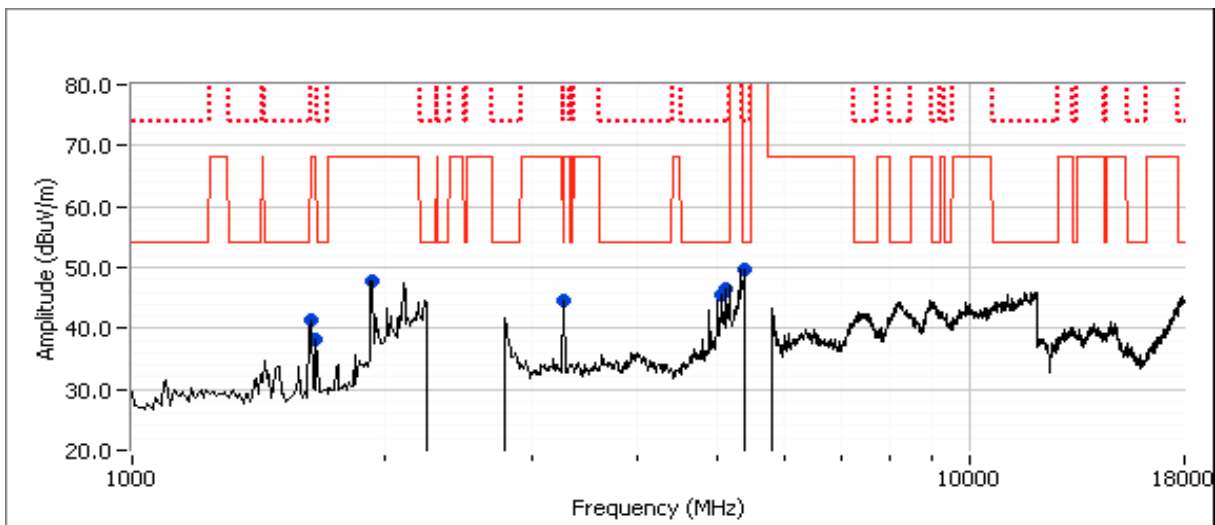
Radio	Freq	Power Setting
1	5670 MHz	14.0
2	2452 MHz	16.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5359.970	44.6	V	54.0	-9.4	AVG	21	1.4	RB 1 MHz;VB 10 Hz;Peak
5359.670	53.1	V	74.0	-20.9	PK	21	1.4	RB 1 MHz;VB 3 MHz;Peak
5039.950	40.7	V	54.0	-13.3	AVG	6	1.4	RB 1 MHz;VB 10 Hz;Peak
5039.930	49.2	V	74.0	-24.8	PK	6	1.4	RB 1 MHz;VB 3 MHz;Peak
5119.970	41.4	V	54.0	-12.6	AVG	9	1.0	RB 1 MHz;VB 10 Hz;Peak
5120.170	49.5	V	74.0	-24.5	PK	9	1.0	RB 1 MHz;VB 3 MHz;Peak
1666.670	37.4	V	54.0	-16.6	AVG	357	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.570	41.8	V	74.0	-32.2	PK	357	1.0	RB 1 MHz;VB 3 MHz;Peak
3269.360	47.2	V	68.3	-21.1	PK	22	1.0	Note 1
1935.890	50.9	V	68.3	-17.4	PK	13	1.0	Note 1
1634.520	44.1	V	68.3	-24.2	PK	319	1.0	Note 1

Note 1:

For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #4e: , EUT on Channel #6 2437MHz - 802.11n40 and Channel #110 5550MHz - 802.11n40, Chain A+B+C

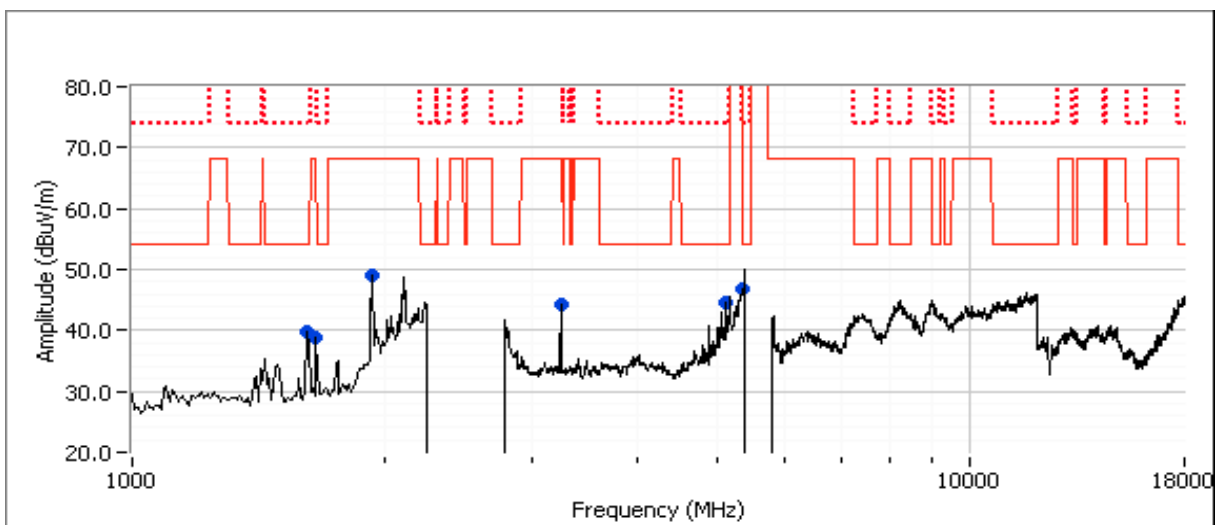
Radio	Freq	Power Setting
1	5550 MHz	14.0
2	2437 MHz	16.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5359.920	43.1	V	54.0	-10.9	AVG	17	1.1	RB 1 MHz;VB 10 Hz;Peak
5359.690	52.9	V	74.0	-21.1	PK	17	1.1	RB 1 MHz;VB 3 MHz;Peak
1624.660	38.6	V	54.0	-15.4	AVG	324	1.0	RB 1 MHz;VB 10 Hz;Peak
1624.760	42.6	V	74.0	-31.4	PK	324	1.0	RB 1 MHz;VB 3 MHz;Peak
1666.710	39.7	H	54.0	-14.3	AVG	240	1.3	RB 1 MHz;VB 10 Hz;Peak
1666.720	43.0	H	74.0	-31.0	PK	240	1.3	RB 1 MHz;VB 3 MHz;Peak
5119.960	41.3	V	54.0	-12.7	AVG	11	1.0	RB 1 MHz;VB 10 Hz;Peak
5119.920	49.3	V	74.0	-24.7	PK	11	1.0	RB 1 MHz;VB 3 MHz;Peak
1936.030	51.0	V	68.3	-17.3	PK	14	1.0	Note 1
3249.400	46.5	V	68.3	-21.8	PK	33	1.0	Note 1

Note 1:

For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

RSS 210 and FCC 15.407 (NII) 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.

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane or routed in overhead in the GR-1089 test configuration.

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

Ambient Conditions:

Temperature: 21.4 °C
 Rel. Humidity: 36 %

Summary of Results - Device Operating in the 5150-5250 MHz Band

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
Run #1	802.11b	2412 MHz	19		Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15.407	53.3 dBµV/m @ 5440.0 MHz (-0.7 dB)
		5260 MHz	17				
		2437 MHz	19				50.9 dBµV/m @ 5440.0 MHz (-3.1 dB)
		5300 MHz	17				
	802.11a	2462 MHz	19				48.6 dBµV/m @ 5440.0 MHz (-5.4 dB)
		5320 MHz	17				
	Chain A+B+C	2412 MHz	19				45.6 dBµV/m @ 5359.9 MHz (-8.4 dB)
		5500 MHz	17				
		2437 MHz	19				46.7 dBµV/m @ 1624.7 MHz (-7.3 dB)
		5580 MHz	17				
		2462 MHz	19				47.5 dBµV/m @ 5360.0 MHz (-6.5 dB)
		5700 MHz	17				

EMC Test Data

Client:	Flextronics	Job Number:	J89632
Model:	AP3710e	T-Log Number:	T89633
Contact:	Georges Fares	Account Manager:	Christine Krebill
Standard:	15.407, RSS-210	Class:	N/A

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
Run #2	802.11g	2412 MHz	19		Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15.407	51.2 dBµV/m @ 5440.0 MHz (-2.8 dB)
		5260 MHz	17				49.6 dBµV/m @ 5439.9 MHz (-4.4 dB)
		2437 MHz	19				48.4 dBµV/m @ 5444.8 MHz (-5.6 dB)
		5300 MHz	17				47.3 dBµV/m @ 1608.0 MHz (-6.7 dB)
	802.11a	2462 MHz	19				47.4 dBµV/m @ 5360.0 MHz (-6.6 dB)
		5320 MHz	17				45.3 dBµV/m @ 5355.1 MHz (-8.7 dB)
		2412 MHz	19				
		5500 MHz	17				
	Chain A+B+C	2437 MHz	19				
		5580 MHz	17				
Run #3	802.11n20	2412 MHz	20		Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15.407	49.8 dBµV/m @ 5440.0 MHz (-4.2 dB)
		5260 MHz	18				48.2 dBµV/m @ 5440.0 MHz (-5.8 dB)
		2437 MHz	20				48.1 dBµV/m @ 5440.0 MHz (-5.9 dB)
		5300 MHz	18				46.7 dBµV/m @ 1608.1 MHz (-7.3 dB)
	802.11n20	2462 MHz	20				50.3 dBµV/m @ 5360.0 MHz (-3.7 dB)
		5320 MHz	18				48.4 dBµV/m @ 5359.9 MHz (-5.6 dB)
		2412 MHz	20				
		5500 MHz	18				
	Chain A+B+C	2437 MHz	20				
		5580 MHz	18				
Run #4	802.11n40	2422 MHz	16		Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15.247	52.1 dBµV/m @ 5440.0 MHz (-1.9 dB)
		5270 MHz	15				51.1 dBµV/m @ 5440.0 MHz (-2.9 dB)
		2452 MHz	16				46.2 dBµV/m @ 1614.7 MHz (-7.8 dB)
	802.11n40	5310 MHz	15				46.8 dBµV/m @ 5360.0 MHz (-7.2 dB)
		2422 MHz	16				47.2 dBµV/m @ 1624.7 MHz (-6.8 dB)
		5510 MHz	15				
	Chain A+B+C	2452 MHz	16				
		5670 MHz	15				
		2437 MHz	16				
		5550 MHz	15				



EMC Test Data

Client:	Flextronics	Job Number:	J89632
Model:	AP3710e	T-Log Number:	T89633
Contact:	Georges Fares	Account Manager:	Christine Krebill
Standard:	15.407, RSS-210	Class:	N/A

Antenna:

#	Model	Type	Freq. Band (GHz)	Gain (dBi)	Ind/Out	Xpol?	Pt to Pt?
3	Enterasys WS-A1-DT04360	Omni	5.2 & 5.6	4	Indoor	No	No

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.

Notes

Antenna: antenna(s) connected

Duty Cycle: 99.0%

ART GUI (Singleradio test) Or Command Line Script (multiple radio test)

ART GUI Used: No

ART GUI Boot File: -

-

ART GUI Calibration file: -

-

Command Line Script: 3710e Pilot_115942 boot and initialize all 3 radios to NART Command Line Interface from 15T - LOW POWER



EMC Test Data

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #1, Radiated Spurious Emissions, 1-40GHz, 802.11b/802.11a, Chain A+B+C

Run #1a, EUT on Channel #1 2412MHz - 802.11b and Channel #52 5260MHz - 802.11a - Chain A+B+C

Date of Test: 3/3/2013 & 3/4/2013

Test Location: FT7

Test Engineer: Rafael Varelas / Jack Liu

Config Change: None

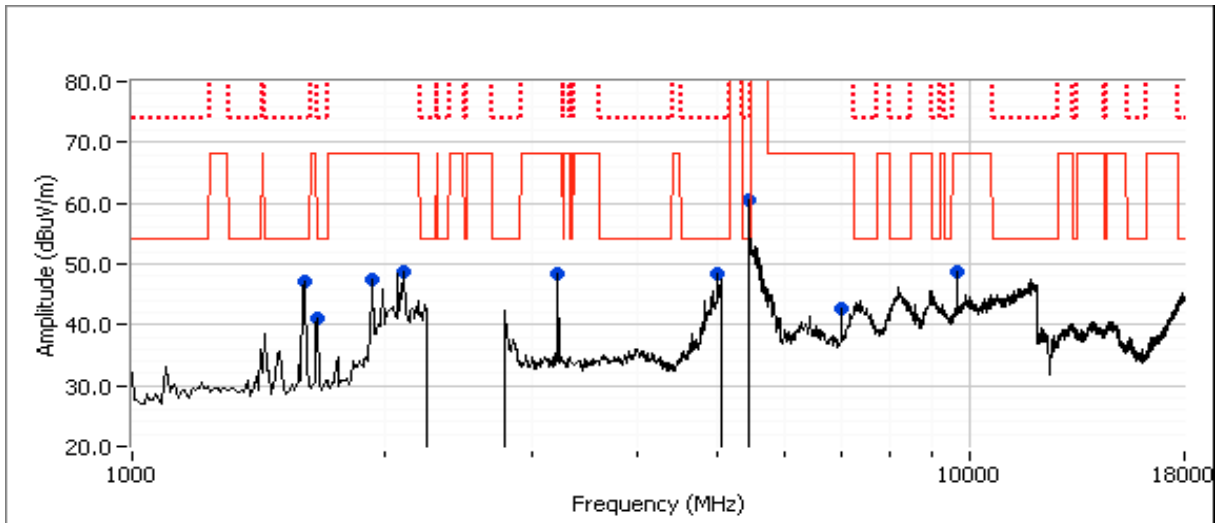
Radio	Freq	Power Setting
1	5260 MHz	17.0
2	2412 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5440.000	53.3	H	54.0	-0.7	AVG	310	1.3	RB 1 MHz;VB 10 Hz;Peak
5440.200	59.5	H	74.0	-14.5	PK	310	1.3	RB 1 MHz;VB 3 MHz;Peak
4999.870	43.2	H	54.0	-10.8	AVG	38	1.0	RB 1 MHz;VB 10 Hz;Peak
5000.800	51.5	H	74.0	-22.5	PK	38	1.0	RB 1 MHz;VB 3 MHz;Peak
1607.930	44.8	H	54.0	-9.2	AVG	78	1.2	RB 1 MHz;VB 10 Hz;Peak
1607.930	46.8	H	74.0	-27.2	PK	78	1.2	RB 1 MHz;VB 3 MHz;Peak
1666.720	33.6	V	54.0	-20.4	AVG	85	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.690	39.0	V	74.0	-35.0	PK	85	1.0	RB 1 MHz;VB 3 MHz;Peak
1936.060	50.4	H	68.3	-17.9	PK	319	1.0	Note 1
3215.950	49.6	H	68.3	-18.7	PK	31	1.6	Note 1
7013.370	50.0	H	68.3	-18.3	PK	48	1.0	Note 1
2112.060	50.4	H	68.3	-17.9	PK	61	1.0	Note 1
9647.850	52.2	V	68.3	-16.1	PK	135	1.1	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

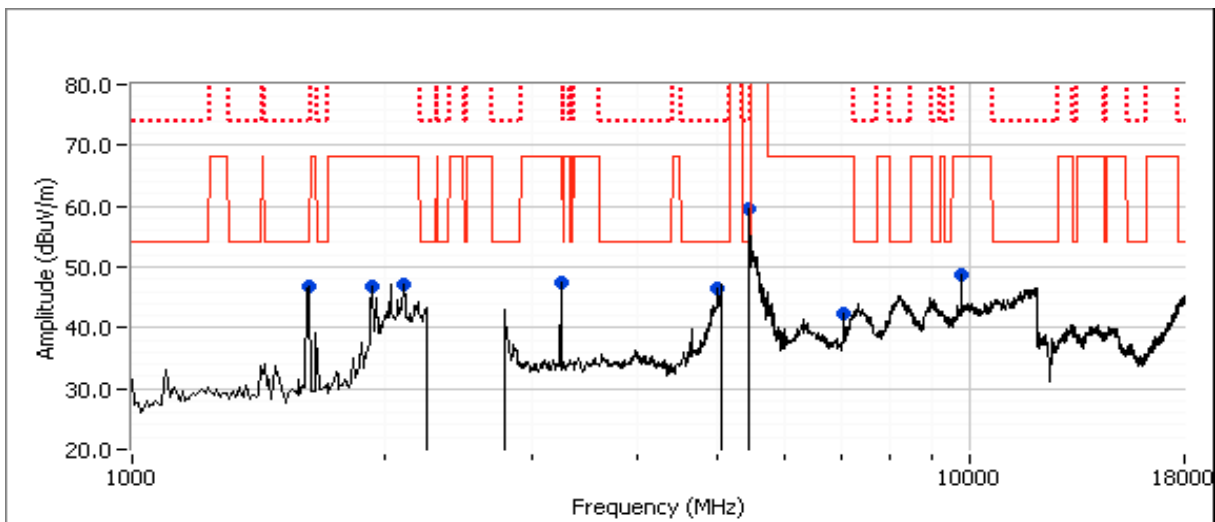
Run #1b: , EUT on Channel #6 2437MHz - 802.11b and Channel #60 5300MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5300 MHz	17.0
2	2437 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5440.000	50.9	H	54.0	-3.1	AVG	314	1.1	RB 1 MHz;VB 10 Hz;Peak
5440.060	59.0	H	74.0	-15.0	PK	314	1.1	RB 1 MHz;VB 3 MHz;Peak
4999.930	41.4	H	54.0	-12.6	AVG	60	1.1	RB 1 MHz;VB 10 Hz;Peak
5001.000	51.3	H	74.0	-22.7	PK	60	1.1	RB 1 MHz;VB 3 MHz;Peak
1624.700	46.8	H	54.0	-7.2	AVG	79	1.3	RB 1 MHz;VB 10 Hz;Peak
1624.700	48.2	H	74.0	-25.8	PK	79	1.3	RB 1 MHz;VB 3 MHz;Peak
3249.330	50.8	H	68.3	-17.5	PK	321	1.1	Note 1
1935.880	50.4	H	68.3	-17.9	PK	318	1.0	Note 1
2112.200	51.2	H	68.3	-17.1	PK	54	1.0	Note 1
7066.380	49.5	H	68.3	-18.8	PK	48	1.0	Note 1
9747.900	55.1	V	68.3	-13.2	PK	136	1.2	Note 1

- Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.
- Note 2: Scans made between 18 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

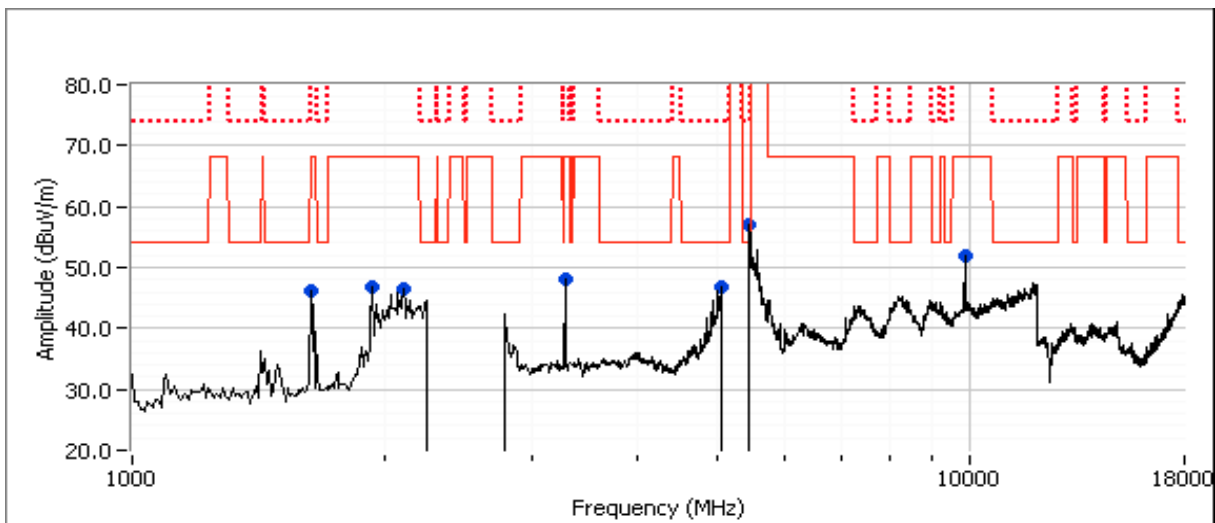
Run #1c: , EUT on Channel #11 2462MHz - 802.11b and Channel #64 5320MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5320 MHz	17.0
2	2462 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5439.980	48.6	H	54.0	-5.4	AVG	317	1.0	RB 1 MHz;VB 10 Hz;Peak
5440.200	56.9	H	74.0	-17.1	PK	317	1.0	RB 1 MHz;VB 3 MHz;Peak
5032.940	43.4	H	54.0	-10.6	AVG	55	1.1	RB 1 MHz;VB 10 Hz;Peak
5023.940	53.8	H	74.0	-20.2	PK	55	1.1	RB 1 MHz;VB 3 MHz;Peak
3282.600	49.9	H	68.3	-18.4	PK	326	1.3	RB 1 MHz;VB 3 MHz;Peak
1935.900	50.9	H	68.3	-17.4	PK	317	1.0	RB 1 MHz;VB 3 MHz;Peak
2112.060	50.5	H	68.3	-17.8	PK	59	1.0	RB 1 MHz;VB 3 MHz;Peak
1641.400	46.8	H	68.3	-21.5	PK	73	1.2	RB 1 MHz;VB 3 MHz;Peak
9848.070	55.5	V	68.3	-12.8	PK	141	1.0	RB 1 MHz;VB 3 MHz;Peak

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

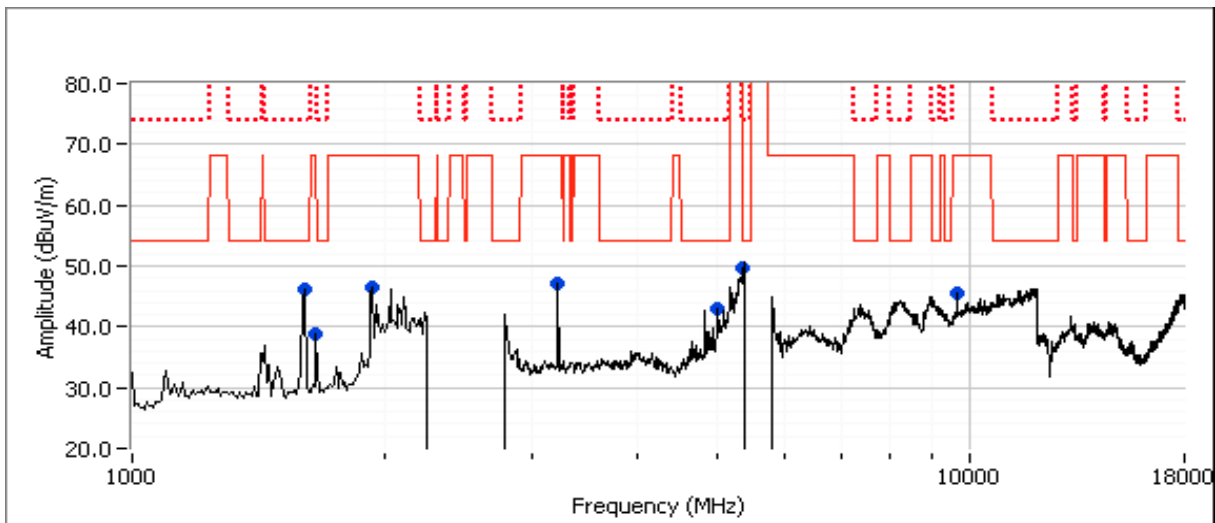
Run #1d, EUT on Channel #1 2412MHz - 802.11b and Channel #100 5500MHz - 802.11a - Chain A+B+C

Radio	Freq	Power Setting
1	5500 MHz	17.0
2	2412 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5359.940	45.6	H	54.0	-8.4	AVG	61	1.2	RB 1 MHz;VB 10 Hz;Peak
5359.400	54.2	H	74.0	-19.8	PK	61	1.2	RB 1 MHz;VB 3 MHz;Peak
4999.560	38.0	H	54.0	-16.0	AVG	336	1.0	RB 1 MHz;VB 10 Hz;Peak
4999.900	47.4	H	74.0	-26.6	PK	336	1.0	RB 1 MHz;VB 3 MHz;Peak
1936.040	50.6	H	68.3	-17.7	PK	319	1.0	Note 1
9648.030	51.4	V	68.3	-16.9	PK	134	1.2	Note 1
1666.640	38.4	V	54.0	-15.6	AVG	86	1.4	RB 1 MHz;VB 10 Hz;Peak
1666.540	42.2	V	74.0	-31.8	PK	86	1.4	RB 1 MHz;VB 3 MHz;Peak
1608.010	45.3	H	54.0	-8.7	AVG	72	1.3	RB 1 MHz;VB 10 Hz;Peak
1608.010	47.2	H	74.0	-26.8	PK	72	1.3	RB 1 MHz;VB 3 MHz;Peak
3216.050	48.8	H	68.3	-19.5	PK	35	1.4	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #1e: , EUT on Channel #6 2437MHz - 802.11b and Channel #116 5580MHz - 802.11a, Chain A+B+C

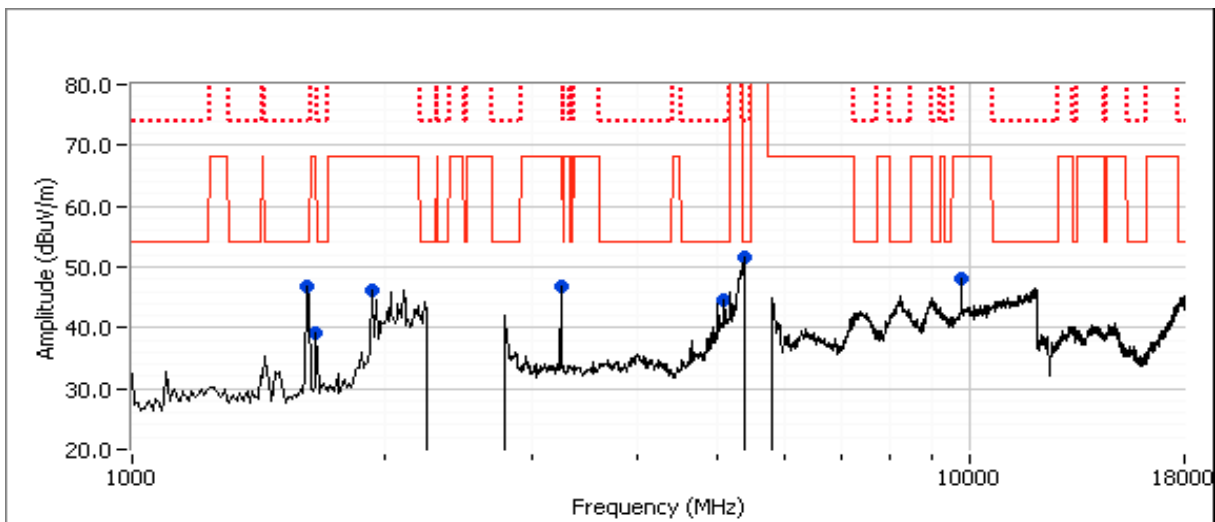
Radio	Freq	Power Setting
1	5580 MHz	17.0
2	2437 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1624.670	46.7	H	54.0	-7.3	AVG	76	1.3	RB 1 MHz;VB 10 Hz;Peak
1624.700	48.5	H	74.0	-25.5	PK	76	1.3	RB 1 MHz;VB 3 MHz;Peak
5359.940	46.0	H	54.0	-8.0	AVG	55	1.0	RB 1 MHz;VB 10 Hz;Peak
5359.180	55.4	H	74.0	-18.6	PK	55	1.0	RB 1 MHz;VB 3 MHz;Peak
1666.590	37.7	V	54.0	-16.3	AVG	92	1.4	RB 1 MHz;VB 10 Hz;Peak
1666.680	41.3	V	74.0	-32.7	PK	92	1.4	RB 1 MHz;VB 3 MHz;Peak
9747.930	54.6	V	68.3	-13.7	PK	134	1.1	Note 1
5079.960	39.8	H	54.0	-14.2	AVG	308	1.0	RB 1 MHz;VB 10 Hz;Peak
5080.030	47.8	H	74.0	-26.2	PK	308	1.0	RB 1 MHz;VB 3 MHz;Peak
1935.920	50.8	H	68.3	-17.5	PK	316	1.0	Note 1
3249.280	48.7	H	68.3	-19.6	PK	331	1.1	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.

Note 2: Scans made between 18 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

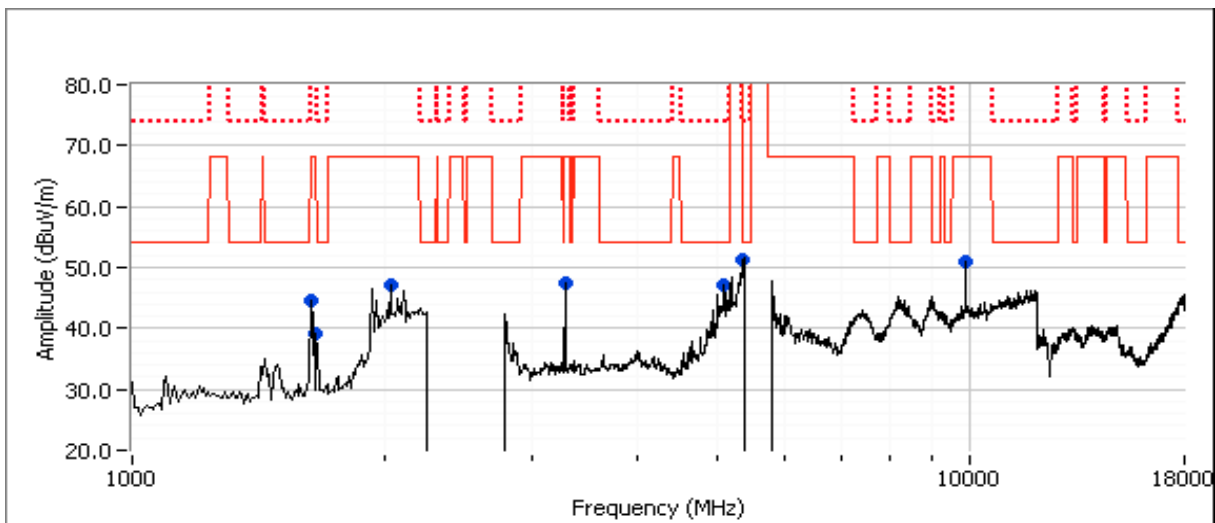
Run #1f: , EUT on Channel #11 2462MHz - 802.11b and Channel #140 5700MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5700 MHz	17.0
2	2462 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5359.960	47.5	H	54.0	-6.5	AVG	315	1.3	RB 1 MHz;VB 10 Hz;Peak
5359.960	56.3	H	74.0	-17.7	PK	315	1.3	RB 1 MHz;VB 3 MHz;Peak
3282.560	47.9	H	68.3	-20.4	PK	330	1.6	Note 1
2039.890	52.5	H	68.3	-15.8	PK	324	1.0	Note 1
9848.100	54.3	V	68.3	-14.0	PK	140	1.0	Note 1
1641.330	41.3	V	68.3	-27.0	PK	84	1.7	Note 1
1641.370	46.6	H	68.3	-21.7	PK	66	1.2	Note 1
5079.950	43.0	H	54.0	-11.0	AVG	42	1.0	RB 1 MHz;VB 10 Hz;Peak
5079.920	51.2	H	74.0	-22.8	PK	42	1.0	RB 1 MHz;VB 3 MHz;Peak

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #2, Radiated Spurious Emissions, 1-40GHz, 802.11g/802.11a, Chain A+B+C

Run #2a, EUT on Channel #1 2412MHz - 802.11g and Channel #52 5260MHz - 802.11a - Chain A+B+C

Date of Test: 3/3/2013& 3/5/13

Test Location: FT7

Test Engineer: Rafael Varelas / Jack Liu

Config Change: None

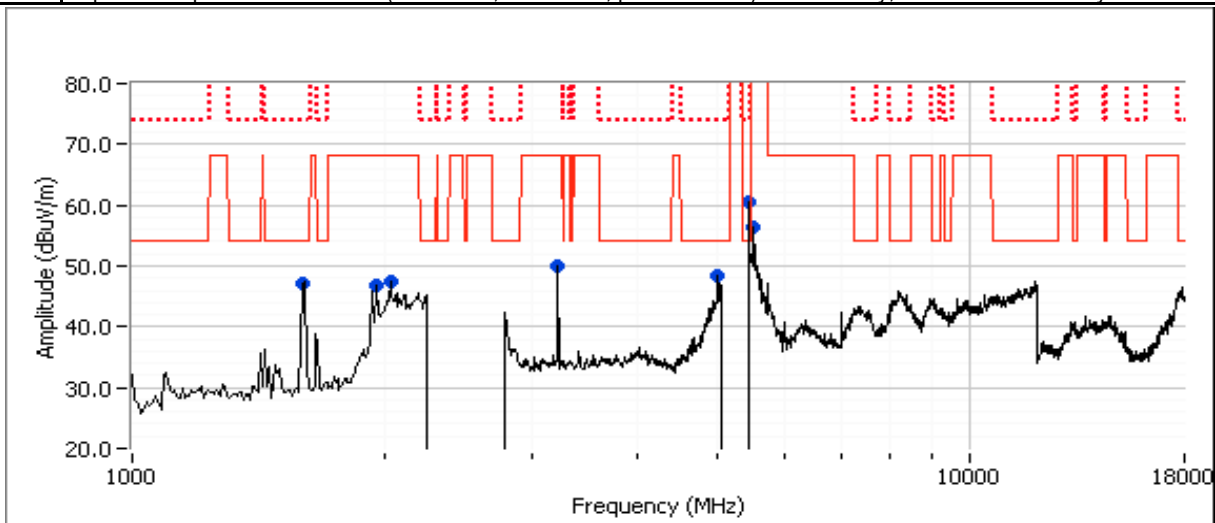
Radio	Freq	Power Setting
1	5260 MHz	17.0
2	2412 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5440.030	51.2	H	54.0	-2.8	AVG	320	1.0	RB 1 MHz;VB 10 Hz;Peak
5439.950	58.6	H	74.0	-15.4	PK	320	1.0	RB 1 MHz;VB 3 MHz;Peak
1607.930	47.1	H	54.0	-6.9	AVG	74	1.3	RB 1 MHz;VB 10 Hz;Peak
1607.930	51.2	H	74.0	-22.8	PK	74	1.3	RB 1 MHz;VB 3 MHz;Peak
4999.670	41.6	H	54.0	-12.4	AVG	39	1.0	RB 1 MHz;VB 10 Hz;Peak
5000.330	51.1	H	74.0	-22.9	PK	39	1.0	RB 1 MHz;VB 3 MHz;Peak
5524.140	56.1	H	68.3	-12.2	PK	56	1.0	Note 1
1960.050	51.3	H	68.3	-17.0	PK	310	1.0	Note 1
2040.180	53.3	H	68.3	-15.0	PK	318	1.0	Note 1
3215.970	52.6	H	68.3	-15.7	PK	318	1.1	Note 1

Note 1:

For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #2b: , EUT on Channel #6 2437MHz - 802.11g and Channel #60 5300MHz - 802.11a, Chain A+B+C

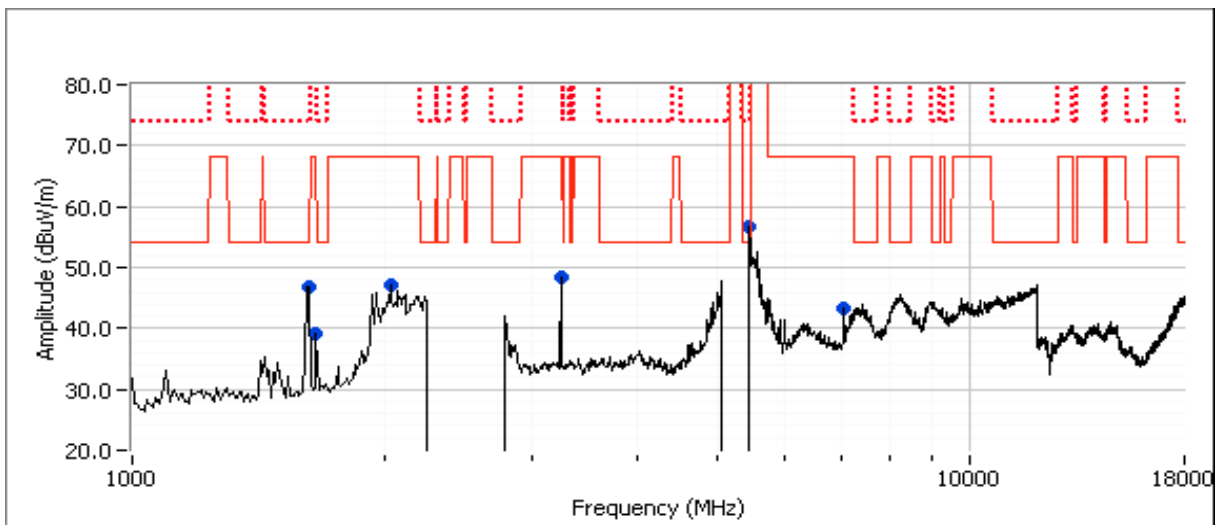
Radio	Freq	Power Setting
1	5300 MHz	17.0
2	2437 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5439.930	49.6	H	54.0	-4.4	AVG	324	1.0	RB 1 MHz;VB 10 Hz;Peak
5441.500	57.6	H	74.0	-16.4	PK	324	1.0	RB 1 MHz;VB 3 MHz;Peak
7066.800	49.3	H	68.3	-19.0	PK	48	1.0	Note 1
1624.660	46.8	H	54.0	-7.2	AVG	74	1.3	RB 1 MHz;VB 10 Hz;Peak
1624.720	50.1	H	74.0	-23.9	PK	74	1.3	RB 1 MHz;VB 3 MHz;Peak
1666.630	38.3	H	54.0	-15.7	AVG	238	1.2	RB 1 MHz;VB 10 Hz;Peak
1666.660	41.2	H	74.0	-32.8	PK	238	1.2	RB 1 MHz;VB 3 MHz;Peak
2040.300	53.0	H	68.3	-15.3	PK	320	1.0	Note 1
3249.440	51.7	H	68.3	-16.6	PK	326	1.1	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.

Note 2: Scans made between 18 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

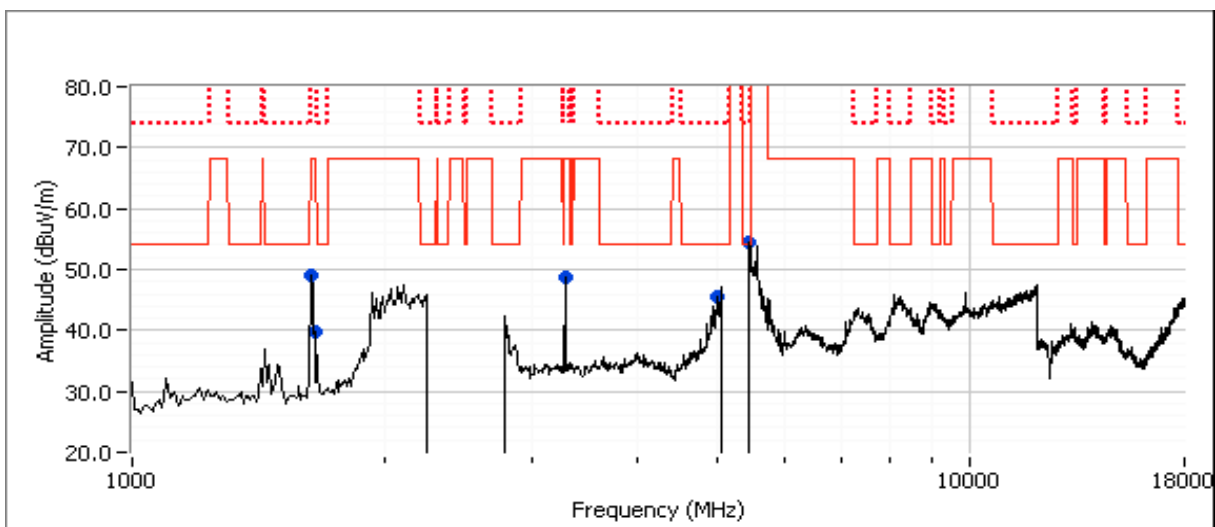
Run #2c: , EUT on Channel #11 2462MHz - 802.11g and Channel #64 5320MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5320 MHz	17.0
2	2462 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5444.810	48.4	H	54.0	-5.6	AVG	58	1.0	RB 1 MHz;VB 10 Hz;Peak
5441.860	58.5	H	74.0	-15.5	PK	58	1.0	RB 1 MHz;VB 3 MHz;Peak
3282.440	50.6	H	68.3	-17.7	PK	329	1.1	Note 1
4999.720	40.0	H	54.0	-14.0	AVG	320	1.0	RB 1 MHz;VB 10 Hz;Peak
5000.200	50.2	H	74.0	-23.8	PK	320	1.0	RB 1 MHz;VB 3 MHz;Peak
1666.630	38.9	V	54.0	-15.1	AVG	92	1.4	RB 1 MHz;VB 10 Hz;Peak
1666.670	42.2	V	74.0	-31.8	PK	92	1.4	RB 1 MHz;VB 3 MHz;Peak
1641.380	51.2	H	68.3	-17.1	PK	65	1.3	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #2d, EUT on Channel #1 2412MHz - 802.11g and Channel #100 5500MHz - 802.11a - Chain A+B+C

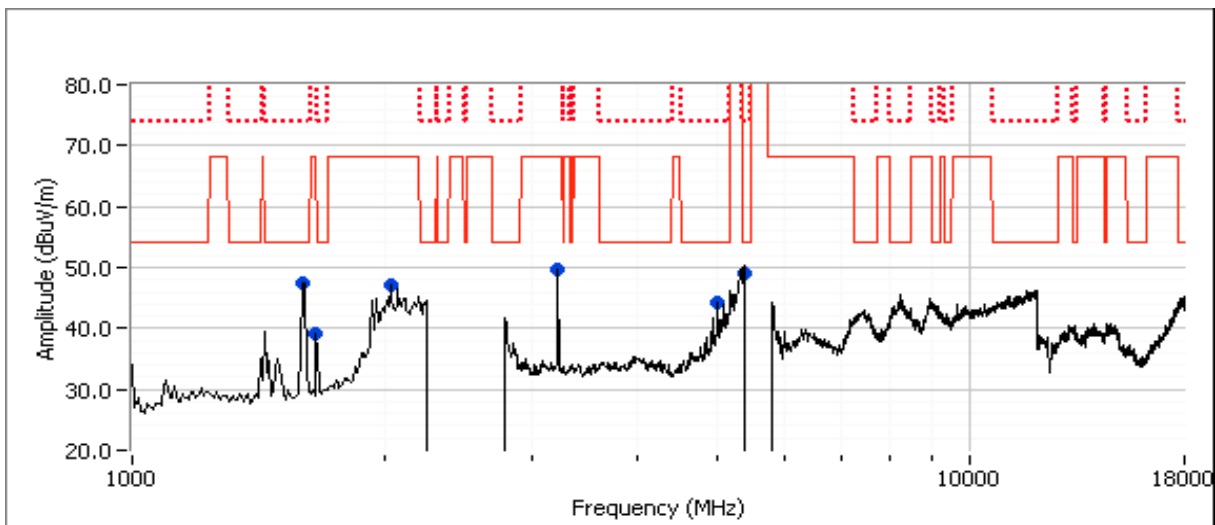
Radio	Freq	Power Setting
1	5500 MHz	17.0
2	2412 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1607.990	47.3	H	54.0	-6.7	AVG	70	1.3	RB 1 MHz;VB 10 Hz;Peak
1608.050	51.4	H	74.0	-22.6	PK	70	1.3	RB 1 MHz;VB 3 MHz;Peak
5360.000	45.0	H	54.0	-9.0	AVG	58	1.1	RB 1 MHz;VB 10 Hz;Peak
5359.500	54.9	H	74.0	-19.1	PK	58	1.1	RB 1 MHz;VB 3 MHz;Peak
1666.500	38.2	H	54.0	-15.8	AVG	238	1.2	RB 1 MHz;VB 10 Hz;Peak
1666.450	42.1	H	74.0	-31.9	PK	238	1.2	RB 1 MHz;VB 3 MHz;Peak
2040.010	53.3	H	68.3	-15.0	PK	320	1.0	Note 1
4999.980	37.0	H	54.0	-17.0	AVG	309	1.0	RB 1 MHz;VB 10 Hz;Peak
5000.060	46.9	H	74.0	-27.1	PK	309	1.0	RB 1 MHz;VB 3 MHz;Peak
3216.030	52.3	H	68.3	-16.0	PK	326	1.1	Note 1

Note 1:

For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #2e: , EUT on Channel #6 2437MHz - 802.11g and Channel #116 5580MHz - 802.11a, Chain A+B+C

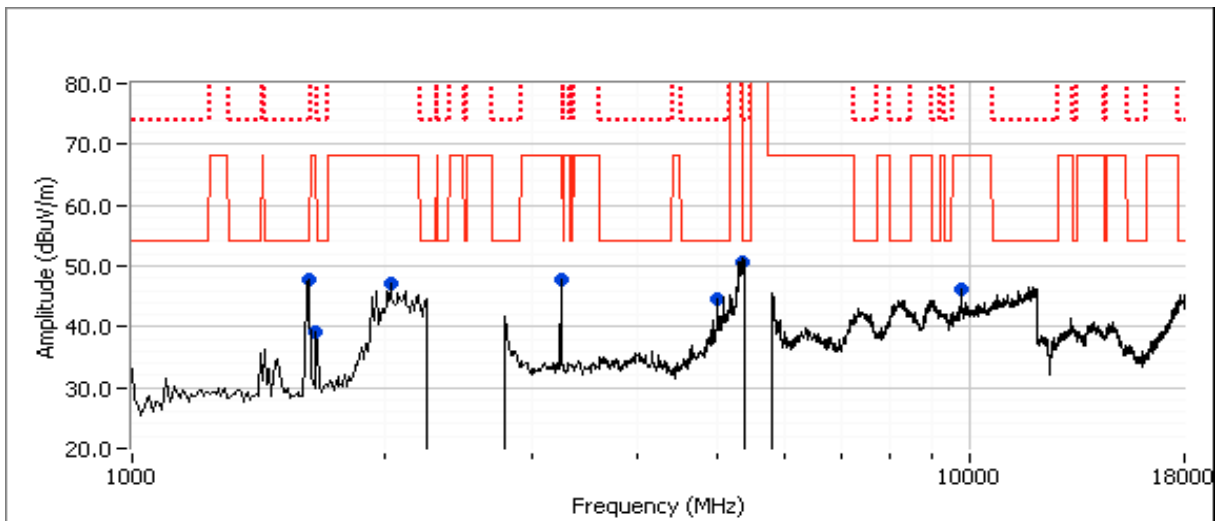
Radio	Freq	Power Setting
1	5580 MHz	17.0
2	2437 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5359.980	47.4	H	54.0	-6.6	AVG	319	1.3	RB 1 MHz;VB 10 Hz;Peak
5359.690	56.3	H	74.0	-17.7	PK	319	1.3	RB 1 MHz;VB 3 MHz;Peak
2039.990	53.8	H	68.3	-14.5	PK	319	1.0	Note 1
3249.280	50.0	H	68.3	-18.3	PK	329	1.1	Note 1
1624.670	46.7	H	54.0	-7.3	AVG	302	1.3	RB 1 MHz;VB 10 Hz;Peak
1624.660	50.1	H	74.0	-23.9	PK	302	1.3	RB 1 MHz;VB 3 MHz;Peak
9745.520	54.1	V	68.3	-14.2	PK	151	1.2	Note 1
1624.680	37.5	V	54.0	-16.5	AVG	86	1.7	RB 1 MHz;VB 10 Hz;Peak
1624.740	41.3	V	74.0	-32.7	PK	86	1.7	RB 1 MHz;VB 3 MHz;Peak
4999.750	39.1	H	54.0	-14.9	AVG	40	1.0	RB 1 MHz;VB 10 Hz;Peak
5000.180	49.5	H	74.0	-24.5	PK	40	1.0	RB 1 MHz;VB 3 MHz;Peak

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.

Note 2: Scans made between 18 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

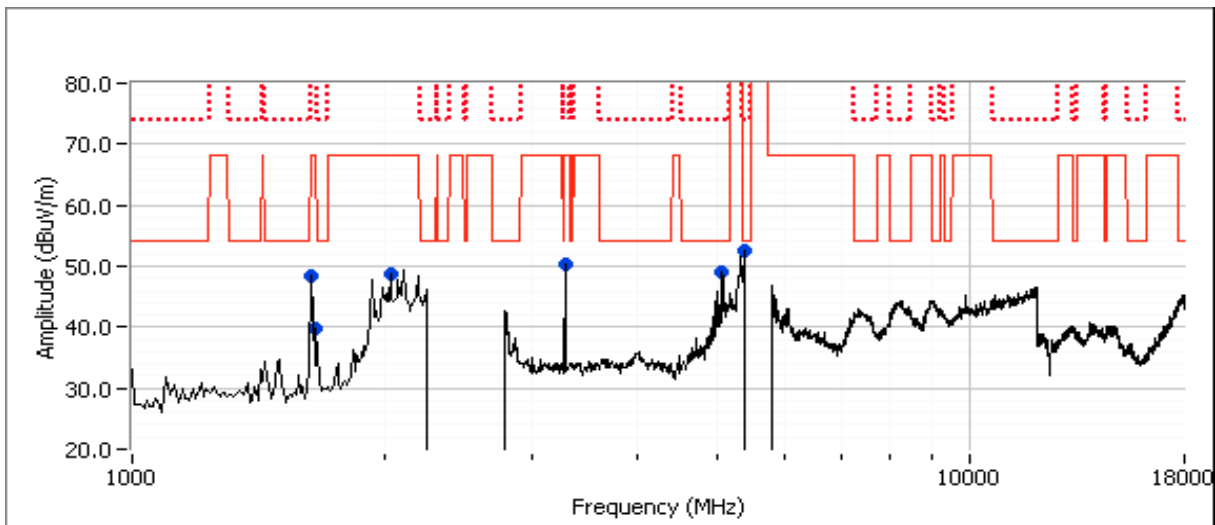
Run #2f: , EUT on Channel #11 2462MHz - 802.11g and Channel #140 5700MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5700 MHz	17.0
2	2462 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5355.070	45.3	H	54.0	-8.7	AVG	50	1.0	RB 1 MHz;VB 10 Hz;Peak
5355.820	56.8	H	74.0	-17.2	PK	50	1.0	RB 1 MHz;VB 3 MHz;Peak
5040.020	44.8	H	54.0	-9.2	AVG	312	1.0	RB 1 MHz;VB 10 Hz;Peak
5040.020	49.4	H	74.0	-24.6	PK	312	1.0	RB 1 MHz;VB 3 MHz;Peak
1641.500	51.0	H	68.3	-17.3	PK	70	1.2	Note 1
1641.250	42.8	V	68.3	-25.5	PK	89	1.7	Note 1
2039.900	53.3	H	68.3	-15.0	PK	302	1.2	Note 1
3282.660	50.5	H	68.3	-17.8	PK	320	1.3	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #3, Radiated Spurious Emissions, 1-40GHz, 802.11n20/802.11n20, Chain A+B+C

Run #3a, EUT on Channel #1 2412MHz - 802.11n20 and Channel #52 5260MHz - 802.11n20 - Chain A+B+C

Date of Test: 3/3/2013 & 3/5/13

Test Location: FT7

Test Engineer: Rafael Varelas / Jack Liu

Config Change: None

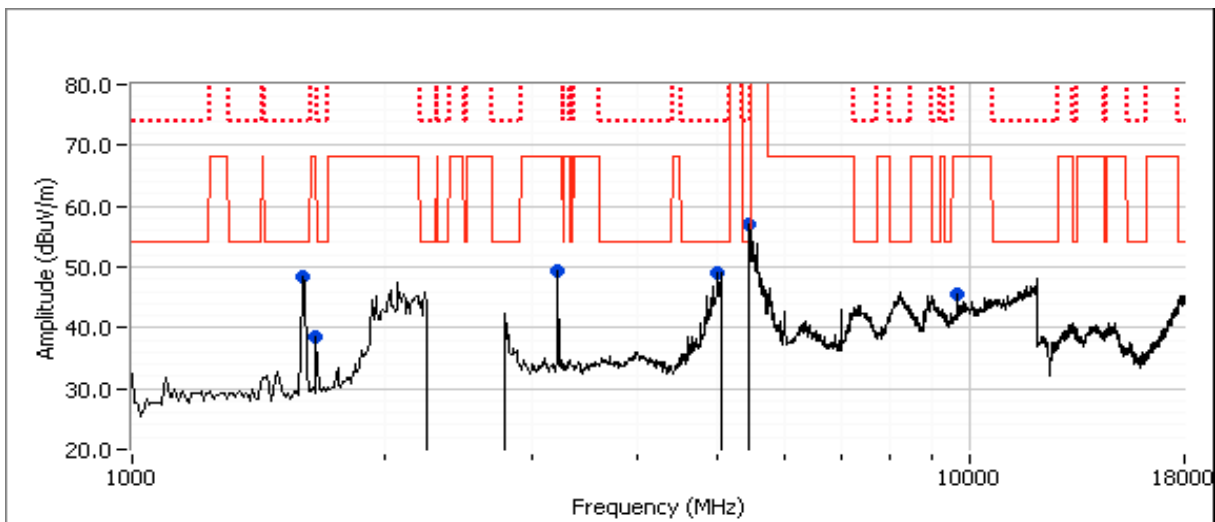
Radio	Freq	Power Setting
1	5260 MHz	18.0
2	2412 MHz	20.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5440.000	49.8	H	54.0	-4.2	AVG	325	1.0	RB 1 MHz;VB 10 Hz;Peak
5439.970	59.2	H	74.0	-14.8	PK	325	1.0	RB 1 MHz;VB 3 MHz;Peak
4999.660	43.6	H	54.0	-10.4	AVG	60	1.0	RB 1 MHz;VB 10 Hz;Peak
4999.810	53.3	H	74.0	-20.7	PK	60	1.0	RB 1 MHz;VB 3 MHz;Peak
1666.650	36.6	V	54.0	-17.4	AVG	94	1.4	RB 1 MHz;VB 10 Hz;Peak
1666.710	41.1	V	74.0	-32.9	PK	94	1.4	RB 1 MHz;VB 3 MHz;Peak
1608.000	46.2	H	54.0	-7.8	AVG	68	1.3	RB 1 MHz;VB 10 Hz;Peak
1608.010	51.1	H	74.0	-22.9	PK	68	1.3	RB 1 MHz;VB 3 MHz;Peak
9643.380	52.8	V	68.3	-15.5	PK	136	1.1	Note 1
3215.910	50.8	H	68.3	-17.5	PK	330	1.1	Note 1

Note 1:

For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

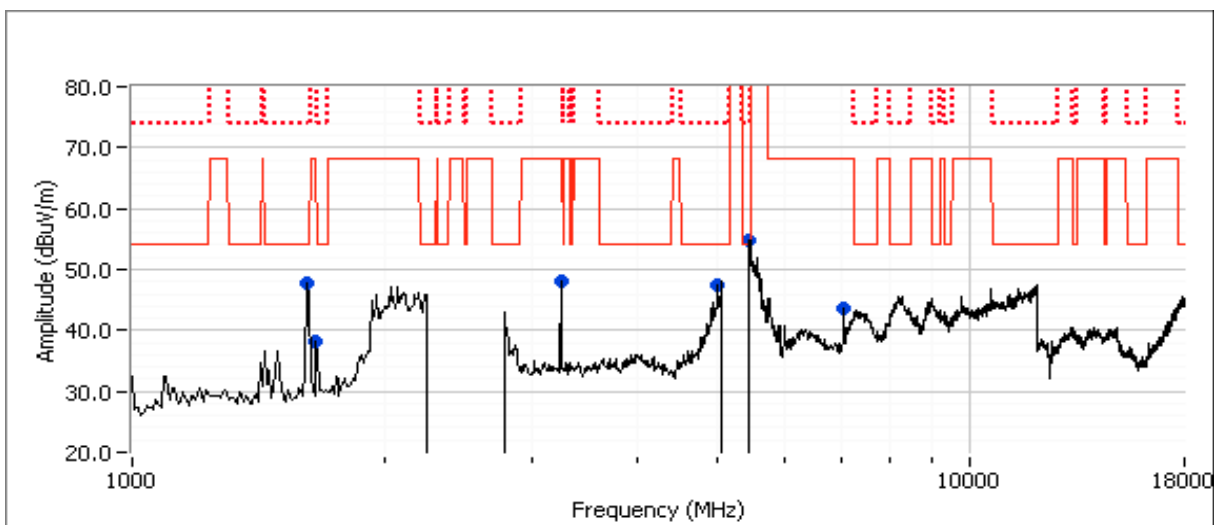
Run #3b: , EUT on Channel #6 2437MHz - 802.11n20 and Channel #60 5300MHz - 802.11n20, Chain A+B+C

Radio	Freq	Power Setting
1	5300 MHz	18.0
2	2437 MHz	20.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	PK/QP/Avg	degrees	meters	
5439.970	48.2	H	54.0	-5.8	AVG	324	1.0	RB 1 MHz;VB 10 Hz;Peak
5439.580	57.9	H	74.0	-16.1	PK	324	1.0	RB 1 MHz;VB 3 MHz;Peak
7066.610	49.2	H	68.3	-19.1	PK	50	1.0	Note 1
4999.470	41.8	H	54.0	-12.2	AVG	41	1.0	RB 1 MHz;VB 10 Hz;Peak
5000.120	52.2	H	74.0	-21.8	PK	41	1.0	RB 1 MHz;VB 3 MHz;Peak
1624.660	46.7	H	54.0	-7.3	AVG	70	1.3	RB 1 MHz;VB 10 Hz;Peak
1624.680	49.9	H	74.0	-24.1	PK	70	1.3	RB 1 MHz;VB 3 MHz;Peak
1666.660	39.0	V	54.0	-15.0	AVG	88	1.4	RB 1 MHz;VB 10 Hz;Peak
1666.680	42.7	V	74.0	-31.3	PK	88	1.4	RB 1 MHz;VB 3 MHz;Peak
3249.300	50.9	H	68.3	-17.4	PK	326	1.1	Note 1

- Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.
- Note 2: Scans made between 18 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #3c: , EUT on Channel #11 2462MHz - 802.11n20 and Channel #64 5320MHz - 802.11n20, Chain A+B+C

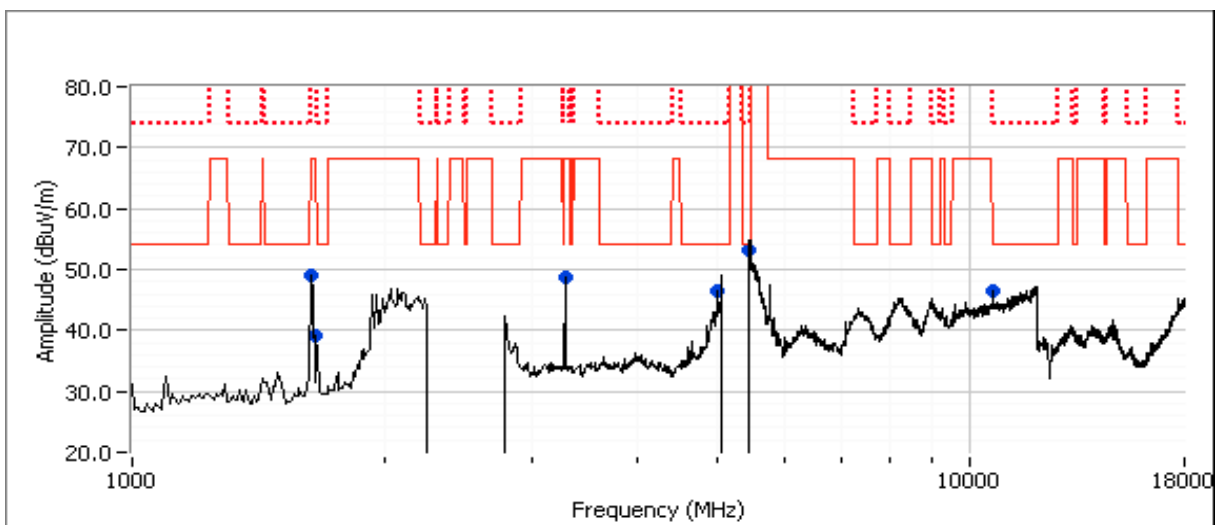
Radio	Freq	Power Setting
1	5320 MHz	18.0
2	2462 MHz	20.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5439.970	48.1	H	54.0	-5.9	AVG	62	1.0	RB 1 MHz;VB 10 Hz;Peak
5439.890	58.7	H	74.0	-15.3	PK	62	1.0	RB 1 MHz;VB 3 MHz;Peak
3282.620	50.0	H	68.3	-18.3	PK	332	1.3	Note 1
10640.050	43.4	V	54.0	-10.6	AVG	215	1.0	RB 1 MHz;VB 10 Hz;Peak
10639.720	54.2	V	74.0	-19.8	PK	215	1.0	RB 1 MHz;VB 3 MHz;Peak
1666.620	38.9	V	54.0	-15.1	AVG	87	1.3	RB 1 MHz;VB 10 Hz;Peak
1666.640	42.5	V	74.0	-31.5	PK	87	1.3	RB 1 MHz;VB 3 MHz;Peak
4999.310	40.7	H	54.0	-13.3	AVG	60	1.0	RB 1 MHz;VB 10 Hz;Peak
5000.140	52.3	H	74.0	-21.7	PK	60	1.0	RB 1 MHz;VB 3 MHz;Peak
1641.260	51.7	H	68.3	-16.6	PK	68	1.3	Note 1

Note 1:

For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

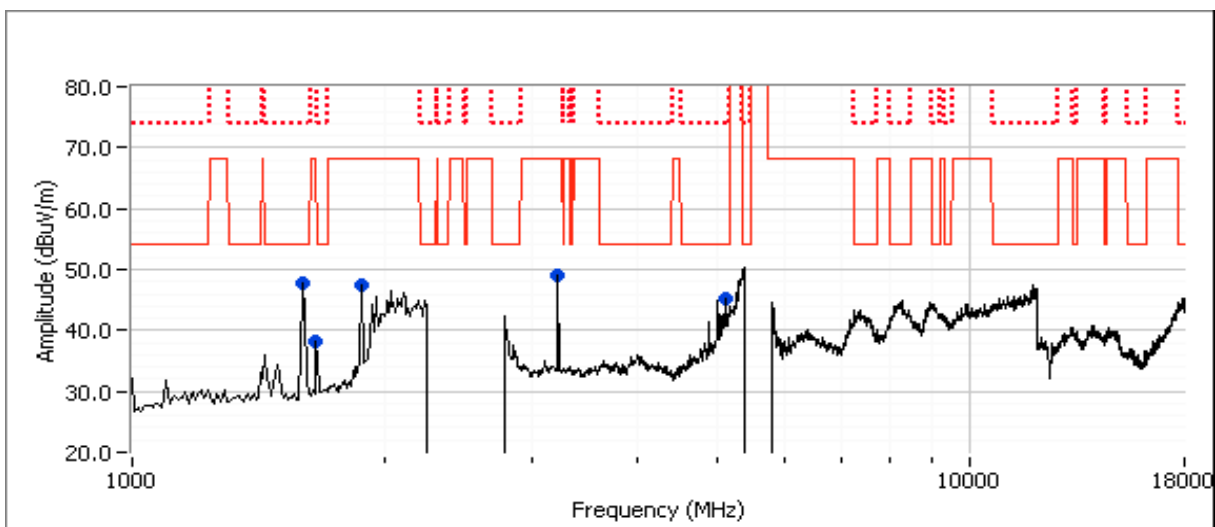
Run #3d, EUT on Channel #1 2412MHz - 802.11n20 and Channel #100 5500MHz - 802.11n20 - Chain A+B+C

Radio	Freq	Power Setting
1	5500 MHz	18.0
2	2412 MHz	20.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1608.070	46.7	H	54.0	-7.3	AVG	72	1.2	RB 1 MHz;VB 10 Hz;Peak
1607.900	51.5	H	74.0	-22.5	PK	72	1.2	RB 1 MHz;VB 3 MHz;Peak
5120.050	42.1	H	54.0	-11.9	AVG	314	1.0	RB 1 MHz;VB 10 Hz;Peak
5120.200	48.2	H	74.0	-25.8	PK	314	1.0	RB 1 MHz;VB 3 MHz;Peak
1666.680	38.7	V	54.0	-15.3	AVG	85	1.4	RB 1 MHz;VB 10 Hz;Peak
1666.730	42.5	V	74.0	-31.5	PK	85	1.4	RB 1 MHz;VB 3 MHz;Peak
1892.000	43.4	H	68.3	-24.9	PK	306	1.0	Note 1
3216.070	50.0	H	68.3	-18.3	PK	30	1.6	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

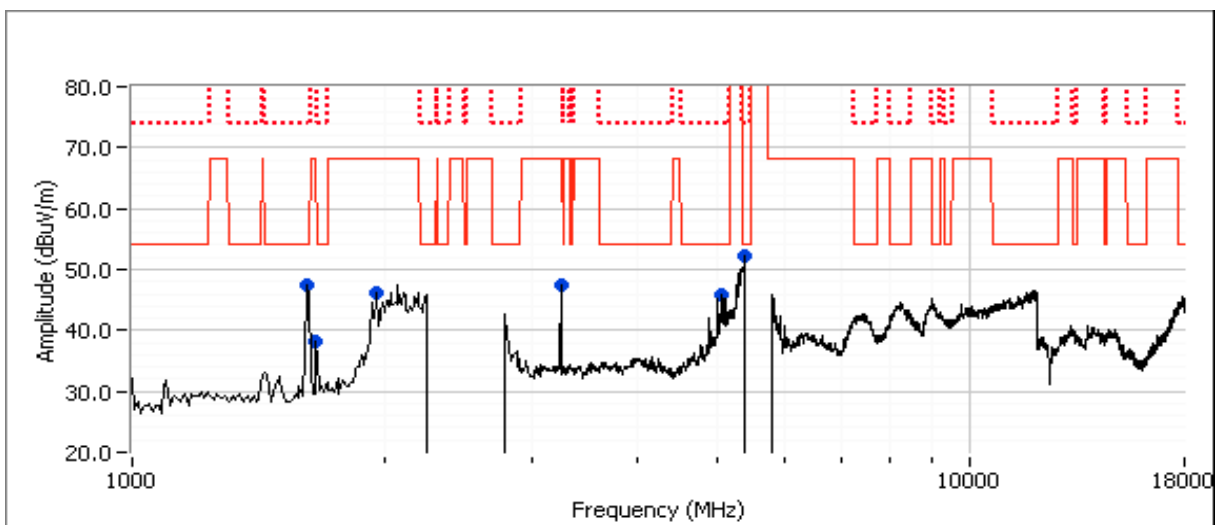
Run #3e: , EUT on Channel #6 2437MHz - 802.11n20 and Channel #116 5580MHz - 802.11n20, Chain A+B+C

Radio	Freq	Power Setting
1	5580 MHz	18.0
2	2437 MHz	20.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5360.000	50.3	H	54.0	-3.7	AVG	59	1.0	RB 1 MHz;VB 10 Hz;Peak
5360.130	59.1	H	74.0	-14.9	PK	59	1.0	RB 1 MHz;VB 3 MHz;Peak
1624.650	46.7	H	54.0	-7.3	AVG	74	1.3	RB 1 MHz;VB 10 Hz;Peak
1624.720	50.0	H	74.0	-24.0	PK	74	1.3	RB 1 MHz;VB 3 MHz;Peak
1666.650	37.5	H	54.0	-16.5	AVG	138	1.1	RB 1 MHz;VB 10 Hz;Peak
1666.630	41.7	H	74.0	-32.3	PK	138	1.1	RB 1 MHz;VB 3 MHz;Peak
5039.950	42.6	H	54.0	-11.4	AVG	312	1.0	RB 1 MHz;VB 10 Hz;Peak
5039.970	49.5	H	74.0	-24.5	PK	312	1.0	RB 1 MHz;VB 3 MHz;Peak
1960.230	51.1	H	68.3	-17.2	PK	313	1.0	Note 1
3249.300	49.3	H	68.3	-39.0	PK	30	1.2	Note 1

- Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.
- Note 2: Scans made between 18 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

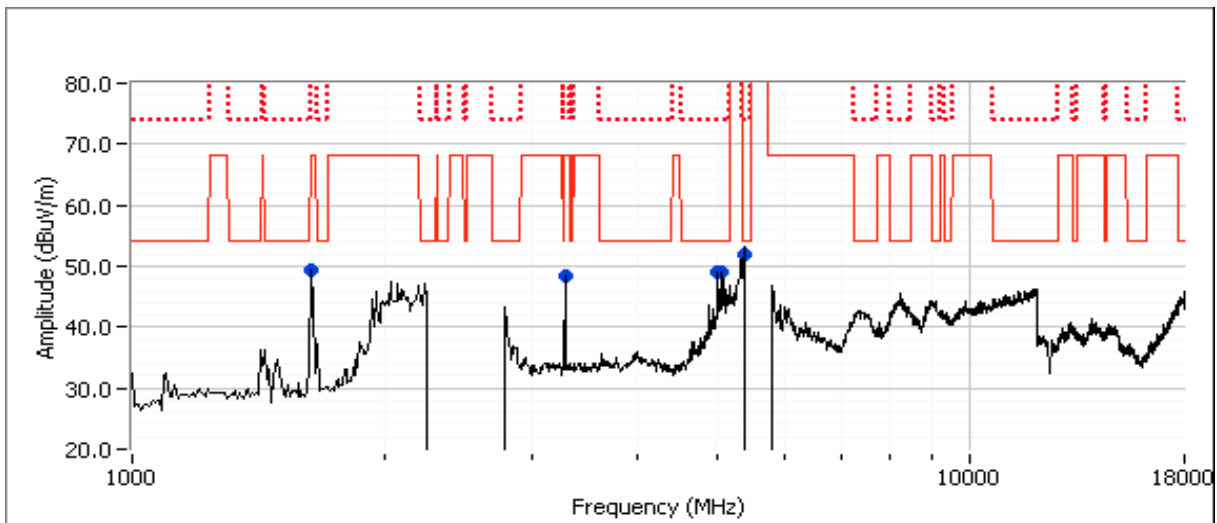
Run #3f: , EUT on Channel #11 2462MHz - 802.11n20 and Channel #140 5700MHz - 802.11n20, Chain A+B+C

Radio	Freq	Power Setting
1	5700 MHz	18.0
2	2462 MHz	20.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5359.940	48.4	H	54.0	-5.6	AVG	50	1.2	RB 1 MHz;VB 10 Hz;Peak
5350.070	58.8	H	74.0	-15.2	PK	50	1.2	RB 1 MHz;VB 3 MHz;Peak
5000.070	43.0	H	54.0	-11.0	AVG	37	1.0	RB 1 MHz;VB 10 Hz;Peak
4999.870	52.8	H	74.0	-21.2	PK	37	1.0	RB 1 MHz;VB 3 MHz;Peak
5040.000	42.8	H	54.0	-11.2	AVG	38	1.0	RB 1 MHz;VB 10 Hz;Peak
5039.870	48.8	H	74.0	-25.2	PK	38	1.0	RB 1 MHz;VB 3 MHz;Peak
1641.410	50.5	H	68.3	-17.8	PK	71	1.2	Note 1
3282.600	50.1	H	68.3	-18.2	PK	324	1.1	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #4, Radiated Spurious Emissions, 1-40GHz, 802.11n40/802.11n40, Chain A+B+C

Run #4a, EUT on Channel #3 2422MHz - 802.11n40 and Channel #54 5270MHz - 802.11n40 - Chain A+B+C

Date of Test: 3/3/2013

Test Location: FT7

Test Engineer: Rafael Varelas / Jack Liu

Config Change: None

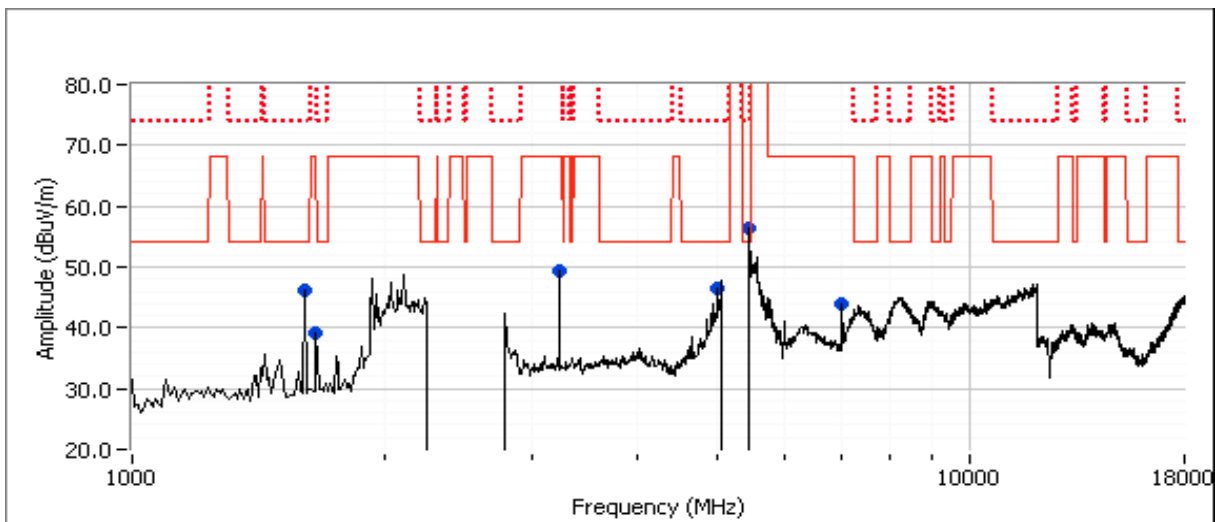
Radio	Freq	Power Setting
1	5270 MHz	15.0
2	2422 MHz	16.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5439.960	52.1	H	54.0	-1.9	AVG	319	1.0	RB 1 MHz;VB 10 Hz;Peak
5440.000	59.7	H	74.0	-14.3	PK	319	1.0	RB 1 MHz;VB 3 MHz;Peak
7026.520	49.7	H	68.3	-18.6	PK	48	1.0	Note 1
4999.670	41.4	H	54.0	-12.6	AVG	60	1.1	RB 1 MHz;VB 10 Hz;Peak
5000.420	52.0	H	74.0	-22.0	PK	60	1.1	RB 1 MHz;VB 3 MHz;Peak
1666.690	38.8	V	54.0	-15.2	AVG	90	1.3	RB 1 MHz;VB 10 Hz;Peak
1666.690	42.6	V	74.0	-31.4	PK	90	1.3	RB 1 MHz;VB 3 MHz;Peak
1614.670	46.6	H	54.0	-7.4	AVG	306	1.2	RB 1 MHz;VB 10 Hz;Peak
1614.600	48.8	H	74.0	-25.2	PK	306	1.2	RB 1 MHz;VB 3 MHz;Peak
3229.320	51.2	H	68.3	-17.1	PK	325	1.1	Note 1

Note 1:

For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #4b: , EUT on Channel #9 2452MHz - 802.11n40 and Channel #62 5310MHz - 802.11n40, Chain A+B+C

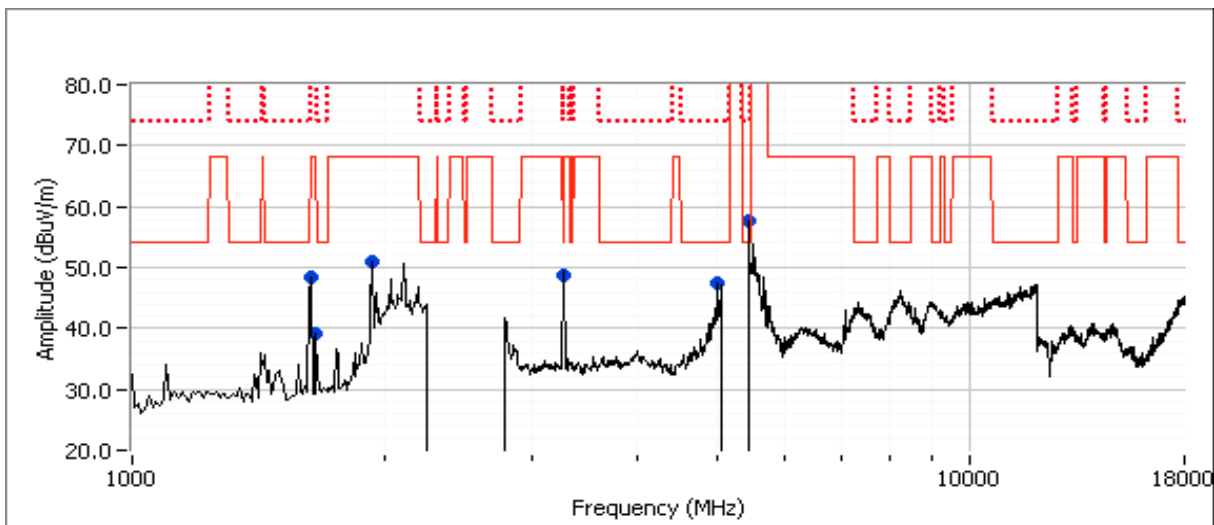
Radio	Freq	Power Setting
1	5310 MHz	15.0
2	2452 MHz	16.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5440.000	51.1	H	54.0	-2.9	AVG	60	1.0	RB 1 MHz;VB 10 Hz;Peak
5440.120	59.8	H	74.0	-14.2	PK	60	1.0	RB 1 MHz;VB 3 MHz;Peak
3269.370	51.1	H	68.3	-17.2	PK	327	1.3	Note 1
1936.040	53.8	H	68.3	-14.5	PK	318	1.0	Note 1
1666.600	38.8	V	54.0	-15.2	AVG	91	1.3	RB 1 MHz;VB 10 Hz;Peak
1666.670	42.5	V	74.0	-31.5	PK	91	1.3	RB 1 MHz;VB 3 MHz;Peak
1634.670	50.2	H	68.3	-18.1	PK	66	1.3	RB 1 MHz;VB 3 MHz;Peak
4999.900	40.4	H	54.0	-13.6	AVG	40	1.0	RB 1 MHz;VB 10 Hz;Peak
4999.890	50.2	H	74.0	-23.8	PK	40	1.0	RB 1 MHz;VB 3 MHz;Peak

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.

Note 2: Scans made between 18 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

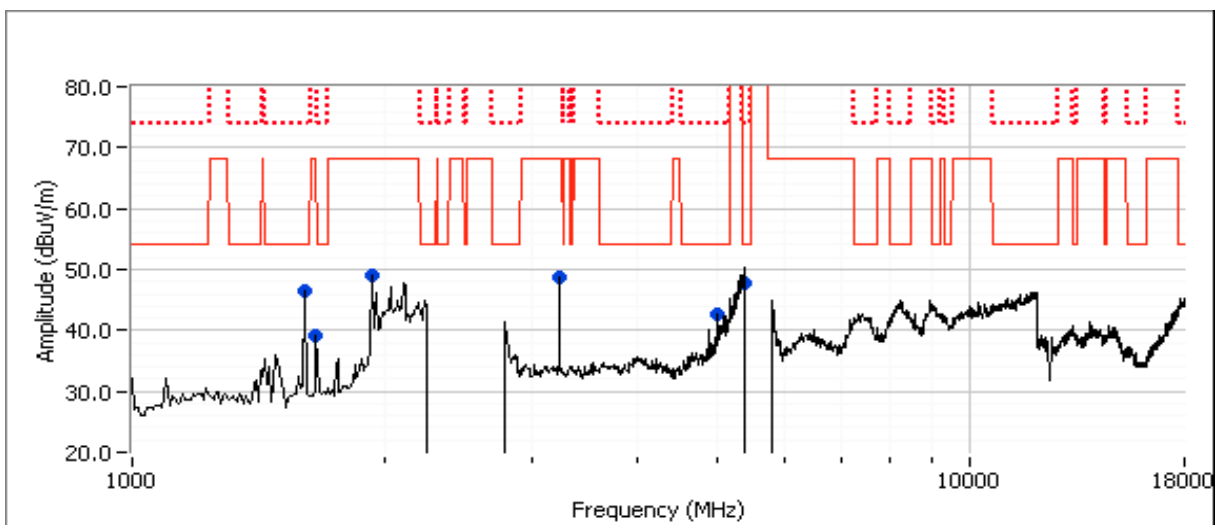
Run #4c: , EUT on Channel #3 2422MHz - 802.11n40 and Channel #102 5510MHz - 802.11n40, Chain A+B+C

Radio	Freq	Power Setting
1	5510 MHz	15.0
2	2422 MHz	16.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1614.650	46.2	H	54.0	-7.8	AVG	308	1.3	RB 1 MHz;VB 10 Hz;Peak
1614.720	48.7	H	74.0	-25.3	PK	308	1.3	RB 1 MHz;VB 3 MHz;Peak
4999.890	39.1	H	54.0	-14.9	AVG	43	1.0	RB 1 MHz;VB 10 Hz;Peak
5000.420	49.1	H	74.0	-24.9	PK	43	1.0	RB 1 MHz;VB 3 MHz;Peak
3229.340	50.1	H	68.3	-18.2	PK	30	1.4	Note 1
5359.860	45.9	H	54.0	-8.1	AVG	62	1.0	RB 1 MHz;VB 10 Hz;Peak
5360.100	55.6	H	74.0	-18.4	PK	62	1.0	RB 1 MHz;VB 3 MHz;Peak
1666.620	39.7	V	54.0	-14.3	AVG	87	1.4	RB 1 MHz;VB 10 Hz;Peak
1666.690	42.7	V	74.0	-31.3	PK	87	1.4	RB 1 MHz;VB 3 MHz;Peak
1936.010	51.6	H	68.3	-16.7	PK	320	1.0	Note 1

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

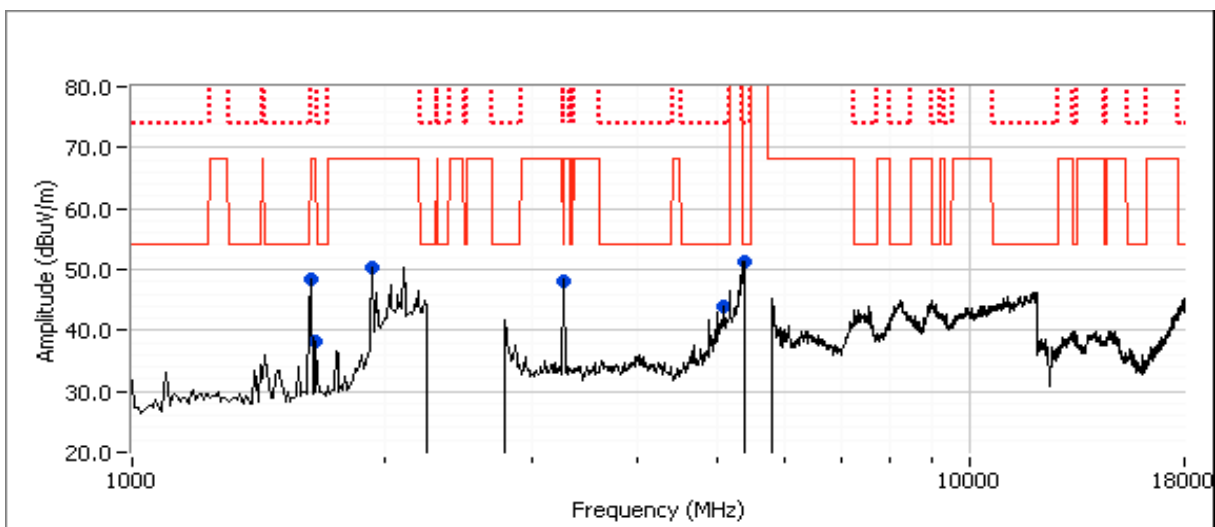
Run #4d: , EUT on Channel #9 2452MHz - 802.11n40 and Channel #134 5670MHz - 802.11n40, Chain A+B+C

Radio	Freq	Power Setting
1	5670 MHz	15.0
2	2452 MHz	16.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5359.950	46.8	H	54.0	-7.2	AVG	59	1.0	RB 1 MHz;VB 10 Hz;Peak
5360.020	55.4	H	74.0	-18.6	PK	59	1.0	RB 1 MHz;VB 3 MHz;Peak
3269.380	50.5	H	68.3	-17.8	PK	329	1.1	Note 1
1936.050	53.9	H	68.3	-14.4	PK	317	1.0	Note 1
1666.620	38.6	V	54.0	-15.4	AVG	91	1.4	RB 1 MHz;VB 10 Hz;Peak
1666.620	43.2	V	74.0	-30.8	PK	91	1.4	RB 1 MHz;VB 3 MHz;Peak
1634.690	49.7	H	68.3	-18.6	PK	64	1.3	Note 1
5087.620	35.2	H	54.0	-18.8	AVG	46	1.0	RB 1 MHz;VB 10 Hz;Peak
5087.310	46.5	H	74.0	-27.5	PK	46	1.0	RB 1 MHz;VB 3 MHz;Peak

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #4e: , EUT on Channel #6 2437MHz - 802.11n40 and Channel #110 5550MHz - 802.11n40, Chain A+B+C

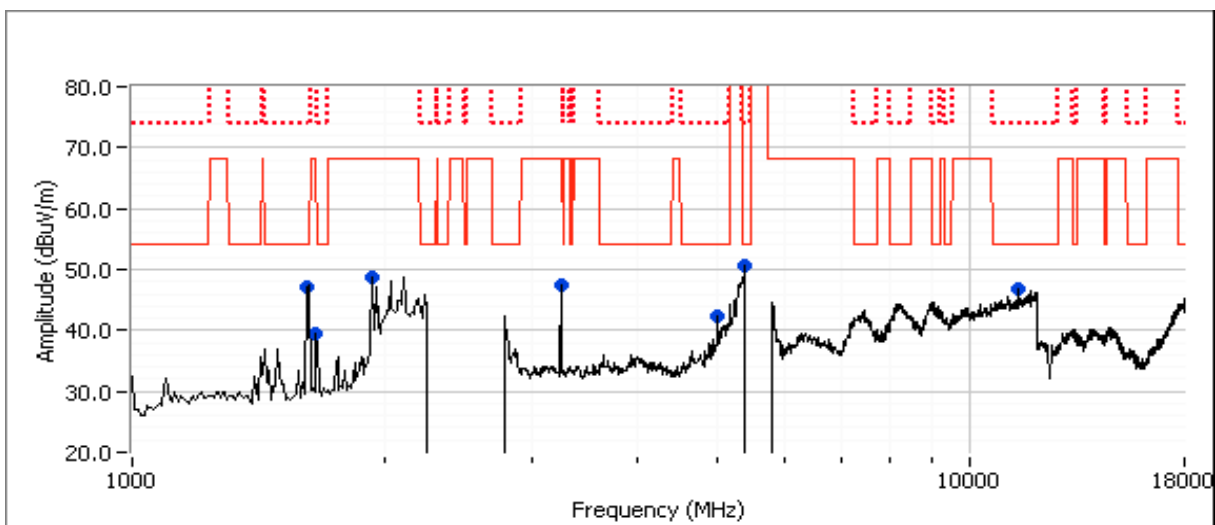
Radio	Freq	Power Setting
1	5550 MHz	15.0
2	2437 MHz	16.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1624.690	47.2	H	54.0	-6.8	AVG	66	1.3	RB 1 MHz;VB 10 Hz;Peak
1624.720	48.9	H	74.0	-25.1	PK	66	1.3	RB 1 MHz;VB 3 MHz;Peak
5359.860	44.8	H	54.0	-9.2	AVG	62	1.0	RB 1 MHz;VB 10 Hz;Peak
5359.920	54.6	H	74.0	-19.4	PK	62	1.0	RB 1 MHz;VB 3 MHz;Peak
4999.920	38.1	H	54.0	-15.9	AVG	43	1.0	RB 1 MHz;VB 10 Hz;Peak
5000.070	48.1	H	74.0	-25.9	PK	43	1.0	RB 1 MHz;VB 3 MHz;Peak
1666.720	38.1	H	54.0	-15.9	AVG	238	1.2	RB 1 MHz;VB 10 Hz;Peak
1666.560	42.6	H	74.0	-31.4	PK	238	1.2	RB 1 MHz;VB 3 MHz;Peak
1935.930	52.9	H	68.3	-15.4	PK	316	1.0	Note 1
11382.830	42.1	V	54.0	-11.9	AVG	334	1.0	RB 1 MHz;VB 10 Hz;Peak
11390.300	53.6	V	74.0	-20.4	PK	334	1.0	RB 1 MHz;VB 3 MHz;Peak
3249.380	50.3	H	68.3	-18.0	PK	326	1.1	Note 1

Note 1:

For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

RSS 210 and FCC 15.407 (NII) 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.

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. All remote support equipment was located approximately 30 meters from the EUT with all I/O connections running on top of the groundplane or routed in overhead in the GR-1089 test configuration.

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

Ambient Conditions:

Temperature: 20.9 °C
 Rel. Humidity: 35 %

Summary of Results - Device Operating in the 5150-5250 MHz Band

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
Run #1	802.11b	2412 MHz	19		Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15.407	48.1 dBµV/m @ 5434.7 MHz (-5.9 dB)
		5260 MHz	10.5				
		2437 MHz	19				47.7 dBµV/m @ 5434.5 MHz (-6.3 dB)
		5300 MHz	10.5				
	802.11a	2462 MHz	19				47.6 dBµV/m @ 5439.9 MHz (-6.4 dB)
		5320 MHz	10.5				
	Chain A+B+C	2412 MHz	19				52.2 dBµV/m @ 5360.1 MHz (-1.8 dB)
		5500 MHz	17				
		2437 MHz	19				51.3 dBµV/m @ 5359.9 MHz (-2.7 dB)
		5580 MHz	18				
		2462 MHz	19				52.5 dBµV/m @ 5376.3 MHz (-1.5 dB)
		5700 MHz	19				

EMC Test Data

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
Run #2	802.11g	2412 MHz	18		Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15.407	50.9 dBµV/m @ 5436.6 MHz (-3.1 dB)
		5260 MHz	17				51.6 dBµV/m @ 5440.2 MHz (-2.4 dB)
		2437 MHz	19				50.1 dBµV/m @ 5448.5 MHz (-3.9 dB)
		5300 MHz	17				51.0 dBµV/m @ 5374.4 MHz (-3.0 dB)
	802.11a	2462 MHz	18				50.3 dBµV/m @ 5360.0 MHz (-3.7 dB)
		5320 MHz	17				52.2 dBµV/m @ 5375.0 MHz (-1.8 dB)
	Chain A+B+C	2412 MHz	18				
		5500 MHz	17				
		2437 MHz	19				
		5580 MHz	18				
Run #3	802.11n20	2412 MHz	19		Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15.407	53.6 dBµV/m @ 5440.1 MHz (-0.4 dB)
		5260 MHz	18				52.0 dBµV/m @ 5440.2 MHz (-2.0 dB)
		2437 MHz	20				50.5 dBµV/m @ 5440.0 MHz (-3.5 dB)
		5300 MHz	19				52.9 dBµV/m @ 5360.0 MHz (-1.1 dB)
	802.11n20	2462 MHz	19				53.3 dBµV/m @ 5360.1 MHz (-0.7 dB)
		5320 MHz	19				51.1 dBµV/m @ 5375.2 MHz (-2.9 dB)
	Chain A+B+C	2412 MHz	19				
		5500 MHz	19				
		2437 MHz	20				
		5580 MHz	20				
Run #4	802.11n40	2422 MHz	17		Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15.247	50.6 dBµV/m @ 5449.9 MHz (-3.4 dB)
		5270 MHz	17				50.6 dBµV/m @ 5449.7 MHz (-3.4 dB)
		2452 MHz	17				49.3 dBµV/m @ 5363.2 MHz (-4.7 dB)
	802.11n40	5310 MHz	17				50.2 dBµV/m @ 5350.2 MHz (-3.8 dB)
		2422 MHz	17				49.0 dBµV/m @ 5364.1 MHz (-5.0 dB)
	Chain A+B+C	5510 MHz	16				
		2452 MHz	17				
		5670 MHz	16				
		2437 MHz	18				
		5550 MHz	16				



EMC Test Data

Client:	Flextronics	Job Number:	J89632
Model:	AP3710e	T-Log Number:	T89633
Contact:	Georges Fares	Account Manager:	Christine Krebill
Standard:	15.407, RSS-210	Class:	N/A

Antenna:

#	Model	Type	Freq. Band (GHz)	Gain (dBi)	Ind/Out	Xpol?	Pt to Pt?
4	Enterasys WS-AI-DX13025	Sector (6 element)	5.2	11.5	Indoor	2 Xpol / 2 Vert	No

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.

Tested w/ 6dB attenuator

Sample (S/N:295948)

Notes

Antenna: antenna(s) connected

Duty Cycle: 99.0%

ART GUI (Singleradio test) Or Command Line Script (multiple radio test)

ART GUI Used: No

ART GUI Boot File: -

-

ART GUI Calibration file: -

-

Command Line Script: 3710e Pilot_295948 boot and initialize all 3 radios to NART Command Line Interface from 15T - LOW POWER

Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #1, Radiated Spurious Emissions, 1-40GHz, 802.11b/802.11a, Chain A+B+C

Run #1a, EUT on Channel #1 2412MHz - 802.11b and Channel #52 5260MHz - 802.11a - Chain A+B+C

Date of Test: 4/19/2013

Test Location: FT7

Test Engineer: Deniz Demirci, Rafael Varelas

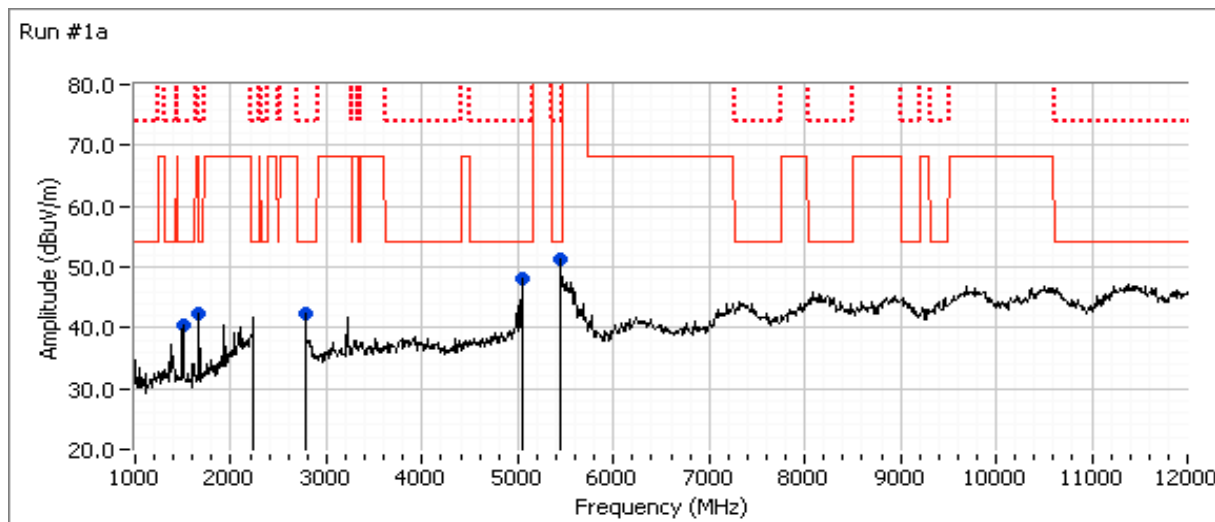
Config Change: None

Radio	Freq	Power Setting
1	5260 MHz	10.5
2	2412 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5434.680	48.1	V	54.0	-5.9	AVG	0	1.0	RB 1 MHz;VB 10 Hz;Peak
5049.190	44.1	H	54.0	-9.9	AVG	138	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.690	39.8	V	54.0	-14.2	AVG	188	2.2	RB 1 MHz;VB 10 Hz;Peak
1500.050	39.7	H	54.0	-14.3	AVG	38	1.1	RB 1 MHz;VB 10 Hz;Peak
5433.270	58.9	V	74.0	-15.1	PK	0	1.0	RB 1 MHz;VB 3 MHz;Peak
2775.700	38.7	V	54.0	-15.3	AVG	52	1.0	RB 1 MHz;VB 10 Hz;Peak
5048.630	56.7	H	74.0	-17.3	PK	138	1.0	RB 1 MHz;VB 3 MHz;Peak
2775.550	50.7	V	74.0	-23.3	PK	52	1.0	RB 1 MHz;VB 3 MHz;Peak
1499.900	47.4	H	74.0	-26.6	PK	38	1.1	RB 1 MHz;VB 3 MHz;Peak
1666.610	45.6	V	74.0	-28.4	PK	188	2.2	RB 1 MHz;VB 3 MHz;Peak

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

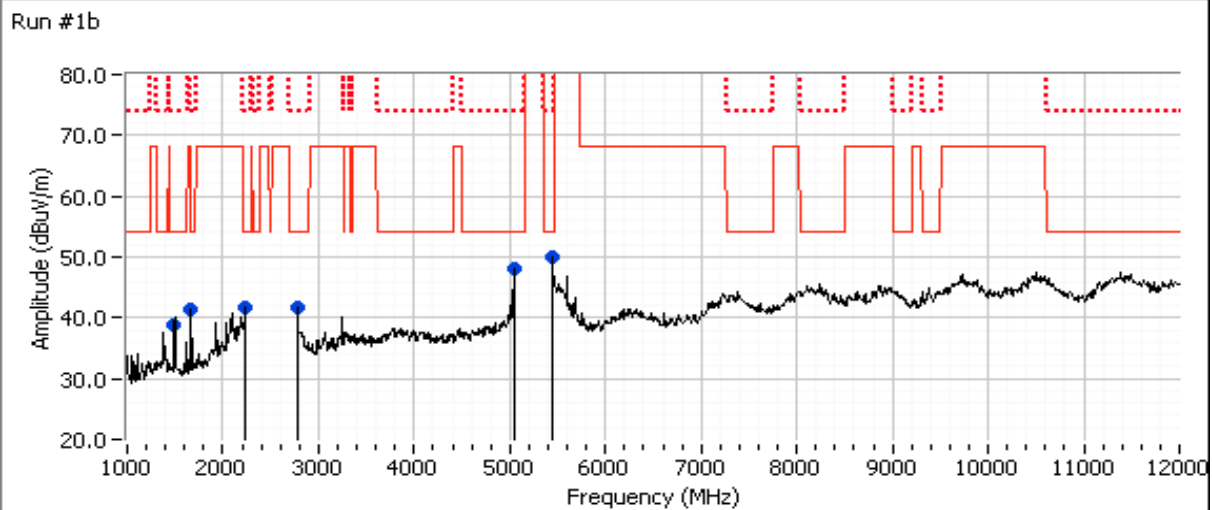
Run #1b: , EUT on Channel #6 2437MHz - 802.11b and Channel #60 5300MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5300 MHz	10.5
2	2437 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5434.540	47.7	V	54.0	-6.3	AVG	3	1.3	RB 1 MHz;VB 10 Hz;Peak
5051.240	44.3	H	54.0	-9.7	AVG	2	1.0	RB 1 MHz;VB 10 Hz;Peak
2240.280	41.5	V	54.0	-12.5	AVG	0	1.0	RB 1 MHz;VB 10 Hz;Peak
5434.680	59.9	V	74.0	-14.1	PK	3	1.3	RB 1 MHz;VB 3 MHz;Peak
1500.000	39.8	H	54.0	-14.2	AVG	40	1.1	RB 1 MHz;VB 10 Hz;Peak
1666.680	39.5	V	54.0	-14.5	AVG	155	1.3	RB 1 MHz;VB 10 Hz;Peak
2773.700	39.5	V	54.0	-14.5	AVG	0	1.0	RB 1 MHz;VB 10 Hz;Peak
5049.900	56.7	H	74.0	-17.3	PK	2	1.0	RB 1 MHz;VB 3 MHz;Peak
2242.340	52.6	V	74.0	-21.4	PK	0	1.0	RB 1 MHz;VB 3 MHz;Peak
2775.070	50.9	V	74.0	-23.1	PK	0	1.0	RB 1 MHz;VB 3 MHz;Peak
1499.830	47.0	H	74.0	-27.0	PK	40	1.1	RB 1 MHz;VB 3 MHz;Peak
1666.600	44.9	V	74.0	-29.1	PK	155	1.3	RB 1 MHz;VB 3 MHz;Peak

- Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.
- Note 2: Scans made between 12 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

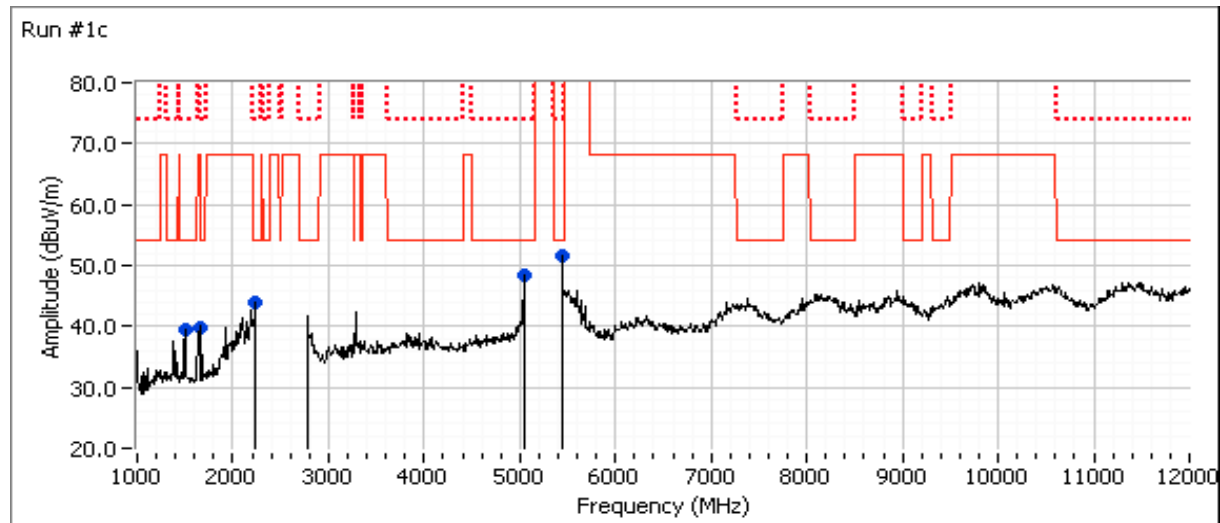
Run #1c: , EUT on Channel #11 2462MHz - 802.11b and Channel #64 5320MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5320 MHz	10.5
2	2462 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5439.940	47.6	V	54.0	-6.4	AVG	360	1.0	RB 1 MHz;VB 10 Hz;Peak
5051.150	44.3	V	54.0	-9.7	AVG	0	1.0	RB 1 MHz;VB 10 Hz;Peak
2240.190	42.0	V	54.0	-12.0	AVG	360	1.3	RB 1 MHz;VB 10 Hz;Peak
5439.410	59.7	V	74.0	-14.3	PK	360	1.0	RB 1 MHz;VB 3 MHz;Peak
1666.780	39.6	V	54.0	-14.4	AVG	179	1.0	RB 1 MHz;VB 10 Hz;Peak
1500.070	38.9	H	54.0	-15.1	AVG	44	1.1	RB 1 MHz;VB 10 Hz;Peak
5050.210	56.7	V	74.0	-17.3	PK	0	1.0	RB 1 MHz;VB 3 MHz;Peak
2240.550	54.2	V	74.0	-19.8	PK	360	1.3	RB 1 MHz;VB 3 MHz;Peak
1500.220	45.9	H	74.0	-28.1	PK	44	1.1	RB 1 MHz;VB 3 MHz;Peak
1666.700	45.4	V	74.0	-28.6	PK	179	1.0	RB 1 MHz;VB 3 MHz;Peak

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

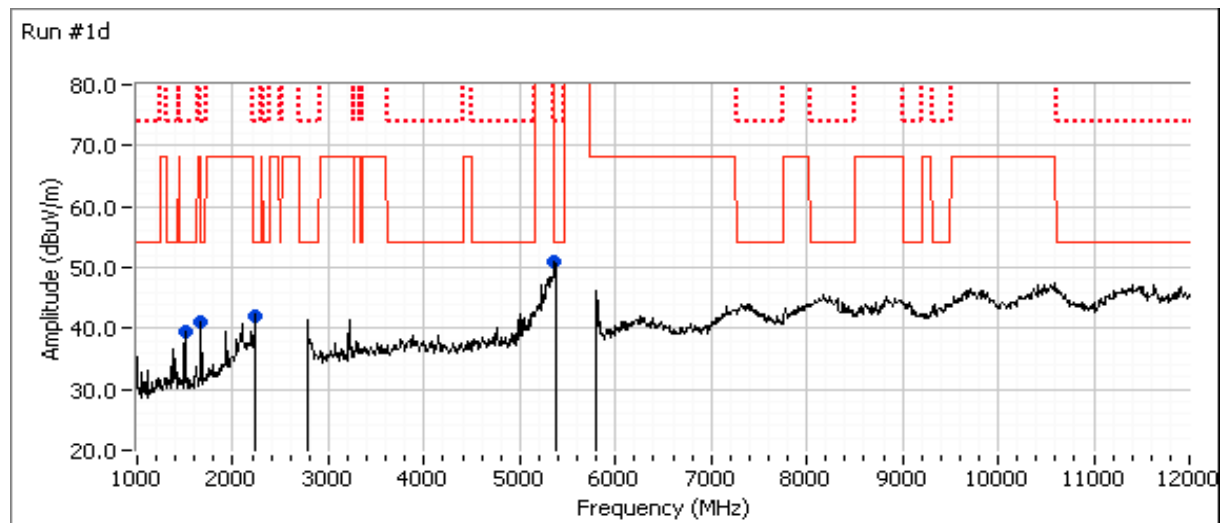
Run #1d, EUT on Channel #1 2412MHz - 802.11b and Channel #100 5500MHz - 802.11a - Chain A+B+C

Radio	Freq	Power Setting
1	5500 MHz	17.0
2	2412 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5360.060	52.2	V	54.0	-1.8	AVG	0	1.0	RB 1 MHz;VB 10 Hz;Peak
5359.870	61.2	V	74.0	-12.8	PK	0	1.0	RB 1 MHz;VB 3 MHz;Peak
2230.240	40.4	H	54.0	-13.6	AVG	8	1.1	RB 1 MHz;VB 10 Hz;Peak
2231.240	51.5	H	74.0	-22.5	PK	8	1.1	RB 1 MHz;VB 3 MHz;Peak
1499.990	39.7	H	54.0	-14.3	AVG	40	1.1	RB 1 MHz;VB 10 Hz;Peak
1499.970	46.2	H	74.0	-27.8	PK	40	1.1	RB 1 MHz;VB 3 MHz;Peak
1666.540	39.2	V	54.0	-14.8	AVG	181	2.2	RB 1 MHz;VB 10 Hz;Peak
1666.600	45.3	V	74.0	-28.7	PK	181	2.2	RB 1 MHz;VB 3 MHz;Peak

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

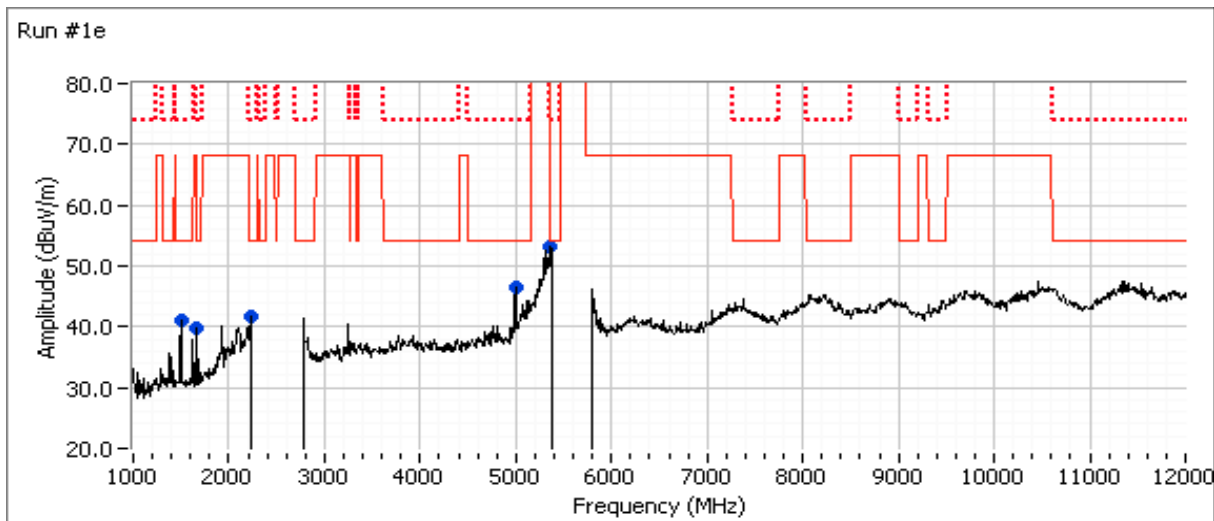
Run #1e: , EUT on Channel #6 2437MHz - 802.11b and Channel #116 5580MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5580 MHz	18.0
2	2437 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5359.940	51.3	V	54.0	-2.7	AVG	1	1.1	RB 1 MHz;VB 10 Hz;Peak
5359.780	61.6	V	74.0	-12.4	PK	1	1.1	RB 1 MHz;VB 3 MHz;Peak
2234.980	41.1	H	54.0	-12.9	AVG	360	1.1	RB 1 MHz;VB 10 Hz;Peak
2236.020	51.9	H	74.0	-22.1	PK	360	1.1	RB 1 MHz;VB 3 MHz;Peak
1666.530	39.5	V	54.0	-14.5	AVG	180	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.390	43.6	V	74.0	-30.4	PK	180	1.0	RB 1 MHz;VB 3 MHz;Peak
1500.030	39.4	H	54.0	-14.6	AVG	40	1.1	RB 1 MHz;VB 10 Hz;Peak
1499.870	44.8	H	74.0	-29.2	PK	40	1.1	RB 1 MHz;VB 3 MHz;Peak
4999.730	45.4	V	54.0	-8.6	AVG	1	1.5	RB 1 MHz;VB 10 Hz;Peak
5000.710	55.9	V	74.0	-18.1	PK	1	1.5	RB 1 MHz;VB 3 MHz;Peak

- Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.
- Note 2: Scans made between 12 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #1f: , EUT on Channel #11 2462MHz - 802.11b and Channel #140 5700MHz - 802.11a, Chain A+B+C

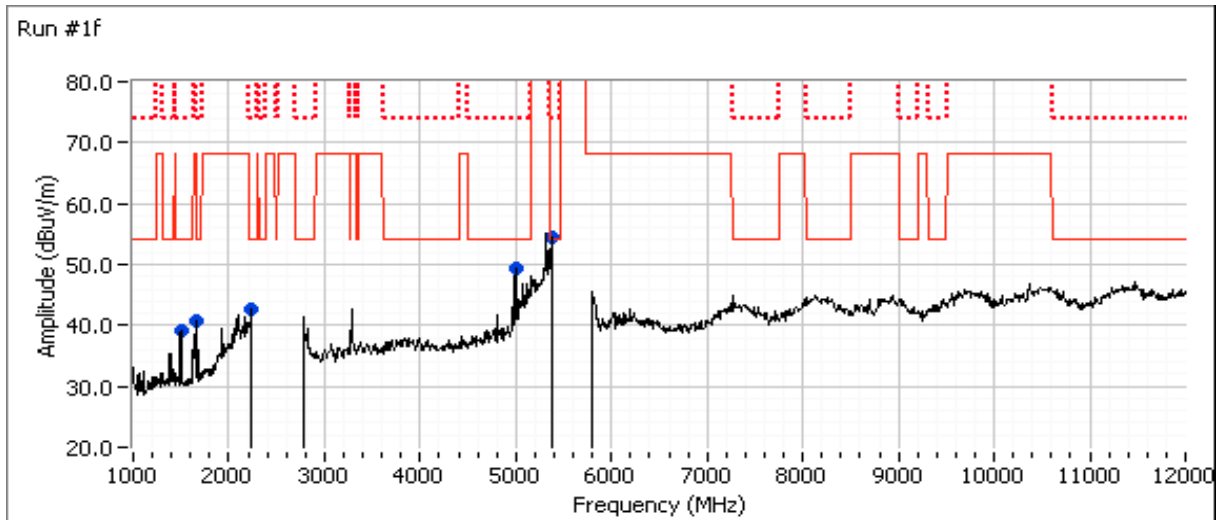
Radio	Freq	Power Setting
1	5700 MHz	19.0
2	2462 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5376.250	52.5	V	54.0	-1.5	AVG	5	1.2	RB 1 MHz;VB 10 Hz;Peak
5367.380	64.0	V	74.0	-10.0	PK	5	1.2	RB 1 MHz;VB 3 MHz;Peak
5000.020	45.5	V	54.0	-8.5	AVG	10	1.0	RB 1 MHz;VB 10 Hz;Peak
5000.580	56.1	V	74.0	-17.9	PK	10	1.0	RB 1 MHz;VB 3 MHz;Peak
1499.960	39.4	H	54.0	-14.6	AVG	35	1.1	RB 1 MHz;VB 10 Hz;Peak
1499.980	46.3	H	74.0	-27.7	PK	35	1.1	RB 1 MHz;VB 3 MHz;Peak
1666.750	38.6	H	54.0	-15.4	AVG	243	1.3	RB 1 MHz;VB 10 Hz;Peak
1666.440	44.6	H	74.0	-29.4	PK	243	1.3	RB 1 MHz;VB 3 MHz;Peak
2231.270	42.0	H	54.0	-12.0	AVG	360	1.1	RB 1 MHz;VB 10 Hz;Peak
2234.600	53.8	H	74.0	-20.2	PK	360	1.1	RB 1 MHz;VB 3 MHz;Peak

Note 1:

For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #2, Radiated Spurious Emissions, 1-40GHz, 802.11g/802.11a, Chain A+B+C

Run #2a, EUT on Channel #1 2412MHz - 802.11g and Channel #52 5260MHz - 802.11a - Chain A+B+C

Date of Test: 4/19/2013

Test Location: FT7

Test Engineer: Rafael Varelas

Config Change: None

Radio	Freq	Power Setting
1	5260 MHz	17.0
2	2412 MHz	18.0

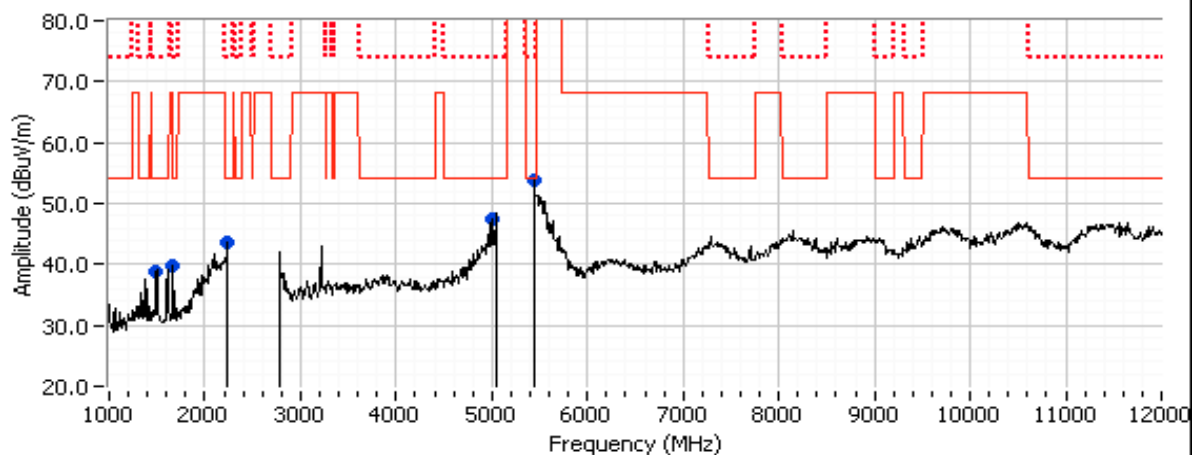
Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5436.580	50.9	V	54.0	-3.1	AVG	6	1.1	RB 1 MHz;VB 10 Hz;Peak
5437.650	62.6	V	74.0	-11.4	PK	6	1.1	RB 1 MHz;VB 3 MHz;Peak
5000.110	46.0	V	54.0	-8.0	AVG	5	1.0	RB 1 MHz;VB 10 Hz;Peak
4999.100	56.5	V	74.0	-17.5	PK	5	1.0	RB 1 MHz;VB 3 MHz;Peak
1500.010	39.8	H	54.0	-14.2	AVG	40	1.1	RB 1 MHz;VB 10 Hz;Peak
1499.710	45.8	H	74.0	-28.2	PK	40	1.1	RB 1 MHz;VB 3 MHz;Peak
1666.690	39.4	V	54.0	-14.6	AVG	289	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.440	43.8	V	74.0	-30.2	PK	289	1.0	RB 1 MHz;VB 3 MHz;Peak
2232.940	43.1	H	54.0	-10.9	AVG	360	1.1	RB 1 MHz;VB 10 Hz;Peak
2239.270	54.1	H	74.0	-19.9	PK	360	1.1	RB 1 MHz;VB 3 MHz;Peak

Note 1:

For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.

Run #2a



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #2b: , EUT on Channel #6 2437MHz - 802.11g and Channel #60 5300MHz - 802.11a, Chain A+B+C

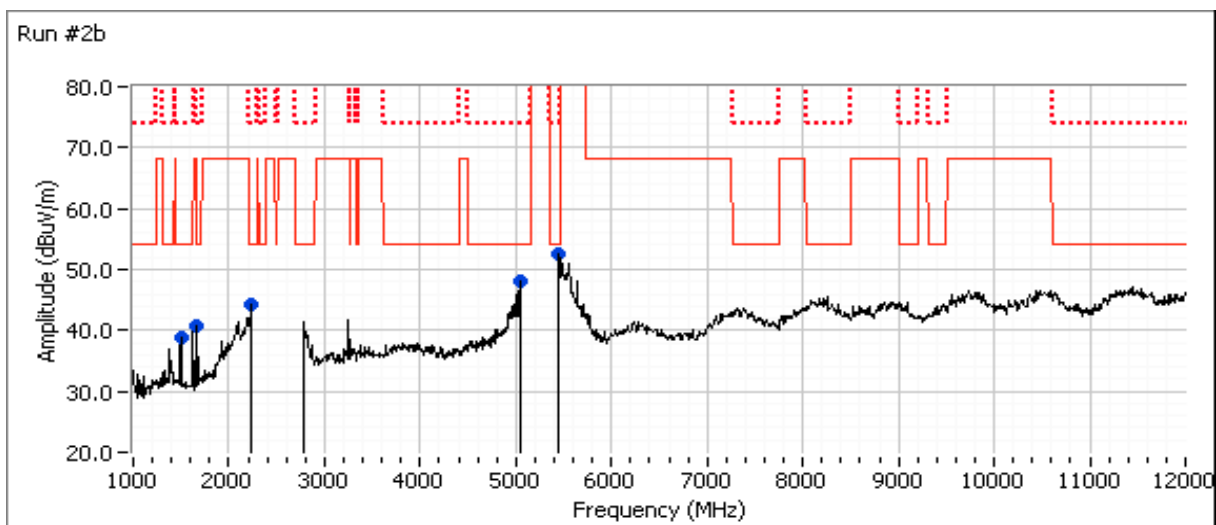
Radio	Freq	Power Setting
1	5300 MHz	17.0
2	2437 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5440.210	51.6	V	54.0	-2.4	AVG	0	1.2	RB 1 MHz;VB 10 Hz;Peak
5436.980	62.4	V	74.0	-11.6	PK	0	1.2	RB 1 MHz;VB 3 MHz;Peak
5057.330	46.9	V	54.0	-7.1	AVG	360	1.5	RB 1 MHz;VB 10 Hz;Peak
5059.930	58.3	V	74.0	-15.7	PK	360	1.5	RB 1 MHz;VB 3 MHz;Peak
2235.520	44.1	V	54.0	-9.9	AVG	360	1.0	RB 1 MHz;VB 10 Hz;Peak
2236.150	55.7	V	74.0	-18.3	PK	360	1.0	RB 1 MHz;VB 3 MHz;Peak
1666.710	39.7	V	54.0	-14.3	AVG	288	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.600	44.5	V	74.0	-29.5	PK	288	1.0	RB 1 MHz;VB 3 MHz;Peak
1499.970	39.9	H	54.0	-14.1	AVG	38	1.1	RB 1 MHz;VB 10 Hz;Peak
1499.970	45.6	H	74.0	-28.4	PK	38	1.1	RB 1 MHz;VB 3 MHz;Peak

- Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.
- Note 2: Scans made between 12 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range

Run #2b



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

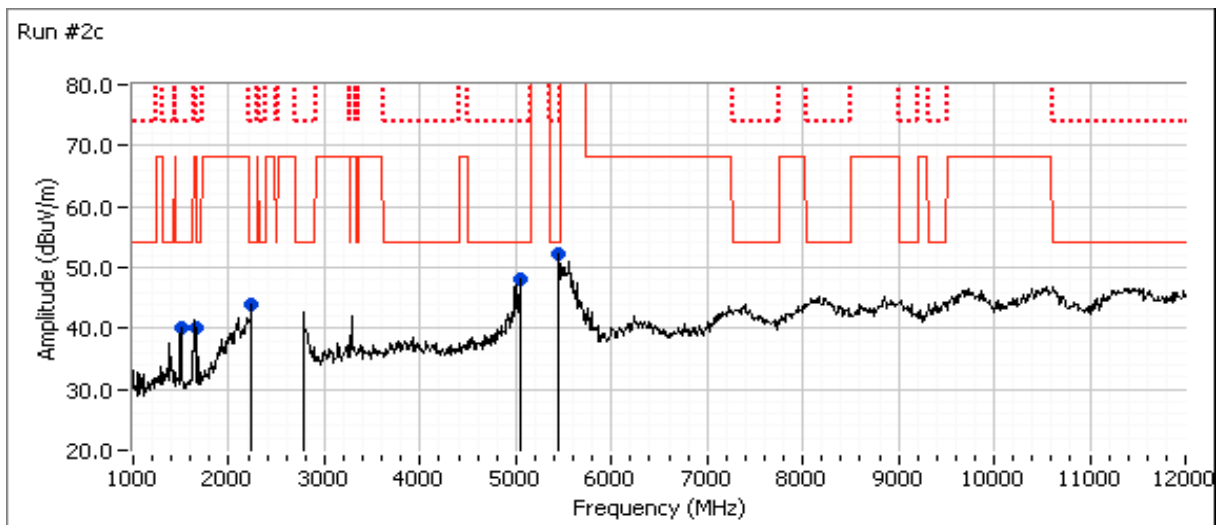
Run #2c: , EUT on Channel #11 2462MHz - 802.11g and Channel #64 5320MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5320 MHz	17.0
2	2462 MHz	18.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5448.460	50.1	V	54.0	-3.9	AVG	0	1.2	RB 1 MHz;VB 10 Hz;Peak
5436.990	61.5	V	74.0	-12.5	PK	0	1.2	RB 1 MHz;VB 3 MHz;Peak
2234.510	44.2	V	54.0	-9.8	AVG	0	1.0	RB 1 MHz;VB 10 Hz;Peak
2233.440	55.3	V	74.0	-18.7	PK	0	1.0	RB 1 MHz;VB 3 MHz;Peak
5043.920	46.7	V	54.0	-7.3	AVG	3	1.0	RB 1 MHz;VB 10 Hz;Peak
5045.020	58.0	V	74.0	-16.0	PK	3	1.0	RB 1 MHz;VB 3 MHz;Peak
1500.040	39.9	H	54.0	-14.1	AVG	42	1.1	RB 1 MHz;VB 10 Hz;Peak
1499.920	45.9	H	74.0	-28.1	PK	42	1.1	RB 1 MHz;VB 3 MHz;Peak
1666.720	39.0	V	54.0	-15.0	AVG	181	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.560	45.1	V	74.0	-28.9	PK	181	1.0	RB 1 MHz;VB 3 MHz;Peak

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

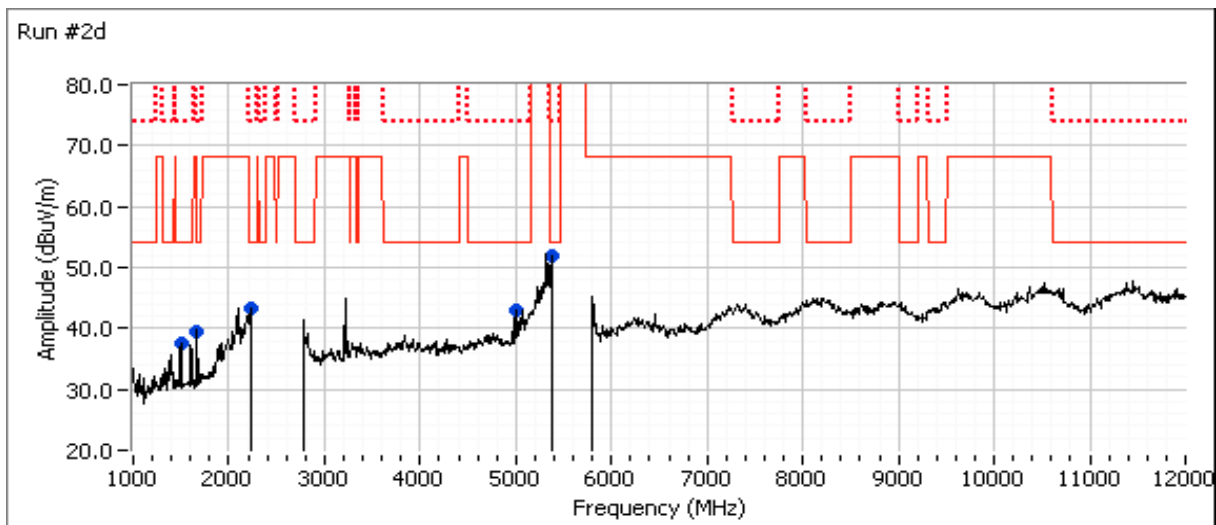
Run #2d, EUT on Channel #1 2412MHz - 802.11g and Channel #100 5500MHz - 802.11a - Chain A+B+C

Radio	Freq	Power Setting
1	5500 MHz	17.0
2	2412 MHz	18.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5374.430	51.0	V	54.0	-3.0	AVG	0	1.0	RB 1 MHz;VB 10 Hz;Peak
5375.490	62.3	V	74.0	-11.7	PK	0	1.0	RB 1 MHz;VB 3 MHz;Peak
1666.760	38.0	V	54.0	-16.0	AVG	210	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.500	42.9	V	74.0	-31.1	PK	210	1.0	RB 1 MHz;VB 3 MHz;Peak
1500.090	39.7	H	54.0	-14.3	AVG	36	1.1	RB 1 MHz;VB 10 Hz;Peak
1500.350	45.8	H	74.0	-28.2	PK	36	1.1	RB 1 MHz;VB 3 MHz;Peak
5000.010	42.9	V	54.0	-11.1	AVG	2	1.5	RB 1 MHz;VB 10 Hz;Peak
4999.760	52.9	V	74.0	-21.1	PK	2	1.5	RB 1 MHz;VB 3 MHz;Peak
2233.880	43.6	V	54.0	-10.4	AVG	0	1.0	RB 1 MHz;VB 10 Hz;Peak
2239.210	55.0	V	74.0	-19.0	PK	0	1.0	RB 1 MHz;VB 3 MHz;Peak

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

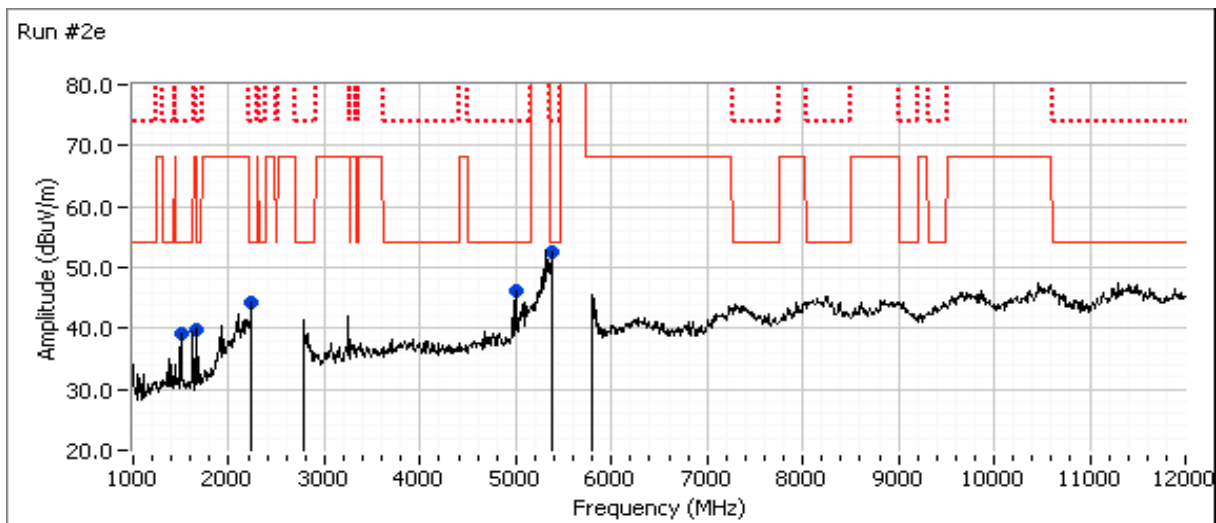
Run #2e: , EUT on Channel #6 2437MHz - 802.11g and Channel #116 5580MHz - 802.11a, Chain A+B+C

Radio	Freq	Power Setting
1	5580 MHz	18.0
2	2437 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5359.960	50.3	V	54.0	-3.7	AVG	2	1.0	RB 1 MHz;VB 10 Hz;Peak
5360.020	61.2	V	74.0	-12.8	PK	2	1.0	RB 1 MHz;VB 3 MHz;Peak
2233.310	43.1	V	54.0	-10.9	AVG	1	1.0	RB 1 MHz;VB 10 Hz;Peak
2233.450	54.3	V	74.0	-19.7	PK	1	1.0	RB 1 MHz;VB 3 MHz;Peak
1500.010	39.6	H	54.0	-14.4	AVG	40	1.1	RB 1 MHz;VB 10 Hz;Peak
1499.970	45.7	H	74.0	-28.3	PK	40	1.1	RB 1 MHz;VB 3 MHz;Peak
1666.830	38.8	V	54.0	-15.2	AVG	179	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.470	44.1	V	74.0	-29.9	PK	179	1.0	RB 1 MHz;VB 3 MHz;Peak
5000.030	39.6	H	54.0	-14.4	AVG	360	1.0	RB 1 MHz;VB 10 Hz;Peak
4999.670	49.0	H	74.0	-25.0	PK	360	1.0	RB 1 MHz;VB 3 MHz;Peak

- Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.
- Note 2: Scans made between 12 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #2f: , EUT on Channel #11 2462MHz - 802.11g and Channel #140 5700MHz - 802.11a, Chain A+B+C

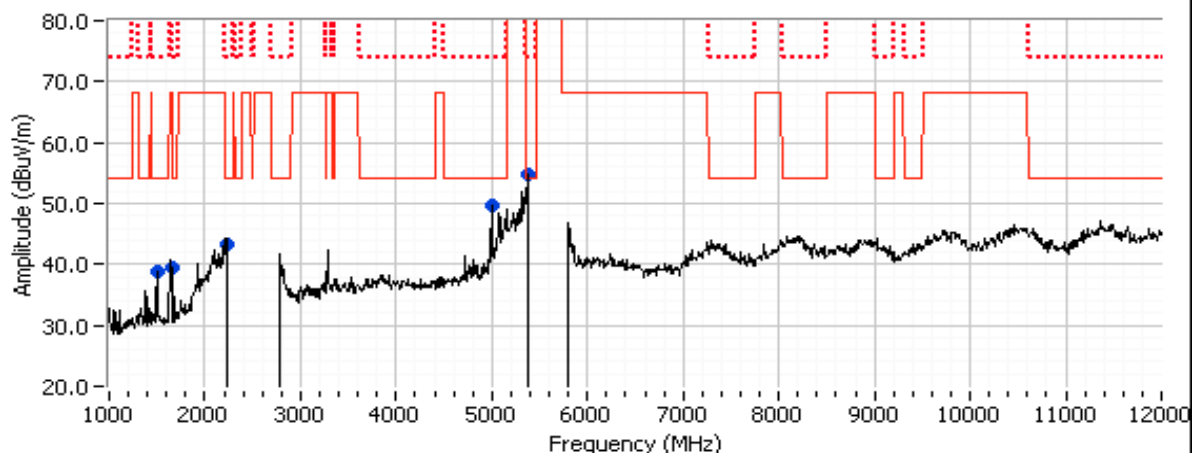
Radio	Freq	Power Setting
1	5700 MHz	19.0
2	2462 MHz	18.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5375.040	52.2	V	54.0	-1.8	AVG	0	1.2	RB 1 MHz;VB 10 Hz;Peak
5379.440	63.4	V	74.0	-10.6	PK	0	1.2	RB 1 MHz;VB 3 MHz;Peak
4999.660	47.7	V	54.0	-6.3	AVG	0	1.5	RB 1 MHz;VB 10 Hz;Peak
5000.250	57.3	V	74.0	-16.7	PK	0	1.5	RB 1 MHz;VB 3 MHz;Peak
1500.040	39.6	H	54.0	-14.4	AVG	39	1.1	RB 1 MHz;VB 10 Hz;Peak
1500.050	45.3	H	74.0	-28.7	PK	39	1.1	RB 1 MHz;VB 3 MHz;Peak
1666.640	38.4	V	54.0	-15.6	AVG	284	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.710	44.2	V	74.0	-29.8	PK	284	1.0	RB 1 MHz;VB 3 MHz;Peak
2230.570	43.6	V	54.0	-10.4	AVG	360	1.0	RB 1 MHz;VB 10 Hz;Peak
2236.640	55.2	V	74.0	-18.8	PK	360	1.0	RB 1 MHz;VB 3 MHz;Peak

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.

Run #2f



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #3, Radiated Spurious Emissions, 1-40GHz, 802.11n20/802.11n20, Chain A+B+C

Run #3a, EUT on Channel #1 2412MHz - 802.11n20 and Channel #52 5260MHz - 802.11n20 - Chain A+B+C

Date of Test: 4/21/2013

Test Location: FT7

Test Engineer: Rafael Varelas

Config Change: None

Radio	Freq	Power Setting
1	5260 MHz	18.0
2	2412 MHz	19.0

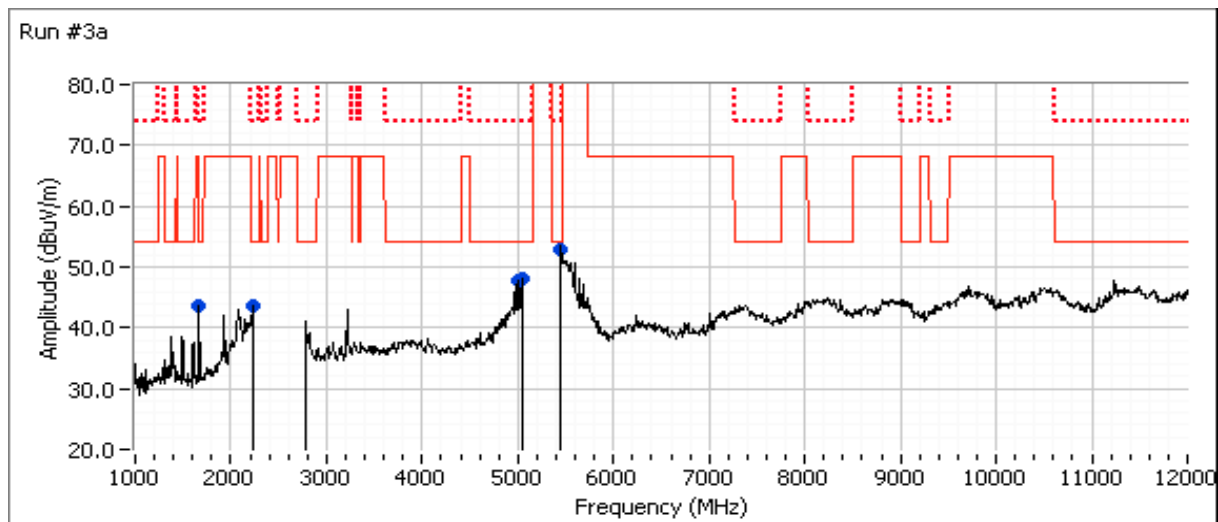
Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5440.100	53.6	V	54.0	-0.4	AVG	0	1.2	RB 1 MHz;VB 10 Hz;Peak
5439.600	64.1	V	74.0	-9.9	PK	0	1.2	RB 1 MHz;VB 3 MHz;Peak
2231.480	43.6	H	54.0	-10.4	AVG	360	1.0	RB 1 MHz;VB 10 Hz;Peak
2233.820	55.1	H	74.0	-18.9	PK	360	1.0	RB 1 MHz;VB 3 MHz;Peak
1666.570	40.9	V	54.0	-13.1	AVG	176	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.680	45.6	V	74.0	-28.4	PK	176	1.0	RB 1 MHz;VB 3 MHz;Peak
5040.210	48.4	V	54.0	-5.6	AVG	1	1.1	RB 1 MHz;VB 10 Hz;Peak
5043.010	57.8	V	74.0	-16.2	PK	1	1.1	RB 1 MHz;VB 3 MHz;Peak
5000.070	49.2	V	54.0	-4.8	AVG	1	1.6	RB 1 MHz;VB 10 Hz;Peak
4999.870	58.4	V	74.0	-15.6	PK	1	1.6	RB 1 MHz;VB 3 MHz;Peak

Note 1:

For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.

Run #3a



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

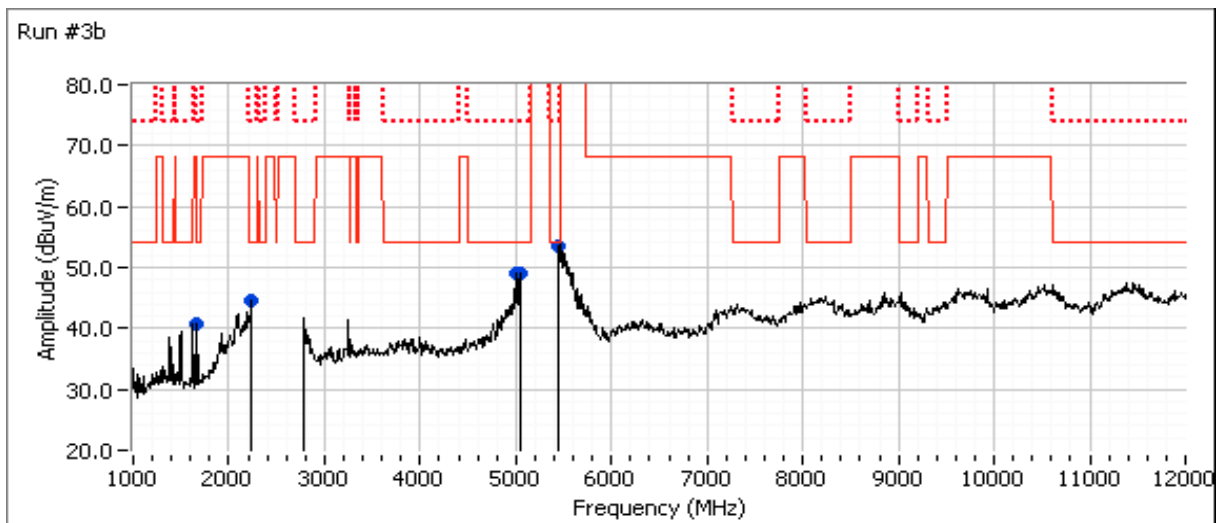
Run #3b: , EUT on Channel #6 2437MHz - 802.11n20 and Channel #60 5300MHz - 802.11n20, Chain A+B+C

Radio	Freq	Power Setting
1	5300 MHz	19.0
2	2437 MHz	20.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5440.160	52.0	V	54.0	-2.0	AVG	3	1.4	RB 1 MHz;VB 10 Hz;Peak
5443.530	62.4	V	74.0	-11.6	PK	3	1.4	RB 1 MHz;VB 3 MHz;Peak
5031.790	46.8	V	54.0	-7.2	AVG	4	1.3	RB 1 MHz;VB 10 Hz;Peak
5031.590	58.1	V	74.0	-15.9	PK	4	1.3	RB 1 MHz;VB 3 MHz;Peak
1666.700	40.5	V	54.0	-13.5	AVG	180	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.660	44.8	V	74.0	-29.2	PK	180	1.0	RB 1 MHz;VB 3 MHz;Peak
5000.040	42.7	H	54.0	-11.3	AVG	360	1.0	RB 1 MHz;VB 10 Hz;Peak
5000.450	52.8	H	74.0	-21.2	PK	360	1.0	RB 1 MHz;VB 3 MHz;Peak
2230.450	43.9	V	54.0	-10.1	AVG	360	1.0	RB 1 MHz;VB 10 Hz;Peak
2240.880	55.2	V	74.0	-18.8	PK	360	1.0	RB 1 MHz;VB 3 MHz;Peak

- Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.
- Note 2: Scans made between 18 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #3c: , EUT on Channel #11 2462MHz - 802.11n20 and Channel #64 5320MHz - 802.11n20, Chain A+B+C

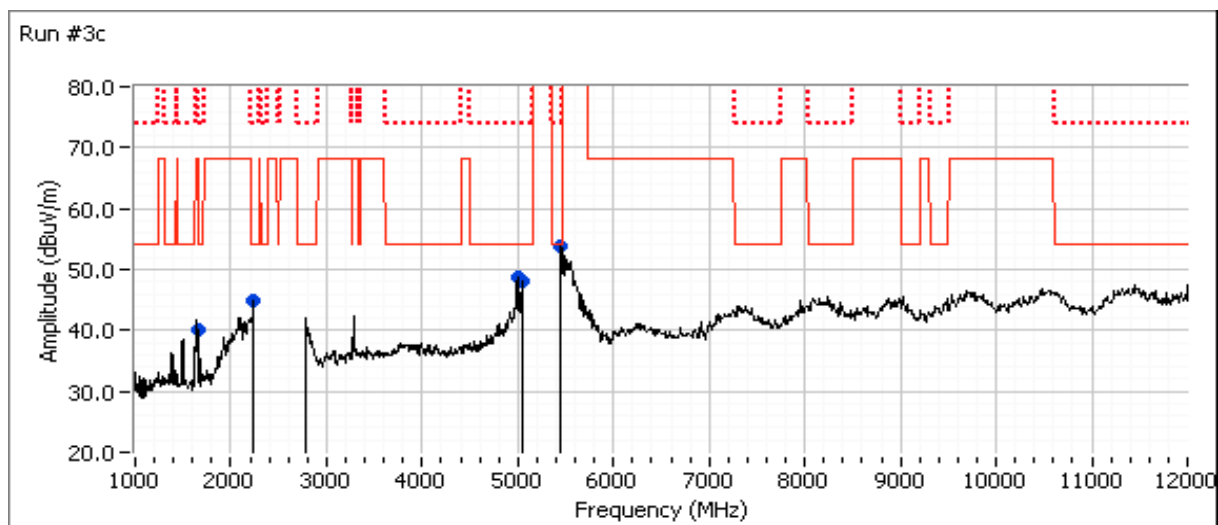
Radio	Freq	Power Setting
1	5320 MHz	19.0
2	2462 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5440.030	50.5	V	54.0	-3.5	AVG	6	1.6	RB 1 MHz;VB 10 Hz;Peak
5439.310	61.0	V	74.0	-13.0	PK	6	1.6	RB 1 MHz;VB 3 MHz;Peak
5039.970	47.1	V	54.0	-6.9	AVG	360	1.2	RB 1 MHz;VB 10 Hz;Peak
5040.530	58.5	V	74.0	-15.5	PK	360	1.2	RB 1 MHz;VB 3 MHz;Peak
2230.790	43.5	V	54.0	-10.5	AVG	360	1.0	RB 1 MHz;VB 10 Hz;Peak
2228.860	56.0	V	74.0	-18.0	PK	360	1.0	RB 1 MHz;VB 3 MHz;Peak
1666.590	39.2	V	54.0	-14.8	AVG	178	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.710	44.7	V	74.0	-29.3	PK	178	1.0	RB 1 MHz;VB 3 MHz;Peak
4999.970	47.7	V	54.0	-6.3	AVG	1	1.5	RB 1 MHz;VB 10 Hz;Peak
5000.020	58.3	V	74.0	-15.7	PK	1	1.5	RB 1 MHz;VB 3 MHz;Peak

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.

Run #3c



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

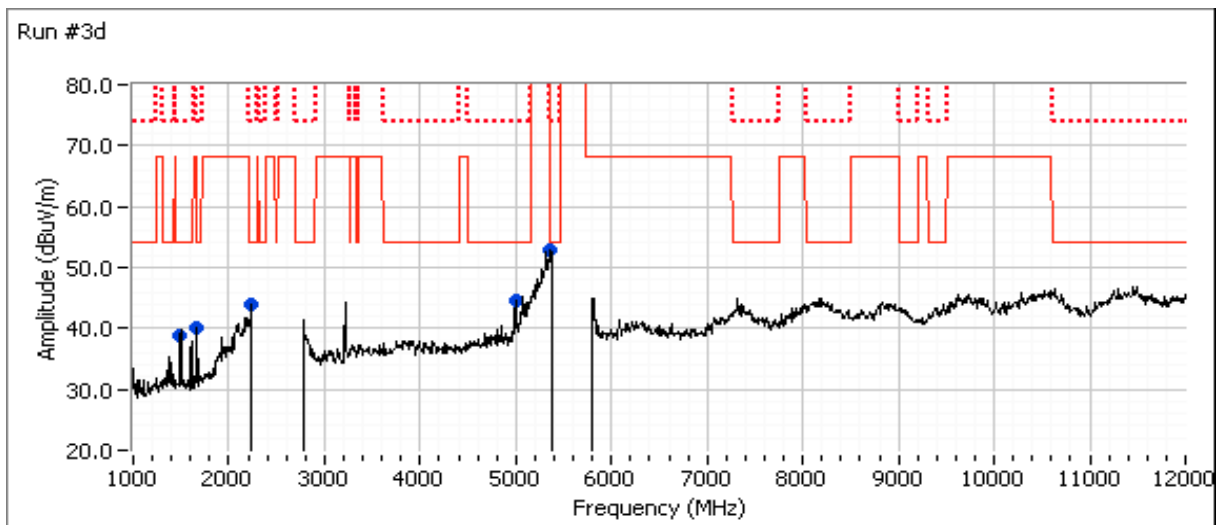
Run #3d, EUT on Channel #1 2412MHz - 802.11n20 and Channel #100 5500MHz - 802.11n20 - Chain A+B+C

Radio	Freq	Power Setting
1	5500 MHz	19.0
2	2412 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5360.020	52.9	V	54.0	-1.1	AVG	0	1.4	RB 1 MHz;VB 10 Hz;Peak
5360.040	62.0	V	74.0	-12.0	PK	0	1.4	RB 1 MHz;VB 3 MHz;Peak
4999.820	44.5	V	54.0	-9.5	AVG	0	1.5	RB 1 MHz;VB 10 Hz;Peak
4999.420	54.4	V	74.0	-19.6	PK	0	1.5	RB 1 MHz;VB 3 MHz;Peak
1499.950	38.1	H	54.0	-15.9	AVG	46	1.1	RB 1 MHz;VB 10 Hz;Peak
1500.220	45.0	H	74.0	-29.0	PK	46	1.1	RB 1 MHz;VB 3 MHz;Peak
1666.890	38.9	V	54.0	-15.1	AVG	170	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.750	43.5	V	74.0	-30.5	PK	170	1.0	RB 1 MHz;VB 3 MHz;Peak
2234.780	43.6	V	54.0	-10.4	AVG	360	1.0	RB 1 MHz;VB 10 Hz;Peak
2236.540	57.0	V	74.0	-17.0	PK	360	1.0	RB 1 MHz;VB 3 MHz;Peak

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

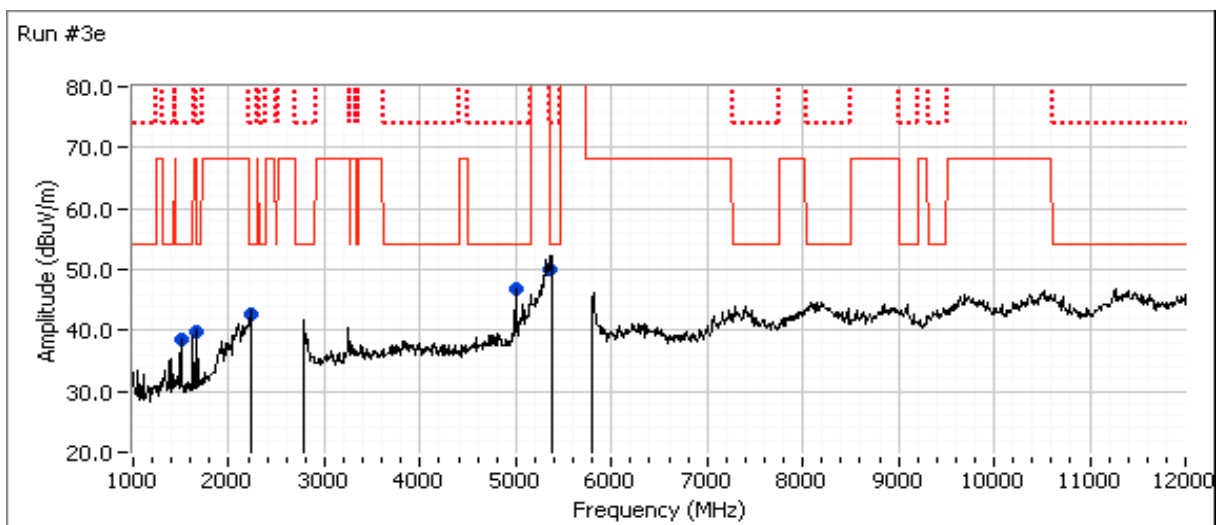
Run #3e: , EUT on Channel #6 2437MHz - 802.11n20 and Channel #116 5580MHz - 802.11n20, Chain A+B+C

Radio	Freq	Power Setting
1	5580 MHz	20.0
2	2437 MHz	20.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5360.100	53.3	V	54.0	-0.7	AVG	360	1.0	RB 1 MHz;VB 10 Hz;Peak
5360.010	62.3	V	74.0	-11.7	PK	360	1.0	RB 1 MHz;VB 3 MHz;Peak
2236.840	43.8	V	54.0	-10.2	AVG	360	1.0	RB 1 MHz;VB 10 Hz;Peak
2233.400	55.0	V	74.0	-19.0	PK	360	1.0	RB 1 MHz;VB 3 MHz;Peak
5000.000	42.3	H	54.0	-11.7	AVG	0	1.0	RB 1 MHz;VB 10 Hz;Peak
4999.940	50.5	H	74.0	-23.5	PK	0	1.0	RB 1 MHz;VB 3 MHz;Peak
1500.030	39.6	H	54.0	-14.4	AVG	40	1.1	RB 1 MHz;VB 10 Hz;Peak
1499.920	45.1	H	74.0	-28.9	PK	40	1.1	RB 1 MHz;VB 3 MHz;Peak
1666.870	39.0	V	54.0	-15.0	AVG	178	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.900	44.7	V	74.0	-29.3	PK	178	1.0	RB 1 MHz;VB 3 MHz;Peak

- Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.
- Note 2: Scans made between 12 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

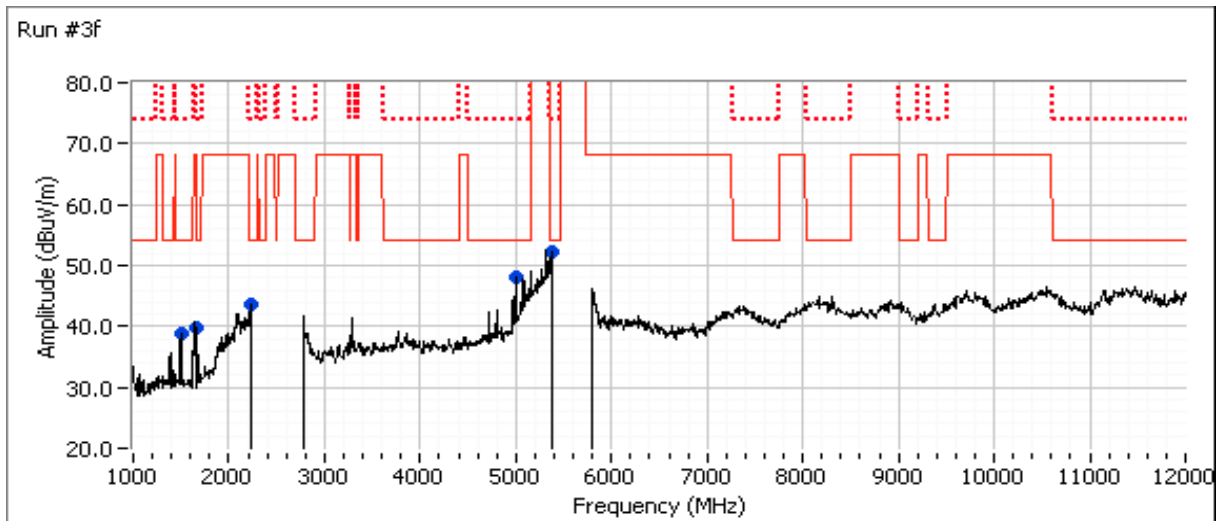
Run #3f: , EUT on Channel #11 2462MHz - 802.11n20 and Channel #140 5700MHz - 802.11n20, Chain A+B+C

Radio	Freq	Power Setting
1	5700 MHz	20.0
2	2462 MHz	19.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5375.200	51.1	H	54.0	-2.9	AVG	0	1.0	RB 1 MHz;VB 10 Hz;Peak
5375.860	62.5	H	74.0	-11.5	PK	0	1.0	RB 1 MHz;VB 3 MHz;Peak
1500.090	37.5	H	54.0	-16.5	AVG	48	1.1	RB 1 MHz;VB 10 Hz;Peak
1500.060	44.0	H	74.0	-30.0	PK	48	1.1	RB 1 MHz;VB 3 MHz;Peak
5000.030	46.7	H	54.0	-7.3	AVG	0	1.0	RB 1 MHz;VB 10 Hz;Peak
4999.990	54.7	H	74.0	-19.3	PK	0	1.0	RB 1 MHz;VB 3 MHz;Peak
1666.670	37.4	V	54.0	-16.6	AVG	214	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.820	43.6	V	74.0	-30.4	PK	214	1.0	RB 1 MHz;VB 3 MHz;Peak
2235.160	44.6	V	54.0	-9.4	AVG	360	1.0	RB 1 MHz;VB 10 Hz;Peak
2234.220	55.7	V	74.0	-18.3	PK	360	1.0	RB 1 MHz;VB 3 MHz;Peak

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #4, Radiated Spurious Emissions, 1-40GHz, 802.11n40/802.11n40, Chain A+B+C

Run #4a, EUT on Channel #3 2422MHz - 802.11n40 and Channel #54 5270MHz - 802.11n40 - Chain A+B+C

Date of Test: 4/21/2013

Test Location: FT7

Test Engineer: Rafael Varelas

Config Change: None

Radio	Freq	Power Setting
1	5270 MHz	17.0
2	2422 MHz	17.0

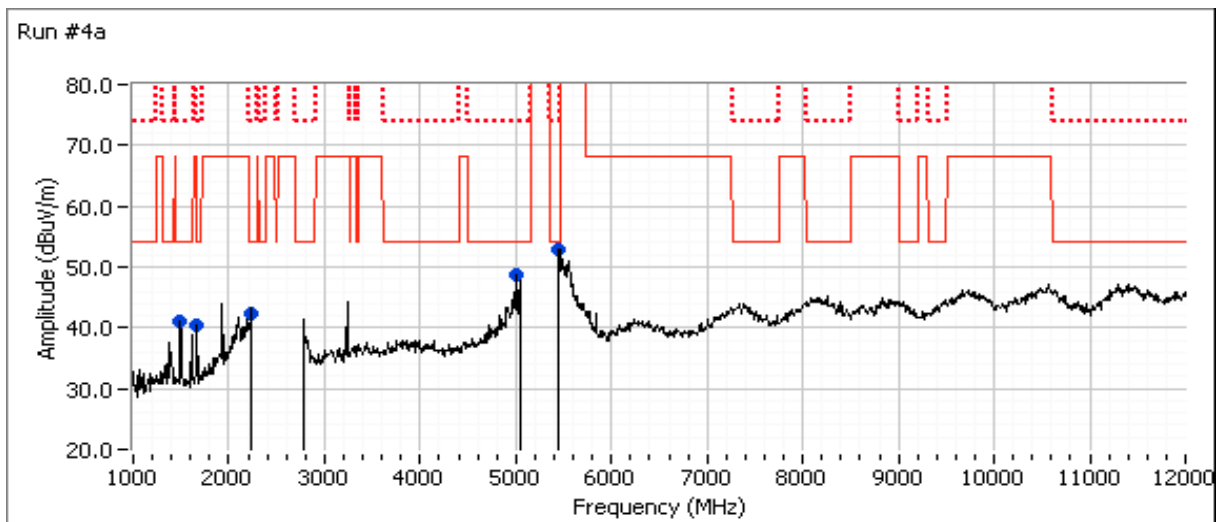
Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBuV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5449.860	50.6	V	54.0	-3.4	AVG	3	1.1	RB 1 MHz;VB 10 Hz;Peak
5432.690	61.2	V	74.0	-12.8	PK	3	1.1	RB 1 MHz;VB 3 MHz;Peak
4999.710	48.2	V	54.0	-5.8	AVG	5	1.6	RB 1 MHz;VB 10 Hz;Peak
4999.900	57.6	V	74.0	-16.4	PK	5	1.6	RB 1 MHz;VB 3 MHz;Peak
2228.870	43.2	H	54.0	-10.8	AVG	4	1.0	RB 1 MHz;VB 10 Hz;Peak
2231.170	54.4	H	74.0	-19.6	PK	4	1.0	RB 1 MHz;VB 3 MHz;Peak
1500.010	39.7	H	54.0	-14.3	AVG	41	1.1	RB 1 MHz;VB 10 Hz;Peak
1500.180	46.0	H	74.0	-28.0	PK	41	1.1	RB 1 MHz;VB 3 MHz;Peak
1666.650	40.0	V	54.0	-14.0	AVG	178	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.780	44.8	V	74.0	-29.2	PK	178	1.0	RB 1 MHz;VB 3 MHz;Peak

Note 1:

For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.

Run #4a



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

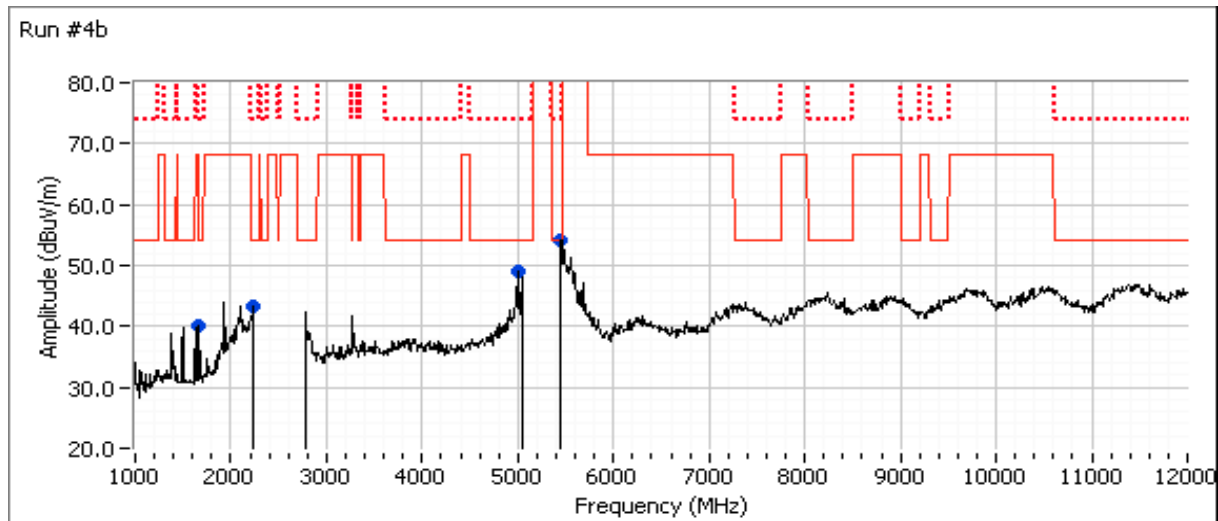
Run #4b: , EUT on Channel #9 2452MHz - 802.11n40 and Channel #62 5310MHz - 802.11n40, Chain A+B+C

Radio	Freq	Power Setting
1	5310 MHz	17.0
2	2452 MHz	17.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5449.650	50.6	V	54.0	-3.4	AVG	3	1.1	RB 1 MHz;VB 10 Hz;Peak
5447.420	63.3	V	74.0	-10.7	PK	3	1.1	RB 1 MHz;VB 3 MHz;Peak
2235.560	43.2	V	54.0	-10.8	AVG	0	1.0	RB 1 MHz;VB 10 Hz;Peak
2231.460	54.8	V	74.0	-19.2	PK	0	1.0	RB 1 MHz;VB 3 MHz;Peak
4999.820	46.1	V	54.0	-7.9	AVG	10	1.5	RB 1 MHz;VB 10 Hz;Peak
5000.200	56.5	V	74.0	-17.5	PK	10	1.5	RB 1 MHz;VB 3 MHz;Peak
1666.440	39.5	V	54.0	-14.5	AVG	177	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.600	44.8	V	74.0	-29.2	PK	177	1.0	RB 1 MHz;VB 3 MHz;Peak

Note 1:	For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.
Note 2:	Scans made between 12 - 26GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no significant emissions in this frequency range



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

Run #4c: , EUT on Channel #3 2422MHz - 802.11n40 and Channel #102 5510MHz - 802.11n40, Chain A+B+C

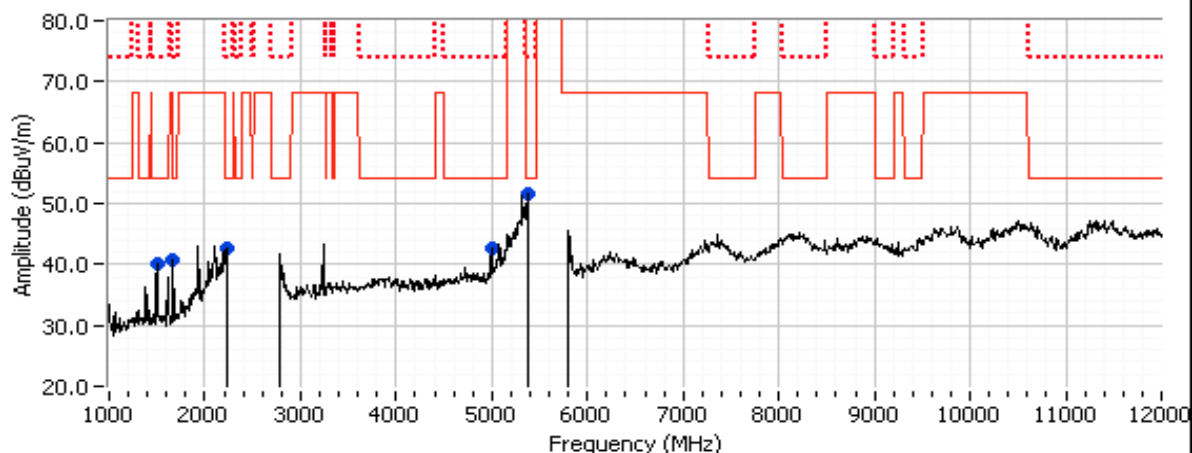
Radio	Freq	Power Setting
1	5510 MHz	16.0
2	2422 MHz	17.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dB μ V/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5363.160	49.3	V	54.0	-4.7	AVG	3	1.1	RB 1 MHz;VB 10 Hz;Peak
5374.260	60.7	V	74.0	-13.3	PK	3	1.1	RB 1 MHz;VB 3 MHz;Peak
4999.830	42.2	V	54.0	-11.8	AVG	2	1.5	RB 1 MHz;VB 10 Hz;Peak
5000.380	52.6	V	74.0	-21.4	PK	2	1.5	RB 1 MHz;VB 3 MHz;Peak
2232.690	42.8	H	54.0	-11.2	AVG	4	1.1	RB 1 MHz;VB 10 Hz;Peak
2235.220	53.8	H	74.0	-20.2	PK	4	1.1	RB 1 MHz;VB 3 MHz;Peak
1500.070	39.1	H	54.0	-14.9	AVG	41	1.1	RB 1 MHz;VB 10 Hz;Peak
1499.970	44.9	H	74.0	-29.1	PK	41	1.1	RB 1 MHz;VB 3 MHz;Peak
1666.760	39.2	V	54.0	-14.8	AVG	178	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.680	44.4	V	74.0	-29.6	PK	178	1.0	RB 1 MHz;VB 3 MHz;Peak

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dB μ V/m). The measurement method required is a peak measurement (RB=1MHz, VB \geq 3MHz, peak detector). Alternatively, the 15.209 limits may be used.

Run #4c



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

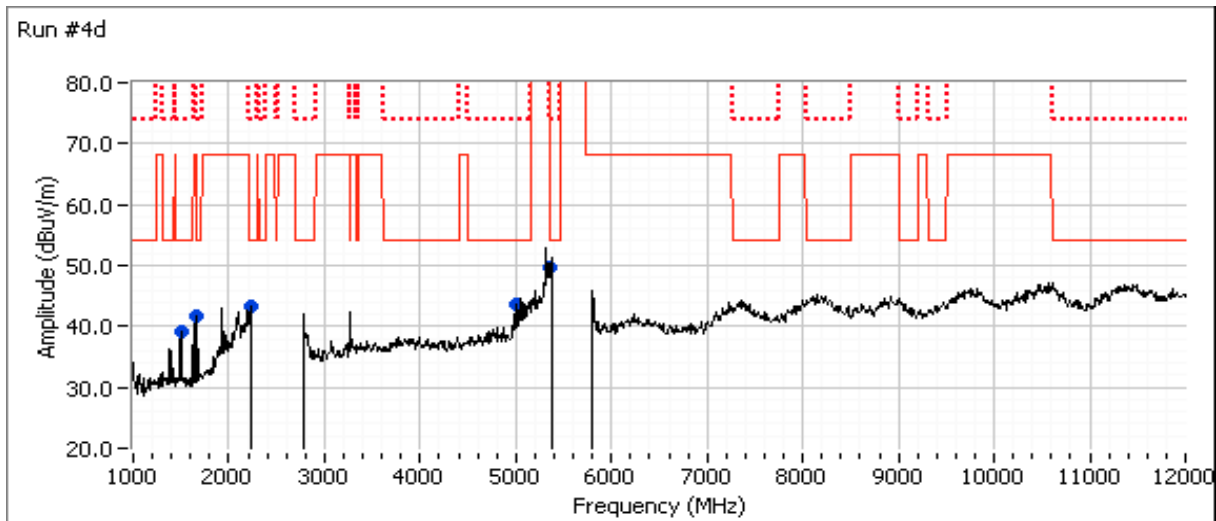
Run #4d: , EUT on Channel #9 2452MHz - 802.11n40 and Channel #134 5670MHz - 802.11n40, Chain A+B+C

Radio	Freq	Power Setting
1	5670 MHz	16.0
2	2452 MHz	17.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5350.240	50.2	V	54.0	-3.8	AVG	0	1.3	RB 1 MHz;VB 10 Hz;Peak
5353.480	60.7	V	74.0	-13.3	PK	0	1.3	RB 1 MHz;VB 3 MHz;Peak
2229.490	42.9	V	54.0	-11.1	AVG	0	1.0	RB 1 MHz;VB 10 Hz;Peak
2237.490	54.5	V	74.0	-19.5	PK	0	1.0	RB 1 MHz;VB 3 MHz;Peak
4999.830	44.2	V	54.0	-9.8	AVG	5	1.6	RB 1 MHz;VB 10 Hz;Peak
5000.620	53.3	V	74.0	-20.7	PK	5	1.6	RB 1 MHz;VB 3 MHz;Peak
1500.070	38.8	H	54.0	-15.2	AVG	37	1.1	RB 1 MHz;VB 10 Hz;Peak
1500.160	45.1	H	74.0	-28.9	PK	37	1.1	RB 1 MHz;VB 3 MHz;Peak
1666.810	39.8	V	54.0	-14.2	AVG	174	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.870	44.1	V	74.0	-29.9	PK	174	1.0	RB 1 MHz;VB 3 MHz;Peak

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



Client: Flextronics	Job Number: J89632
Model: AP3710e	T-Log Number: T89633
Contact: Georges Fares	Account Manager: Christine Krebill
Standard: 15.407, RSS-210	Class: N/A

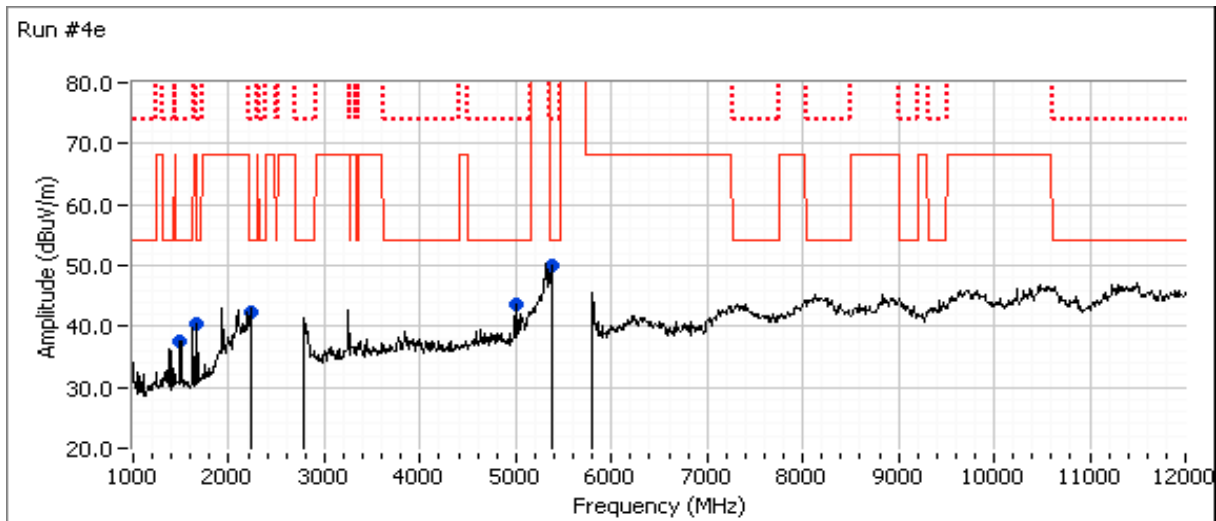
Run #4e: , EUT on Channel #6 2437MHz - 802.11n40 and Channel #110 5550MHz - 802.11n40, Chain A+B+C

Radio	Freq	Power Setting
1	5550 MHz	16.0
2	2437 MHz	18.0

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.407		Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5364.100	49.0	V	54.0	-5.0	AVG	4	1.2	RB 1 MHz;VB 10 Hz;Peak
5375.270	60.7	V	74.0	-13.3	PK	4	1.2	RB 1 MHz;VB 3 MHz;Peak
2231.770	43.3	V	54.0	-10.7	AVG	0	1.0	RB 1 MHz;VB 10 Hz;Peak
2234.340	54.8	V	74.0	-19.2	PK	0	1.0	RB 1 MHz;VB 3 MHz;Peak
4999.990	41.9	V	54.0	-12.1	AVG	7	1.6	RB 1 MHz;VB 10 Hz;Peak
5000.850	52.5	V	74.0	-21.5	PK	7	1.6	RB 1 MHz;VB 3 MHz;Peak
1500.040	39.0	H	54.0	-15.0	AVG	42	1.0	RB 1 MHz;VB 10 Hz;Peak
1500.040	44.8	H	74.0	-29.2	PK	42	1.0	RB 1 MHz;VB 3 MHz;Peak
1666.710	37.3	V	54.0	-16.7	AVG	215	1.0	RB 1 MHz;VB 10 Hz;Peak
1666.780	42.1	V	74.0	-31.9	PK	215	1.0	RB 1 MHz;VB 3 MHz;Peak

Note 1: For emissions outside of the restricted bands the limit is -27dBm/MHz eirp (68.3dBuV/m). The measurement method required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Alternatively, the 15.209 limits may be used.



End of Report

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