EMC Test Report
Application for Grant of Equipment Authorization
Industry Canada RSS-Gen Issue 3 / RSS 210 Issue 8
FCC Part 15 Subpart C

Intel Centrino Wireless-N 105, models 105BNHMW and 105BNHU

IC CERTIFICATION #:	1000M-105BNH and 1000M-105BNHU
FCC ID:	PD9105BNH and PD9105BNHU
APPLICANT:	Intel Corporation 100 Center Point Circle Suite 200 Columbia, SC 29210
TEST SITE(S):	Elliott Laboratories 41039 Boyce Road. Fremont, CA. 94538-2435
IC SITE REGISTRATION #:	2845B-4 & 2845B-5
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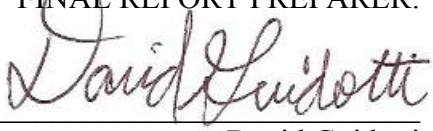

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A2LA ACCREDITED
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REVISION HISTORY

Rev#	Date	Comments	Modified By
-	10-04-2011	First release	
1	10-13-2011	Revised band edge spurious emissions results due to a change in power used on Channel 7 in HT40 mode	Dave Guidotti David Bare

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SCOPE

An electromagnetic emissions test has been performed on the Intel Centrino Wireless-N 105, models 105BNHMW and 105BNHU, 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 C

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

ANSI C63.4:2003
FCC DTS Measurement Procedure KDB558074, March 2005

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 Intel Centrino Wireless-N 105, models 105BNHMW and 105BNHU complied with the requirements of the following regulations:

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 C

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 Intel Corporation model Intel Centrino Wireless-N 105, models 105BNHMW and 105BNHU and therefore apply only to the tested sample. The sample was selected and prepared by Steve Hackett of Intel Corporation.

DEVIATIONS FROM THE STANDARDS

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

TEST RESULTS SUMMARY

DIGITAL TRANSMISSION SYSTEMS (2400 – 2483.5MHz)

FCC Rule Part	RSS Rule Part	Description	Measured Value / Comments	Limit / Requirement	Result
15.247(a)	RSS 210 A8.2	Digital Modulation	Systems uses OFDM / DSSS techniques	System must utilize a digital transmission technology	Complies
15.247 (a) (2)	RSS 210 A8.2 (1)	6dB Bandwidth	12.4 MHz	>500kHz	Complies
15.247 (b) (3)	RSS 210 A8.2 (4)	Output Power (multipoint systems)	802.11b: 39.5mW 802.11g: 138mW HT20: 126mW HT40: 18.6mW EIRP = 0.288 W Note 1	1Watt, EIRP limited to 4 Watts.	Complies
15.247(d)	RSS 210 A8.2 (2)	Power Spectral Density	-6.1 dBm / 3kHz	8dBm/3kHz	Complies
15.247(c)	RSS 210 A8.5	Antenna Port Spurious Emissions 30MHz – 25 GHz	All emissions below the limit	< -20dBc or < -30dBc Note 2	Complies
15.247(c) / 15.209	RSS 210 A8.5	Radiated Spurious Emissions 30MHz – 25 GHz	53.9dBµV/m @ 2483.5MHz (-0.1dB)	15.207 in restricted bands, all others < -20dBc or <-30dBc Note 2	Complies

Note 1: EIRP calculated using antenna gain of 3.2 dBi for the highest EIRP system.
Note 2: Limit of -20dBc or -30dBc used because the power was measured using a peak detector or the UNII test procedure (maximum power averaged over a transmission burst) depending on operating mode.

GENERAL REQUIREMENTS APPLICABLE TO ALL BANDS

FCC Rule Part	RSS Rule part	Description	Measured Value / Comments	Limit / Requirement	Result (margin)
15.203	-	RF Connector	Unique connector	Unique or integral antenna required	Complies
15.207	RSS GEN Table 4	AC Conducted Emissions	16.7dBµV @ 4.809MHz	Refer to page 17	Complies (-29.3dB)
15.109	RSS GEN 6.1 Table 2	Receiver spurious emissions	44.4dBµV/m @ 480.0MHz	Refer to page 18	Complies (-1.6dB)
15.247 (b) (5) 15.407 (f)	RSS-GEN 5.6 RSS 102	RF Exposure Requirements	Refer to MPE calculations in Exhibit 11, RSS 102 declaration and User Manual statements.	Refer to OET 65, FCC Part 1 and RSS 102	Complies
-	RSP 100 RSS GEN 7.1	User Manual	Refer to page 11 of the user's manual	Statement required regarding non-interference	Complies
-	RSP 100 RSS GEN 7.1	User Manual	Not applicable, antenna is integral to host systems.	Statement for products with detachable antenna	Complies
-	RSP 100 RSS GEN 4.6.1	99% Bandwidth	802.11b: 15.2 MHz 802.11g: 18.1 MHz HT20: 19.1 MHz HT40: 36.8 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)	dBµV/m	25 to 1000 MHz	± 3.6 dB
		1000 to 40000 MHz	± 6.0 dB
Conducted Emissions (AC Power)	dBµV	0.15 to 30 MHz	± 2.4 dB

EQUIPMENT UNDER TEST (EUT) DETAILS

GENERAL

The Intel Corporation model Intel Centrino Wireless-N 105, models 105BNHMW and 105BNHU are PCIe Half Mini Card form factor IEEE 802.11b/g/n wireless network adapters that supports 1x1 (SISO).
The device is sold under model numbers 105BNHMW and 105BNHU
Model numbers with FCC ID: PD9105BNHU and IC: 1000M-105BNHU are intended for end user installation and operate with a BiOS lock feature to ensure they can only be used in the appropriate host systems to prevent unauthorized operation. Other models are only intended for OEM factory installation.
For radio testing purposes the card was installed in a test fixture that exposed all sides of the card. For digital device testing for certification under equipment code JBP the card was installed inside a laptop PC.

The sample was received on September 7, 2011 and tested on September 6, 7, 8, 9, 13 and 14, 2011. The EUT consisted of the following component(s):

Company	Model	Description	Serial Number	FCC ID
Intel Corporation	105BNHMW	PCIe Half Mini Card form factor IEEE 802.11b/g/n wireless network adapter	JBP: 001500937030 DTS: 001500937004	PD9105BNH PD9105BNHU 1000M-105BNH
	105BNHU			1000M-105BNHU

ANTENNA SYSTEM

The EUT antenna is a two-antenna PIFA antenna system – Shanghai Universe Communication Electron Co., Ltd for both chains for receive diversity.
The antenna connects to the EUT via a non-standard antenna connector, thereby meeting the requirements of FCC 15.203.

Band	Antenna Gain	
	PiFA	-
2400-2483.5	3.2 dBi	-

ENCLOSURE

The EUT does not have an enclosure as it is designed to be installed within the enclosure of a host computer or system.

MODIFICATIONS

No modifications were made to the EUT during the time the product was at Elliott.

SUPPORT EQUIPMENT

The following equipment was used as support equipment for testing:

Company	Model	Description	Serial Number	FCC ID
Intel Corporation	-	Test Fixture		N/A
Dell	PP17L	Laptop PC	CN-ONF743-48643-7B6-0727	N/A
Agilent	E3610A	DC Supply	100708	N/A

No remote support equipment was used during testing.

EUT INTERFACE PORTS

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

Port	Connected To	Cable(s)		
		Description	Shielded or Unshielded	Length(m)
Laptop USB	Fixture USB	USB cable	Shielded	1.5
Laptop Mini PCI	Fixture PCIe	Ribbon	unshielded	0.7
DC Power	Fixture DC power	2-wire	unshielded	0.7

EUT OPERATION

The EUT was installed into a test fixture that exposed all sides of the card. The test fixture interfaced to a laptop computer and dc power supply. The laptop computer was used to configure the EUT to continuously transmit at a specified output power or continuously receive on the channel specified in the test data. For transmit mode measurements the system was configured to operate in each of the available operating modes – 802.11b, 802.11g, 802.11n (20 MHz channel bandwidth) and 802.11n (40MHz channel bandwidth).

The data rates used for all tests were the lowest data rates for each 802.11 mode – 1Mb/s for 802.11b, 6Mb/s for 802.11a and 802.11g, 6.5MB/s for 802.11n (20MHz), and 13 Mb/s for 802.11n (40MHz). The device operates at its maximum output power at the lowest data rate.

The PC was using the Intel test utility DRTU Version 1.5.3-0320 and the device driver was version 15.0.0.51.

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 4	211948	2845B-4	41039 Boyce Road Fremont, CA 94538-2435
Chamber 5	211948	2845B-5	

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.

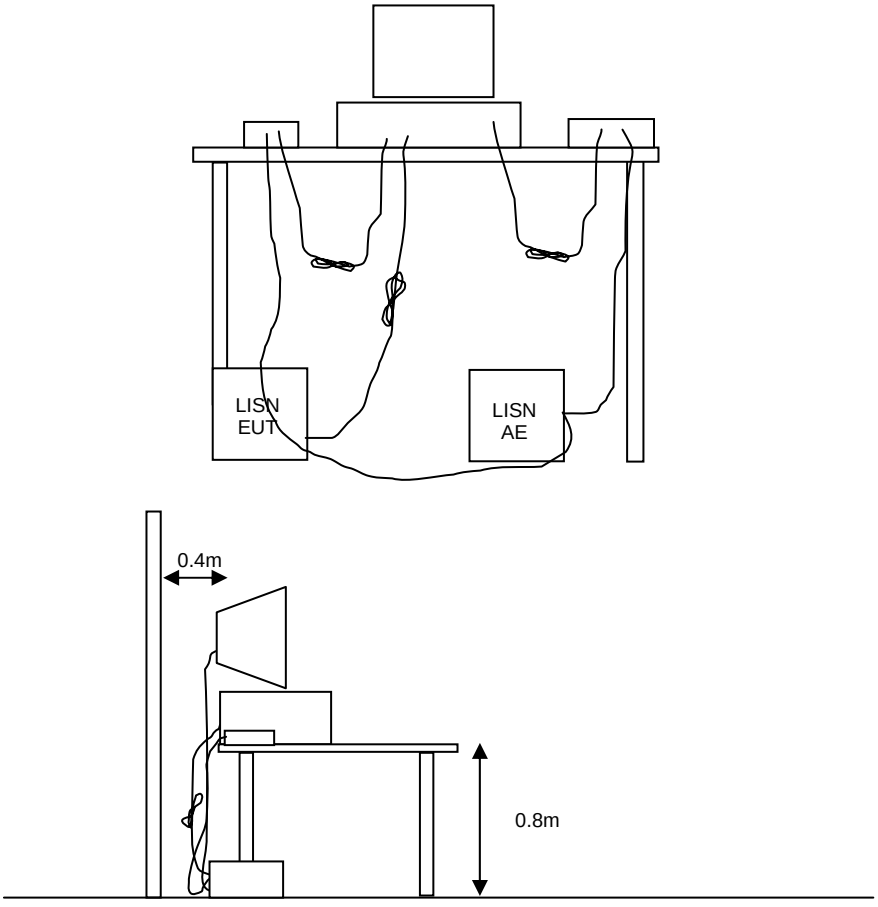


Figure 1 Typical Conducted Emissions Test Configuration

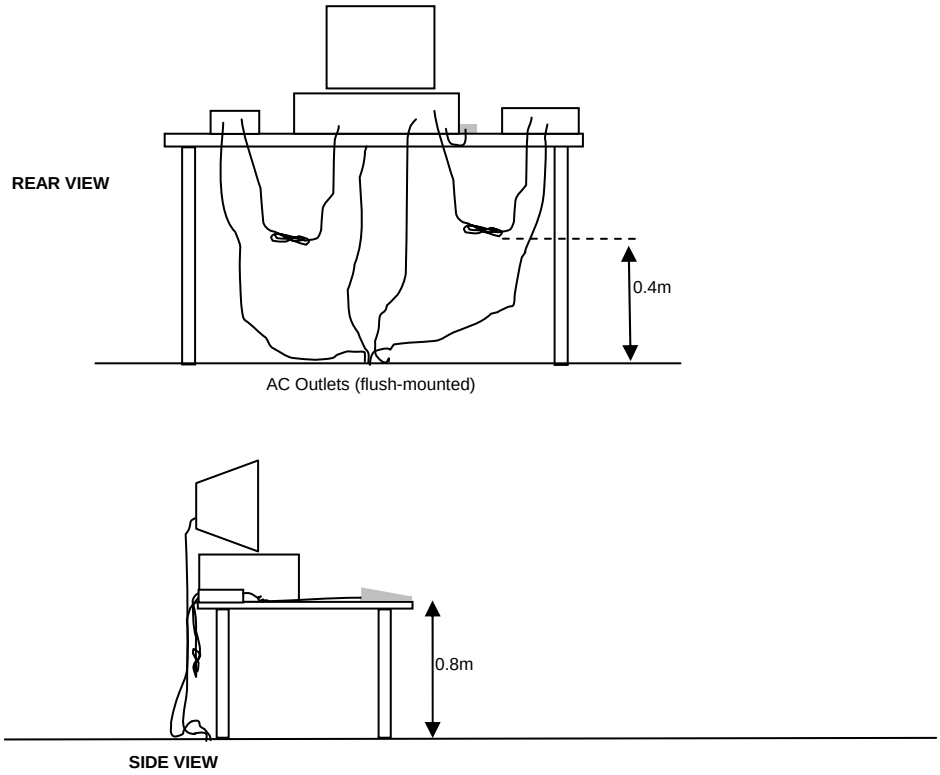
RADIATED EMISSIONS

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.

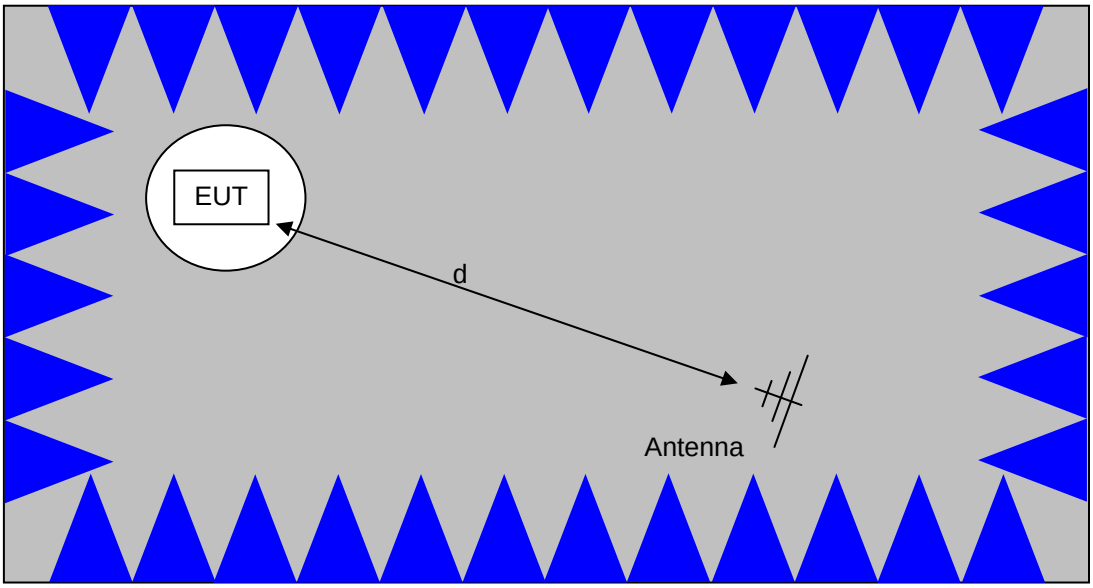
A speaker is provided in the receiver to aid in discriminating between EUT and ambient emissions. Other methods used during the preliminary scan for EUT emissions involve scanning with near field magnetic loops, monitoring I/O cables with RF current clamps, and cycling power to the EUT.

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

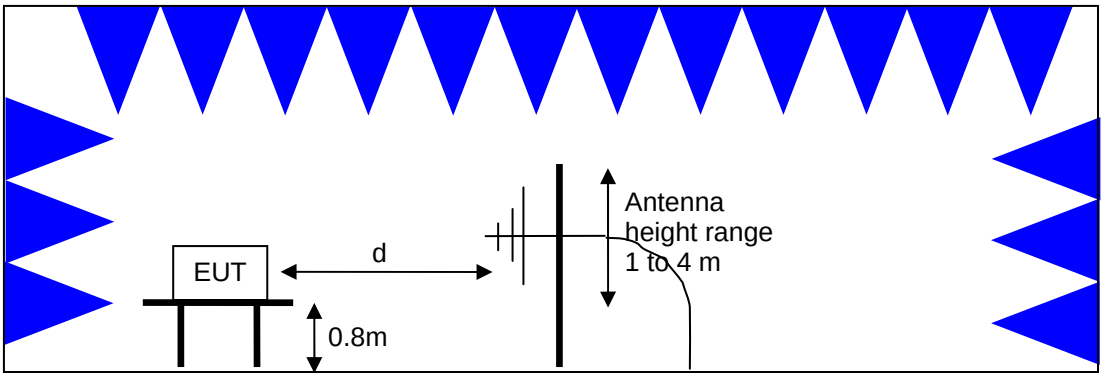


Typical Test Configuration for Radiated Field Strength Measurements



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.

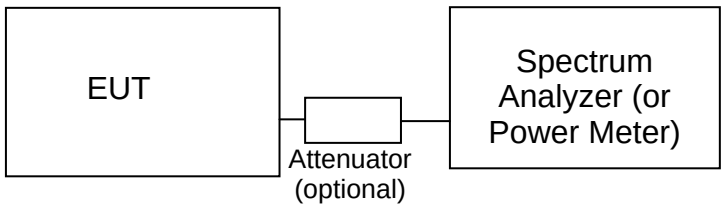
Floor-standing equipment is placed on the floor with insulating supports between the unit and the ground plane.



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

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

RECEIVER RADIATED SPURIOUS EMISSIONS SPECIFICATION LIMITS

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

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

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

OUTPUT POWER LIMITS – DIGITAL TRANSMISSION SYSTEMS

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

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

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

TRANSMIT MODE SPURIOUS RADIATED EMISSIONS LIMITS – FHSS and DTS SYSTEMS

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

SAMPLE CALCULATIONS - CONDUCTED EMISSIONS

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

$$R_r - S = M$$

where:

R_r = Receiver Reading in dBuV

S = Specification Limit in dBuV

M = Margin to Specification in +/- dB

SAMPLE CALCULATIONS - RADIATED EMISSIONS

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

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

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

where:

F_d = Distance Factor in dB

D_m = Measurement Distance in meters

D_s = Specification Distance in meters

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

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

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

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

$$R_c = R_r + F_d$$

and

$$M = R_c - L_s$$

where:

R_r = Receiver Reading in dBuV/m

F_d = Distance Factor in dB

R_c = Corrected Reading in dBuV/m

L_s = Specification Limit in dBuV/m

M = Margin in dB Relative to Spec

SAMPLE CALCULATIONS - FIELD STRENGTH TO EIRP CONVERSION

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

Radiated Emissions, 30 - 6,500 MHz, 07-Sep-11

Manufacturer	Description	Model	Asset #	Cal Due
EMCO	Antenna, Horn, 1-18 GHz	3115	487	7/6/2012
Hewlett Packard	SpecAn 9 kHz - 40 GHz, FT (SA40) Blue	8564E (84125C)	1393	8/9/2012

Radiated Emissions, 30 - 6,500 MHz, 08-Sep-11

Manufacturer	Description	Model	Asset #	Cal Due
EMCO	Antenna, Horn, 1-18 GHz	3115	1142	8/2/2012
Hewlett Packard	SpecAn 30 Hz -40 GHz	8564E (84125C)	1148	8/15/2012

Radiated Emissions, 1000 - 40,000MHz, 09-Sep-11

Manufacturer	Description	Model	Asset #	Cal Due
EMCO	Antenna, Horn, 1-18 GHz	3115	1142	8/2/2012
Hewlett Packard	SpecAn 30 Hz -40 GHz	8564E (84125C)	1148	8/15/2012
Micro-Tronics	Band Reject Filter, 2400-2500 MHz	BRM50702-02	2249	10/11/2011

Radiated Emissions, 30 - 1,000 MHz, 13-Sep-11

Manufacturer	Description	Model	Asset #	Cal Due
Rohde & Schwarz	EMI Test Receiver, 20 Hz-7 GHz	ESIB7	1538	11/2/2011
Hewlett Packard	Preamplifier, 100 kHz - 1.3 GHz	8447D OPT 010	1826	5/17/2012
Sunol Sciences	Biconilog, 30-3000 MHz	JB3	2197	12/29/2011

Radiated Emissions, 30 - 1,000 MHz, 14-Sep-11

Manufacturer	Description	Model	Asset #	Cal Due
Rohde & Schwarz	EMI Test Receiver, 20 Hz-7 GHz	ESIB7	1538	11/2/2011
Hewlett Packard	Preamplifier, 100 kHz - 1.3 GHz	8447D OPT 010	1826	5/17/2012
Sunol Sciences	Biconilog, 30-3000 MHz	JB3	2197	12/29/2011

Conducted Emissions - AC Power Ports, 14-Sep-11

Manufacturer	Description	Model	Asset #	Cal Due
EMCO	LISN, 10 kHz-100 MHz, 25A	3825/2	1292	3/1/2012
EMCO	LISN, 10 kHz-100 MHz	3825/2	1293	3/1/2012
Rohde & Schwarz	EMI Test Receiver, 20 Hz-7 GHz	ESIB7	1538	11/2/2011
Rohde & Schwarz	Pulse Limiter	ESH3 Z2	1401	4/21/2012

Conducted Emissions - AC Power Ports, 15-Sep-11

Manufacturer	Description	Model	Asset #	Cal Due
EMCO	LISN, 10 kHz-100 MHz, 25A	3825/2	1292	3/1/2012
EMCO	LISN, 10 kHz-100 MHz	3825/2	1293	3/1/2012
Rohde & Schwarz	Pulse Limiter	ESH3 Z2	1401	4/21/2012
Rohde & Schwarz	EMI Test Receiver, 20 Hz-7 GHz	ESIB7	1756	4/6/2012

Radiated Emissions, 1000 - 10,000MHz, 10-Oct-11

Manufacturer	Description	Model #	Asset #	Cal Due
Hewlett Packard	Microwave Preamplifier, 1-26.5GHz	8449B	263	08-Dec-11
EMCO	Antenna, Horn, 1-18 GHz	3115	1142	02-Aug-12
Hewlett Packard	SpecAn 30 Hz -40 GHz	8564E (84125C)	1148	15-Aug-12

Appendix B Test Data

T84530 Pages 24 - 75

Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		-
Emissions Standard(s):	FCC Part 15, RSS-210	Class:	-
Immunity Standard(s):	-	Environment:	Radio

EMC Test Data

For The

Intel Corporation

Model

105BNHMW and 105BNHU

Date of Last Test: 10/10/2011

Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

RSS 210 and FCC 15.247 (DTS) Antenna Port Measurements

Power, PSD, 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: 9/9/2011
Test Engineer: Rafael Varelas / Joseph Cadigal
Test Location: FT Chamber #4

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

General Test Configuration

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

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

Ambient Conditions:

Temperature: 22.3 °C
Rel. Humidity: 39 %

Summary of Results

Run #	Pwr setting	Test Performed	Limit	Pass / Fail	Result / Margin
1	see data table	Output Power	15.247(b)	Pass	802.11b: 39.5mW 802.11g: 138mW HT20: 126mW HT40: 18.6mW
2	27.5	Power spectral Density (PSD)	15.247(d)	Pass	-6.1 dBm/3kHz
3	21.5	Minimum 6dB Bandwidth	15.247(a)	Pass	12.4 MHz
3	27.5	99% Bandwidth	RSS GEN	-	802.11b: 15.2 MHz 802.11g: 18.1 MHz HT20: 19.1 MHz HT40: 36.8 MHz
4	27.5	Spurious emissions	15.247(b)	Pass	All emissions below the limit

Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, 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.

Run #1: Output Power

Use -30dBc Limit for spurious

Power Setting[2]	Frequency (MHz)	Output Power (dBm) [1]	Output Power mW	Antenna Gain (dBi)	Result	EIRP [Note 2] dBm	EIRP [Note 2] W	Output Power (dBm) [3]	Output Power mW
802.11b Mode									
21.5	2412	15.7	37.2	3.2	Pass	18.9	0.078		
21.5	2437	16.0	39.5	3.2	Pass	19.2	0.083		
21.5	2462	15.5	35.5	3.2	Pass	18.7	0.074		
HT40									
23.5	2422	11.4	13.7	3.2	Pass	14.6	0.029		
25.0	2437	12.7	18.6	3.2	Pass	15.9	0.039		
21.5	2452	9.7	9.3	3.2	Pass	12.9	0.019		

Note 1:	Output power measured using a spectrum analyzer (see plots below) with RBW=1MHz, VB=3 MHz, sample detector, power averaging on (transmitted signal was continuous) and power integration over 50 MHz (option #2, method 1 in KDB 558074, equivalent to method 1 of DA-02-2138A1 for U-NII devices). Spurious limit becomes -30dBc.
Note 2:	Power setting - the software power setting used during testing, included for reference only.

Use -20dBc Limit for Spurious

Power Setting[2]	Frequency (MHz)	Output Power (dBm) [1]	Output Power mW	Antenna Gain (dBi)	Result	EIRP [Note 2] dBm	EIRP [Note 2] W	Output Power (dBm) [3]	Output Power mW
802.11g Mode									
27.5	2412	21.3	134.9	3.2	Pass	24.5	0.282		
27.5	2437	21.4	138.0	3.2	Pass	24.6	0.288		
24.5	2462	19.4	87.1	3.2	Pass	22.6	0.182		
HT20									
27.5	2412	21.0	125.9	3.2	Pass	24.2	0.263		
27.5	2437	21.0	125.9	3.2	Pass	24.2	0.263		
24.5	2462	19.6	91.2	3.2	Pass	22.8	0.191		

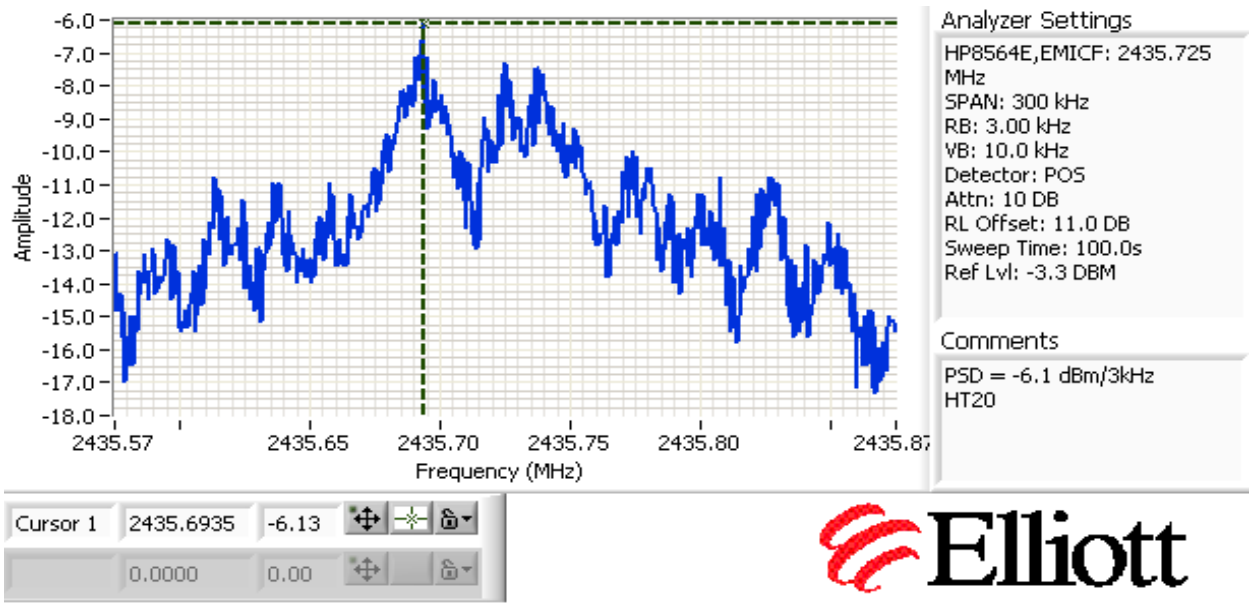
Note 1:	Output power measured using a peak power meter, spurious limit is -20dBc.
Note 2:	Power setting - the software power setting used during testing, included for reference only.

Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

Run #2: Power spectral Density

Mode	Power Setting	Frequency (MHz)	PSD (dBm/3kHz) Note 1	Limit dBm/3kHz	Result
802.11b	21.5	2412.829	-10.0	8.0	Pass
	21.5	2437.824	-10.0	8.0	Pass
	21.5	2462.827	-10.3	8.0	Pass
802.11g	27.5	2412.275	-9.1	8.0	Pass
	27.5	2436.644	-9.1	8.0	Pass
	24.5	2462.324	-10.8	8.0	Pass
HT20	27.5	2416.981	-7.1	8.0	Pass
	27.5	2435.693	-6.1	8.0	Pass
	24.5	2462.578	-10.8	8.0	Pass
HT40	23.5	2419.800	-13.5	8.0	Pass
	25.0	2440.729	-13.1	8.0	Pass
	21.5	2455.740	-16.3	8.0	Pass

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

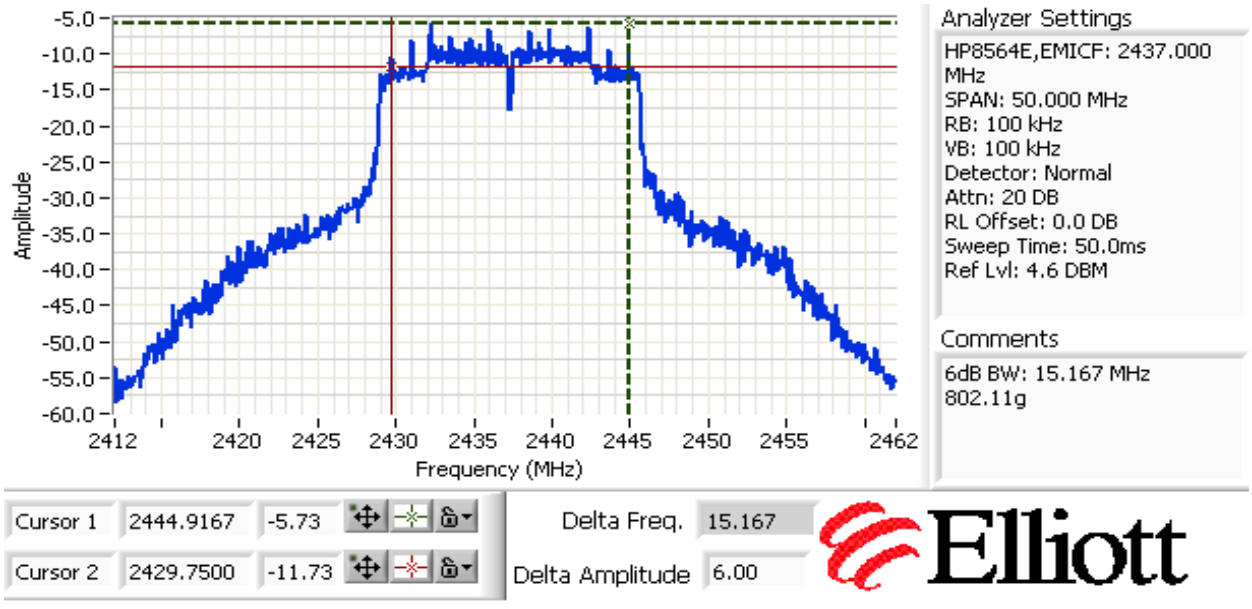


Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

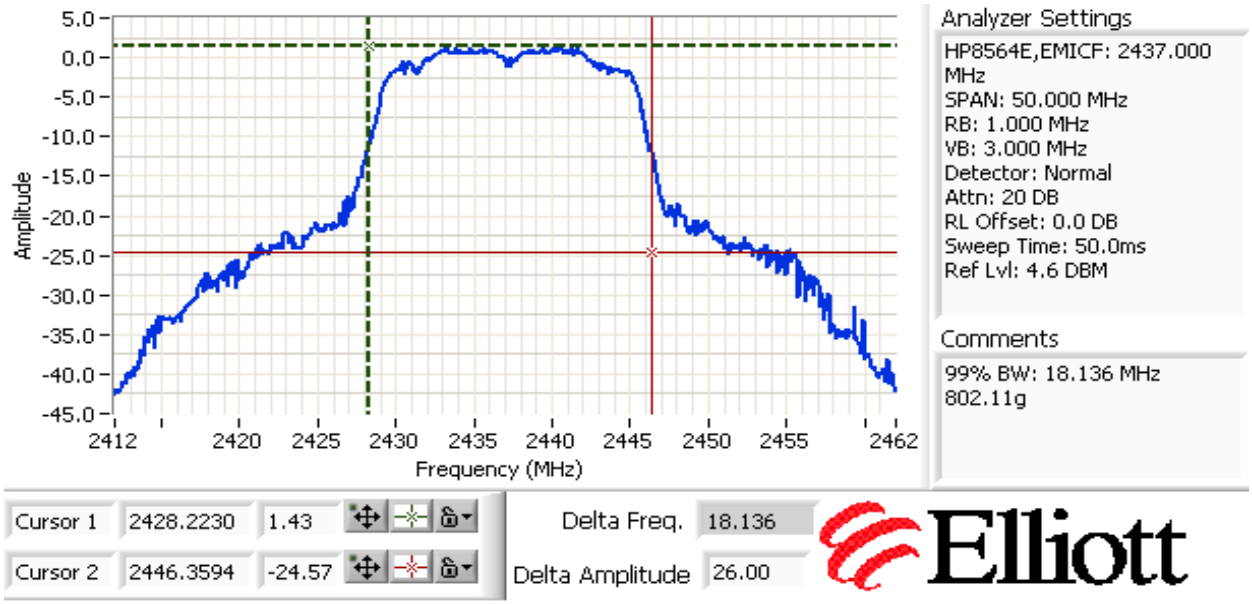
Run #3: Signal Bandwidth

Mode	Power Setting	Frequency (MHz)	Resolution Bandwidth	Bandwidth (MHz) 6dB	99%
802.11b	21.5	2412	100kHz	12.4	15.1
	21.5	2437	100kHz	12.5	15.2
	21.5	2462	100kHz	12.4	15.1
802.11g	27.5	2412	100kHz	15.2	18.0
	27.5	2437	100kHz	15.2	18.1
	24.5	2462	100kHz	15.3	17.5
HT20	27.5	2412	100kHz	15.2	19.1
	27.5	2437	100kHz	16.7	19.1
	24.5	2462	100kHz	15.3	18.5
HT40	23.5	2422	100kHz	35.3	36.8
	25.0	2437	100kHz	35.8	36.8
	21.5	2452	100kHz	35.8	36.8

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



Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

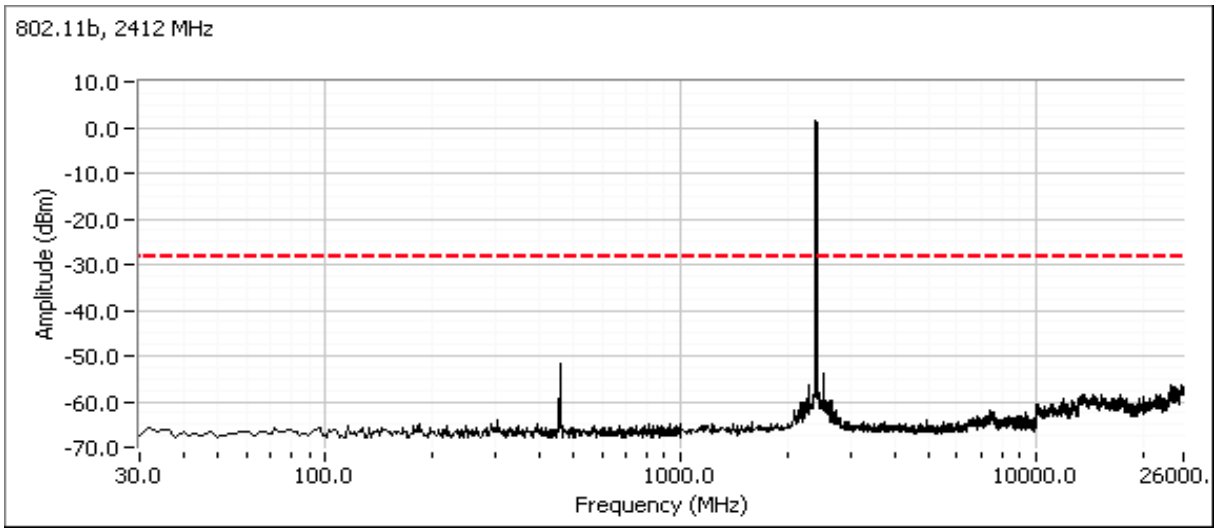


Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

Run #4: Out of Band Spurious Emissions

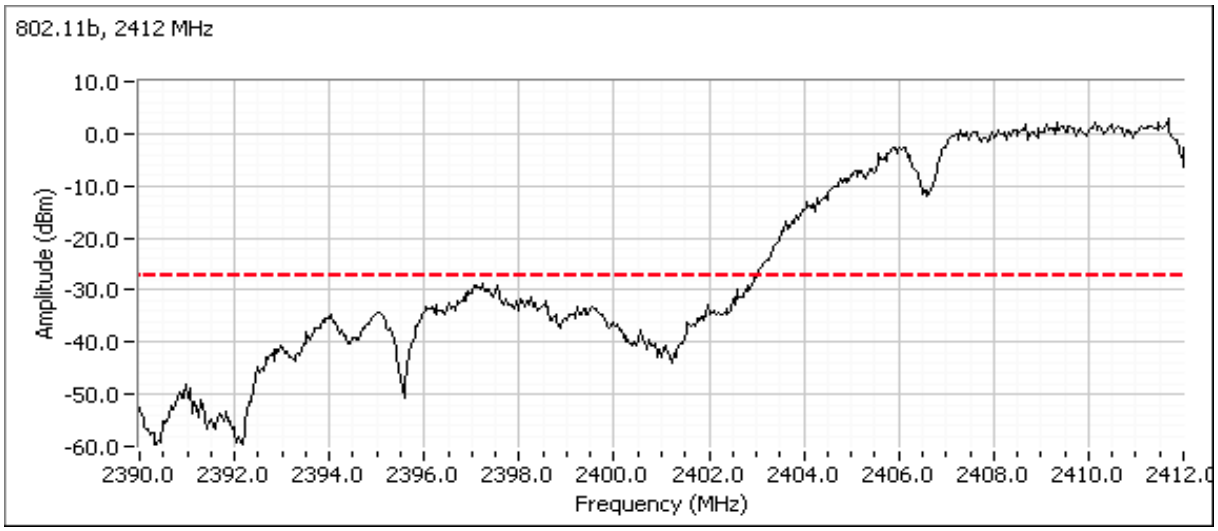
Frequency (MHz)	Limit	Result
2412MHz, 802.11b	-30dBc	Pass
2437MHz, 802.11b	-30dBc	Pass
2462MHz, 802.11b	-30dBc	Pass
2412MHz, 802.11g	-20dBc	Pass
2437MHz, 802.11g	-20dBc	Pass
2462MHz, 802.11g	-20dBc	Pass
2412MHz, HT20	-20dBc	Pass
2437MHz, HT20	-20dBc	Pass
2462MHz, HT20	-20dBc	Pass
2422MHz, HT40	-30dBc	Pass
2437MHz, HT40	-30dBc	Pass
2452MHz, HT40	-30dBc	Pass

Plots for low channel,802.11b

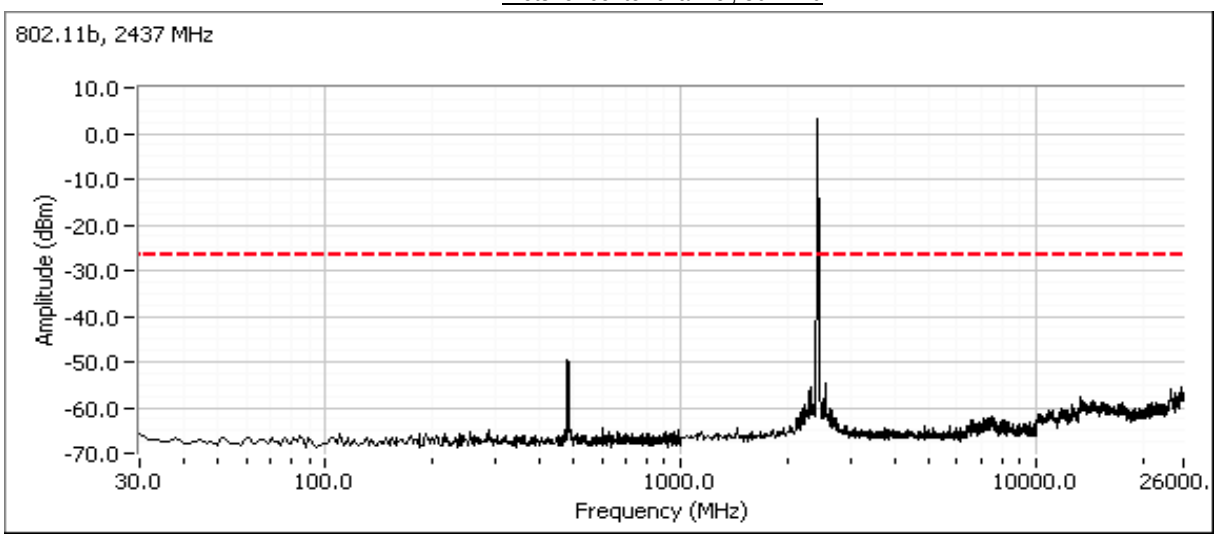


Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

Additional plot showing compliance with -30dBc limit from 2390 MHz to 2400 MHz. Radiated measurements used to show compliance with the limits in the restricted band below 2390 MHz.

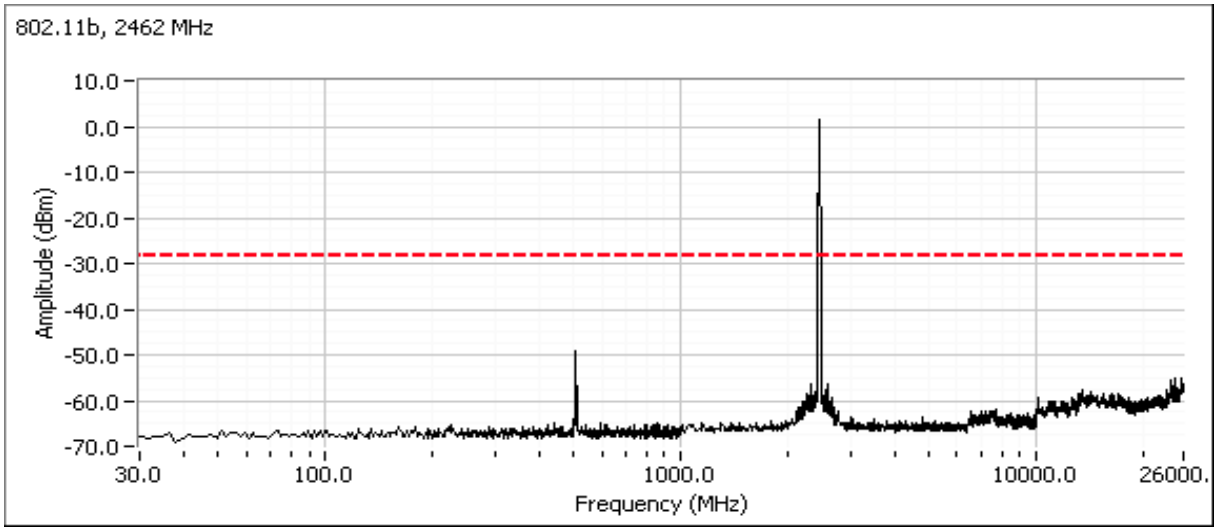


Plots for center channel, 802.11b

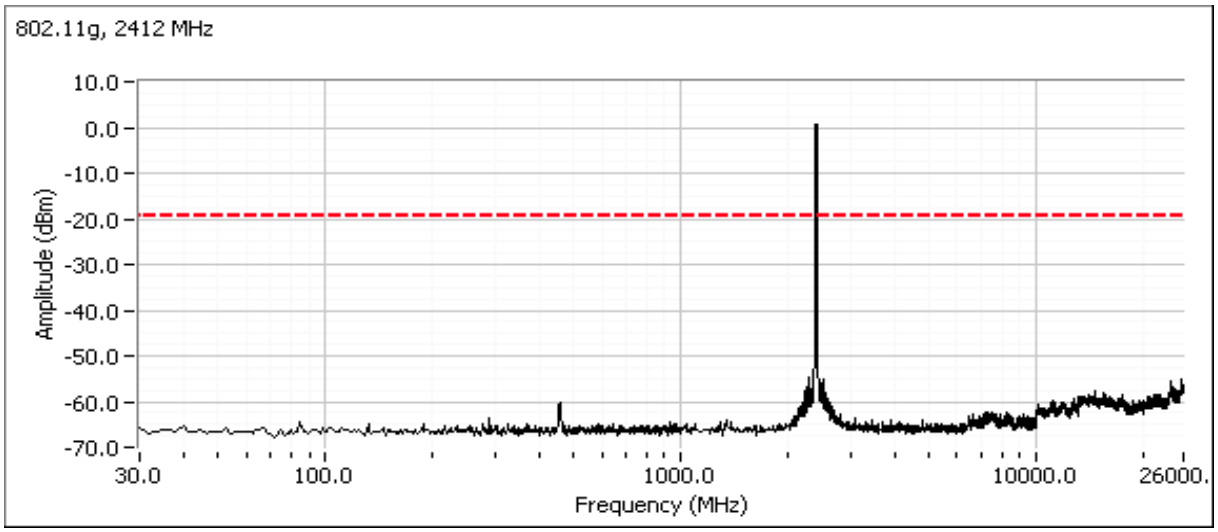


Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

Plots for high channel, 802.11b

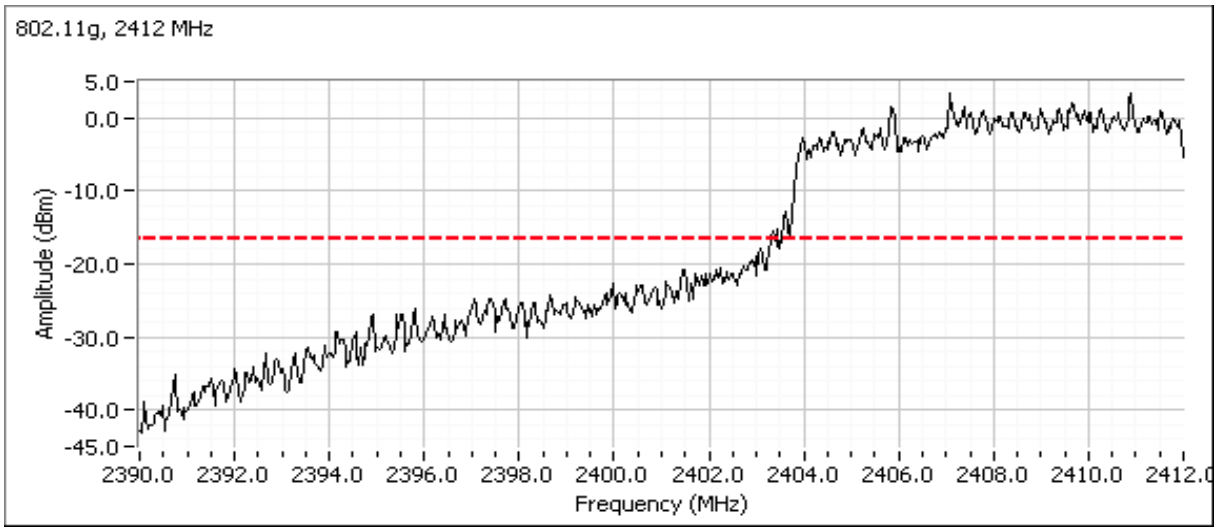


Plots for low channel,802.11g

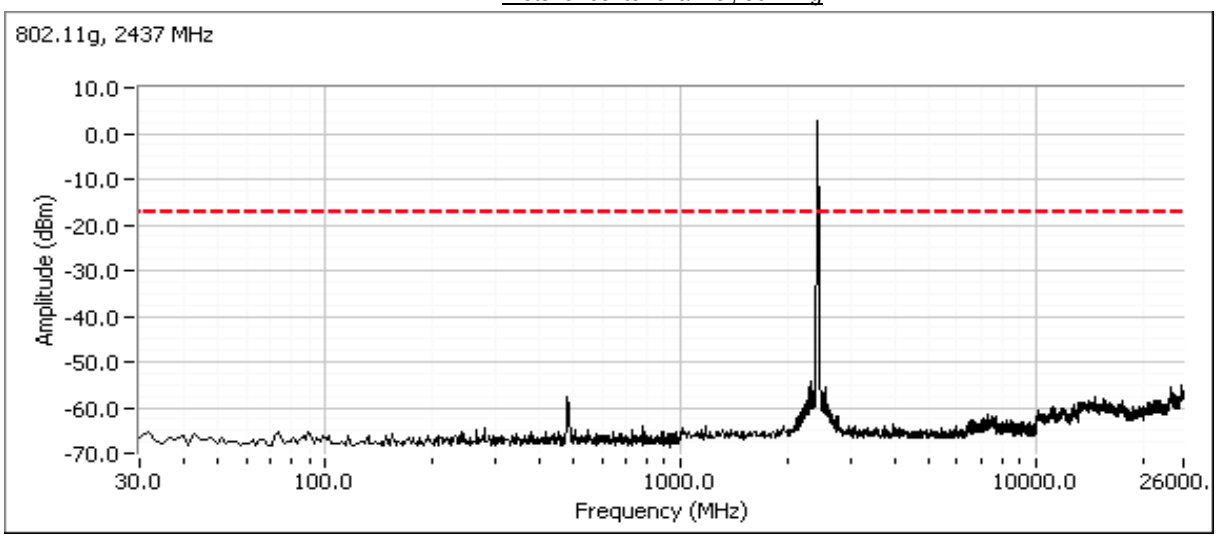


Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

Additional plot showing compliance with -20dBc limit from 2390 MHz to 2400 MHz. Radiated measurements used to show compliance with the limits in the restricted band below 2390 MHz.

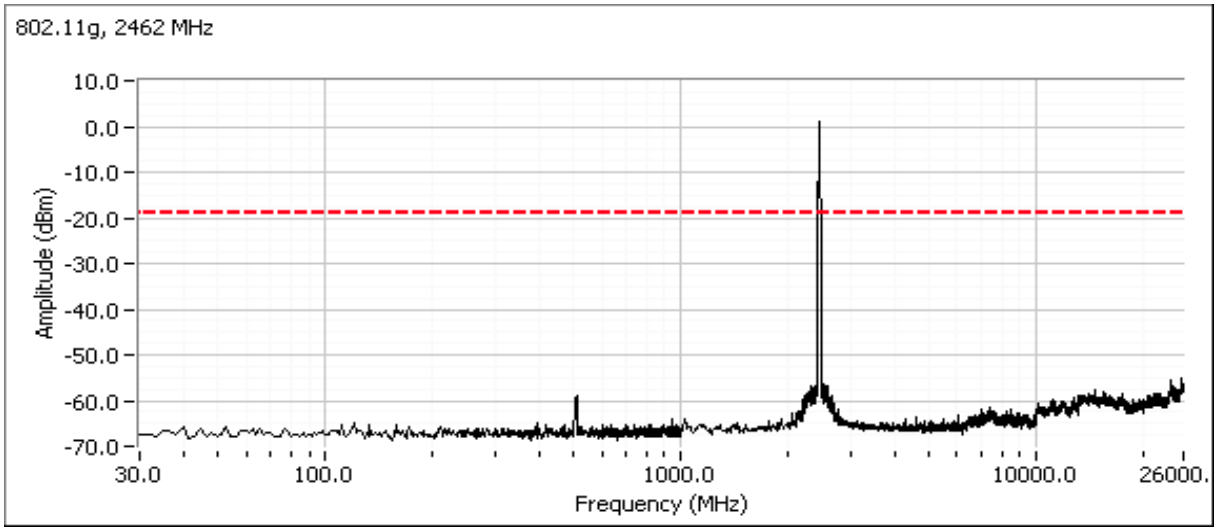


Plots for center channel, 802.11g

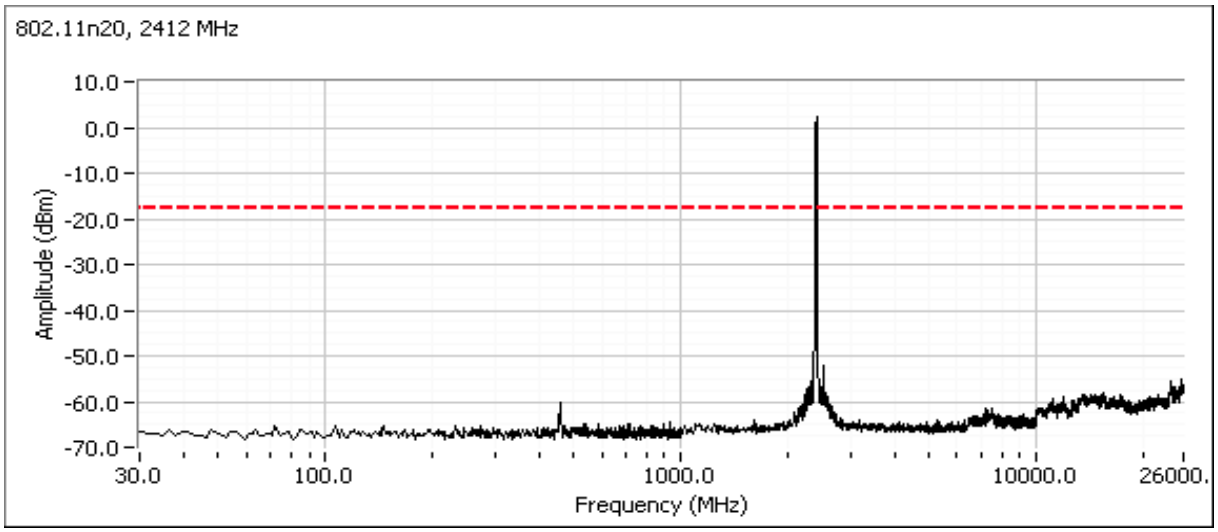


Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

Plots for high channel, 802.11g

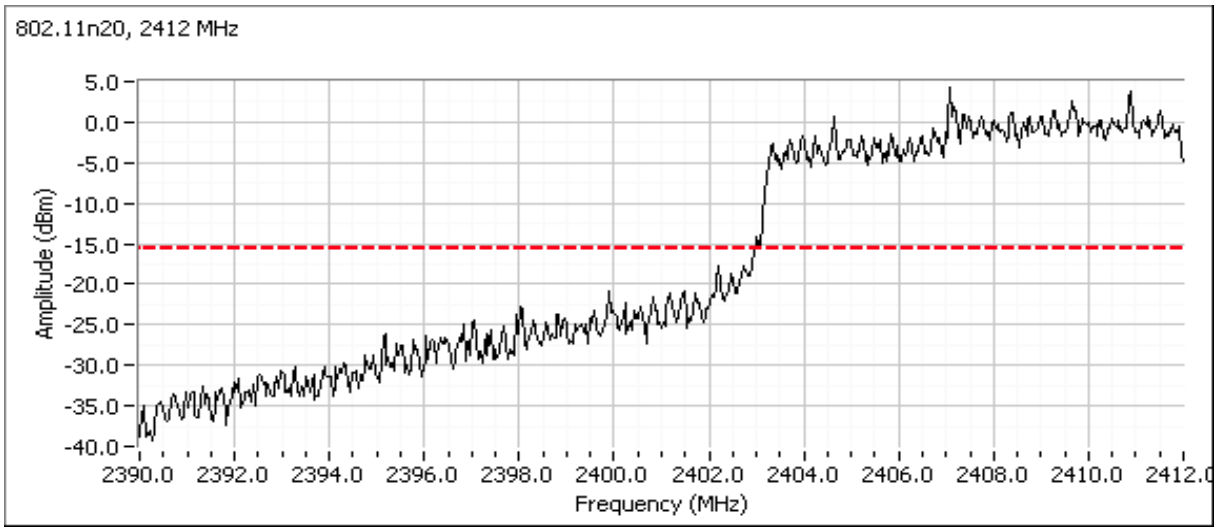


Plots for low channel,HT20

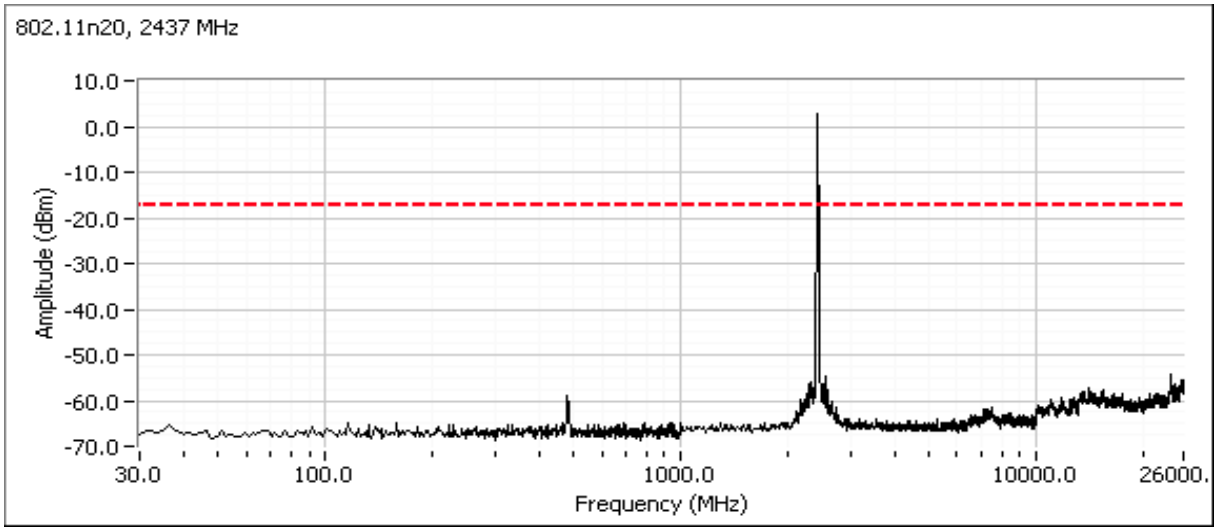


Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

Additional plot showing compliance with -20dBc limit from 2390 MHz to 2400 MHz. Radiated measurements used to show compliance with the limits in the restricted band below 2390 MHz.

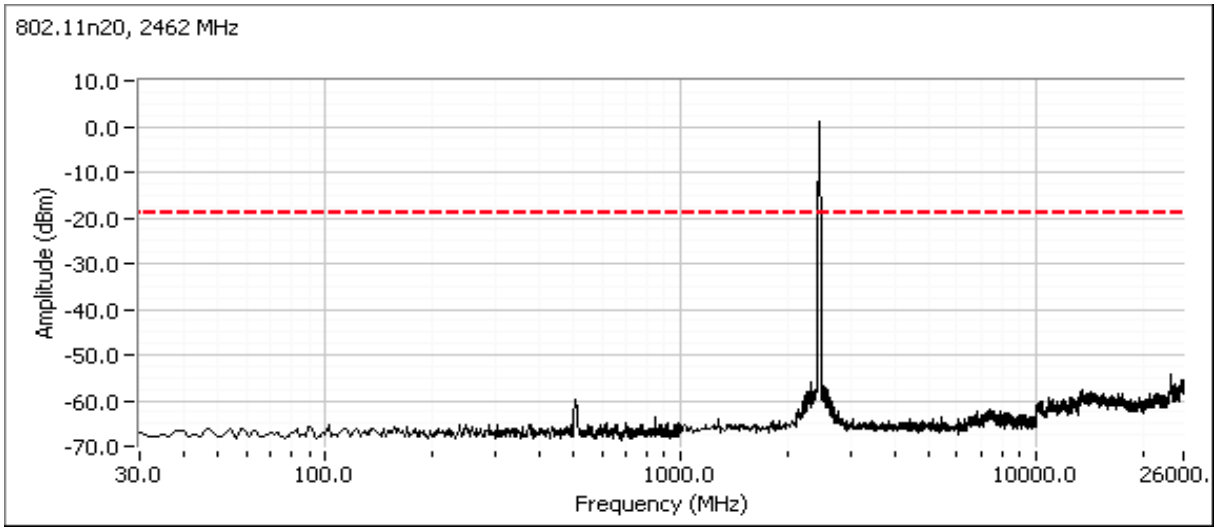


Plots for center channel, HT20

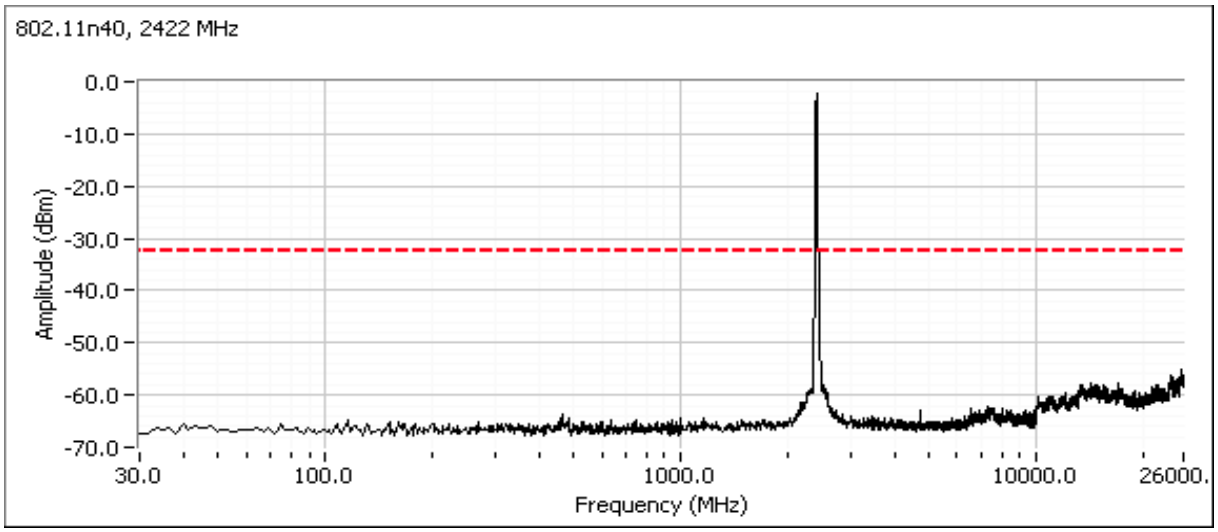


Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

Plots for high channel, HT20

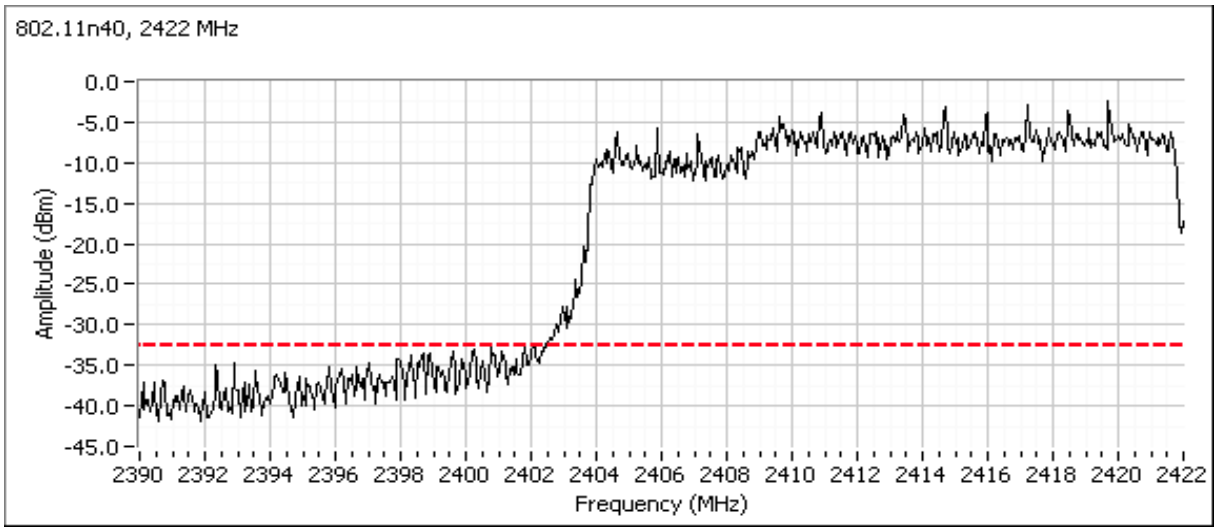


Plots for low channel,HT40

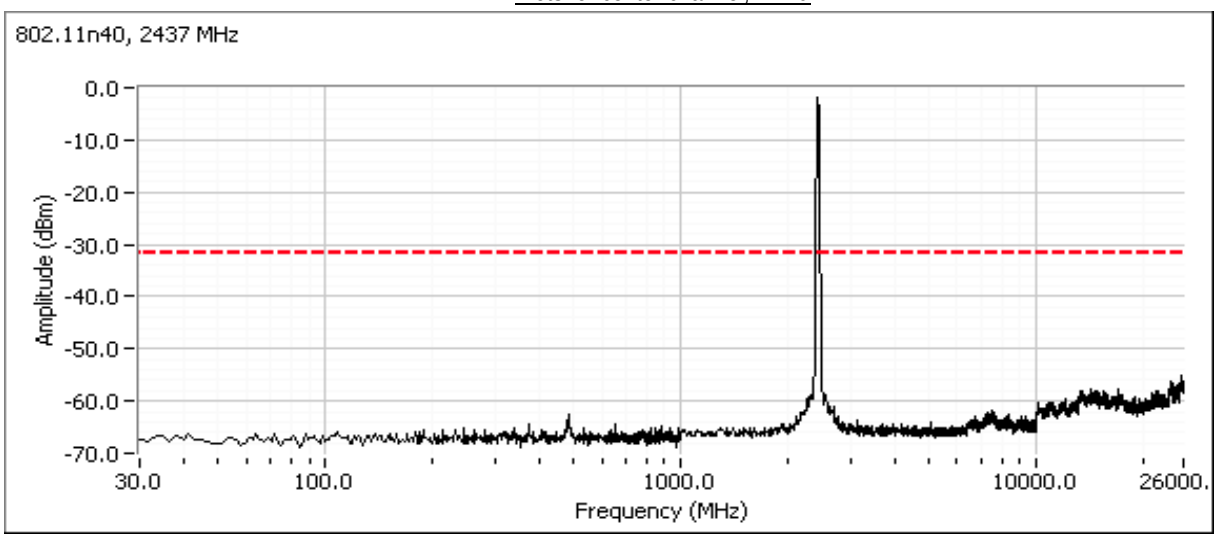


Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

Additional plot showing compliance with -30dBc limit from 2390 MHz to 2400 MHz. Radiated measurements used to show compliance with the limits in the restricted band below 2390 MHz.

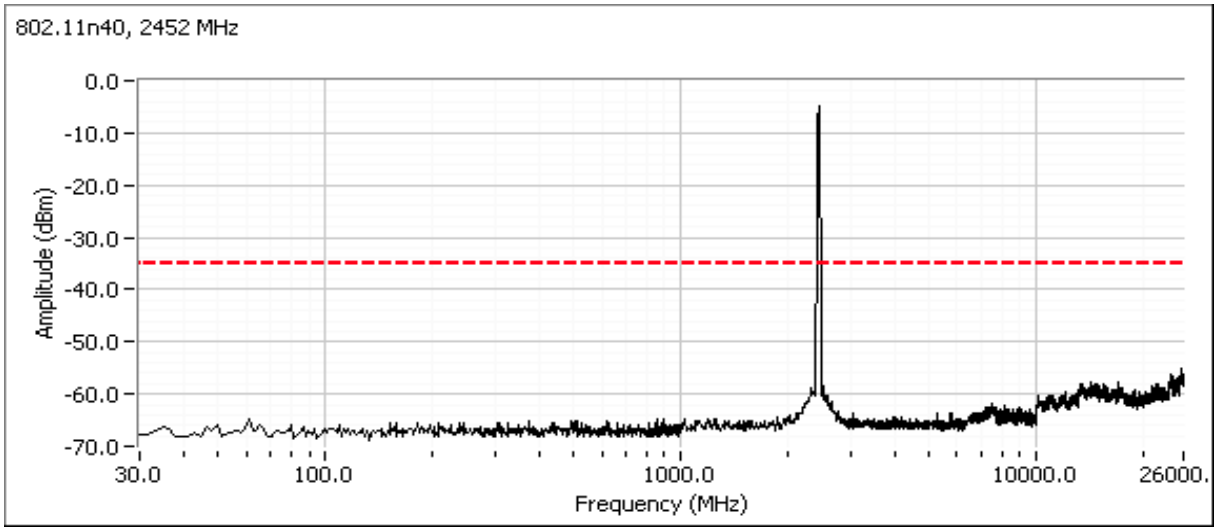


Plots for center channel, HT40



Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

Plots for high channel, HT40



Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

RSS 210 and FCC 15.247 (DTS) 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.

Summary of Results

MAC Address: 001500937004 DRTU Tool Version 1.5.3-320 Driver version 15.0.0.51

Run #	Mode	Channel	Target Power	Measured Power	Test Performed	Limit	Result / Margin
Riun #1	802.11HT40 Chain A	#3 2422MHz	16.5	13.3	Restricted Band Edge at 2400 MHz	15.209	52.4dBµV/m @ 2390.0MHz (-1.6dB)
		#9 2452MHz	16.5	11.4	Restricted Band Edge at 2483.5 MHz	15.209	53.4dBµV/m @ 2483.5MHz (-0.6dB)
Run # 2	802.11HT20 Chain A	#1 2412MHz	16.5	16.6	Restricted Band Edge at 2400 MHz	15.209	53.5dBµV/m @ 2390.0MHz (-0.5dB)
		#11 2462MHz	16.5	13.9	Restricted Band Edge at 2483.5 MHz	15.209	53.0dBµV/m @ 2483.5MHz (-1.0dB)
Run # 3	802.11G Chain A	#1 2412MHz	16.5	16.7	Restricted Band Edge at 2400 MHz	15.209	52.7dBµV/m @ 2390.0MHz (-1.3dB)
		#11 2462MHz	16.5	14.2	Restricted Band Edge at 2483.5 MHz	15.209	53.9dBµV/m @ 2483.5MHz (-0.1dB)
Run # 4	802.11B Chain A	#1 2412MHz	16.5	16.7	Restricted Band Edge at 2400 MHz	15.209	47.7dBµV/m @ 2390.0MHz (-6.3dB)
		#11 2462MHz	16.5	16.7	Restricted Band Edge at 2483.5 MHz	15.209	49.8dBµV/m @ 2483.5MHz (-4.2dB)
Run #5	802.11HT40 Chain A	#4 2427MHz	16.5	12.6	Restricted Band Edge at 2400 MHz	15.209	51.6dBµV/m @ 2389.9MHz (-2.4dB)
		#8 2447MHz	16.5	11.5	Restricted Band Edge at 2483.5 MHz	15.209	52.3dBµV/m @ 2484.7MHz (-1.7dB)
Run #6	802.11HT40 Chain A	#5 2432MHz	16.5	13.8	Restricted Band Edge at 2400 MHz	15.209	52.4dBµV/m @ 2390.0MHz (-1.6dB)
		#7 2442MHz	16.5	12.5	Restricted Band Edge at 2483.5 MHz	15.209	52.0dBµV/m @ 2483.5MHz (-2.0dB)

Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

Run #	Mode	Channel	Target Power	Measured Power	Test Performed	Limit	Result / Margin
Run # 7	802.11HT20 Chain A	#2 2417MHz	16.5	16.5	Restricted Band Edge at 2400 MHz	15.209	49.5dBµV/m @ 2389.9MHz (-4.5dB)
		#10 2457MHz	16.5	16.5	Restricted Band Edge at 2483.5 MHz	15.209	53.5dBµV/m @ 2483.5MHz (-0.5dB)
Run # 8	HT40 Chain A	#6 2437MHz	16.5	16.5	Restricted Band Edge at 2400 MHz	15.209	53.8dBµV/m @ 2390.0MHz (-0.2dB)
			16.5	12.8	Restricted Band Edge at 2483.5 MHz	15.209	52.1dBµV/m @ 2483.5MHz (-1.9dB)

Note - the target and measured power are average powers (measured with average power sensor) and are used for reference purposes only.

Ambient Conditions:

Rel. Humidity: 15 - 55 %
Temperature: 18 - 25 °C

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:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

Run # 1, Band Edge Field Strength - 802.11HT40, Chain A

Date of Test: 9/6/2011 Test Location: FT Chamber#5

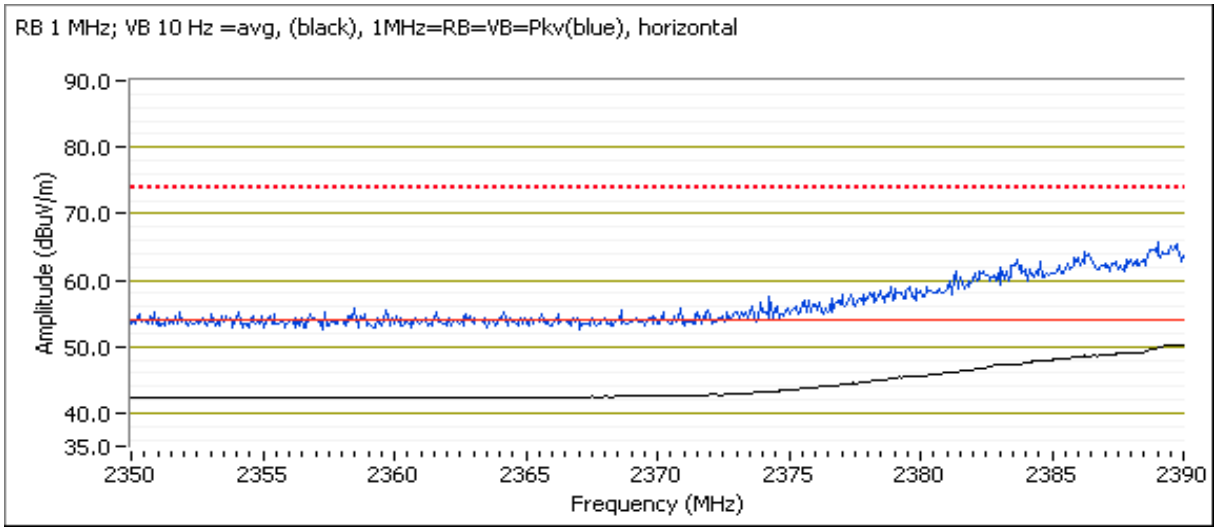
Test Engineer: Joseph Cadigal Config Change: none

Run # 1a, EUT on Channel #3 2422MHz - 802.11HT40, Chain A

	Power Settings		
	Target (dBm)	Measured (dBm)	Software Setting
Chain A	16.5	13.3	23.5

2390 MHz Band Edge Signal 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	
2390.000	52.4	H	54.0	-1.6	AVG	34	1.0	setting = 23.5
2388.600	65.2	H	74.0	-8.8	PK	34	1.0	setting = 23.5



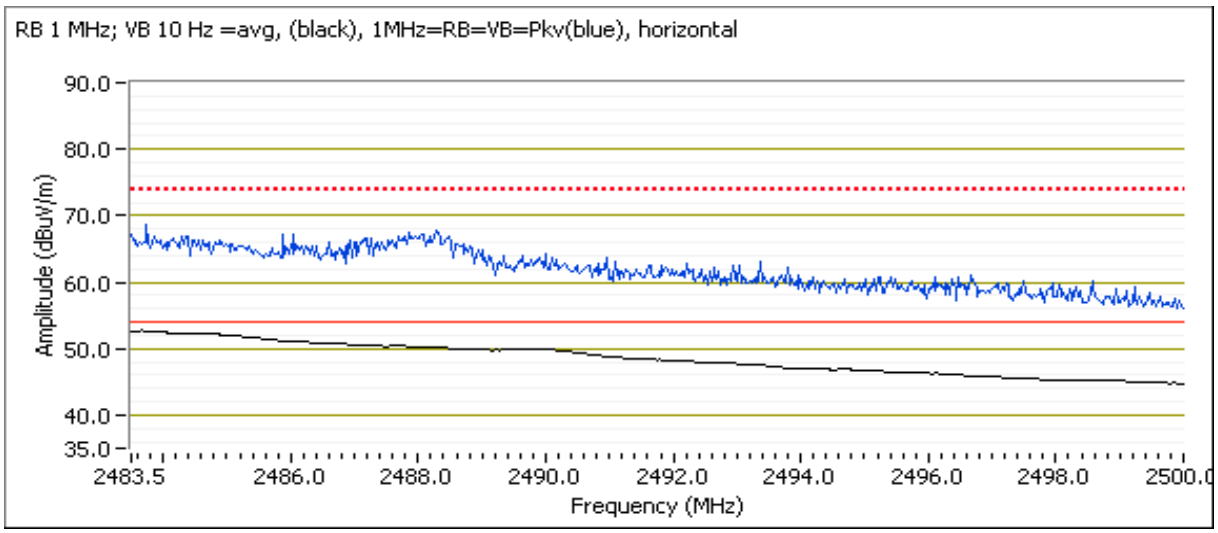
Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

Run # 1b, EUT on Channel #9 2452MHz - 802.11HT40, Chain A

	Power Settings		
	Target (dBm)	Measured (dBm)	Software Setting
Chain A	16.5	11.4	21.5

2483.5 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	
2483.530	53.4	H	54.0	-0.6	AVG	28	1.0	setting = 21.5
2488.060	67.5	H	74.0	-6.5	PK	28	1.0	setting = 21.5



Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

Run # 2, Band Edge Field Strength - 802.11HT20, Chain A

Date of Test: 9/6/2011 Test Location: FT Chamber#5

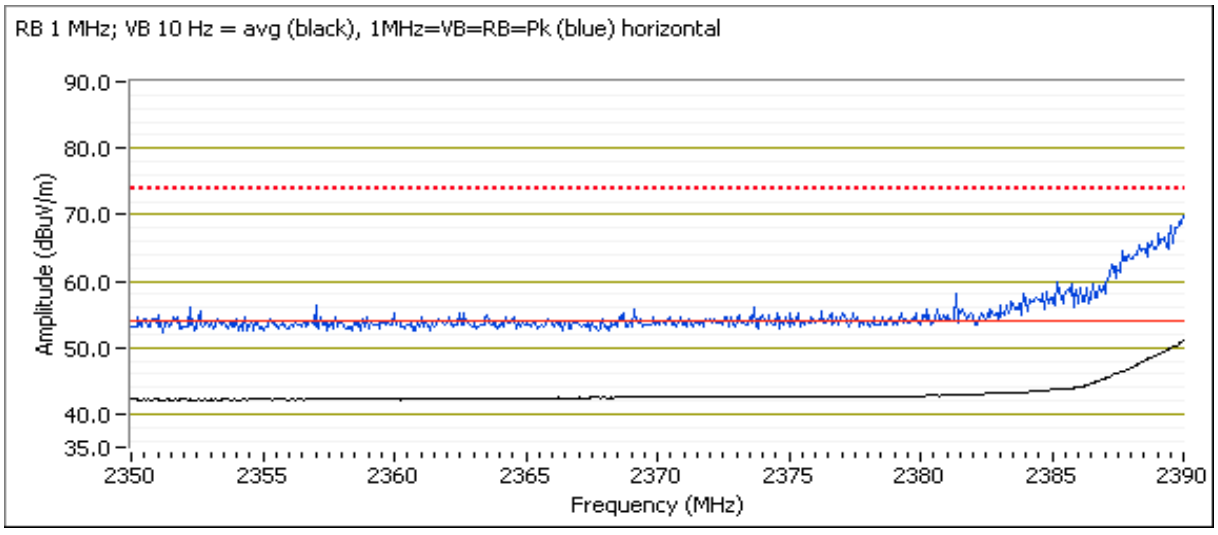
Test Engineer: Joseph Cadigal Config Change: none

Run # 2a, EUT on Channel #1 2412MHz - 802.11HT20, Chain A

	Power Settings		
	Target (dBm)	Measured (dBm)	Software Setting
Chain A	16.5	16.6	27.5

2390 MHz Band Edge Signal 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	
2390.000	53.5	H	54.0	-0.5	AVG	54	1.0	RB 1 MHz;VB 10 Hz;Pk
2389.930	69.5	H	74.0	-4.5	PK	54	1.0	RB 1 MHz;VB 3 MHz;Pk
2389.930	53.4	V	54.0	-0.6	AVG	285	1.1	RB 1 MHz;VB 10 Hz;Pk
2389.730	70.2	V	74.0	-3.8	PK	285	1.1	RB 1 MHz;VB 3 MHz;Pk



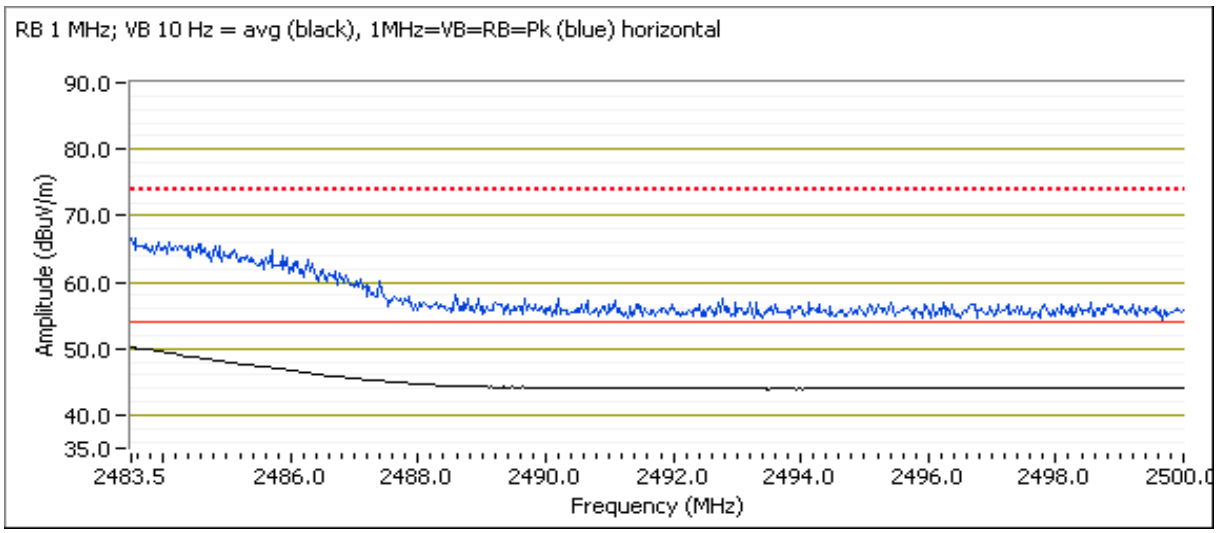
Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

Run # 2b, EUT on Channel #11 2462MHz - 802.11HT20, Chain A

	Power Settings		
	Target (dBm)	Measured (dBm)	Software Setting
Chain A	16.5	13.9	24.5

2483.5 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	
2483.530	53.0	H	54.0	-1.0	AVG	35	1.0	setting = 24.5
2483.550	66.5	H	74.0	-7.5	PK	35	1.0	setting = 24.5



Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

Run # 3, Band Edge Field Strength - 802.11G, Chain A

Date of Test: 9/6/2011 Test Location: FT Chamber#5

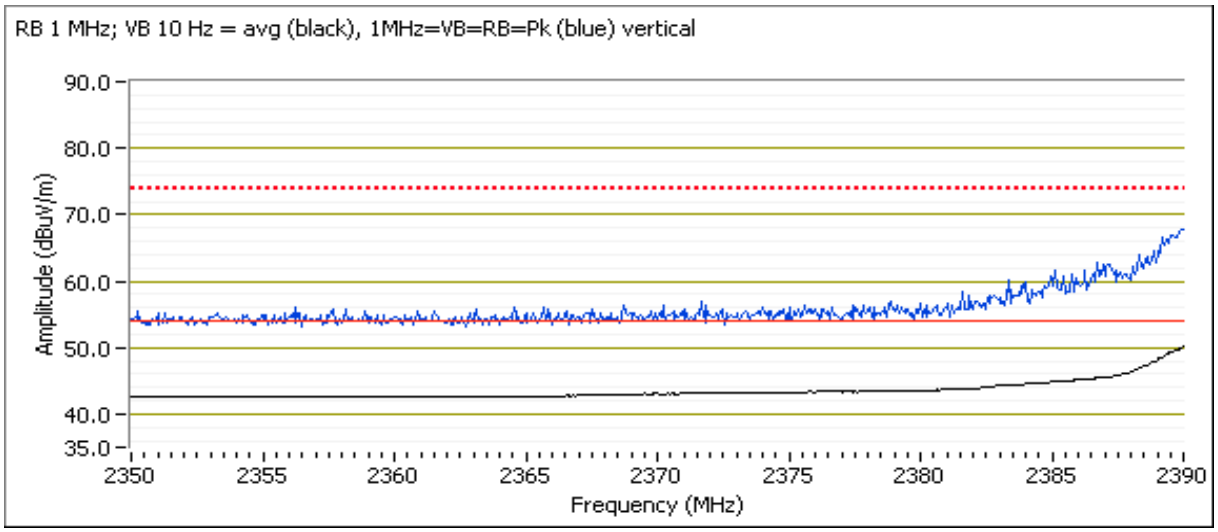
Test Engineer: Joseph Cadigal Config Change: none

Run # 3a, EUT on Channel #1 2412MHz - 802.11G, Chain A

	Power Settings		
	Target (dBm)	Measured (dBm)	Software Setting
Chain A	16.5	16.7	27.5

2390 MHz Band Edge Signal 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	
2390.000	52.7	V	54.0	-1.3	AVG	285	1.2	RB 1 MHz;VB 10 Hz;Pk
2389.670	67.1	V	74.0	-6.9	PK	285	1.2	RB 1 MHz;VB 3 MHz;Pk
2389.930	48.2	H	54.0	-5.8	AVG	24	1.0	RB 1 MHz;VB 10 Hz;Pk
2389.800	60.2	H	74.0	-13.8	PK	24	1.0	RB 1 MHz;VB 3 MHz;Pk



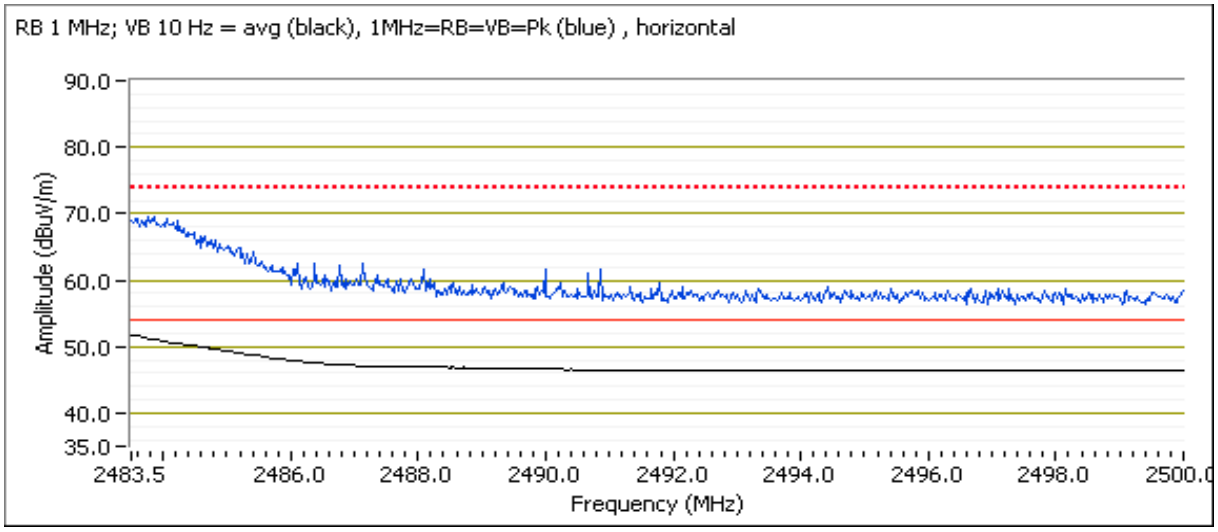
Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

Run # 3b, EUT on Channel #11 2462MHz - 802.11G, Chain A

	Power Settings		
	Target (dBm)	Measured (dBm)	Software Setting
Chain A	16.5	14.2	24.5

2483.5 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	
2483.530	53.9	H	54.0	-0.1	AVG	358	1.0	setting= 24.5
2483.660	70.7	H	74.0	-3.3	PK	358	1.0	setting= 24.5



Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

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

Date of Test: 9/7/2011 Test Location: FT Chamber#5

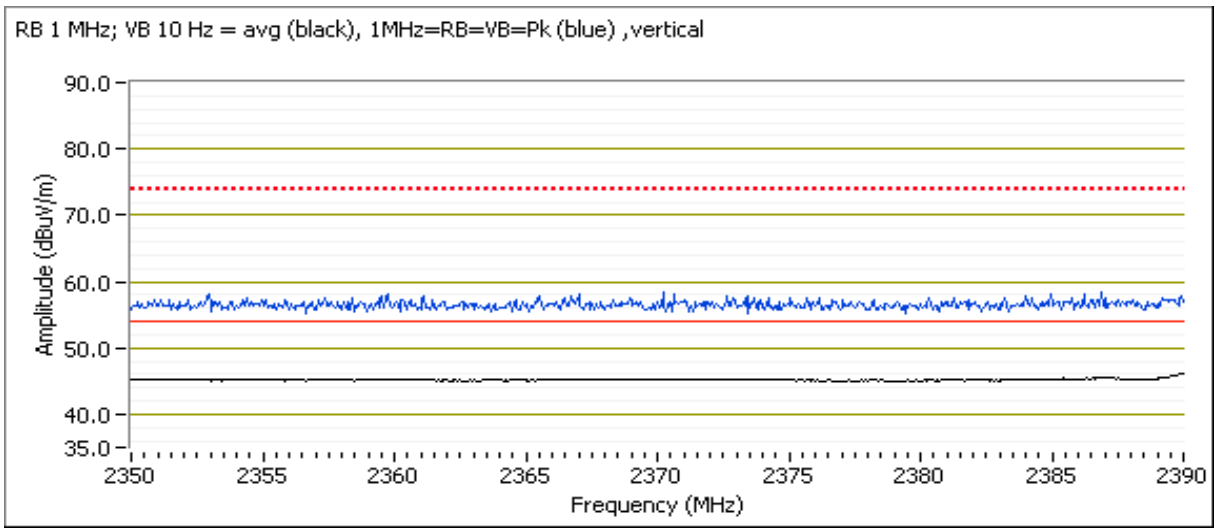
Test Engineer: Joseph Cadigal Config Change: none

Run # 4a, EUT on Channel #1 2412MHz - 802.11B, Chain A

	Power Settings		
	Target (dBm)	Measured (dBm)	Software Setting
Chain A	16.5	16.7	21.5

2390 MHz Band Edge Signal 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	
2390.000	47.7	V	54.0	-6.3	AVG	281	1.0	RB 1 MHz;VB 10 Hz;Pk
2385.600	58.6	V	74.0	-15.4	PK	281	1.0	RB 1 MHz;VB 3 MHz;Pk
2367.730	46.9	H	54.0	-7.1	AVG	22	1.0	RB 1 MHz;VB 10 Hz;Pk
2371.600	58.4	H	74.0	-15.6	PK	22	1.0	RB 1 MHz;VB 3 MHz;Pk



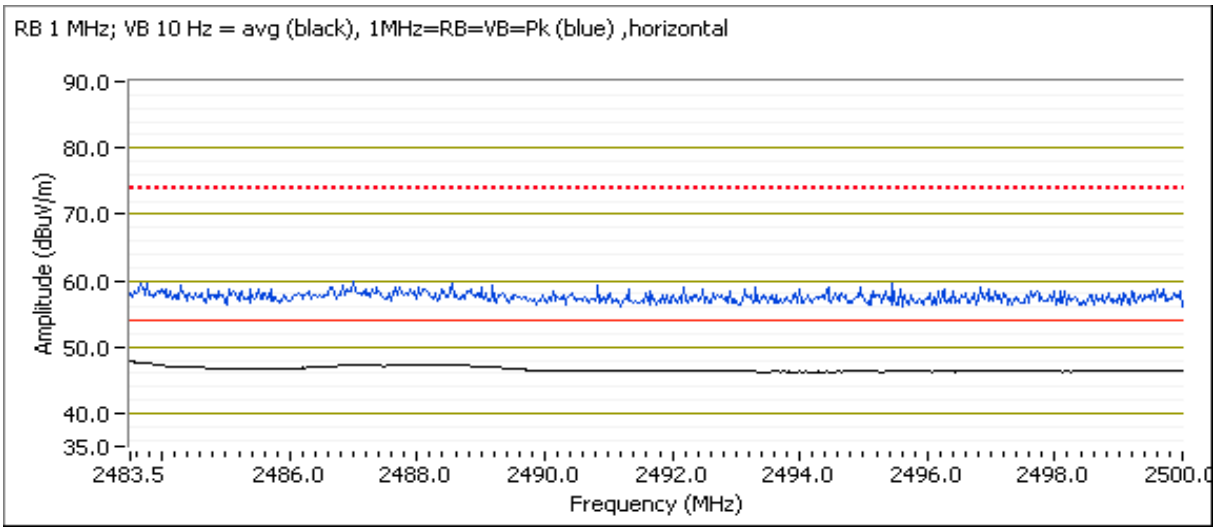
Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

Run # 4b, EUT on Channel #11 2462MHz - 802.11B, Chain A

	Power Settings		
	Target (dBm)	Measured (dBm)	Software Setting
Chain A	16.5	16.7	21.5

2483.5 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	
2483.500	49.8	H	54.0	-4.2	AVG	360	1.0	RB 1 MHz;VB 10 Hz;Pk
2488.230	60.0	H	74.0	-14.0	PK	360	1.0	RB 1 MHz;VB 3 MHz;Pk
2483.550	48.1	V	54.0	-5.9	AVG	275	1.0	RB 1 MHz;VB 10 Hz;Pk
2496.310	59.4	V	74.0	-14.6	PK	275	1.0	RB 1 MHz;VB 3 MHz;Pk



Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

Run # 5, Band Edge Field Strength - 802.11HT40, Chain A

Date of Test: 9/7/2011 Test Location: FT Chamber#5

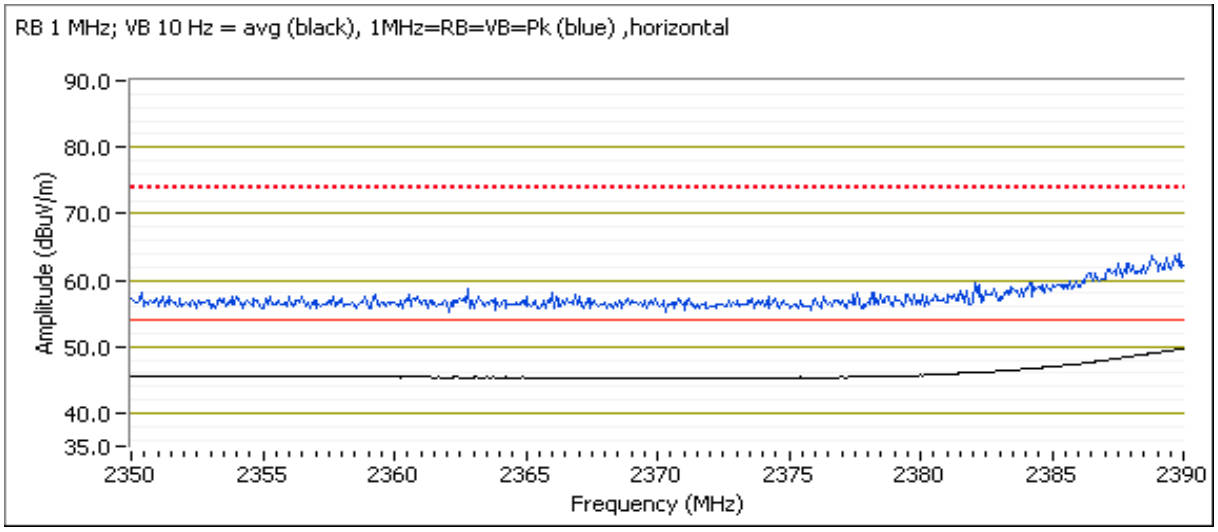
Test Engineer: Joseph Cadigal Config Change: none

Run # 5a, EUT on Channel #4 2427MHz - 802.11HT40, Chain A

	Power Settings		
	Target (dBm)	Measured (dBm)	Software Setting
Chain A	16.5	12.6	22.5

2390 MHz Band Edge Signal 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	
2389.930	51.6	H	54.0	-2.4	AVG	50	1.0	setting = 22.5
2389.130	63.7	H	74.0	-10.3	PK	50	1.0	setting = 22.5



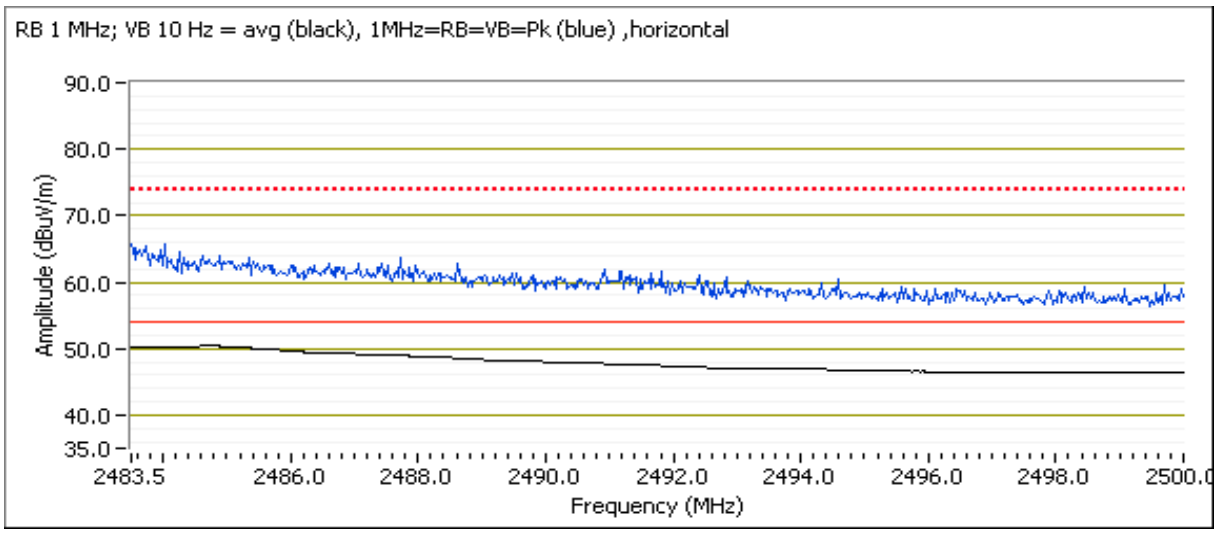
Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

Run # 5b, EUT on Channel #8 2447MHz - 802.11HT40, Chain A

	Power Settings		
	Target (dBm)	Measured (dBm)	Software Setting
Chain A	16.5	11.5	21.5

2483.5 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	
2484.710	52.3	H	54.0	-1.7	AVG	358	1.0	setting = 21.5
2483.750	65.0	H	74.0	-9.0	PK	358	1.0	setting = 21.5



Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

Run # 6, Band Edge Field Strength - 802.11HT40, Chain A

Date of Test: 9/7/2011 Test Location: FT Chamber#5

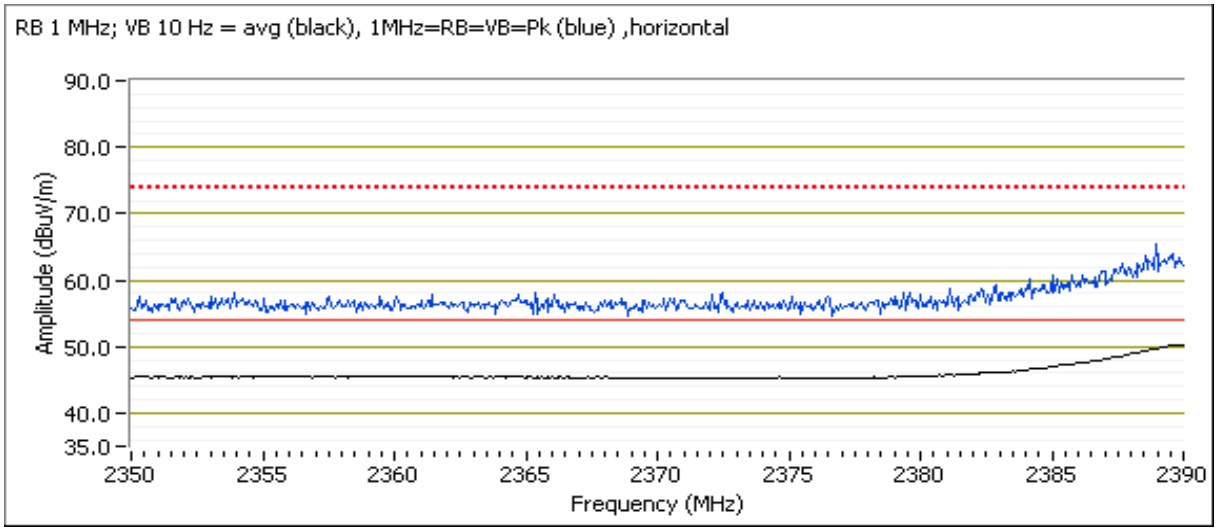
Test Engineer: Joseph Cadigal Config Change: none

Run # 6a, EUT on Channel #5 2432MHz - 802.11HT40, Chain A

	Power Settings		
	Target (dBm)	Measured (dBm)	Software Setting
Chain A	16.5	13.8	24.0

2390 MHz Band Edge Signal 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	
2390.000	52.4	H	54.0	-1.6	AVG	42	1.0	setting =24
2389.270	64.9	H	74.0	-9.1	PK	42	1.0	setting =24



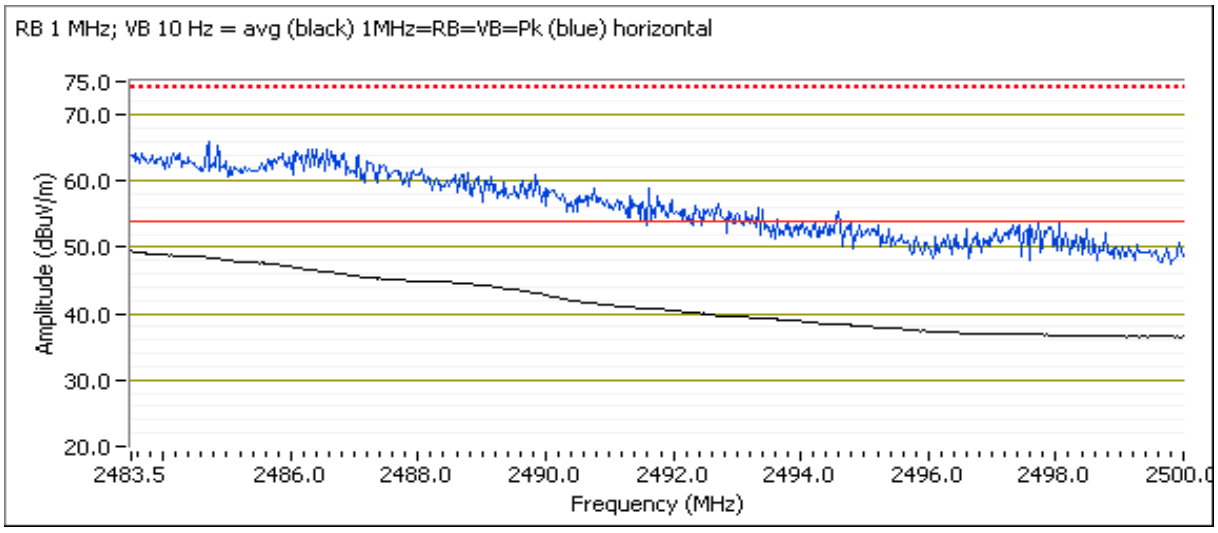
Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

Run # 6b, EUT on Channel #7 2442MHz - 802.11HT40, Chain A

	Power Settings		
	Target (dBm)	Measured (dBm)	Software Setting
Chain A	16.5	12.1	22.0

2483.5 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	
2483.500	52.0	H	54.0	-2.0	AVG	21	1.0	RB 1 MHz;VB 10 Hz;Pk
2486.850	65.6	H	74.0	-8.4	PK	21	1.0	RB 1 MHz;VB 3 MHz;Pk
2483.530	46.3	V	54.0	-7.7	AVG	192	1.0	RB 1 MHz;VB 10 Hz;Pk
2485.920	59.7	V	74.0	-14.3	PK	192	1.0	RB 1 MHz;VB 3 MHz;Pk



Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

Run # 7, Band Edge Field Strength - 802.11HT20, Chain A

Date of Test: 9/7/2011 & 10/10/11 Test Location: FT Chamber#5

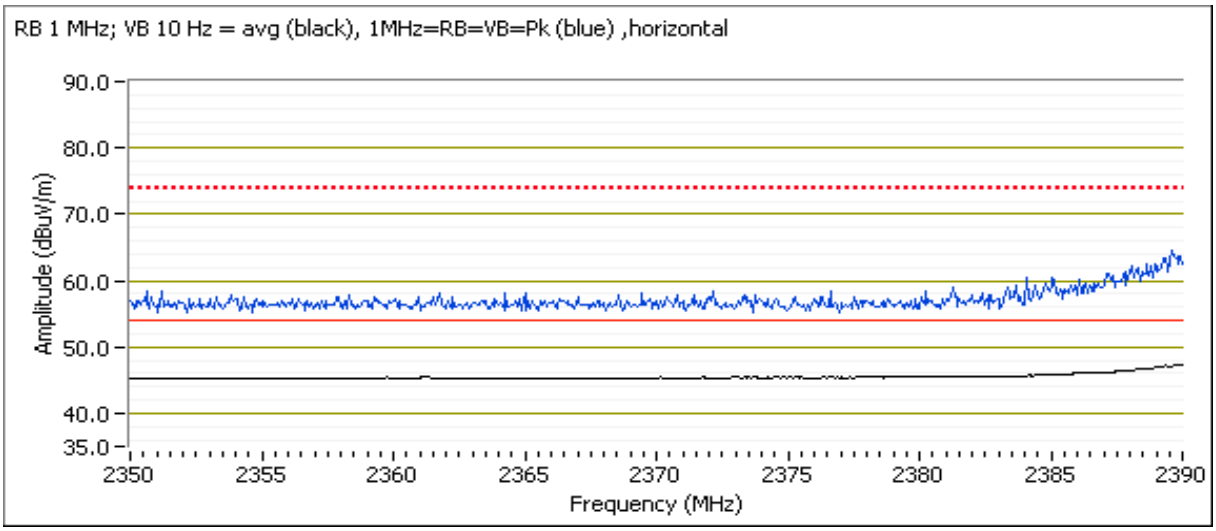
Test Engineer: Joseph Cadigal Config Change: none

Run # 7a, EUT on Channel #2 2417MHz - 802.11HT20, Chain A

	Power Settings		
	Target (dBm)	Measured (dBm)	Software Setting
Chain A	16.5	16.5	27.5

2390 MHz Band Edge Signal 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	
2389.870	49.5	H	54.0	-4.5	AVG	36	1.0	RB 1 MHz;VB 10 Hz;Pk
2388.670	65.8	H	74.0	-8.2	PK	36	1.0	RB 1 MHz;VB 3 MHz;Pk
2389.800	48.9	V	54.0	-5.1	AVG	297	1.0	RB 1 MHz;VB 10 Hz;Pk
2389.200	64.4	V	74.0	-9.6	PK	297	1.0	RB 1 MHz;VB 3 MHz;Pk



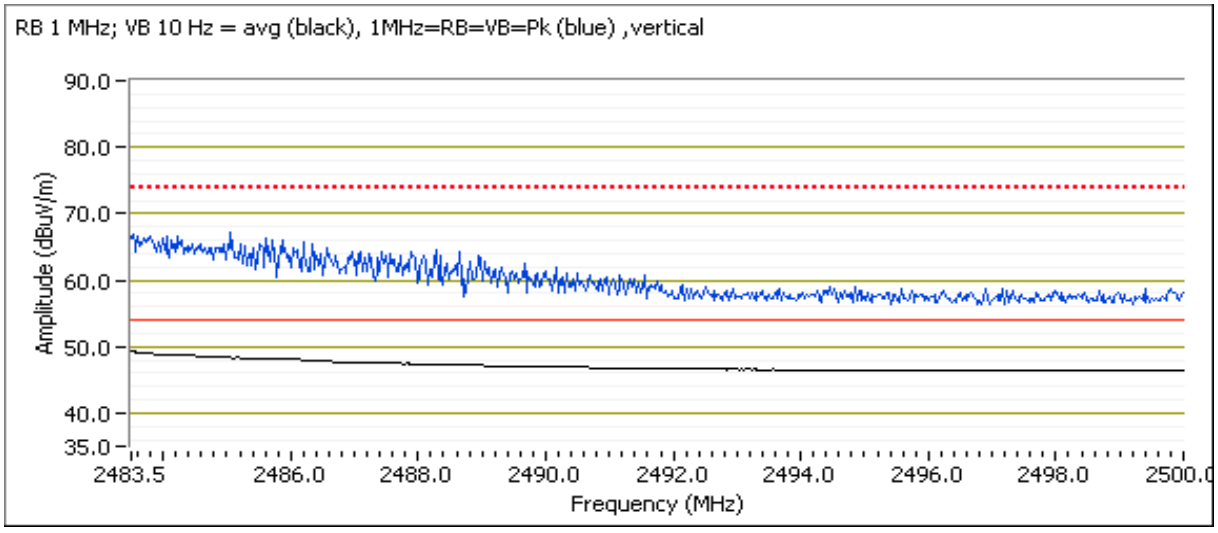
Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

Run # 7b, EUT on Channel #10 2457MHz - 802.11HT20, Chain A

	Power Settings		
	Target (dBm)	Measured (dBm)	Software Setting
Chain A	16.5	16.5	27.5

2483.5 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	
2483.530	53.5	H	54.0	-0.5	AVG	360	1.0	RB 1 MHz;VB 10 Hz;Pk
2483.750	69.9	H	74.0	-4.1	PK	360	1.0	RB 1 MHz;VB 3 MHz;Pk
2483.500	51.0	V	54.0	-3.0	AVG	292	1.0	RB 1 MHz;VB 10 Hz;Pk
2483.770	67.5	V	74.0	-6.5	PK	292	1.0	RB 1 MHz;VB 3 MHz;Pk



Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

Run # 8, Band Edge Field Strength - HT40, Chain A

Date of Test: 9/7/2011 Test Location: FT Chamber#5

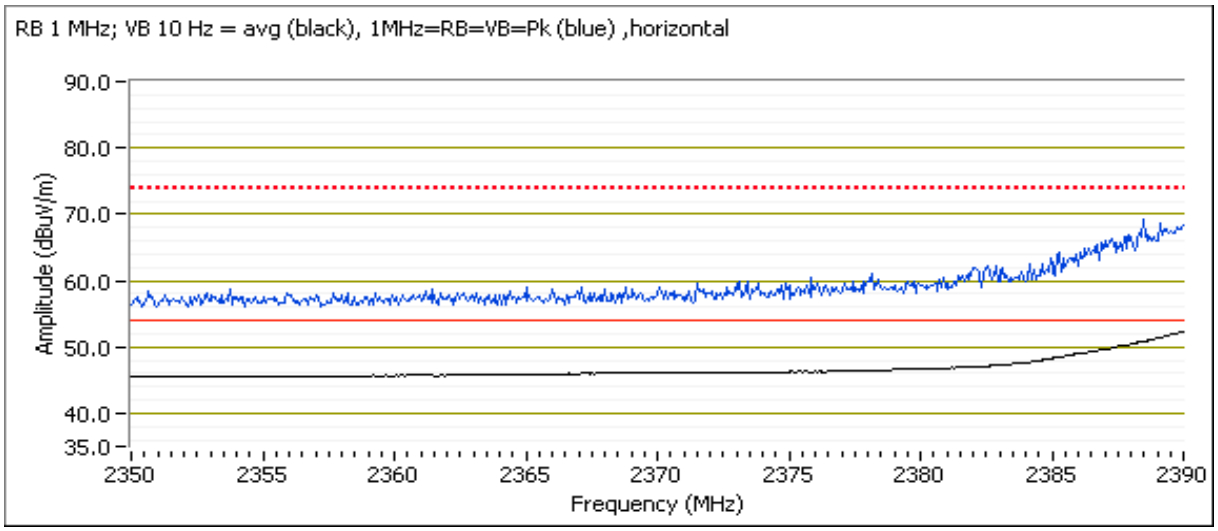
Test Engineer: Joseph Cadigal Config Change: none

Run # 8a, EUT on Channel #6 2437MHz - HT40, Chain A

	Power Settings		
	Target (dBm)	Measured (dBm)	Software Setting
Chain A	16.5	16.5	27.5

2390 MHz Band Edge Signal 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	
2390.000	53.8	H	54.0	-0.2	AVG	37	1.0	RB 1 MHz;VB 10 Hz;Pk
2387.870	68.2	H	74.0	-5.8	PK	37	1.0	RB 1 MHz;VB 3 MHz;Pk
2390.000	53.3	V	54.0	-0.7	AVG	281	1.0	RB 1 MHz;VB 10 Hz;Pk
2386.200	67.6	V	74.0	-6.4	PK	281	1.0	RB 1 MHz;VB 3 MHz;Pk



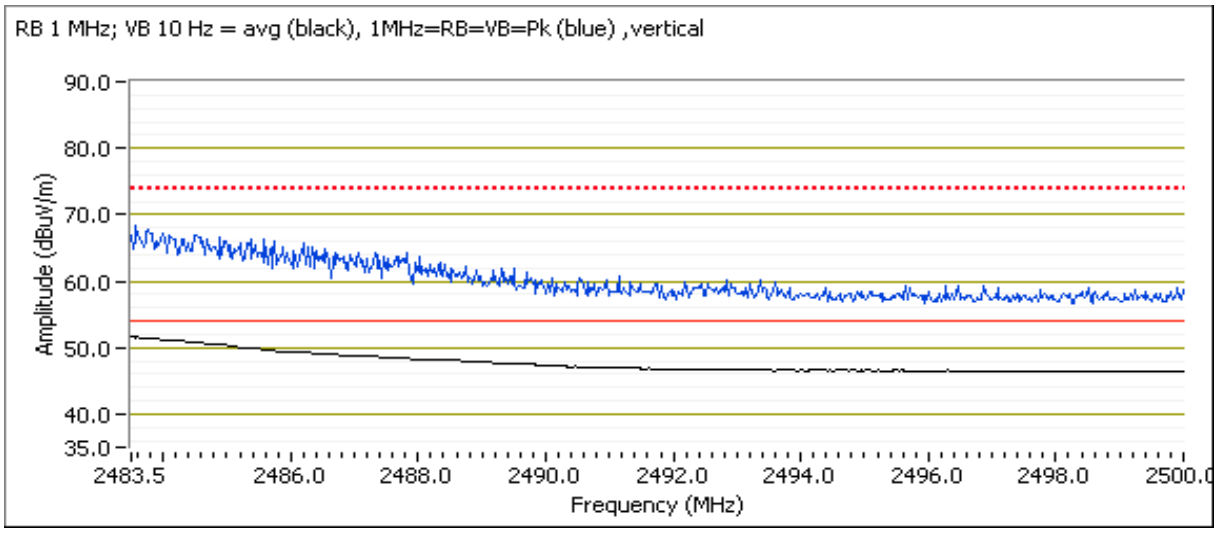
Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

Run # 8b, EUT on Channel #6 2437MHz - HT40, Chain A

	Power Settings		
	Target (dBm)	Measured (dBm)	Software Setting
Chain A	16.5	12.8	25.0

2483.5 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	
2483.500	52.1	V	54.0	-1.9	AVG	275	1.0	setting = 25.0
2483.830	66.3	V	74.0	-7.7	PK	275	1.0	setting = 25.0



Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A

RSS 210 and FCC 15.247 (DTS) 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.

Summary of Results

MAC Address: 001500937004 DRTU Tool Version 1.5.3-320 Driver version 15.0.0.51

Run #	Mode	Channel	Target Power	Measured Power	Test Performed	Limit	Result / Margin
Run #1	802.11b Chain A	#1 2412MHz	16.5	16.7	Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15.247	46.2dBµV/m @ 9001.1MHz (-7.8dB)
		#6 2437MHz	16.5	16.6			38.6dBµV/m @ 9004.0MHz (-15.4dB)
		#11 2462MHz	16.5	16.7			52.4dBµV/m @ 3000.3MHz (-17.6dB)
Preliminary measurements on center channel							
Run # 2	OFDM Chain A	#6 G	16.5	16.7	Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15.247	39.9dBµV/m @ 1594.4MHz (-14.1dB)
		#6 HT20	16.5	16.7			38.6dBµV/m @ 9002.7MHz (-15.4dB)
		#6 HT40	16.5	16.7			38.6dBµV/m @ 1594.3MHz (-15.4dB)
Measurements on low and high channels in worst-case OFDM mode.							
Run # 3	OFDM Chain A	#1 2412 MHz	16.5	16.7	Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15.247	42.1dBµV/m @ 9000.4MHz (-11.9dB)
		#11 2462 MHz	16.5	16.7			32.2dBµV/m @ 1197.3MHz (-21.8dB)
Run # 4	Receive Chain A	#6 2437 MHz	-	-	Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15.247	48.0dBµV/m @ 3000.4MHz (-6.0dB)

Note - the target and measured power are average powers (measured with average power sensor) and are used for reference purposes only. Power is set using " GAIN CONTROL" mode in the DRTU tool.

Use the Gain Control mode of adjusting power. Set power to within +/-0.2dB of target.

Ambient Conditions:

Rel. Humidity: 15 - 55 %
Temperature: 18 - 25 °C

Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, 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.

Marker Delta Measurements

Three sets of marker deltas are measured using the following settings: RB=VB=100kHz; RB=1MHz,VB=1MHz; RB=1MHz, VB=10Hz. Marker deltas are made conducted (analyzer connected to EUT rf port a 20dB pad) for single chain operation and radiated (at a distance of ~ 50cm) for MIMO modes.

The fundamental field strength is always measured at a 3m test distance.

If measuring the band edge field strength directly using the ESI. Maximize the signal at the band edge (it may be at a different angle/height to the in-band signal). See sample plot for band edge measurement ---> *[use the band edge marker feature of the "Capture Analyzer" to give both the delta and the field strength value for the band edge]* . Make sure the noise floor field strength at the band edge is below 45dBuV/m (average).

Also measure the fundamental field strength as a reference point (so we have a measurement to check for good antenna connection and to verify the transmitter's field strength is where we would expect it to be).

Run #1, Radiated Spurious Emissions, 1-40GHz, 802.11b, Chain A

Date of Test: 9/8/2011 Test Location: FT Chamber#4

Test Engineer: Joseph Cadigal Config Change: none

Run #1a, EUT on Channel #1 2412MHz - 802.11b, Chain A

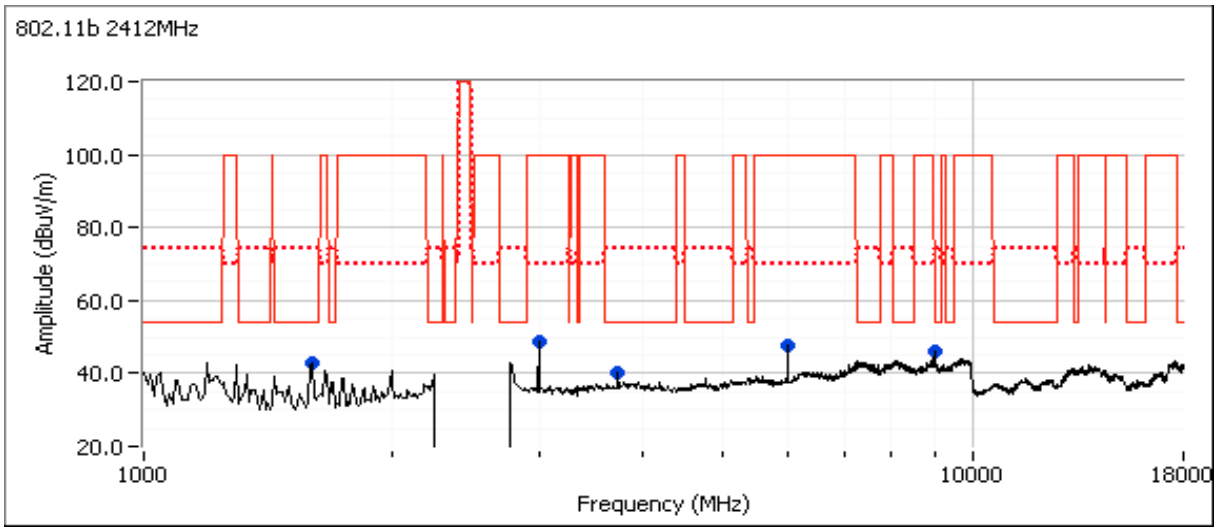
	Power Settings		
	Target (dBm)	Measured (dBm)	Software Setting
Chain A	16.5	16.7	21.5

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
9001.100	46.2	V	54.0	-7.8	AVG	192	1.0	RB 1 MHz;VB 10 Hz;Pk
1598.610	35.2	V	54.0	-18.8	AVG	218	1.0	RB 1 MHz;VB 10 Hz;Pk
9000.900	54.0	V	74.0	-20.0	PK	192	1.0	RB 1 MHz;VB 3 MHz;Pk
3000.480	49.6	H	70.0	-20.4	PK	190	1.0	RB 1 MHz;VB 3 MHz;Pk
3742.360	31.9	V	54.0	-22.1	AVG	152	1.3	RB 1 MHz;VB 10 Hz;Pk
5989.650	45.1	V	70.0	-24.9	PK	124	1.0	RB 1 MHz;VB 3 MHz;Pk
1598.410	48.5	V	74.0	-25.5	PK	218	1.0	RB 1 MHz;VB 3 MHz;Pk
3743.520	42.6	V	74.0	-31.4	PK	152	1.3	RB 1 MHz;VB 3 MHz;Pk
3000.330	43.5	H	100.0	-56.5	AVG	190	1.0	RB 1 MHz;VB 10 Hz;Pk
5989.530	33.5	V	100.0	-66.5	AVG	124	1.0	RB 1 MHz;VB 10 Hz;Pk

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit is -30dBc for peak measurements in a measurement bandwidth of 100kHz.

Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A



Run #1b: , EUT on Channel #6 2437MHz - 802.11b, Chain A

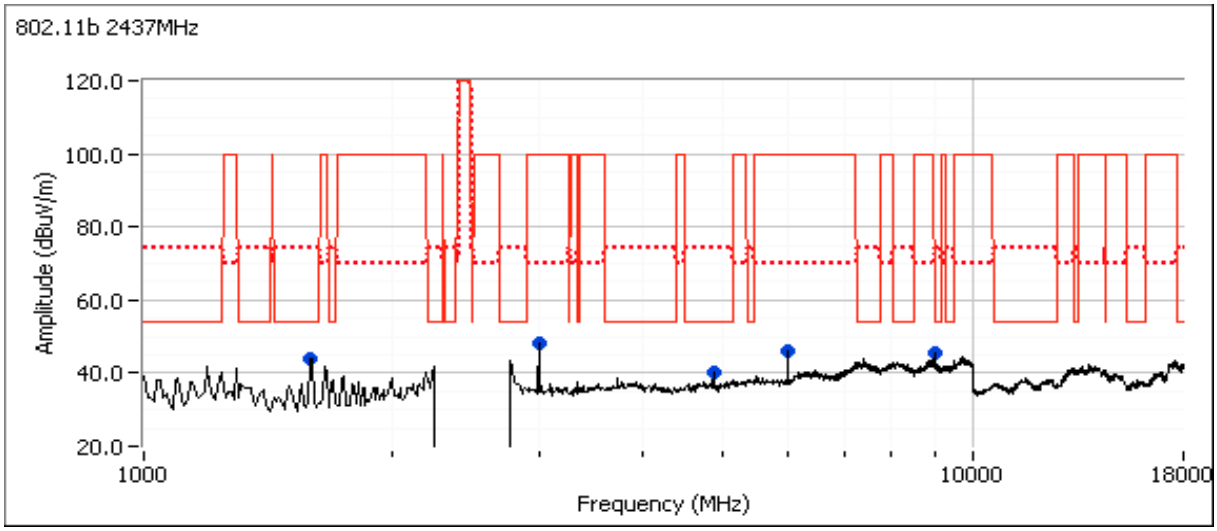
	Power Settings		
	Target (dBm)	Measured (dBm)	Software Setting
Chain A	16.5	16.6	21.5

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
9003.970	38.6	V	54.0	-15.4	AVG	192	1.0	RB 1 MHz;VB 10 Hz;Pk
1594.100	38.3	V	54.0	-15.7	AVG	190	1.3	RB 1 MHz;VB 10 Hz;Pk
3000.390	52.6	V	70.0	-17.4	PK	244	1.0	RB 1 MHz;VB 3 MHz;Pk
6000.650	49.6	V	70.0	-20.4	PK	162	1.0	RB 1 MHz;VB 3 MHz;Pk
4875.070	32.0	V	54.0	-22.0	AVG	199	1.0	RB 1 MHz;VB 10 Hz;Pk
1592.990	51.0	V	74.0	-23.0	PK	190	1.3	RB 1 MHz;VB 3 MHz;Pk
9006.330	50.0	V	74.0	-24.0	PK	192	1.0	RB 1 MHz;VB 3 MHz;Pk
4876.940	43.8	V	74.0	-30.2	PK	199	1.0	RB 1 MHz;VB 3 MHz;Pk
3000.400	47.9	V	100.0	-52.1	AVG	244	1.0	RB 1 MHz;VB 10 Hz;Pk
6000.750	42.9	V	100.0	-57.1	AVG	162	1.0	RB 1 MHz;VB 10 Hz;Pk

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit is -30dBc for peak measurements in a measurement bandwidth of 100kHz.
Note 2:	Scans made between 18 - 40GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no signifcant emissions in this frequency range

Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A



Run #1c: , EUT on Channel #11 2462MHz - 802.11b, Chain A

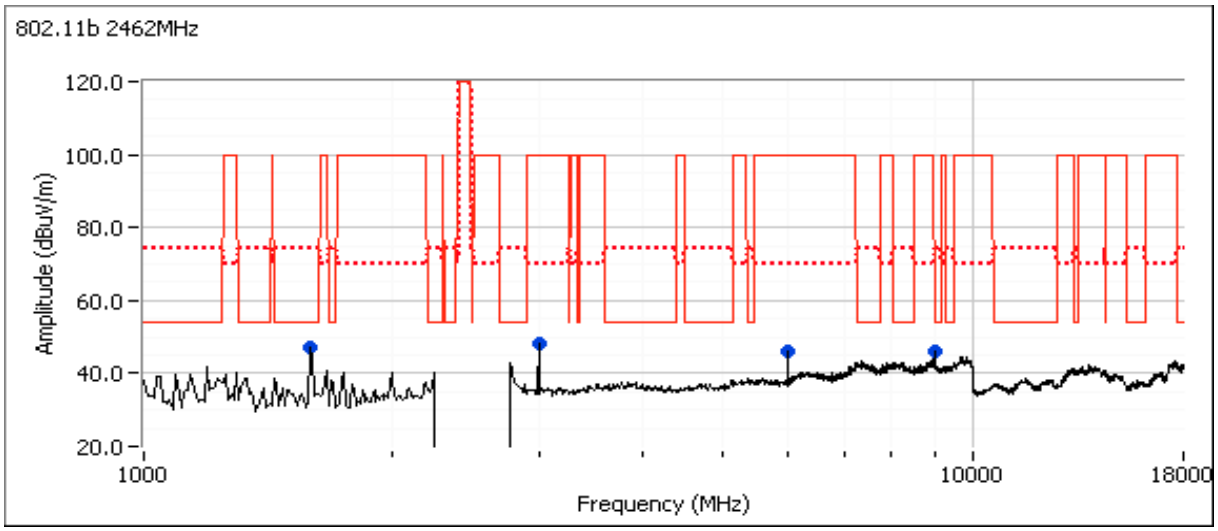
	Power Settings		
	Target (dBm)	Measured (dBm)	Software Setting
Chain A	16.5	16.7	21.5

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
3000.330	52.4	V	70.0	-17.6	PK	240	1.0	RB 1 MHz;VB 3 MHz;Pk
6000.800	50.9	V	70.0	-19.1	PK	123	1.0	RB 1 MHz;VB 3 MHz;Pk
8999.290	50.8	V	70.0	-19.2	PK	204	1.0	RB 1 MHz;VB 3 MHz;Pk
1587.980	29.3	V	54.0	-24.7	AVG	174	1.0	RB 1 MHz;VB 10 Hz;Pk
1587.620	40.6	V	74.0	-33.4	PK	174	1.0	RB 1 MHz;VB 3 MHz;Pk
3000.370	47.6	V	100.0	-52.4	AVG	240	1.0	RB 1 MHz;VB 10 Hz;Pk
6000.720	44.9	V	100.0	-55.1	AVG	123	1.0	RB 1 MHz;VB 10 Hz;Pk
8999.910	39.0	V	100.0	-61.0	AVG	204	1.0	RB 1 MHz;VB 10 Hz;Pk

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit is -30dBc for peak measurements in a measurement bandwidth of 100kHz.

Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A



Run # 2, Radiated Spurious Emissions, 1-40GHz, 802.11OFDM, Chain A

Date of Test: 9/8/2011 Test Location: FT Chamber#4

Test Engineer: Joseph Cadigal Config Change: none

Run # 2a, EUT on Channel #6 G - 802.11OFDM, Chain A

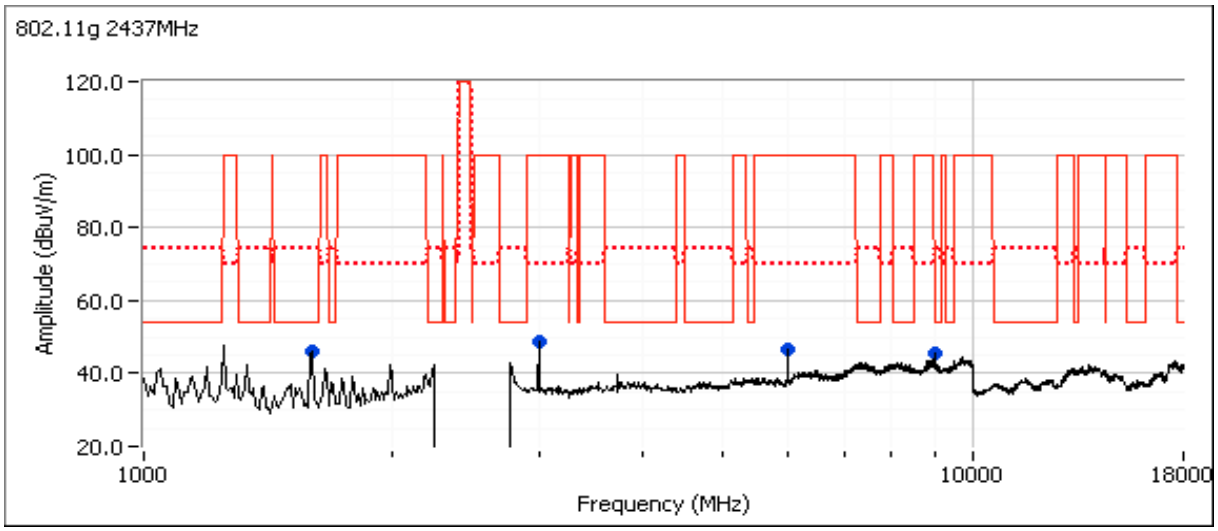
	Power Settings		
	Target (dBm)	Measured (dBm)	Software Setting
Chain A	16.5	16.7	27.5

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1594.420	39.9	V	54.0	-14.1	AVG	137	1.0	RB 1 MHz;VB 10 Hz;Pk
9005.300	38.5	V	54.0	-15.5	AVG	190	1.0	RB 1 MHz;VB 10 Hz;Pk
3000.120	52.3	V	70.0	-17.7	PK	240	1.0	RB 1 MHz;VB 3 MHz;Pk
6000.590	50.1	V	70.0	-19.9	PK	123	1.0	RB 1 MHz;VB 3 MHz;Pk
1592.540	52.6	V	74.0	-21.4	PK	137	1.0	RB 1 MHz;VB 3 MHz;Pk
9007.830	49.8	V	74.0	-24.2	PK	190	1.0	RB 1 MHz;VB 3 MHz;Pk
3000.390	47.2	V	100.0	-52.8	AVG	240	1.0	RB 1 MHz;VB 10 Hz;Pk
6000.760	44.7	V	100.0	-55.3	AVG	123	1.0	RB 1 MHz;VB 10 Hz;Pk

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit is -30dBc for peak measurements in a measurement bandwidth of 100kHz.

Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A



Run # 2b: , EUT on Channel #6 HT20 - 802.11OFDM, Chain A

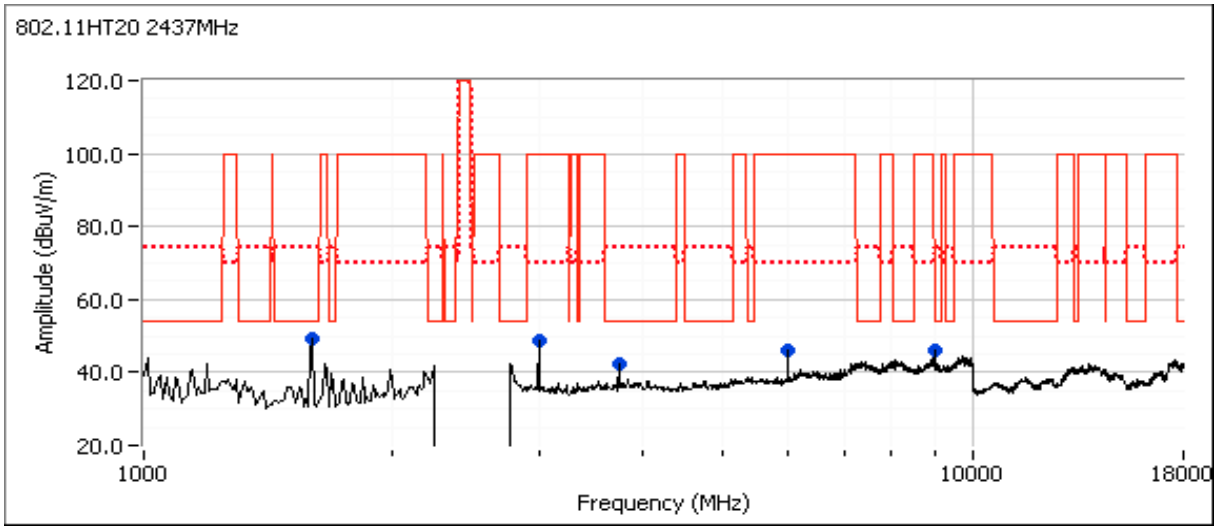
	Power Settings		
	Target (dBm)	Measured (dBm)	Software Setting
Chain A	16.5	16.7	27.5

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
9002.690	38.6	V	54.0	-15.4	AVG	191	1.0	RB 1 MHz;VB 10 Hz;Pk
1593.970	38.1	V	54.0	-15.9	AVG	136	1.0	RB 1 MHz;VB 10 Hz;Pk
6000.430	50.9	V	70.0	-19.1	PK	268	1.3	RB 1 MHz;VB 3 MHz;Pk
3000.380	48.6	V	70.0	-21.4	PK	191	1.0	RB 1 MHz;VB 3 MHz;Pk
3741.210	32.1	V	54.0	-21.9	AVG	172	1.6	RB 1 MHz;VB 10 Hz;Pk
1594.060	50.5	V	74.0	-23.5	PK	136	1.0	RB 1 MHz;VB 3 MHz;Pk
9002.820	50.4	V	74.0	-23.6	PK	191	1.0	RB 1 MHz;VB 3 MHz;Pk
3742.280	43.1	V	74.0	-30.9	PK	172	1.6	RB 1 MHz;VB 3 MHz;Pk
6000.740	44.7	V	100.0	-55.3	AVG	268	1.3	RB 1 MHz;VB 10 Hz;Pk
3000.330	41.5	V	100.0	-58.5	AVG	191	1.0	RB 1 MHz;VB 10 Hz;Pk

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit is -30dBc for peak measurements in a measurement bandwidth of 100kHz.
Note 2:	Scans made between 18 - 40GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no signifcant emissions in this frequency range

Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A



Run # 2c: , EUT on Channel #6 HT40 - 802.11OFDM, Chain A

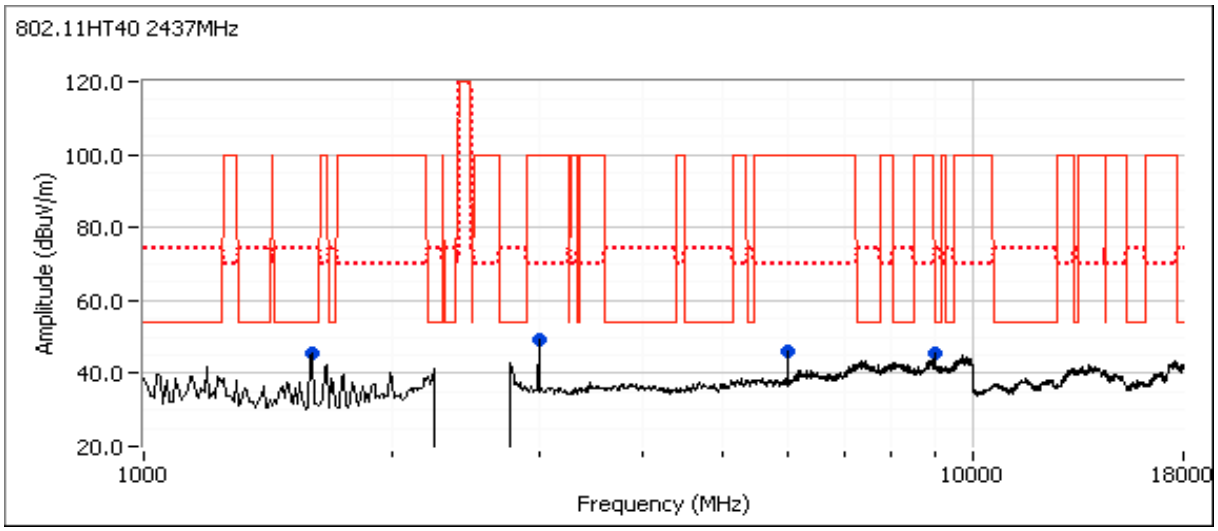
	Power Settings		
	Target (dBm)	Measured (dBm)	Software Setting
Chain A	16.5	16.7	27.5

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1594.260	38.6	V	54.0	-15.4	AVG	196	1.0	RB 1 MHz;VB 10 Hz;Pk
2999.750	51.0	H	70.0	-19.0	PK	200	1.0	RB 1 MHz;VB 3 MHz;Pk
8996.090	49.8	V	70.0	-20.2	PK	193	1.0	RB 1 MHz;VB 3 MHz;Pk
1593.420	50.2	V	74.0	-23.8	PK	196	1.0	RB 1 MHz;VB 3 MHz;Pk
5986.310	45.5	V	70.0	-24.5	PK	121	1.0	RB 1 MHz;VB 3 MHz;Pk
2999.830	45.2	H	100.0	-54.8	AVG	200	1.0	RB 1 MHz;VB 10 Hz;Pk
8995.480	38.6	V	100.0	-61.4	AVG	193	1.0	RB 1 MHz;VB 10 Hz;Pk
5986.680	33.5	V	100.0	-66.5	AVG	121	1.0	RB 1 MHz;VB 10 Hz;Pk

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit is -30dBc for peak measurements in a measurement bandwidth of 100kHz.

Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A



Run # 3, Radiated Spurious Emissions, 1-40GHz, 802.11OFDM, Chain A

Date of Test: 9/8/2011 Test Location: FT Chamber#4

Test Engineer: Joseph Cadigal Config Change: none

Run # 3a, EUT on Channel #1 2412 MHz - 802.11OFDM, Chain A

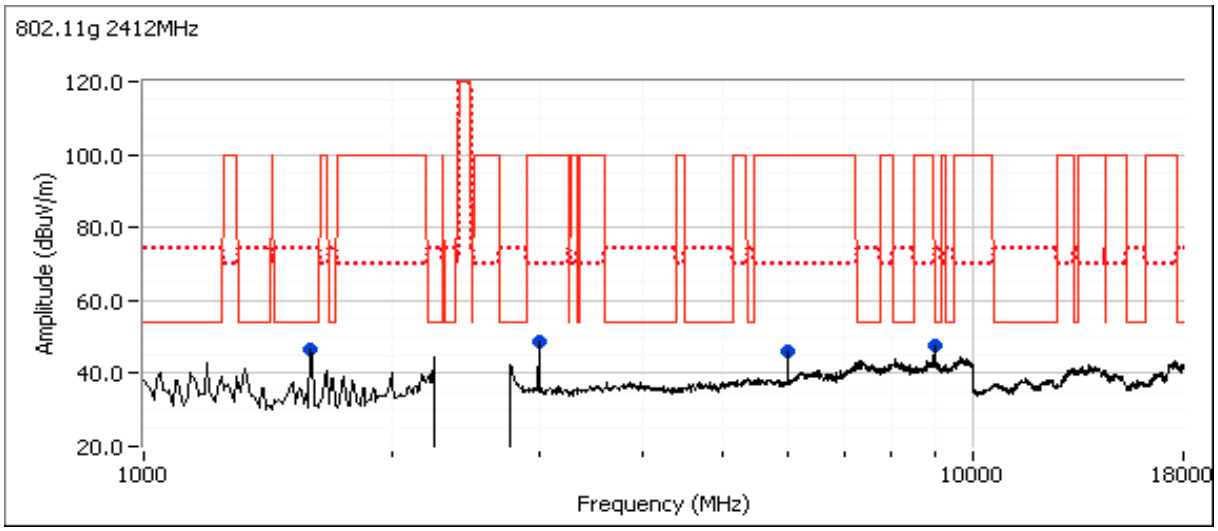
	Power Settings		
	Target (dBm)	Measured (dBm)	Software Setting
Chain A	16.5	16.7	27.5

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
9000.370	42.1	V	54.0	-11.9	AVG	192	1.0	RB 1 MHz;VB 10 Hz;Pk
1594.740	40.8	V	54.0	-13.2	AVG	138	1.0	RB 1 MHz;VB 10 Hz;Pk
3000.230	52.6	H	70.0	-17.4	PK	200	1.0	RB 1 MHz;VB 3 MHz;Pk
1594.670	53.7	V	74.0	-20.3	PK	138	1.0	RB 1 MHz;VB 3 MHz;Pk
6000.630	48.4	V	70.0	-21.6	PK	163	1.0	RB 1 MHz;VB 3 MHz;Pk
9000.260	51.2	V	74.0	-22.8	PK	192	1.0	RB 1 MHz;VB 3 MHz;Pk
3000.350	48.1	H	100.0	-51.9	AVG	200	1.0	RB 1 MHz;VB 10 Hz;Pk
6000.740	41.6	V	100.0	-58.4	AVG	163	1.0	RB 1 MHz;VB 10 Hz;Pk

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit is -30dBc for peak measurements in a measurement bandwidth of 100kHz.

Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A



Run # 3b: , EUT on Channel #11 2462 MHz - 802.11OFDM, Chain A

Date of Test: 9/9/2011 Test Location: FT Chamber#4

Test Engineer: Rafael Varelas Config Change: none

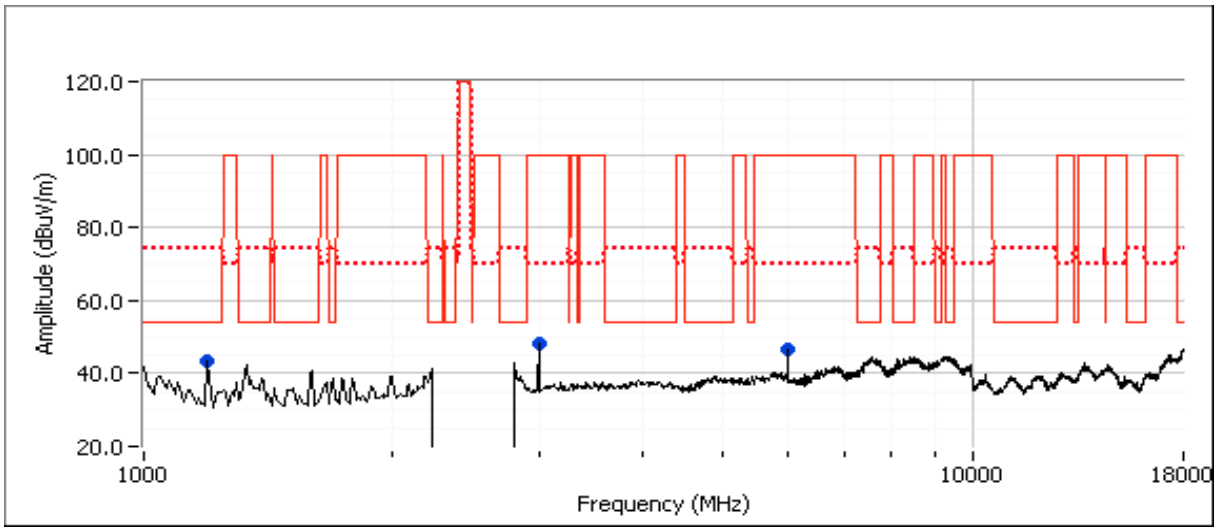
	Power Settings		
	Target (dBm)	Measured (dBm)	Software Setting
Chain A	16.5	16.7	27.5

Spurious Radiated Emissions:

Frequency	Level	Pol	15.209/15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1197.260	32.2	V	54.0	-21.8	AVG	174	0.9	RB 1 MHz;VB 10 Hz;Pk
1200.100	45.0	V	74.0	-29.0	PK	174	0.9	RB 1 MHz;VB 3 MHz;Pk
3000.150	48.1	H	70.0	-21.9	Peak	177	1.0	
6000.960	46.5	V	70.0	-23.5	Peak	102	1.0	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit is -30dBc for peak measurements in a measurement bandwidth of 100kHz.
Note 2:	Scans made between 18 - 40GHz with the measurement antenna moved around the card and its antennas 20-50cm from the device indicated there were no signifcant emissions in this frequency range

Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A



Run # 4, Radiated Spurious Emissions, 1-40GHz, Receive, Chain A

Date of Test: 9/9/2011 Test Location: FT Chamber#4

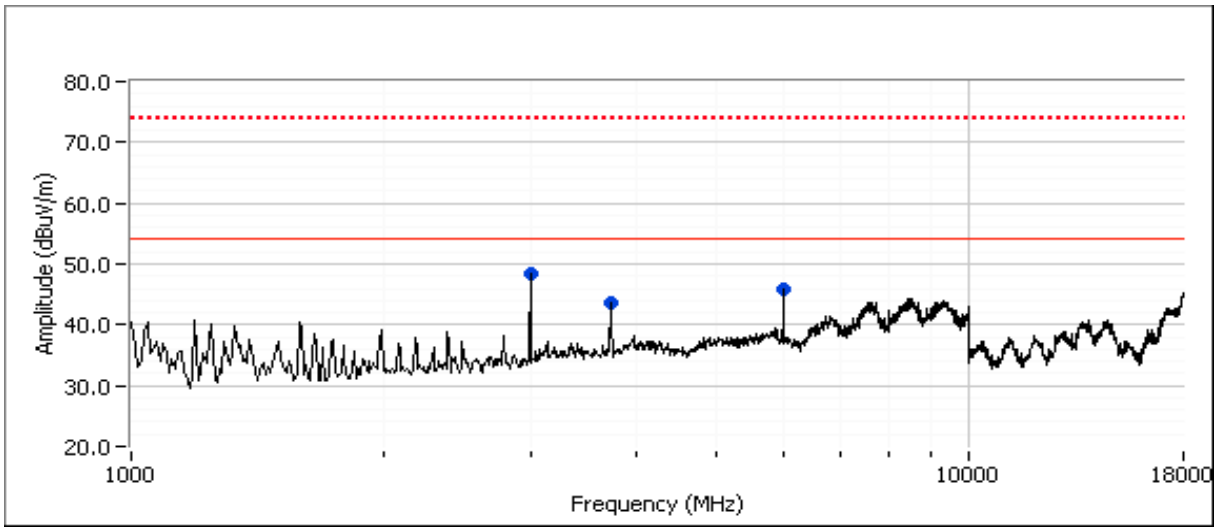
Test Engineer: Rafael Varelas Config Change: none

Run # 4a, EUT on Channel #6 2437 MHz - Receive, Chain A

Spurious Radiated Emissions:

Frequency	Level	Pol	RSS-210		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
3000.360	48.0	H	54.0	-6.0	AVG	181	1.4	RB 1 MHz;VB 10 Hz;Pk
3000.340	52.3	H	74.0	-21.7	PK	181	1.4	RB 1 MHz;VB 3 MHz;Pk
6000.720	46.4	V	54.0	-7.6	AVG	270	0.9	RB 1 MHz;VB 10 Hz;Pk
6000.540	50.6	V	74.0	-23.4	PK	270	0.9	RB 1 MHz;VB 3 MHz;Pk
3732.340	31.7	H	54.0	-22.3	AVG	158	1.0	RB 1 MHz;VB 10 Hz;Pk
3727.540	52.0	H	74.0	-22.0	PK	158	1.0	RB 1 MHz;VB 3 MHz;Pk

Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	N/A



Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	-

Conducted Emissions

(Elliott Laboratories Fremont Facility, Semi-Anechoic Chamber)

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: 9/14/2011
Test Engineer: Joseph Cadigal
Test Location: FT Chamber#5

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

General Test Configuration

For tabletop equipment, the host system was located on a wooden table inside the semi-anechoic chamber, 40 cm from a vertical coupling plane and 80cm from the LISN. A second LISN was used for all local support equipment. Remote support equipment was located outside of the semi-anechoic chamber. Any cables running to remote support equipment where routed through metal conduit and when possible passed through a ferrite clamp upon exiting the chamber.

Ambient Conditions:

Temperature: 15 - 55 °C
Rel. Humidity: 18 - 25 %

Summary of Results

Run #	Test Performed	Limit	Result	Margin
1	CE, AC Power,120V/60Hz	Class B	Pass	16.7dBµV @ 4.809MHz (-29.3dB)

Modifications Made During Testing

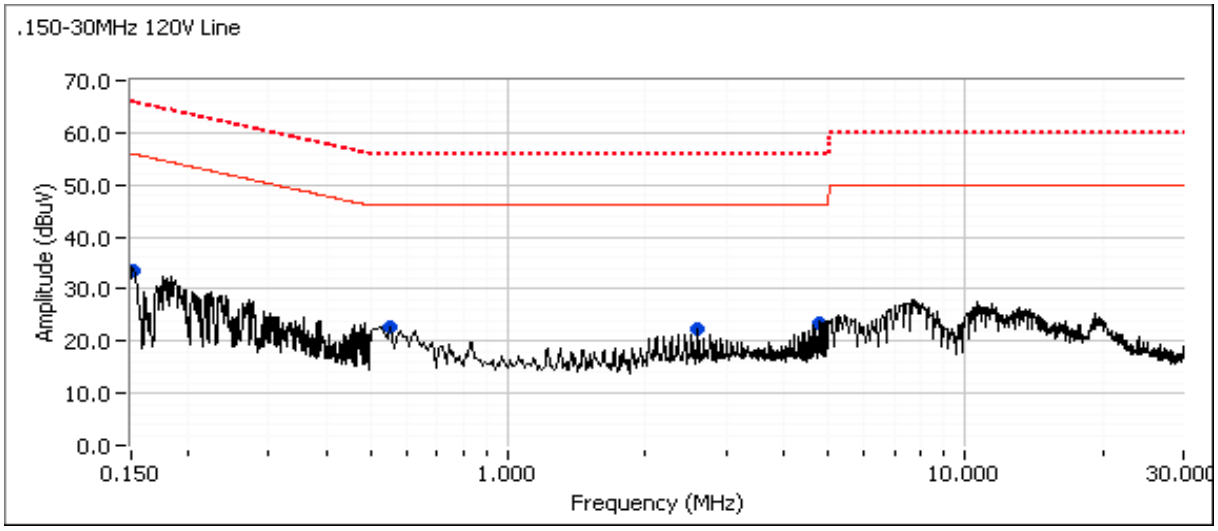
No modifications were made to the EUT during testing

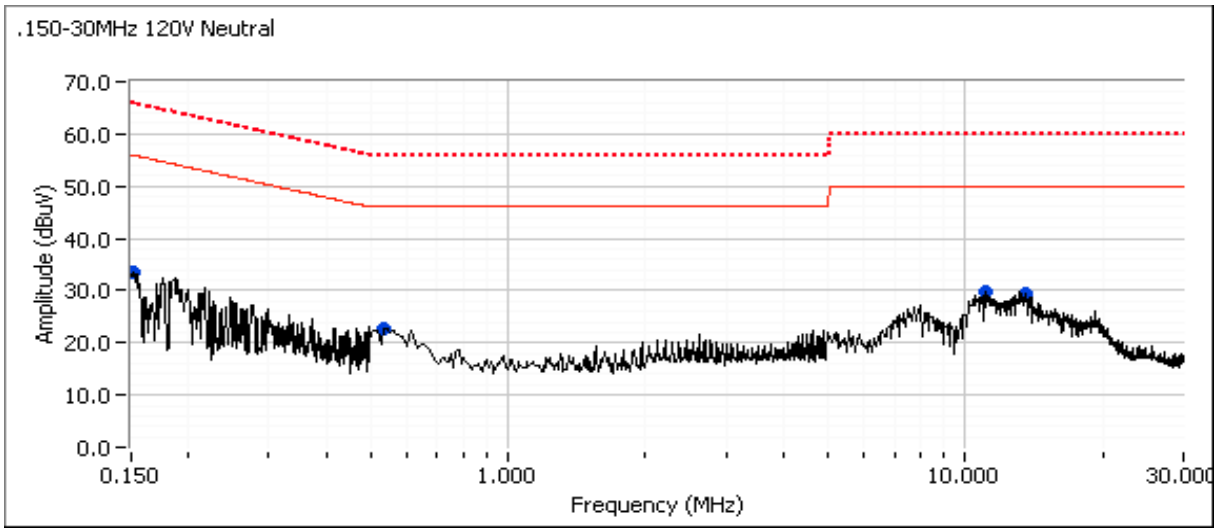
Deviations From The Standard

No deviations were made from the requirements of the standard.

Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	-

Run #1: AC Power Port Conducted Emissions, 0.15 - 30MHz, 120V/60Hz





Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	-

Preliminary peak readings captured during pre-scan (peak readings vs. average limit)

Frequency	Level	AC	Class B		Detector	Comments
MHz	dBµV	Line	Limit	Margin	QP/Ave	
2.608	22.3	Line 1	46.0	-23.7	Peak	
4.809	23.3	Line 1	46.0	-22.7	Peak	
0.550	22.8	Line 1	46.0	-23.2	Peak	
0.152	33.4	Line 1	55.9	-22.5	Peak	
0.152	33.5	Neutral	55.9	-22.4	Peak	
13.578	29.5	Neutral	50.0	-20.5	Peak	
11.139	29.7	Neutral	50.0	-20.3	Peak	

Final quasi-peak and average readings

Frequency	Level	AC	Class B		Detector	Comments
MHz	dBµV	Line	Limit	Margin	QP/Ave	
4.809	16.7	Line 1	46.0	-29.3	AVG	AVG (0.10s)
11.139	19.8	Neutral	50.0	-30.2	AVG	AVG (0.10s)
2.608	13.9	Line 1	46.0	-32.1	AVG	AVG (0.10s)
11.139	25.3	Neutral	60.0	-34.7	QP	QP (1.00s)
4.809	19.8	Line 1	56.0	-36.2	QP	QP (1.00s)
13.578	13.0	Neutral	50.0	-37.0	AVG	AVG (0.10s)
13.578	21.6	Neutral	60.0	-38.4	QP	QP (1.00s)
0.152	26.7	Line 1	65.9	-39.2	QP	QP (1.00s)
2.608	16.7	Line 1	56.0	-39.3	QP	QP (1.00s)
0.152	25.1	Neutral	65.9	-40.8	QP	QP (1.00s)
0.550	5.1	Line 1	46.0	-40.9	AVG	AVG (0.10s)
0.550	13.4	Line 1	56.0	-42.6	QP	QP (1.00s)
0.152	11.1	Line 1	55.9	-44.8	AVG	AVG (0.10s)
0.152	10.9	Neutral	55.9	-45.0	AVG	AVG (0.10s)

Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	-

Radiated Emissions

(Elliott Laboratories Fremont Facility, Semi-Anechoic Chamber)

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: 9/13/2011
Test Engineer: Joseph Cadigal
Test Location: FT Chamber#4
Config. Used: 1
Config Change: none
EUT Voltage: 120V / 60Hz

General Test Configuration

The EUT and any local support equipment were located on the turntable for radiated emissions testing. Any remote support equipment was located outside the semi-anechoic chamber. Any cables running to remote support equipment where routed through metal conduit and when possible passed through a ferrite clamp upon exiting the chamber.

The test distance and extrapolation factor (if applicable) are detailed under each run description.

Note, preliminary testing indicates that the emissions were maximized by orientation of the EUT and elevation of the measurement antenna. Maximized testing indicated that the emissions were maximized by orientation of the EUT, elevation of the measurement antenna, and manipulation of the EUT's interface cables.

Ambient Conditions:

Temperature: 15 - 55 °C
Rel. Humidity: 18 - 25 %

Summary of Results

Run #	Test Performed	Limit	Result	Margin
1	Radiated Emissions 30 - 1000 MHz, Preliminary	15.209 / 15.247 RSS 210	Eval	Refer to individual runs
2	Radiated Emissions 30 - 1000 MHz, Maximized	15.209 / 15.247 RSS 210	Pass	44.4dBµV/m @ 480.00MHz (-1.6dB)

Modifications Made During Testing

No modifications were made to the EUT during testing

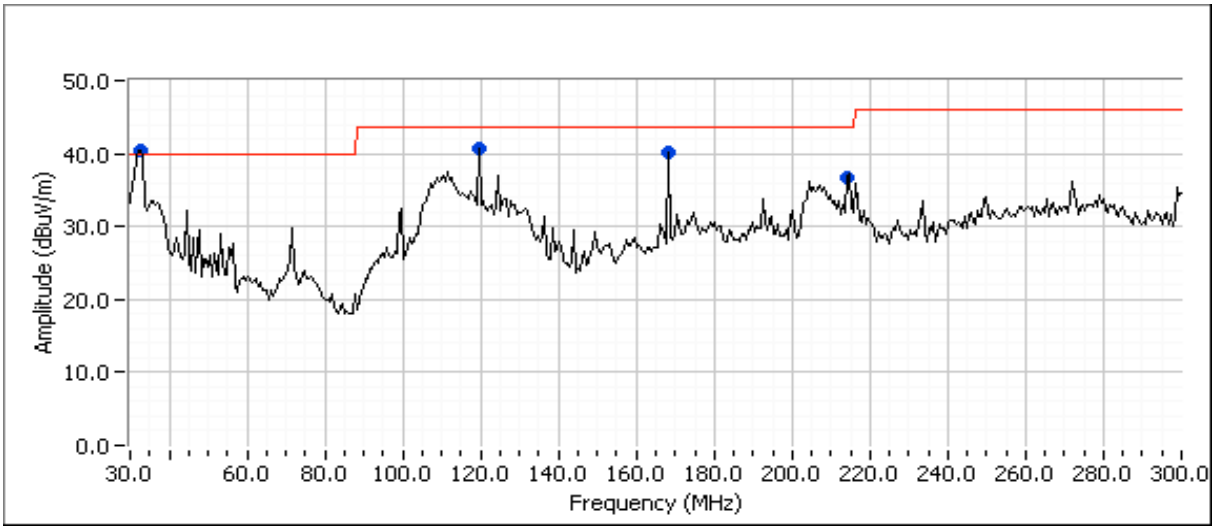
Deviations From The Standard

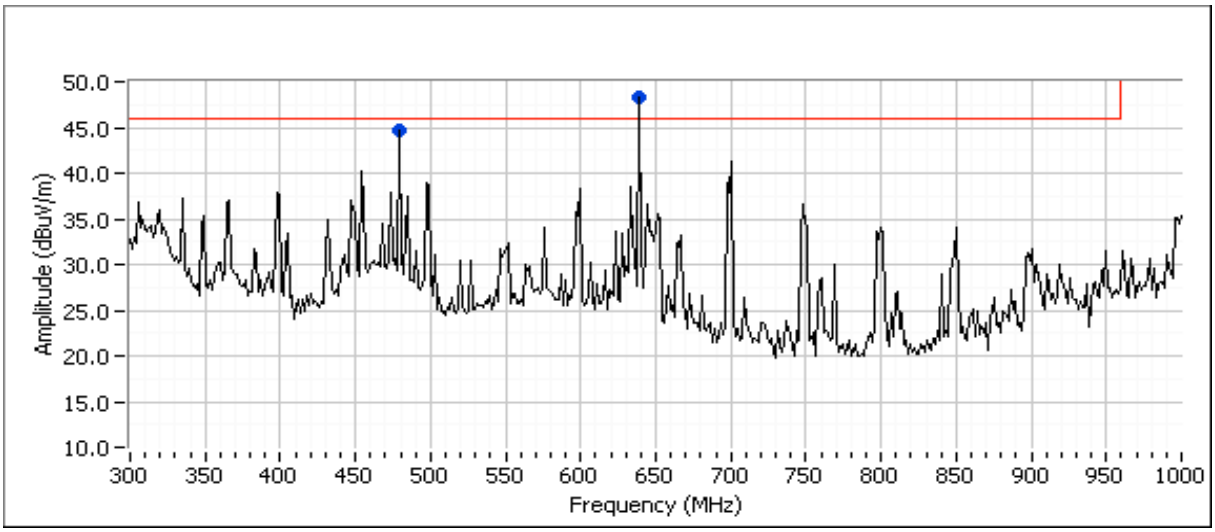
No deviations were made from the requirements of the standard.

Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	-

Run #1a: Preliminary Spurious Radiated Emissions, 30 - 1000 MHz, 802.11b

Frequency Range	Test Distance	Limit Distance	Extrapolation Factor
30 - 1000 MHz	3	3	0.0





Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	-

Preliminary peak readings captured during pre-scan

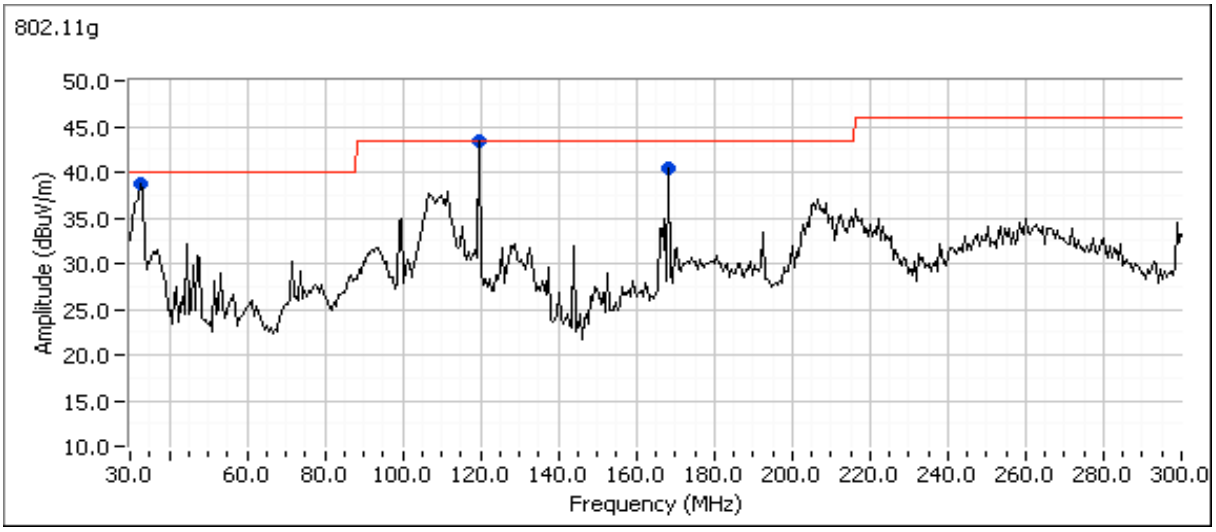
Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
120.003	40.6	H	43.5	-2.9	Peak	90	3.0	
479.999	44.7	H	46.0	-1.3	Peak	217	1.0	
168.005	40.2	V	43.5	-3.3	Peak	221	1.0	
640.082	48.3	H	46.0	2.3	Peak	232	1.0	
213.538	36.8	H	43.5	-6.7	Peak	253	1.5	
33.232	40.3	V	40.0	0.3	Peak	325	1.0	

Preliminary quasi-peak readings (no manipulation of EUT interface cables)

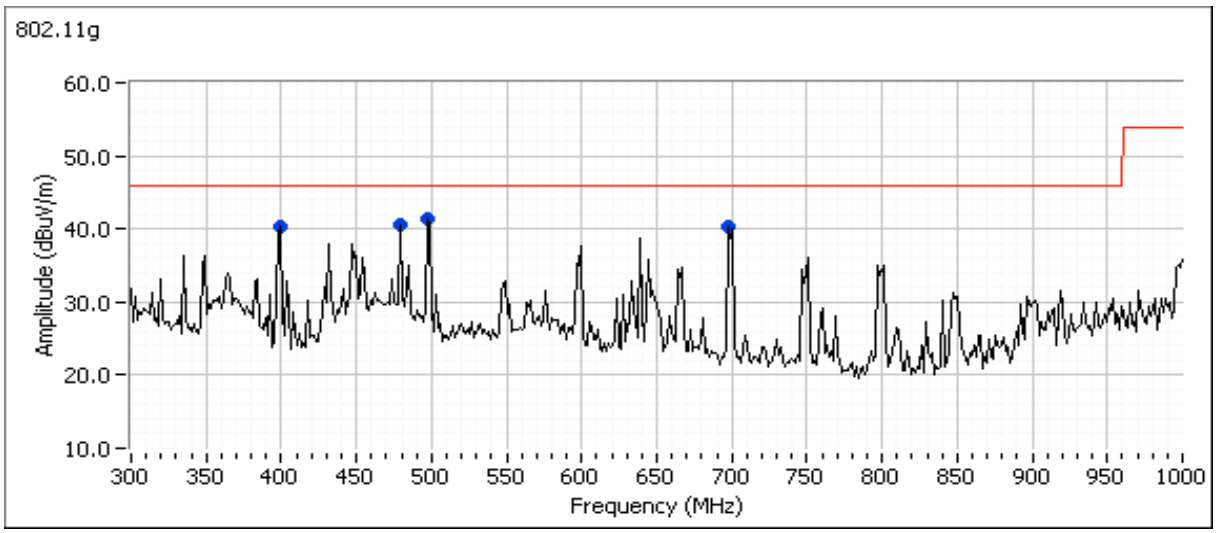
Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
120.003	33.6	H	43.5	-9.9	QP	91	3.0	QP (1.00s)
479.999	44.4	H	46.0	-1.6	QP	218	1.0	QP (1.00s)
168.005	37.1	V	43.5	-6.4	QP	223	1.0	QP (1.00s)
640.082	41.9	H	46.0	-4.1	QP	234	1.0	QP (1.00s)
213.538	29.3	H	43.5	-14.2	QP	254	1.5	QP (1.00s)
33.232	35.7	V	40.0	-4.3	QP	327	1.0	QP (1.00s)

Run #1b: Preliminary Spurious Radiated Emissions, 30 - 1000 MHz, 802.11g

Frequency Range	Test Distance	Limit Distance	Extrapolation Factor
30 - 1000 MHz	3	3	0.0



Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	-



Preliminary peak readings captured during pre-scan

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
168.001	40.4	V	43.5	-3.1	Peak	231	1.0	
120.005	43.3	H	43.5	-0.2	Peak	240	2.5	
33.226	38.7	V	40.0	-1.3	Peak	317	1.0	
498.152	41.4	H	46.0	-4.6	Peak	205	1.5	
479.999	40.7	H	46.0	-5.3	Peak	210	1.5	
398.575	40.3	H	46.0	-5.7	Peak	190	1.0	
697.996	40.2	H	46.0	-5.8	Peak	153	1.0	

Preliminary quasi-peak readings (no manipulation of EUT interface cables)

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
697.996	34.3	H	46.0	-11.7	QP	154	1.0	QP (1.00s)
398.575	36.2	H	46.0	-9.8	QP	192	1.0	QP (1.00s)
498.152	36.5	H	46.0	-9.5	QP	207	1.5	QP (1.00s)
479.999	43.3	H	46.0	-2.7	QP	212	1.5	QP (1.00s)
168.001	38.3	V	43.5	-5.2	QP	233	1.0	QP (1.00s)
120.005	39.6	H	43.5	-3.9	QP	241	2.5	QP (1.00s)
33.226	35.7	V	40.0	-4.3	QP	318	1.0	QP (1.00s)

Client:	Intel Corporation	Job Number:	J84263
Model:	105BNHMW and 105BNHU	T-Log Number:	T84530
		Account Manager:	Christine Krebill
Contact:	Steve Hackett		
Standard:	FCC Part 15, RSS-210	Class:	-

Run #2: Maximized Readings From Run #1 Worst Case Mode
Maximized quasi-peak readings (includes manipulation of EUT interface cables)

Frequency Range	Test Distance	Limit Distance	Extrapolation Factor
30 - 1000 MHz	3	3	0.0

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
479.999	44.4	H	46.0	-1.6	QP	218	1.0	QP (1.00s)
640.082	41.9	H	46.0	-4.1	QP	234	1.0	QP (1.00s)
33.232	35.7	V	40.0	-4.3	QP	327	1.0	QP (1.00s)
168.005	37.1	V	43.5	-6.4	QP	223	1.0	QP (1.00s)
120.003	33.6	H	43.5	-9.9	QP	91	3.0	QP (1.00s)
213.538	29.3	H	43.5	-14.2	QP	254	1.5	QP (1.00s)

End of Report

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