

NTS Silicon Valley www.nts.com 41039 Boyce Road Fremont, CA 94538 510-578-3500 Phone 510-440-9525 Fax

EMC Test Report

## Application for Grant of Equipment Authorization

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

## Model: 3160SDW

**IC CERTIFICATION #:** 1000M-3160SD FCC ID: PD93160SD APPLICANT: Intel Mobile Communications 100 Center Point Circle Suite 200 Columbia, SC 29210 TEST SITE(S): National Technical Systems - Silicon Valley 41039 Boyce Road. Fremont, CA. 94538-2435 IC SITE REGISTRATION #: 2845B-3; 2845B-4, 2845B-5, 2845B-7 **REPORT DATE:** January 23, 2014 FINAL TEST DATES: December 30 and 31, 2013 and January 2, 3, 6 -11, and 14, 2014 TOTAL NUMBER OF PAGES: 169

PROGRAM MGR / TECHNICAL REVIEWER:

Mark E Hill Staff Engineer

QUALITY ASSURANCE DELEGATE / FINAL REPORT PREPARER:

David Guidotti Senior Technical Writer



National Technical Systems - Silicon Valley is accredited by the A2LA, certificate number 0214.26, to perform the test(s) listed in this report, except where noted otherwise. This report and the information contained herein represent the results of testing test articles identified and selected by the client performed to specifications and/or procedures selected by the client. National Technical Systems (NTS) makes no representations, expressed or implied, that such testing is adequate (or inadequate) to demonstrate efficiency, performance, reliability, or any other characteristic of the articles being tested, or similar products. This report should not be relied upon as an endorsement or certification by NTS of the equipment tested, nor does it represent any statement whatsoever as to its merchantability or fitness of the test article, or similar products, for a particular purpose. This report shall not be reproduced except in full

### **REVISION HISTORY**

Rev#	Date	Comments	Modified By
-	01-23-2014	First release	

### TABLE OF CONTENTS

REVISION HISTORY	
TABLE OF CONTENTS	3
SCOPE	4
OBJECTIVE	
STATEMENT OF COMPLIANCE	
DEVIATIONS FROM THE STANDARDS	
TEST RESULTS SUMMARY	
DIGITAL TRANSMISSION SYSTEMS (2400 – 2483.5MHZ)	6
DIGITAL TRANSMISSION SYSTEMS (5725 –5850 MHZ)	
GENERAL REQUIREMENTS APPLICABLE TO ALL BANDS	7
MEASUREMENT UNCERTAINTIES	
EQUIPMENT UNDER TEST (EUT) DETAILS	9
GENERAL	
OTHER EUT DETAILS	
ANTENNA SYSTEM	
ENCLOSURE	
MODIFICATIONS	
SUPPORT EQUIPMENT	
EUT INTERFACE PORTS	
EUT OPERATION	
TEST SITE	
GENERAL INFORMATION	
CONDUCTED EMISSIONS CONSIDERATIONS	
RADIATED EMISSIONS CONSIDERATIONS	
MEASUREMENT INSTRUMENTATION	
RECEIVER SYSTEM	
INSTRUMENT CONTROL COMPUTER	
LINE IMPEDANCE STABILIZATION NETWORK (LISN)	12
FILTERS/ATTENUATORS	
ANTENNAS	13
ANTENNA MAST AND EQUIPMENT TURNTABLE INSTRUMENT CALIBRATION	13
TEST PROCEDURES	14
EUT AND CABLE PLACEMENT CONDUCTED EMISSIONS	
RADIATED EMISSIONS	
CONDUCTED EMISSIONS FROM ANTENNA PORT	13
BANDWIDTH MEASUREMENTS	
SPECIFICATION LIMITS AND SAMPLE CALCULATIONS	
CONDUCTED EMISSIONS SPECIFICATION LIMITS: FCC 15.207; FCC 15.107(A), RSS GEN	
GENERAL TRANSMITTER RADIATED EMISSIONS SPECIFICATION LIMITS	
OUTPUT POWER LIMITS – DIGITAL TRANSMISSION SYSTEMS	
TRANSMIT MODE SPURIOUS RADIATED EMISSIONS LIMITS – FHSS AND DTS SYSTEMS	
SAMPLE CALCULATIONS - CONDUCTED EMISSIONS	
SAMPLE CALCULATIONS - RADIATED EMISSIONS	
SAMPLE CALCULATIONS - FIELD STRENGTH TO EIRP CONVERSION	
APPENDIX A TEST EQUIPMENT CALIBRATION DATA	
APPENDIX B TEST DATA	25
END OF REPORT	169

#### **SCOPE**

An electromagnetic emissions test has been performed on the Intel Mobile Communications model 3160SDW, 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 National Technical Systems - Silicon Valley test procedures:

ANSI C63.10-2009 FCC DTS Measurement Guidance KDB558074

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 Mobile Communications model 3160SDW 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 Mobile Communications model 3160SDW and therefore apply only to the tested sample. The sample was selected and prepared by Steve Hackett of Intel Mobile Communications.

#### DEVIATIONS FROM THE STANDARDS

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

## TEST RESULTS SUMMARY

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	All modes > 500kHz	>500kHz	Complies
15.247 (b) (3)	RSS 210 A8.2 (4)	Output Power (multipoint systems)	BT: 3.4 dBm 11b: 18.5 dBm 11g: 20.0 dBm n20: 20.2 dBm n40: 19.5 dBm EIRP = 0.219 W <sup>Note 1</sup>	1 Watt, EIRP limited to 4 Watts.	Complies
15.247(d)	RSS 210 A8.2 (2)	Power Spectral Density	BT: -5.6 dBm/10kHz 11b: 3.0 dBm/10kHz 11g: -2.8dBm/10kHz n20: -2.1dBm/10kHz n40: -4.3dBm/10kHz	8dBm/3kHz	Complies
15.247(c)	RSS 210 A8.5	Antenna Port Spurious Emissions 30MHz – 25 GHz	All spurious emissions < -20dBc	< -20dBc	Complies
15.247(c) / 15.209	RSS 210 A8.5	Radiated Spurious Emissions 30MHz – 25 GHz	53.4 dBµV/m @ 2483.5 MHz (-0.6 dB)	15.207 in restricted bands, all others < -20dBc	Complies
Note 1: EIRP	calculated usin	g antenna gain of 3.2 dBi	for the highest EIRP syst	em.	

#### DIGITAL TRANSMISSION SYSTEMS (5725 –5850 MHz)

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	All modes > 500kHz	>500kHz	Complies
15.247 (b)	RSS 210 A8.2 (4)	Output Power (multipoint systems)	11a: 20.4dBm n20: 20.4dBm n40: 20.4dBm ac80: 21.0dBm EIRP = 0.398 W <sup>Note 1</sup>	1 Watt, EIRP limited to 4 Watts.	Complies
15.247(d)	RSS 210 A8.2 (2)	Power Spectral Density	11a: -2.6 dBm/10kHz n20: -3.9dBm/10kHz n40: -5.1dBm/10kHz ac80: -8.5dBm/10kHz	Maximum permitted is 8dBm/3kHz	Complies
15.247(c)	RSS 210 A8.5	Antenna Port Spurious Emissions – 30MHz – 40 GHz	All spurious emissions < -20dBc	< -20dBc	Complies
15.247(c) / 15.209	RSS 210 A8.5 Table 2, 3	Radiated Spurious Emissions 30MHz – 40 GHz	48.8 dBµV/m @ 1191.7 MHz (-5.2 dB)	15.207 in restricted bands, all others < -20dBc	Complies
Note 1: EIRP	calculated using	g antenna gain of 5.0 dBi	for the highest EIRP syst	em multi-point	

FCC Rule Part	RSS Rule part	Description	Measured Value / Comments	Limit / Requirement	Result (margin)
15.203	-	RF Connector	EUT uses IPEX-4 RF ports	Unique or integral antenna required	Complies
15.207	RSS GEN Table 2	AC Conducted Emissions	45.7 dBμV @ 0.398 MHz (-2.2 dB)	Refer to page 18	Complies
15.247 (b) (5) 15.407 (f)	RSS 102	RF Exposure Requirements	Refer to SAR report and RSS 102 declaration	Refer to OET 65, FCC Part 1 and RSS 102	Complies
-	RSP 100 RSS GEN 7.1.3	User Manual	Refer to User Manual for details	Statement required regarding non- interference	Complies
-	RSP 100 RSS GEN 7.1.2	User Manual	Refer to User Manual for details	Statement for products with detachable antenna	Complies
-	RSP 100 RSS GEN 4.4.1	99% Bandwidth	2.4GHz BT: 1.05 MHz 11b: 14.6 MHz 11g: 17.5 MHz n20: 18.7 MHz n40: 36.3 MHz 5.8GHz 11a: 18.2MHz n20: 19.1MHz n40: 36.3MHz ac80: 75.0MHz	Information only	N/A

GENERAL REQUIREMENTS APPLICABLE TO ALL BANDS

#### 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	$\pm 0.52 \text{ dB}$
RF power, conducted (Spectrum analyzer)	dBm	25 to 7000 MHz	$\pm 0.7 \text{ dB}$
Conducted emission of transmitter	dBm	25 to 26500 MHz	$\pm 0.7 \text{ dB}$
Conducted emission of receiver	dBm	25 to 26500 MHz	$\pm 0.7 \text{ dB}$
Radiated emission (substitution method)	dBm	25 to 26500 MHz	± 2.5 dB
Radiated emission (field strength)	dBµV/m	25 to 1000 MHz 1000 to 40000 MHz	$\frac{\pm 3.6 \text{ dB}}{\pm 6.0 \text{ dB}}$
Conducted Emissions (AC Power)	dBµV	0.15 to 30 MHz	± 2.4 dB

#### EQUIPMENT UNDER TEST (EUT) DETAILS

#### GENERAL

The Intel Mobile Communications model 3160SDW is an IEEE 802.11a/b/g/n/ac wireless network adapter that supports 1x1 (SISO) operation and Bluetooth in Basic Rate, Enhanced Data Rate, and Low Energy modes. It is designed to be soldered down in host devices.

The sample was received on December 30, 2013 and tested on December 30 and 31, 2013 and January 2, 3, 6 - 11, and 14, 2014. The EUT consisted of the following component(s):

Company	Model	Description	MAC Address:	FCC ID
Intel Mobile	3160SDW	Wireless Network	001500E60B22	PD93160SD
Communications		Adapter		1000m-3160SD

#### OTHER EUT DETAILS

802.11abgn + ac80, 1x1, module Bluetooth 4.0 Supports simultaneous transmission No transmit/receive diversity

#### ANTENNA SYSTEM

The EUT antenna is a two-antenna PIFA antenna system – SkyCross, Inc. One antenna is used for WiFi operation and one for Bluetooth operation. For Bluetooth: transmit is chain B, receive is chain B. For WiFi, only Chain A is used for transmit and receive.

The antenna connects to the EUT via a non-standard antenna connector, thereby meeting the requirements of FCC 15.203.

Band (MHz)	Antenna Gain
2400-2483.5	3.2 dBi
5150-5250	3.6 dBi
5250-5350	3.7 dBi
5470-5725	4.8 dBi
5725-5850	5.0 dBi

#### ENCLOSURE

The EUT has no enclosure. It is designed to be installed within the enclosure of a host computer.

#### **MODIFICATIONS**

No modifications were made to the EUT during the time the product was at NTS Silicon Valley.

#### SUPPORT EQUIPMENT

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

Company	Model	Description	Serial Number	FCC ID
Dell	Latitude E5400	Laptop	Unmarked	N/A
Dell	LA90PS3-00	AC/DC Adapter	CN-0FR613-71615- 7CO-0058	N/A
Intel	-	Test Fixture	-	-

#### EUT INTERFACE PORTS

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

Por	t	Cable(s)			
From	То	Description	Shielded/Unshielded	Length(m)	
DC power (laptop)	External power supply	2 wire	Unshielded	2	
AC input (power supply)	AC mains	2 wire	Unshielded	2	
PCIe Internal Port	Test Fixture	Ribbon Cable	Unshielded (Shielded for radiated emissions)	0.8	
EUT – RF ports (x2)	Antenna Fixture	coaxial (x2)	Shielded	0.2	

#### 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 for power and control. The laptop computer was used to configure the EUT to continuously transmit at a specified output power 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 and 40 MHz channel bandwidths), 802.11ac (20, 40 and 80 MHz channel bandwidths), Bluetooth 1Mb/s and Bluetooth 3Mb/s. In addition radiated spurious tests were repeated with the device operating in both Bluetooth and 802.11 modes to determine if any spurious emissions due to intermodulation products were created.

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 802.11n20, and 13 Mb/s for 802.11n40 except 802.11ac80 mode was tested at 390Mb/s. The device operates at its maximum output power at the lowest data rate except for 802.11ac80 mode (this was confirmed through separate measurements – refer to test data for actual measurements). Bluetooth operation was evaluated at both 1Mb/s and 3Mb/s data rates. 2Mb/s data rate was found, through preliminary testing, to produce emissions similar to those for 3Mb/s. The PC was using the Intel test utility DRTU Version 1.7.4-855 and the device driver was version 16.8.0.3.

### 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	Registratio	Logation	
Site	FCC	Canada	Location
Chamber 4	211948	2845B-4	41030 Dovoo Dood
Chamber 5	211948	2845B-5	41039 Boyce Road Fremont,
Chamber 7	A2LA accreditation	2845B-7	CA 94538-2435

ANSI C63.4 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.

#### CONDUCTED EMISSIONS CONSIDERATIONS

Conducted emissions testing is performed in conformance with ANSI C63.10. 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 guidelines and meet the Normalized Site Attenuation (NSA) requirements of ANSI C63.4.

#### 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 nonconductive 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 C63.10 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 as specified in ANSI C63.4. 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 C63.10, and the worst-case orientation is used for final measurements.

#### CONDUCTED EMISSIONS

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

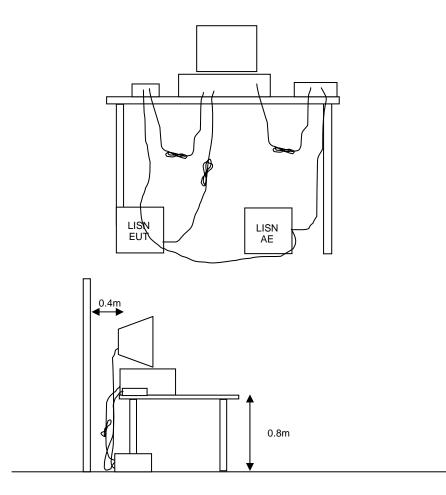


Figure 1 Typical Conducted Emissions Test Configuration

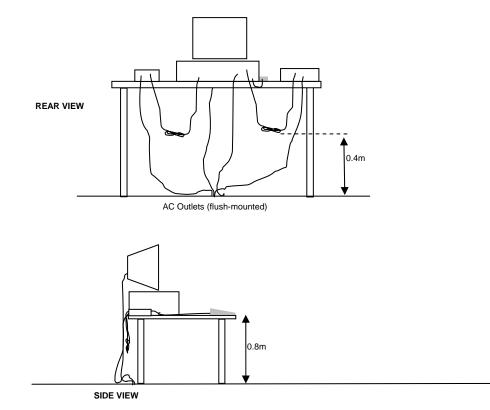
#### RADIATED EMISSIONS

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

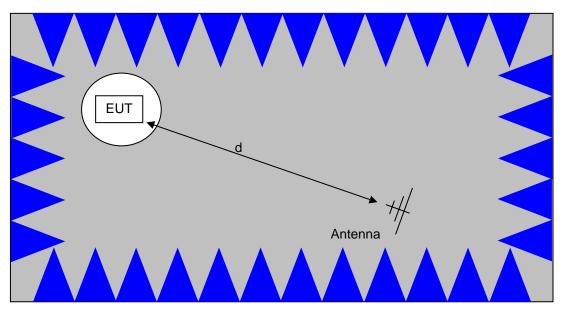
A speaker is provided in the receiver to aid in discriminating between EUT and ambient emissions. Other methods used during the preliminary scan for EUT emissions involve scanning with near field magnetic loops, monitoring I/O cables with RF current clamps, and cycling power to the EUT.

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

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

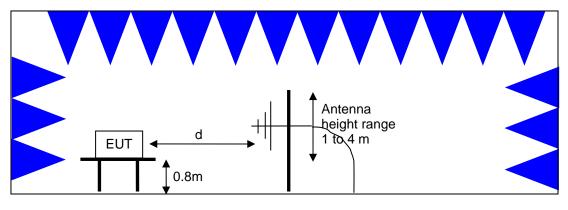


Typical Test Configuration for Radiated Field Strength Measurements



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

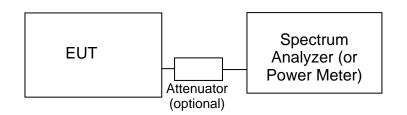
Floor-standing equipment is placed on the floor with insulating supports between the unit and the ground plane.



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

#### 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 NTS Silicon Valley's test procedures for the type of radio being tested. When power measurements are made using a resolution bandwidth less than the signal bandwidth the power is calculated by summing the power across the signal bandwidth using either the analyzer channel power function or by capturing the trace data and calculating the power using software. In both cases the summed power is corrected to account for the equivalent noise bandwidth (ENBW) of the resolution bandwidth used.

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

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

#### **BANDWIDTH MEASUREMENTS**

The 6dB, 20dB, 26dB and/or 99% signal bandwidth are measured using the bandwidths recommended by ANSI C63.10 and 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<sup>1</sup> (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 <sub>KHz</sub> @ 300m	67.6-20*log <sub>10</sub> (F <sub>KHz</sub> ) @ 300m
0.490-1.705	24000/F <sub>KHz</sub> @ 30m	87.6-20*log <sub>10</sub> (F <sub>KHz</sub> ) @ 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

#### **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).

<sup>&</sup>lt;sup>1</sup> The restricted bands are detailed in FCC 15.203, RSS 210 Table 1 and RSS 310 Table 2

#### 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:

$$E = \underline{1000000 \sqrt{30 P}} \text{ microvolts per meter}$$

d

where P is the eirp (Watts)

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

## Appendix A Test Equipment Calibration Data

<u>Manufacturer</u> Radio Antenna Port, 3	Description	Model	<u>Asset #</u>	Cal Due
Rohde & Schwarz	Signal Analyzer 20 Hz - 26.5 GHz	FSQ26	2327	4/25/2014
Agilent Technologies	USB Average Power Sensor	U2001A	2442	12/19/2014
<b>Radiated Emissions,</b> 7 EMCO Rohde & Schwarz	<b>1,000 - 6,500 MHz, 30-Dec-13</b> Antenna, Horn, 1-18 GHz EMI Test Receiver, 20 Hz-40 GHz	3115 ESIB40 (1088.7490.40)	1561 2493	7/12/2014 1/18/2014
	nissions, 1000 - 25,000 MHz, 31-D			
EMCO Hewlett Packard	Antenna, Horn, 1-18 GHz SpecAn 9 kHz - 40 GHz, FT (SA40) Blue	3115 8564E (84125C)	487 1393	7/19/2014 5/9/2014
Hewlett Packard	Microwave Preamplifier, 1- 26.5GHz	8449B	1780	11/26/2014
Micro-Tronics	Band Reject Filter, 2400-2500 MHz	BRM50702-02	2249	10/3/2014
Radiated Spurious En	nissions, 1000 - 40,000 MHz, 02-Ja	an-14		
EMCO	Antenna, Horn, 1-18 GHz	3115	487	7/19/2014
Narda West	High Pass Filter, 8 GHz	HPF 180	821	3/13/2014
Hewlett Packard	SpecAn 9 kHz - 40 GHz, FT (SA40) Blue	8564E (84125C)	1393	5/9/2014
Hewlett Packard	Head (Inc flex cable, (1742,1743) Blue)	84125C	1620	5/15/2014
Hewlett Packard	Microwave Preamplifier, 1- 26.5GHz	8449B	1780	11/26/2014
A. H. Systems Micro-Tronics	Purple System Horn, 18-40GHz Band Reject Filter, 2400-2500 MHz	SAS-574, p/n: 2581 BRM50702-02	2160 2249	6/28/2014 10/3/2014
Micro-Tronics	Band Reject Filter, 5725-5875 MHz	BRC50705-02	1682	3/13/2014
Radio Antenna Port (F	Power and Spurious Emissions), (	03-Jan-14		
Agilent Technologies	3Hz -44GHz PSA Spectrum Analyzer	E4446A	2796	1/28/2014
Radio Antenna Port (F	Power and Spurious Emissions), (	13-Jan-14		
Rohde & Schwarz	Power Sensor 100 uW - 2 Watts use with 20dB attenuator	NRV-Z32	1423	9/17/2014
Dahda 9 Cabwar	sn:1031.6959.00 only		4500	0/20/204.4
Rohde & Schwarz Agilent Technologies	Power Meter, Dual Channel USB Average Power Sensor	NRVD U2001A	1539 2442	8/30/2014 12/19/2014
Agilent Technologies	3Hz -44GHz PSA Spectrum Analyzer	E4446A	2796	1/28/2014
Radiated Emissions, 7 Micro-Tronics	1000 - 26,500 MHz, 07-Jan-14 Band Reject Filter, 2400-2500	BRM50702-02	1683	8/2/2014
Hewlett Packard	MHz Head (Inc W1-W4, 1946 , 1947) Purple	84125C	1772	6/18/2014
A. H. Systems	Red System Horn, 18-40GHz	SAS-574, p/n: 2581	2161	6/10/2014
Hewlett Packard	Microwave Preamplifier, 1- 26.5GHz	8449B	2199	2/19/2014

2		Repor	t Date: Janu	ary 23, 2014
<u>Manufacturer</u> Hewlett Packard	<u>Description</u> SpecAn 9 kHz - 40 GHz, (SA40) Purple	<u>Model</u> 8564E (84125C)	<u>Asset #</u> 2415	<u>Cal Due</u> 8/24/2014
Radiated Spurious E	missions, 1000 - 25,000 MHz, 07-J	an-14		
EMCO .	Antenna, Horn, 1-18GHz	3115	868	6/19/2014
EMCO	Antenna, Horn, 1-18 GHz	3115	1561	7/12/2014
Hewlett Packard	Head (Inc W1-W4, 1946 , 1947) Purple	84125C	1772	6/18/2014
A. H. Systems	Red System Horn, 18-40GHz	SAS-574, p/n: 2581	2161	6/10/2014
Hewlett Packard	Microwave Preamplifier, 1- 26.5GHz	8449B	2199	2/19/2014
Micro-Tronics	Band Reject Filter, 2400-2500 MHz	BRM50702-02	2238	9/18/2014
Hewlett Packard	SpecAn 9 kHz - 40 GHz, (SA40) Purple	8564E (84125C)	2415	8/24/2014
	missions, 1000 - 15,000 MHz, 08-J			
Narda West	High Pass Filter, 8 GHz	HPF 180	821	3/13/2014
EMCO	Antenna, Horn, 1-18 GHz (SA40-Red)	3115	1142	8/23/2014
Hewlett Packard	SpecAn 9 kHz - 40 GHz, FT (SA40) Blue	8564E (84125C)	1393	5/9/2014
Hewlett Packard	Microwave Preamplifier, 1- 26.5GHz	8449B	1780	11/26/2014
Micro-Tronics	Band Reject Filter, 5150-5350 MHz	BRC50703-02	2239	9/18/2014
Micro-Tronics	Band Reject Filter, 5470-5725 MHz	BRC50704-02	2240	9/18/2014
Micro-Tronics	Band Reject Filter, 5725-5875 MHz	BRC50705-02	2241	9/18/2014
Micro-Tronics	Band Reject Filter, 2400-2500 MHz	BRM50702-02	2249	10/3/2014
	1000 - 15,000 MHz, 09-Jan-14			
EMCO	Antenna, Horn, 1-18 GHz	3115	1561	7/12/2014
Micro-Tronics	Band Reject Filter, 5725-5875 MHz	BRC50705-02	1682	3/13/2014
Micro-Tronics	Band Reject Filter, 5150-5350 MHz	BRC50703-02	1729	8/2/2014
Micro-Tronics	Band Reject Filter, 5470-5725 MHz	BRC50704-02	1730	8/2/2014
Hewlett Packard	Microwave Preamplifier, 1- 26.5GHz	8449B	2199	2/19/2014
Micro-Tronics	Band Reject Filter, 2400-2500 MHz	BRM50702-02	2249	10/3/2014
Hewlett Packard	SpecAn 9 kHz - 40 GHz, (SA40) Purple	8564E (84125C)	2415	8/24/2014
Radio Antenna Port ( Agilent Technologies	Power and Spurious Emissions), PSA, Spectrum Analyzer, (installed options, 111, 115, 123, 1DS, B7J, HYX,	<b>09-Jan-14</b> E4446A	2139	3/7/2014
	30 - 1,000 MHz, 10-Jan-14			
Sunol Sciences	Biconilog, 30-3000 MHz	JB3	1548	8/9/2014
Rohde & Schwarz	EMI Test Receiver, 20 Hz-7 GHz		1756	6/8/2014
Com-Power	Preamplifier, 1-1000 MHz	PAM-103	2885	11/1/2014

Test Report Report Date: January 23, 2014

Manufacturer Conducted Emissions	Description s - AC Power Ports, 10-Jan-14	<u>Model</u>	<u>Asset #</u>	Cal Due
EMCO Rohde & Schwarz Rohde & Schwarz	LISN, 10 kHz-100 MHz Pulse Limiter EMI Test Receiver, 20 Hz-7 GHz	3825/2 ESH3 Z2 ESIB7	1293 1401 1756	2/14/2014 5/15/2014 6/8/2014
<b>Conducted Emissions</b> Rohde & Schwarz Rohde & Schwarz Fischer Custom Comm	<b>S - AC Power Ports, 13-Jan-14</b> Pulse Limiter EMI Test Receiver, 20 Hz-7 GHz LISN, 25A, 150kHz to 30MHz, 25 Amp,	ESH3 Z2 ESIB7 FCC-LISN-50-25-2- 09	1401 1756 2001	5/15/2014 6/8/2014 4/4/2014
Radiated Emissions, 3 Sunol Sciences Rohde & Schwarz Com-Power	<b>30 - 1,000 MHz, 13-Jan-14</b> Biconilog, 30-3000 MHz EMI Test Receiver, 20 Hz-7 GHz Preamplifier, 1-1000 MHz	JB3 ESIB7 PAM-103	1548 1756 2885	8/9/2014 6/8/2014 11/1/2014
Radio Antenna Port (F Agilent Technologies	<b>Power and Spurious Emissions)</b> , 7 3Hz -44GHz PSA Spectrum Analyzer	1 <b>4-Jan-14</b> E4446A	2796	1/28/2014
	Power and Spurious Emissions), <sup>,</sup>	15-Jan-14		
Rohde & Schwarz Rohde & Schwarz	Power Meter, Single Channel Power Sensor 100 uW - 2 Watts use with 20dB attenuator sn:1031.6959.00 only	NRVS NRV-Z32	1290 1423	12/10/2014 9/17/2014
Agilent Technologies	3Hz -44GHz PSA Spectrum Analyzer	E4446A	2796	1/28/2014

## Appendix B Test Data

T94177 Pages 26 - 168



# EMC Test Data

WE ENGINEER S	OCCESS		
Client:	Intel Mobile Communications	Job Number:	J94122
Product	3160SDW	T-Log Number:	T94177
		Project Manager:	Christine Krebill
Contact:	Steve Hackett	Project Coordinator:	-
Emissions Standard(s):	FCC Part 15, RSS-210	Class:	В
Immunity Standard(s):	-	Environment:	Radio

# **EMC Test Data**

#### For The

# **Intel Mobile Communications**

#### Product

## 3160SDW

Date of Last Test: 1/16/2014

# EMC Test Data

	E ENGINEER SUCCESS	EM	C Test Data
Client:	Intel Mobile Communications	Job Number:	J94122
Madal	3160SDW	T-Log Number:	T94177
Model.	31003D10	Project Manager:	Christine Krebill
Contact:	Steve Hackett	Project Coordinator:	-
Standard:	FCC Part 15, RSS-210	Class:	N/A

## Power vs. Data Rate

In normal operating modes the card uses power settings stored on EEPROM to set the output power. For a given nominal output power the actual transmit power normally is redcued as the data rate increases, therefore testing was performed at the data rate in the mode wiht highest power to determine compliance with the requirements.

The following power measurements were made using a GATED average power meter and with the device configured in a continuous transmit mode on Chain 1(Port 2) at the various data rates in each mode to verify the highest power mode:

#### Sample Notes

MAC Address: 001500E60B22 DRTU Tool Version 1.7.4-845 Driver version 16.8.0.3

Date of Test: 12/30/2013 Test Engineer: Jack Liu Test Location: FT Lab6

Mode	Data Rate	Power (dBm)	Power setting
	1	16.6	
802.11b	2	16.5	20.0
002.110	5.5	16.4	20.0
	11	16.4	
	6	15.2	
	9	15.1	
	12	15.1	
900 11a	18	15.1	20.0
802.11g	24	15.0	20.0
	36	14.9	
	48	14.8	1
	54	14.8	

Data Rate 6.5 13 19.5	Power (dBm) 11.6	Proj	Log Number: T94177 ect Manager: Christine Krebi Coordinator: - Class: N/A
6.5 13	11.6	Project	: Coordinator: -
6.5 13	11.6	Power	
6.5 13	11.6		]
6.5 13	11.6		]
13			
10 5	11.2		
	11.0		
26	10.8		
39	10.6	20.0	
		-	
		-	
		-	<<-11ac mode only
40.5	10.3		
54	10.2		
81	10.1	20.0	
108	10.0	20.0	<<-11ac mode only
		_	
		_	
			<<-11ac mode only
		-	
		-	
234	9.6	20.0	
266.3	9.5	]	
292.5	9.4		
351	9.4	1	
390	9.4		
	54 81 108 121.5 135 162 180 29.3 58.5 87.8 117 175.5 234 266.3 292.5	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

# EMC Test Data

 Client:
 Intel Mobile Communications
 Job Number:
 J94122

 Model:
 3160SDW
 T-Log Number:
 T94177

 Project Manager:
 Christine Krebill

 Contact:
 Steve Hackett
 Project Coordinator:

 Standard:
 FCC Part 15, RSS-210
 Class:

## Duty Cycle

Date of Test: 12/30/2013 Test Engineer: Jack Liu Test Location: FT Lab6

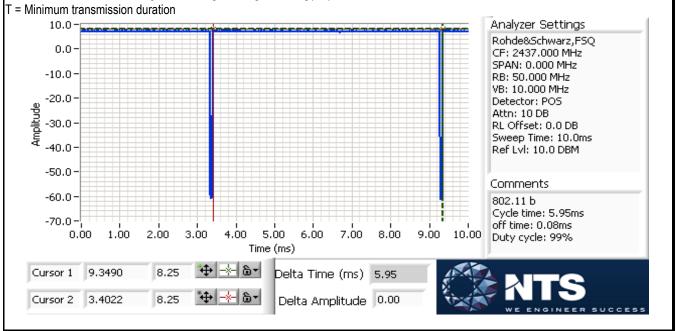
Duty cycle measurements performed on the worse case data rate for power.

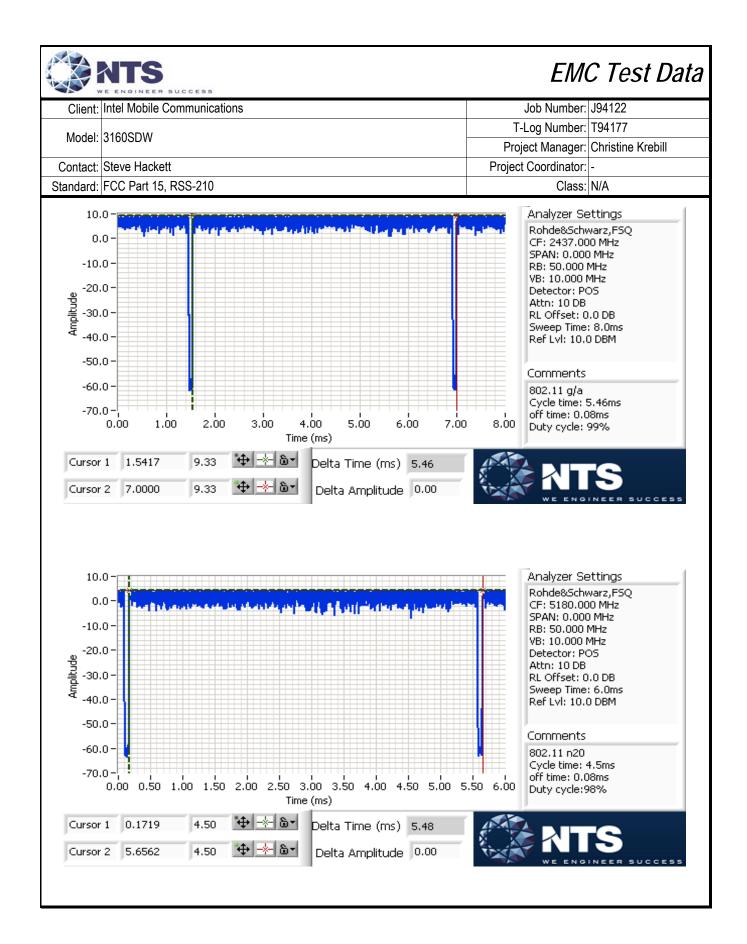
Notes: Measurements taken with maximum RBW/VBW settings allowed.

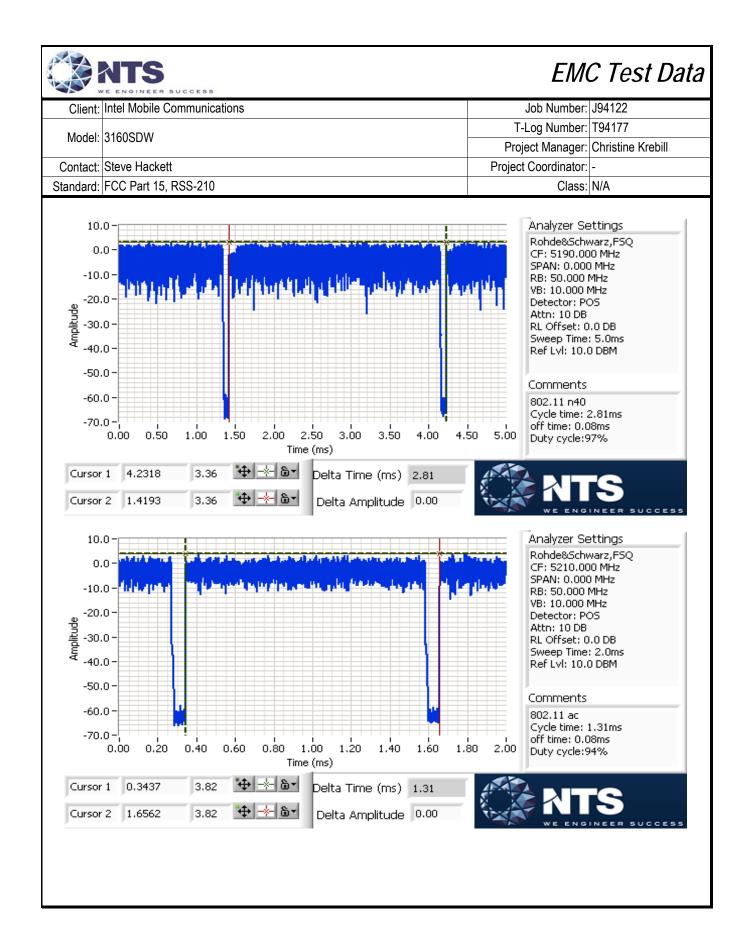
Mode	Data Rate	Duty Cycle (x)	Constant DC?	T (ms)	Pwr Cor Factor*	Lin Volt Cor Factor**	Min VBW for FS (Hz)
11b	1Mb/s	0.99	Yes	10	0	0	100
11g	6Mb/s	0.99	Yes	8	0	0	125
11a	6Mb/s	0.99	Yes	8	0	0	125
n20	HT0	0.98	Yes	6	0	0	166.67
n40	HT0	0.97	Yes	5	0.12	0.24	200
ac80	VHT0	0.94	Yes	2	0.26	0.51	500
BLE	-	0.63	Yes	0.4	1.97	3.95	2500

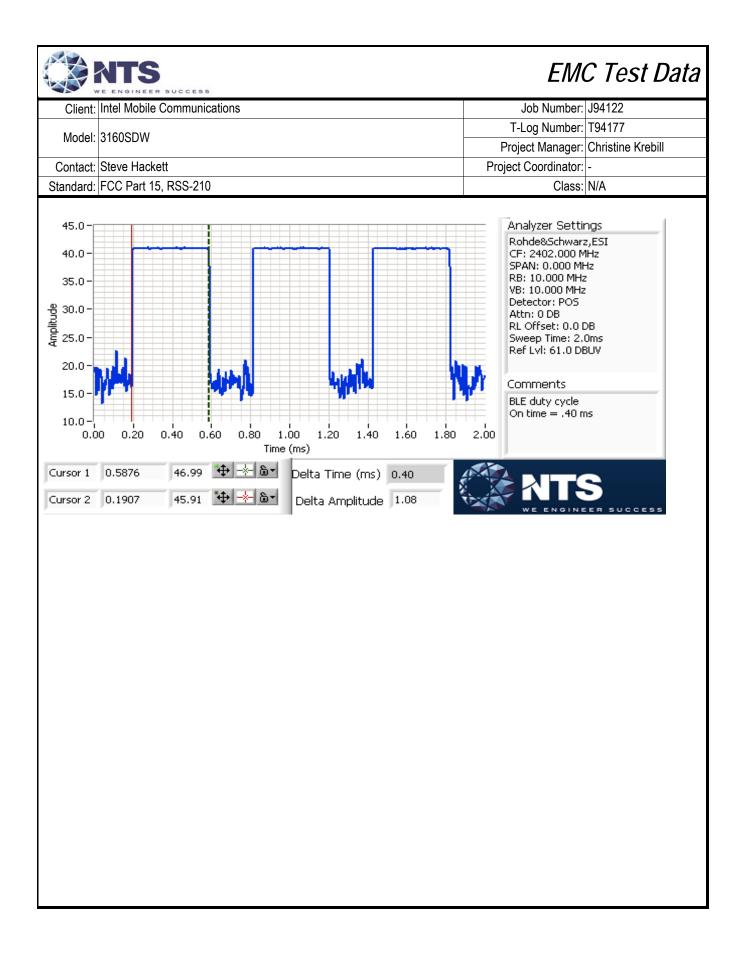
\* Correction factor when using RMS/Power averaging - 10\*log(1/x)

\*\* Correction factor when using linear voltage average - 20\*log(1/x)









NTS N			EMO	C Test Da
Client: Intel Mobile Communicati	ons		Job Number:	J94122
Model: 3160SDW			T-Log Number:	T94177
			Project Manager:	Christine Krebill
Contact: Steve Hackett			Project Coordinator:	-
Standard: FCC Part 15, RSS-210			Class:	N/A
	and FCC 15.247 (DT Power, PSD, Bandwidtl	•		5
est Specific Details				
Objective: The objective specification	e of this test session is to per listed above.	form final qualificat	ion testing of the EUT with r	espect to the
General Test Configuration The EUT was connected to the spect chain.	ctrum analyzer or power mete	er via a suitable att	enuator. All measurements	were made on a sin
All measurements have been correct	ted to allow for the external a	attenuators used.		
mbient Conditions:	Temperature: Rel. Humidity:	22 °C 35 %		
No modifications Made During Te	•			
eviations From The Standar No deviations were made from the r				

		EMO	EMC Test Data		
Client:	Intel Mobile Communications	Job Number:	J94122		
Madalı	3160SDW	T-Log Number:	T94177		
Wodel:		Project Manager:	Christine Krebill		
Contact:	Steve Hackett	Project Coordinator:	-		
Standard:	FCC Part 15, RSS-210	Class:	N/A		
3	of Results	rurrigen 14.0.0.2			

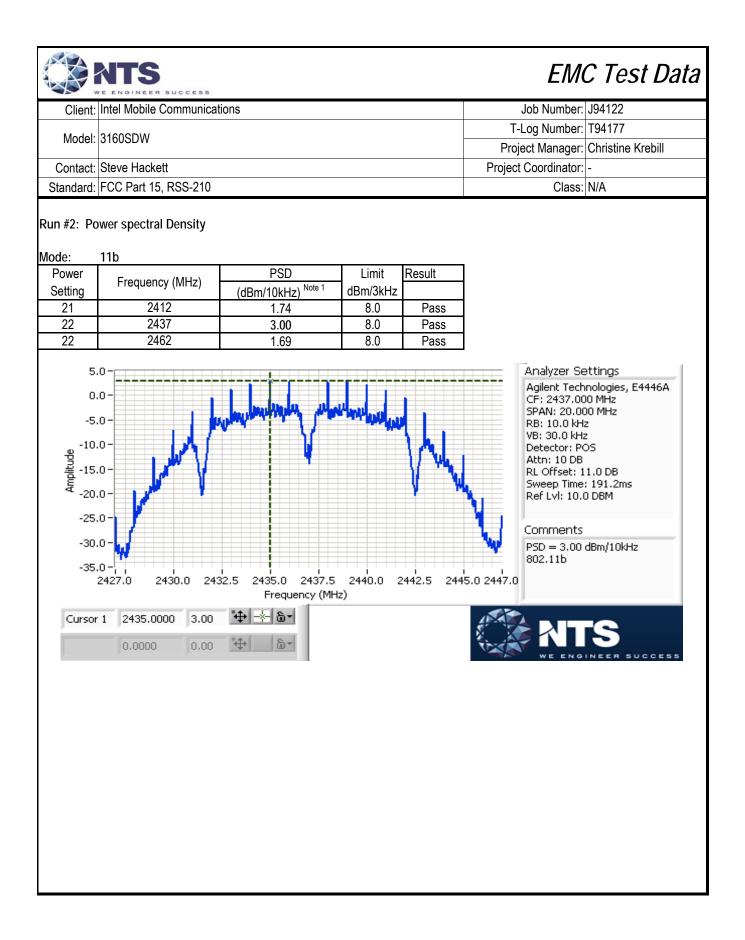
MAC Address: 001500E60B22 DRTU Tool Version 1.7.4-855 Driver version 16.8.0.3							
Run #	Pwr setting	Test Performed	Limit	Pass / Fail	Result / Margin		
1	Refer to run for details	Output Power	15.247(b)	Pass	11b: 18.5 dBm 11g: 20.0 dBm n20: 20.2 dBm n40: 19.5 dBm		
2	Refer to run for details	Power spectral Density (PSD)	15.247(d)	Pass	11b: 3.0 dBm/10kHz 11g: -2.8dBm/10kHz n20: -2.1dBm/10kHz n40: -4.3dBm/10kHz		
3	Refer to run for details	Minimum 6dB Bandwidth	15.247(a)	Pass	11b: 10.2 MHz 11g: 16.3 MHz n20: 17.7 MHz n40: 35.2 MHz		
3	Refer to run for details	99% Bandwidth	RSS GEN	-	11b: 14.6 MHz 11g: 17.5 MHz n20: 18.7 MHz n40: 36.3 MHz		
4	Refer to run for details	Spurious emissions	15.247(b)	Pass	All emissions >20dBc		

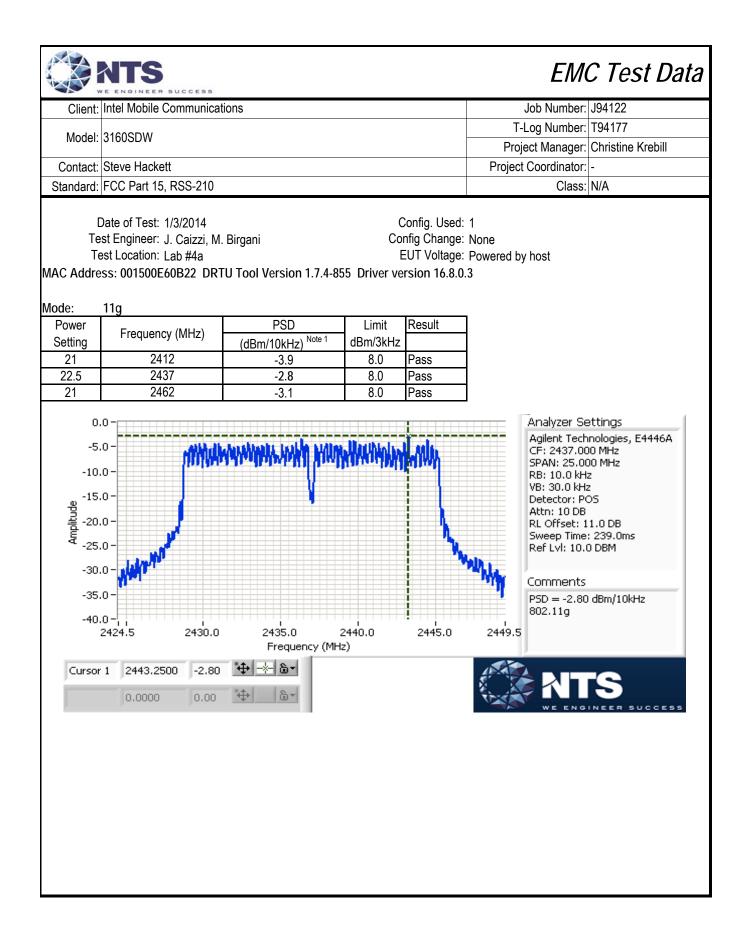
## Procedure Comments:

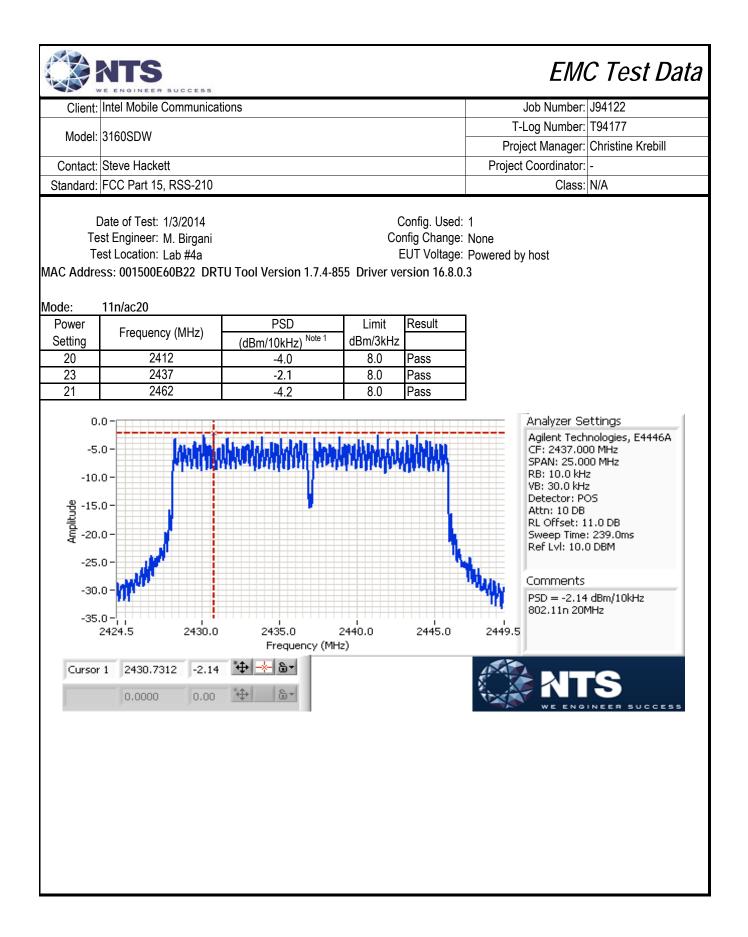
Measurements performed in accordance with FCC KDB 558074

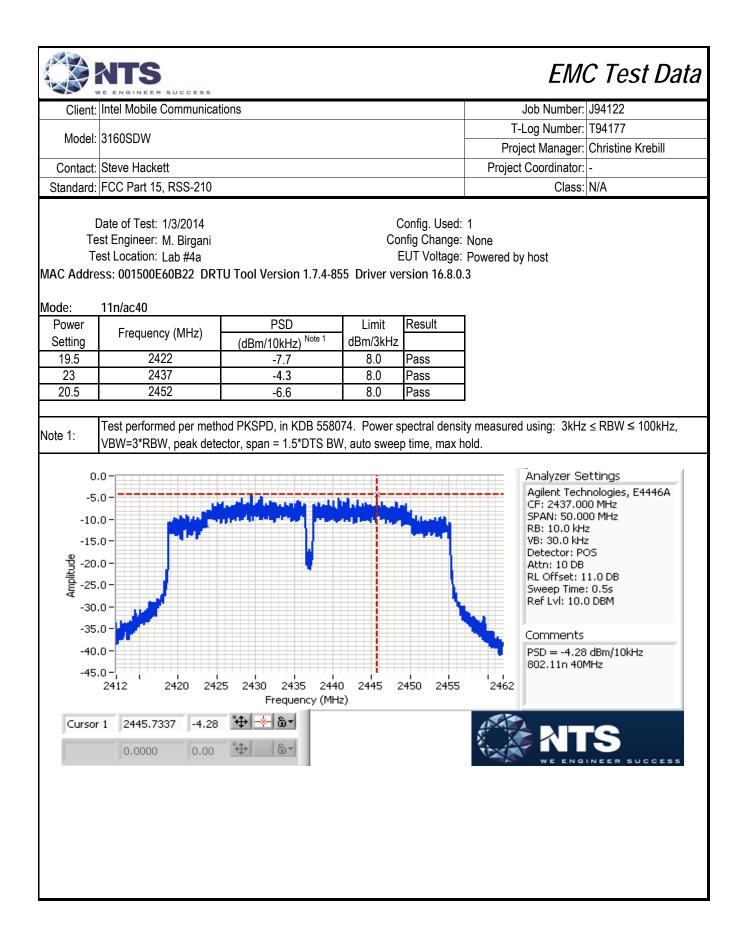
Mode	Data Rate	Duty Cycle (x)	Constant DC?	T (ms)	Pwr Cor Factor*	Lin Volt Cor Factor**	Min VBW for FS (Hz)
11b	1Mb/s	0.99	Yes	10	0	0	100
11g	6Mb/s	0.99	Yes	8	0	0	125
n20	HT0	0.98	Yes	6	0	0	166.7
n40	HT0	0.97	Yes	5	0.12	0.24	200

	Intel Mobile Communications						Job Number: J94122			
Model	3160SDW					T-Log Number: T94177				
WOUEI.	510000010					Project Manager: Christine Krebill				
Contact:	Steve Hackett	Steve Hackett					Project Coordinator: -			
Standard:	: FCC Part 15, RSS-210					Class: N/A				
un #1:  Oı	utput Power									
Mode:	11b							-		
Power	Frequency (MHz)	Output Power Antenna		Result		RP	Output Power			
Setting <sup>2</sup>	,	(dBm) <sup>1</sup>	mW	Gain (dBi)		dBm	W	(dBm) <sup>3</sup>	mW	
21 22	2412 2437	18.0	63.1	3.2	Pass	21.2	0.132	16.5	44.7	
22	2457	18.5 16.9	70.8 49.0	3.2 3.2	Pass Pass	21.7 20.1	0.148	17.6 16.6	57.5 45.7	
22	2402	10.9	49.0	J.Z	F 855	20.1	0.102	10.0	40.7	
Mode:	11g									
Power	Frequency (MHz)	Output	Power	Antenna	Result	EIRP		Output Power		
Setting <sup>2</sup>	Frequency (MITZ)	(dBm) <sup>1</sup>	mW	Gain (dBi)	Result	dBm	W	(dBm) <sup>3</sup>	mW	
21	2412	18.8	75.9	3.2	Pass	22.0	0.158	14.9	30.9	
22.5	2437	20.0	100.0	3.2	Pass	23.2	0.209	16.4	43.7	
21.5	2462	19.4	87.1	3.2	Pass	22.6	0.182	15.3	33.9	
Mode:	11n/ac20									
Power		Output	Power	Antenna		EIRP		Output Power		
Setting <sup>2</sup>	Frequency (MHz)	(dBm) <sup>1</sup>	mW	Gain (dBi)	Result	dBm	W	(dBm) <sup>3</sup>	mW	
20.5	2412	18.9	77.6	3.2	Pass	22.1	0.162	14.9	30.9	
23	2437	20.2	104.7	3.2	Pass	23.4	0.219	16.6	45.7	
21.5	2462	18.9	77.6	3.2	Pass	22.1	0.162	14.9	30.9	
	11									
wode:	11n/ac40	Output	Dowor	Antenna		EIRP		Output Power		
			mW	Gain (dBi)	Result	dBm	W		mW	
Power	Frequency (MHz)		11177	Gaill (UDI)				(dBm) <sup>3</sup>		
Power Setting <sup>2</sup>		(dBm) <sup>1</sup>	47.0	2.0	Deee	20.0	0 100	12.2	01 /	
Power	2422 2437	(dBm) 16.8 19.5	47.9 89.1	3.2 3.2	Pass Pass	20.0 22.7	0.100 0.186	13.3 16.5	21.4 44.7	

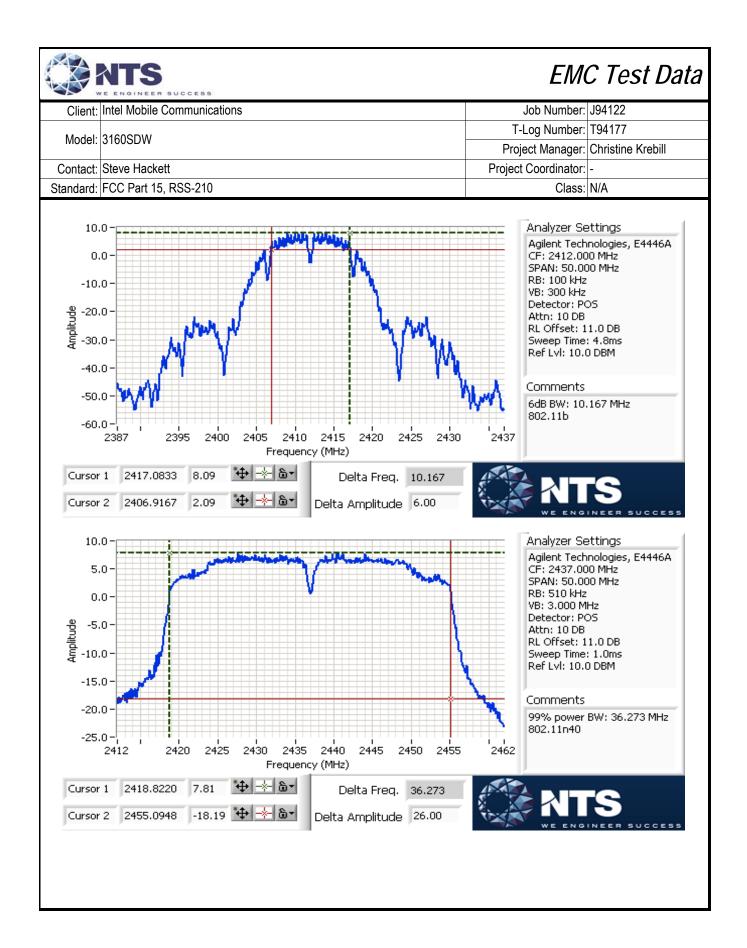




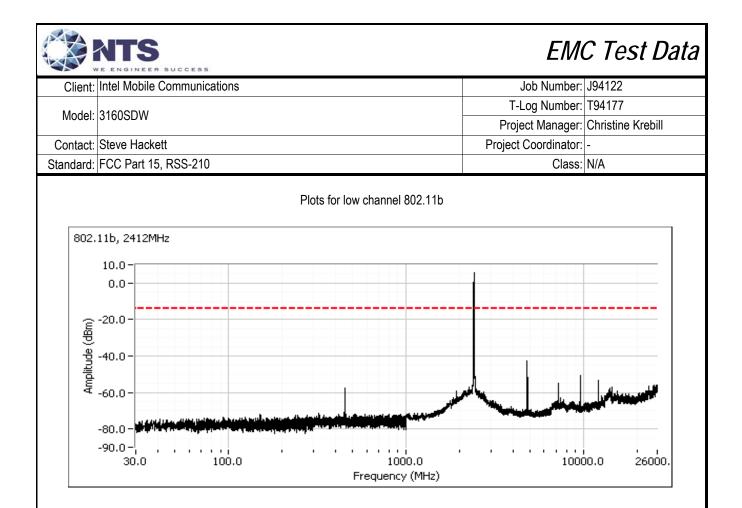




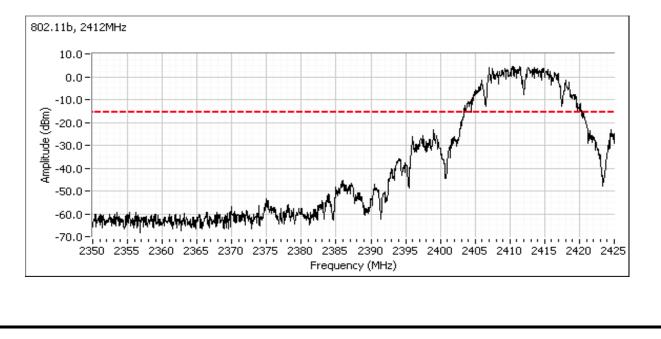
Contact:         Steve Hackett         Project Coordinator:         -           Standard:         FCC Part 15, RSS-210         Class:         N/A           Run #3: Signal Bandwidth           Mode:         11b          Class:         N/A           Power         Frequency (MHz)         Bandwidth (MHz)         RBW Setting (kHz)         6dB         99%           21         2412         10.2         14.6         100         300         22         2437         11.1         14.6         100         300         22         2462         10.2         14.5         100         300         22         2462         10.2         14.5         100         300         22         2462         10.2         14.5         100         300         22         2462         10.2         14.5         100         300         22         2462         10.2         14.5         100         300         22         2462         16.3         17.3         100         300         22.5         2437         16.3         17.5         100         300         21         2462         16.3         17.2         100         300         21         2462         16.3         17.2         100	Model:         316USDW         Project Manager:         Christine Krebi           Contact:         Steve Hackett         Project Coordinator:         -           tandard:         FCC Part 15, RSS-210         Class:         N/A           n #3:         Signal Bandwidth         dlass:         N/A           de:         11b         Event Hackett         Class:         N/A           getting         Frequency (MHz)         Bandwidth (MHz)         RBW Setting (KHz)         6dB         99%           21         2412         10.2         14.6         100         300         22         2437         11.1         14.6         100         300           22         2462         10.2         14.5         100         300         22         2462         10.2         14.5         100         300           de:         11g         Eventing         Frequency (MHz)         6dB         99%         6dB         99%         20         21         2462         16.3         17.5         100         300         21         2462         16.3         17.2         100         300         23         2437         17.6         18.7         100         300         23         2437         1	Model:         3180SDW         Project Manager:         Christine Krebi           Contact:         Steve Hackett         Project Coordinator:         -           Standard:         FCC Part 15, RSS-210         Class:         N/A           In #3:         Signal Bandwidth         Signal Bandwidth         Class:         N/A           In #3:         Signal Bandwidth         Bandwidth (MHz)         RBW Setting (kHz)         6dB         99%           21         2412         10.2         14.6         100         300           22         2437         11.1         14.6         100         300           22         2462         10.2         14.5         100         300           22         2462         10.2         14.5         100         300           22         2462         10.2         14.5         100         300           21         2462         16.3         17.3         100         300           22.5         2437         16.3         17.5         100         300           21         2462         16.3         17.2         100         300           23         2437         17.5         18.4         100         <	Mode:         3160SDW         Project Manager         Christine Kreb           Contact:         Steve Hackett         Project Coordinator:         -           Standard:         FCC Part 15, RSS-210         Class:         N/A           Run #3:         Signal Bandwidth         Class:         N/A           Mode:         11b         Class:         N/A           Mode:         11b         Endwidth (MHz)         6dB         99%           21         2412         10.2         14.6         100         300           22         2437         11.1         14.6         100         300           22         2462         10.2         14.5         100         300           Mode:         11g         Endwidth (MHz)         RBW Setting (KHz)         6dB         99%           21         2412         16.3         17.5         100         300           22.5         2437         16.3         17.5         100         300           21         2462         16.3         17.2         100         300           22         2437         17.5         18.4         100         300           22         2412         17.5	Client	Intel Mobile	Communications				J	ob Number:	J94122
Model:         3160SDW         Project Manager:         Christine K           Contact:         Steve Hackett         Project Coordinator:         -           Standard:         FCC Part 15, RSS-210         Class:         N/A           Run #3:         Signal Bandwidth          Class:         N/A           Mode:         11b          Class:         N/A           Mode:         11b          6dB         99%         6dB         99%           21         2412         10.2         14.6         100         300         22         2462         10.2         14.6         100         300         22         2462         10.2         14.5         100         300         22         2462         10.2         14.5         100         300         22         2462         10.2         14.5         100         300         22         2462         10.2         14.5         100         300         22         2462         16.3         17.3         100         300         22         2.5         2.437         16.3         17.3         100         300         21         2.462         16.3         17.2         100         300         21         2.	Model:         316USDW         Project Manager:         Christine Krebi           Contact:         Steve Hackett         Project Coordinator:         -           tandard:         FCC Part 15, RSS-210         Class:         N/A           n #3:         Signal Bandwidth         dlass:         N/A           de:         11b         Event Hackett         Class:         N/A           getting         Frequency (MHz)         Bandwidth (MHz)         RBW Setting (KHz)         6dB         99%           21         2412         10.2         14.6         100         300         22         2437         11.1         14.6         100         300           22         2462         10.2         14.5         100         300         22         2462         10.2         14.5         100         300         21         2462         16.3         17.3         100         300         21         2462         16.3         17.5         100         300         21         2462         16.3         17.2         100         300         23         2437         17.6         18.7         100         300         23         2437         17.6         18.7         100         300         21	Model:         3160SDW         Project Manager:         Christine Krebi           Contact:         Steve Hackett         Project Coordinator:         -           Standard:         FCC Part 15, RSS-210         Class:         N/A           an #3:         Signal Bandwidth         Class:         N/A           bde:         11b         Endpoint         Class:         N/A           22         2437         11.1         14.6         100         300           22         2437         11.1         14.6         100         300           22         2462         10.2         14.5         100         300           21         2412         16.3         17.3         100         300           22.5         2437         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           22         2437         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           23         2437         17.	Model:         3160SDW         Project Manager         Christine Kreb           Contact:         Steve Hackett         Project Coordinator:         -           Standard:         FCC Part 15, RSS-210         Class:         N/A           Run #3:         Signal Bandwidth         Class:         N/A           Mode:         11b         Endwidth         RBW Setting (kHz)         6dB         99%           21         2412         10.2         14.6         100         300           22         2437         11.1         14.6         100         300           22         2462         10.2         14.5         100         300           22         2462         10.2         14.5         100         300           22         2462         10.2         14.5         100         300           21         2412         16.3         17.3         100         300           21         2412         16.3         17.5         100         300           21         2462         16.3         17.2         100         300           21         2462         17.7         18.4         100         300           22							T-L	og Number:	T94177
Contact:         Steve Hackett         Project Coordinator:         -           Standard:         FCC Part 15, RSS-210         Class:         N/A           Run #3:         Signal Bandwidth         Mdex         11b         Class:         N/A           Wode:         11b         10.2         14.6         100         300         22         2437         11.1         14.6         100         300         22         2462         10.2         14.5         100         300         22         2462         10.2         14.5         100         300         22         2462         10.2         14.5         100         300         22         2462         10.2         14.5         100         300         22         2462         10.2         14.5         100         300         22         2462         10.2         14.5         100         300         22.5         2437         16.3         17.5         100         300         21         2412         16.3         17.5         100         300         21         2462         16.3         17.2         100         300         21         2462         16.3         17.2         100         300         21         2462         16.3	Contact:         Steve Hackett         Project Coordinator:         -           tandard:         FCC Part 15, RSS-210         Class:         N/A           n #3:         Signal Bandwidth            Class:         N/A           de:         11b          Frequency (MHz)         Bandwidth (MHz)         RBW Setting (kHz)         6dB         99%           21         2412         10.2         14.6         100         300           22         2437         11.1         14.6         100         300           22         2462         10.2         14.5         100         300           de:         11g          Bandwidth (MHz)         6dB         99%         6dB         99%           21         2412         16.3         17.3         100         300         22.5         2437         16.3         17.5         100         300         21         2462         16.3         17.2         100         300         22         2442         16.3         17.2         100         300         23         2437         17.6         18.7         100         300         23         2437         17.6         18.7	Contact:         Steve Hackett         Project Coordinator:         -           Standard:         FCC Part 15, RSS-210         Class:         N/A           In #3:         Signal Bandwidth         Class:         N/A           ode:         11b         Event         Frequency (MHz)         Bandwidth (MHz)         6dB         99%           21         2412         10.2         14.6         100         300           22         2437         11.1         14.6         100         300           22         2437         11.1         14.6         100         300           22         2462         10.2         14.5         100         300           22         2462         10.2         14.5         100         300           21         2412         16.3         17.3         100         300           21.1         2462         16.3         17.2         100         300           21.1         2462         16.3         17.2         100         300           21.1         2462         17.5         18.4         100         300           22.1         2462         17.7         18.4         100         300 <th>Contact:         Steve Hackett         Project Coordinator: -           Standard:         FCC Part 15, RSS-210         Class:         N/A           Run #3:         Signal Bandwidth           Class:         N/A           Run #3:         Signal Bandwidth           6dB         99%         6dB         99%           21         2412         10.2         14.6         100         300           22         2437         11.1         14.6         100         300           22         2462         10.2         14.5         100         300           22         2462         10.2         14.5         100         300           22         2462         10.2         14.5         100         300           21         2412         16.3         17.3         100         300           22.5         2437         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           21         2462         17.5         18.4         100         300           22         2437         17.6         18.7         100</th> <th>Model</th> <th>3160SDW</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>-</th> <th></th>	Contact:         Steve Hackett         Project Coordinator: -           Standard:         FCC Part 15, RSS-210         Class:         N/A           Run #3:         Signal Bandwidth           Class:         N/A           Run #3:         Signal Bandwidth           6dB         99%         6dB         99%           21         2412         10.2         14.6         100         300           22         2437         11.1         14.6         100         300           22         2462         10.2         14.5         100         300           22         2462         10.2         14.5         100         300           22         2462         10.2         14.5         100         300           21         2412         16.3         17.3         100         300           22.5         2437         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           21         2462         17.5         18.4         100         300           22         2437         17.6         18.7         100	Model	3160SDW						-	
Standard:         FCC Part 15, RSS-210         Class:         N/A           Run #3:         Signal Bandwidth           Ib           Ib           6dB         99%         6dB         99%         21         2412         10.2         14.6         100         300         22         2437         11.1         14.6         100         300         22         2462         10.2         14.5         100         300         22         2462         10.2         14.5         100         300         22         2462         10.2         14.5         100         300         22         2462         10.2         14.5         100         300         22         2462         10.2         14.5         100         300         22         2462         10.2         14.5         100         300         22         2462         16.3         17.3         100         300         22.5         2437         16.3         17.5         100         300         21         2462         16.3         17.2         100         300         21         2462         16.3         17.2         100         300         20         2412         17.5	$\begin{array}{r c c c c c c c c c c c c c c c c c c c$	Standard:         FCC Part 15, RSS-210         Class:         N/A           n #3:         Signal Bandwidth            RBW Setting (kHz)  <	Standard:         FCC Part 15, RSS-210         Class:         N/A           Run #3:         Signal Bandwidth         Mode:         11b         Employed for the second se	Contact	Steve Hacke	tt				-	-	
Index         Index         Index         Index         Power       Frequency (MHz)       Bandwidth (MHz)       RBW Setting (kHz)         Setting       Frequency (MHz)       Bandwidth (MHz)       RBW Setting (kHz)       Setting (kHz)         22       2437       11.1       14.6       100       300         22       2462       10.2       14.5       100       300         22       2462       10.2       14.5       100       300         22       2462       10.2       14.5       100       300         Rew Setting (kHz)         6dB       99%       6dB       99%         21       2412       16.3       17.3       100       300         22.5       2437       16.3       17.5       100       300         21       2462       16.3       17.2       100       300         21       2462       16.3       17.2       100       300         Power       Frequency (MHz)       Bandwidth (MHz)       RBW Setting (kHz)         20       2412	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{rrrr} \text{#3: Signal Bandwidth} \\ \hline \text{power} & Frequency (MHz) & Bandwidth (MHz) & RBW Setting (KHz) \\ \hline \hline Power & Setting & Frequency (MHz) & GdB & 99\% & GdB & 99\% \\ \hline 21 & 2412 & 10.2 & 14.6 & 100 & 300 \\ \hline 22 & 2437 & 11.1 & 14.6 & 100 & 300 \\ \hline 22 & 2462 & 10.2 & 14.5 & 100 & 300 \\ \hline 22 & 2462 & 10.2 & 14.5 & 100 & 300 \\ \hline 22 & 2462 & 10.2 & 14.5 & 100 & 300 \\ \hline 21 & 2412 & 16.3 & 17.3 & 100 & 300 \\ \hline 21 & 2412 & 16.3 & 17.5 & 100 & 300 \\ \hline 21 & 2462 & 16.3 & 17.2 & 100 & 300 \\ \hline 22 & 2462 & 16.3 & 17.2 & 100 & 300 \\ \hline 22 & 2462 & 16.3 & 17.7 & 100 & 300 \\ \hline 21 & 2462 & 16.3 & 17.7 & 100 & 300 \\ \hline 22 & 2412 & 17.5 & 18.4 & 100 & 300 \\ \hline 23 & 2437 & 17.6 & 18.7 & 100 & 300 \\ \hline 21 & 2462 & 17.7 & 18.4 & 100 & 300 \\ \hline 21 & 2462 & 17.7 & 18.4 & 100 & 300 \\ \hline 23 & 2437 & 17.6 & 18.7 & 100 & 300 \\ \hline 23 & 2437 & 17.6 & 18.7 & 100 & 300 \\ \hline 23 & 2437 & 17.6 & 18.7 & 100 & 300 \\ \hline 23 & 2437 & 17.6 & 18.7 & 100 & 300 \\ \hline 23 & 2437 & 35.2 & 36.2 & 100 & 300 \\ \hline \end{array} $	Image: signal Bandwidth         Node:       11b         Power       Frequency (MHz)       Bandwidth (MHz)       RBW Setting (kHz)         21       2412       10.2       14.6       100       300         22       2437       11.1       14.6       100       300         22       2462       10.2       14.5       100       300         22       2462       10.2       14.5       100       300         22       2462       10.2       14.5       100       300         21       2412       16.3       17.3       100       300         21       2412       16.3       17.5       100       300         21       2462       16.3       17.5       100       300         21       2462       16.3       17.2       100       300         21       2462       16.3       17.2       100       300         22       2437       17.5       18.4       100       300         23       2437       17.6       18.7       100       300         21       2462       17.7       18.4       100       300									
Indel:       11b         Power       Frequency (MHz)       Bandwidth (MHz)       RBW Setting (kHz)         6dB       99%       6dB       99%         21       2412       10.2       14.6       100       300         22       2437       11.1       14.6       100       300         22       2462       10.2       14.5       100       300         22       2462       10.2       14.5       100       300         22       2462       10.2       14.5       100       300         22       2462       10.2       14.5       100       300         22       2462       10.2       14.5       100       300         21       2412       16.3       17.3       100       300         21       2412       16.3       17.5       100       300         22.5       2437       16.3       17.5       100       300         21       2462       16.3       17.2       100       300         21       2462       16.3       17.2       100       300         22.5       2437       16.3       17.5       18.4       10	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{array}{rrrr} \begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Inde:       11b $             \frac{Power}{Setting} Frequency (MHz) & Bandwidth (MHz)}{6dB} & 99\% & 6dB & 99\% \\ 21 & 2412 & 10.2 & 14.6 & 100 & 300 \\ 22 & 2437 & 11.1 & 14.6 & 100 & 300 \\ 22 & 2462 & 10.2 & 14.5 & 100 & 300 \\ 22 & 2462 & 10.2 & 14.5 & 100 & 300 \\ 22 & 2462 & 10.2 & 14.5 & 100 & 300 \\ 21 & 2412 & 16.3 & 17.3 & 100 & 300 \\ 22.5 & 2437 & 16.3 & 17.5 & 100 & 300 \\ 21 & 2462 & 16.3 & 17.2 & 100 & 300 \\ 21 & 2462 & 16.3 & 17.2 & 100 & 300 \\ 21 & 2462 & 16.3 & 17.2 & 100 & 300 \\ 21 & 2462 & 16.3 & 17.2 & 100 & 300 \\ 22 & 2412 & 17.5 & 18.4 & 100 & 300 \\ 23 & 2437 & 17.6 & 18.7 & 100 & 300 \\ 21 & 2462 & 17.7 & 18.4 & 100 & 300 \\ 21 & 2462 & 17.7 & 18.4 & 100 & 300 \\ 23 & 2437 & 17.6 & 18.7 & 100 & 300 \\ 21 & 2462 & 17.7 & 18.4 & 100 & 300 \\ 21 & 2462 & 17.7 & 18.4 & 100 & 300 \\ 23 & 2437 & 17.6 & 18.7 & 100 & 300 \\ 23 & 2437 & 17.6 & 18.7 & 100 & 300 \\ 23 & 2437 & 17.6 & 18.7 & 100 & 300 \\ 23 & 2437 & 35.2 & 36.2 & 100 & 300 \\ 23 & 2437 & 35.2 & 36.3 & 100 & 300 \\ \hline        $		1	·					010001	
Power Setting         Frequency (MHz)         Bandwidth (MHz) 6dB         RBW Setting (kHz) 6dB         RBW Setting (kHz) 6dB         99% 99%           21         2412         10.2         14.6         100         300           22         2437         11.1         14.6         100         300           22         2462         10.2         14.5         100         300           22         2462         10.2         14.5         100         300           22         2462         10.2         14.5         100         300           21         2462         10.2         14.5         100         300           21         2412         16.3         17.3         100         300           21         2412         16.3         17.5         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           20         2412	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Power Setting         Frequency (MHz)         Bandwidth (MHz) 6dB         RBW Setting (kHz) 6dB         99% 6dB         99% 99%           21         2412         10.2         14.6         100         300           22         2437         11.1         14.6         100         300           22         2462         10.2         14.5         100         300           22         2462         10.2         14.5         100         300           22         2462         10.2         14.5         100         300           22         2462         10.2         14.5         100         300           21         2412         16.3         17.3         100         300           22.5         2437         16.3         17.5         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           22         2412         17.5         18.4         100         300           23         2437         17.6         18.7         100         300           21         2462         17.7<		-	ath						
Setting         Hequency (MHz)         6dB         99%         6dB         99%           21         2412         10.2         14.6         100         300           22         2437         11.1         14.6         100         300           22         2462         10.2         14.5         100         300           22         2462         10.2         14.5         100         300           22         2462         10.2         14.5         100         300           21         2412         16.3         17.3         100         300           21         2412         16.3         17.3         100         300           22.5         2437         16.3         17.5         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           20         2412         17.5         18.4         100	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Setting         Frequency (MHz)         6dB         99%         6dB         99%           21         2412         10.2         14.6         100         300           22         2437         11.1         14.6         100         300           22         2462         10.2         14.5         100         300           22         2462         10.2         14.5         100         300           22         2462         10.2         14.5         100         300           21         2462         10.2         14.5         100         300           21         2412         16.3         17.3         100         300           21         2412         16.3         17.5         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           22         2412         17.5         18.4         100         300           23         2437         17.6         18.7         100         300           21         2462         17.7         18.4         100	Setting         Interpreting (MHz)         6dB         99%         6dB         99%           21         2412         10.2         14.6         100         300           22         2437         11.1         14.6         100         300           22         2462         10.2         14.5         100         300           22         2462         10.2         14.5         100         300           22         2462         10.2         14.5         100         300           21         2462         10.2         14.5         100         300           21         2412         16.3         17.3         100         300           21.5         2437         16.3         17.5         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           22         20         2412         17.5         18.4         100         300           23         2437         17.6         18.7         100         300           21         2462         17.7         18.4 <td>vlode:</td> <td></td> <td></td> <td>Denduid</td> <td></td> <td></td> <td>tting (lella)</td> <td></td> <td></td>	vlode:			Denduid			tting (lella)		
21 $2412$ $10.2$ $14.6$ $100$ $300$ $22$ $2437$ $11.1$ $14.6$ $100$ $300$ $22$ $2462$ $10.2$ $14.5$ $100$ $300$ $22$ $2462$ $10.2$ $14.5$ $100$ $300$ $22$ $2462$ $10.2$ $14.5$ $100$ $300$ $21$ $2412$ $16.3$ $17.3$ $100$ $300$ $21$ $2412$ $16.3$ $17.5$ $100$ $300$ $22.5$ $2437$ $16.3$ $17.2$ $100$ $300$ $21$ $2462$ $16.3$ $17.2$ $100$ $300$ $21$ $2462$ $16.3$ $17.2$ $100$ $300$ $21$ $2462$ $16.3$ $17.2$ $100$ $300$ $20$ $2412$ $17.5$ $18.4$ $100$ $300$ $23$ $2437$ $17.6$ $18.7$ $100$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	21 $2412$ $10.2$ $14.6$ $100$ $300$ $22$ $2437$ $11.1$ $14.6$ $100$ $300$ $22$ $2462$ $10.2$ $14.5$ $100$ $300$ $22$ $2462$ $10.2$ $14.5$ $100$ $300$ $22$ $2462$ $10.2$ $14.5$ $100$ $300$ $21$ $2412$ $16.3$ $17.3$ $100$ $300$ $21$ $2412$ $16.3$ $17.5$ $100$ $300$ $21$ $2462$ $16.3$ $17.2$ $100$ $300$ $21$ $2462$ $16.3$ $17.2$ $100$ $300$ $21$ $2462$ $17.5$ $18.4$ $100$ $300$ $20$ $2412$ $17.5$ $18.4$ $100$ $300$ $23$ $2437$ $17.6$ $18.7$ $100$ $300$ $21$ $2462$ $17.7$ $18.4$ $100$ <			Frequency (MHz)						
22 $2437$ $11.1$ $14.6$ $100$ $300$ $300$ $22$ $2462$ $10.2$ $14.5$ $100$ $300$ $21$ $2412$ $16.3$ $17.3$ $100$ $300$ $300$ $22.5$ $2437$ $16.3$ $17.5$ $100$ $300$ $21$ $2462$ $16.3$ $17.2$ $100$ $300$ $300$ $21$ $2462$ $16.3$ $17.2$ $100$ $300$ $300$ $21$ $2462$ $16.3$ $17.2$ $100$ $300$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	22 $2437$ $11.1$ $14.6$ $100$ $300$ $22$ $2462$ $10.2$ $14.5$ $100$ $300$ Mode: $11g$ Power         Frequency (MHz)         Bandwidth (MHz)         RBW Setting (kHz) $21$ $2412$ $16.3$ $17.3$ $100$ $300$ $21$ $2412$ $16.3$ $17.5$ $100$ $300$ $21$ $2422$ $16.3$ $17.5$ $100$ $300$ $21$ $2462$ $16.3$ $17.2$ $100$ $300$ $21$ $2462$ $16.3$ $17.2$ $100$ $300$ $21$ $2462$ $16.3$ $17.2$ $100$ $300$ $20$ $2412$ $17.5$ $18.4$ $100$ $300$ $23$ $2437$ $17.6$ $18.7$ $100$ $300$ $21$ $2462$ $17.7$ $18.4$ $100$ $300$ $21$ $2462$ $17.7$ $18.4$			2412						
22 $2462$ $10.2$ $14.5$ $100$ $300$ Node: $11g$ Power         Frequency (MHz)         Bandwidth (MHz)         RBW Setting (kHz) $6dB$ $99%$ $21$ $2412$ $16.3$ $17.3$ $100$ $300$ $22.5$ $2437$ $16.3$ $17.5$ $100$ $300$ $21$ $2462$ $16.3$ $17.5$ $100$ $300$ $21$ $2462$ $16.3$ $17.2$ $100$ $300$ $21$ $2462$ $16.3$ $17.2$ $100$ $300$ $21$ $2462$ $16.3$ $17.2$ $100$ $300$ $21$ $2462$ $16.3$ $17.2$ $100$ $300$ $Mode:$ $11n/ac20$ $Mode$ $Mode$ $99%$ $6dB$ $99%$ $20$ $2412$ $17.5$ $18.4$ $100$ $300$ $23$ $2437$ $17.6$ $18.7$ $100$ $300$ <td><math display="block">\begin{array}{ c c c c c c c c c c c c c c c c c c c</math></td> <td><math display="block">\begin{array}{ c c c c c c c c c c c c c c c c c c c</math></td> <td>22 <math>2462</math> <math>10.2</math> <math>14.5</math> <math>100</math> <math>300</math>           Mode:         <math>11g</math>         Power         Frequency (MHz)         Bandwidth (MHz)         RBW Setting (kHz)         <math>6dB</math> <math>99%</math> <math>6dB</math> <math>99%</math> <math>21</math> <math>2412</math> <math>16.3</math> <math>17.3</math> <math>100</math> <math>300</math> <math>21</math> <math>2412</math> <math>16.3</math> <math>17.3</math> <math>100</math> <math>300</math> <math>22.5</math> <math>2437</math> <math>16.3</math> <math>17.5</math> <math>100</math> <math>300</math> <math>21</math> <math>2462</math> <math>16.3</math> <math>17.5</math> <math>100</math> <math>300</math> <math>21</math> <math>2462</math> <math>16.3</math> <math>17.2</math> <math>100</math> <math>300</math> <math>21</math> <math>2462</math> <math>16.3</math> <math>17.2</math> <math>100</math> <math>300</math> <math>20</math> <math>2412</math> <math>17.5</math> <math>18.4</math> <math>100</math> <math>300</math> <math>23</math> <math>2437</math> <math>17.6</math> <math>18.7</math> <math>100</math> <math>300</math> <math>21</math> <math>2462</math> <math>17.7</math> <math>18.4</math> <math>100</math> <math>300</math> <math>21</math> <math>2462</math> <math>17.7</math> <math>18.4</math> <math>100</math> <math>300</math> <math>10d</math> <math>11n/</math></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	22 $2462$ $10.2$ $14.5$ $100$ $300$ Mode: $11g$ Power         Frequency (MHz)         Bandwidth (MHz)         RBW Setting (kHz) $6dB$ $99%$ $6dB$ $99%$ $21$ $2412$ $16.3$ $17.3$ $100$ $300$ $21$ $2412$ $16.3$ $17.3$ $100$ $300$ $22.5$ $2437$ $16.3$ $17.5$ $100$ $300$ $21$ $2462$ $16.3$ $17.5$ $100$ $300$ $21$ $2462$ $16.3$ $17.2$ $100$ $300$ $21$ $2462$ $16.3$ $17.2$ $100$ $300$ $20$ $2412$ $17.5$ $18.4$ $100$ $300$ $23$ $2437$ $17.6$ $18.7$ $100$ $300$ $21$ $2462$ $17.7$ $18.4$ $100$ $300$ $21$ $2462$ $17.7$ $18.4$ $100$ $300$ $10d$ $11n/$									
Mode:         11g           Power         Frequency (MHz)         Bandwidth (MHz)         RBW Setting (kHz)           Setting         Frequency (MHz)         6dB         99%         6dB         99%           21         2412         16.3         17.3         100         300           22.5         2437         16.3         17.5         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           Mode:         11n/ac20         Invace         Bandwidth (MHz)         RBW Setting (kHz)         6dB         99%           20         2412         17.5         18.4         100         300         300           23         2437         17.6         18.7         100         300         300	$de: \frac{11g}{\begin{array}{ c c c c c c c } \hline Power} & Frequency (MHz) & Bandwidth (MHz) & RBW Setting (kHz) \\ \hline Setting & Frequency (MHz) & 6dB & 99\% & 6dB & 99\% \\ \hline 21 & 2412 & 16.3 & 17.3 & 100 & 300 \\ \hline 22.5 & 2437 & 16.3 & 17.5 & 100 & 300 \\ \hline 21 & 2462 & 16.3 & 17.2 & 100 & 300 \\ \hline 21 & 2462 & 16.3 & 17.2 & 100 & 300 \\ \hline 20 & 2412 & 17.5 & 18.4 & 100 & 300 \\ \hline 20 & 2412 & 17.5 & 18.4 & 100 & 300 \\ \hline 23 & 2437 & 17.6 & 18.7 & 100 & 300 \\ \hline 21 & 2462 & 17.7 & 18.4 & 100 & 300 \\ \hline 21 & 22 & 35.2 & 35.2 & 36.2 & 100 & 300 \\ \hline 21 & 22 & 22 & 35.2 & 35.2 & 36.2 & 100 & 300 \\ \hline 21 & 21 & 21 & 21 & 21 & 21 & 21 & 21$	Definition       11g         Power       Frequency (MHz)       Bandwidth (MHz)       RBW Setting (kHz)         21       2412       16.3       17.3       100       300         22.5       2437       16.3       17.5       100       300         21       2462       16.3       17.2       100       300         21       2462       16.3       17.2       100       300         21       2462       16.3       17.2       100       300         21       2462       16.3       17.2       100       300         21       2462       16.3       17.2       100       300         22       2412       17.5       18.4       100       300         23       2437       17.6       18.7       100       300         21       2462       17.7       18.4       100       300         21       2462       17.7       18.4       100       300         21       2462       17.7       18.4       100       300         21       2462       17.7       18.4       100       300         22       35.2       36.2	Mode:         11g $Power$ Frequency (MHz)         Bandwidth (MHz)         RBW Setting (kHz)           6dB         99%         6dB         99%           21         2412         16.3         17.3         100         300           22.5         2437         16.3         17.5         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           20         2412         17.5         18.4         100         300           23         2437         17.6         18.7         100         300           21         2462         17.7         18.4         100         300           21         2462         17.7         18.4         100         300           21         2462         17.7         18.4         100 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
Power Setting         Frequency (MHz)         Bandwidth (MHz) 6dB         RBW Setting (kHz) 6dB         99% 6dB         99% 99%           21         2412         16.3         17.3         100         300           22.5         2437         16.3         17.5         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           20         2412         17.5         18.4         100         300           20         2412         17.5         18.4         100         300           23         2437         17.6         18.7         100         300	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Power Setting         Frequency (MHz)         Bandwidth (MHz) 6dB         RBW Setting (kHz) 6dB         RBW Setting (kHz) 6dB           21         2412         16.3         17.3         100         300           22.5         2437         16.3         17.5         100         300           21         2462         16.3         17.5         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           300         21         2462         16.3         17.2         100         300           300         20         2412         17.5         18.4         100         300           23         2437         17.6         18.7         100         300           21         2462         17.7         18.4         100         300           21         2462         17.7         18.4         100         300           21         2462         35.2         36.2         100         300           23		L			-	-	·I		
Setting         Prequency (MHz)         6dB         99%         6dB         99%           21         2412         16.3         17.3         100         300           22.5         2437         16.3         17.5         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           Mode:           In/ac20           Power         Frequency (MHz)         Bandwidth (MHz)         RBW Setting (kHz)           Setting         Frequency (MHz)         6dB         99%         6dB         99%           20         2412         17.5         18.4         100         300           23         2437         17.6         18.7         100         300	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Setting         Frequency (MHz)         6dB         99%         6dB         99%           21         2412         16.3         17.3         100         300           22.5         2437         16.3         17.5         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           20         2412         17.5         18.4         100         300           23         2437         17.6         18.7         100         300           21         2462         17.7         18.4         100         300           21         2462         17.7         18.4         100         300           21         2462         35.2         36.2         100         300           23         2422         35.2         36.3         100	Setting         Frequency (WHz)         6dB         99%         20         2412         17.5         18.4         100         300         21         2462         17.7         18.4         100         300         21         2462         17.7         18.4         100         300           Mode:         11n/ac40         In/ac40         In/ac40         In/ac40         In/ac40         In/ac40         In/ac40         In/ac40         In/ac42         In/ac42         In/ac42         In	lode:			Density	th /////\				
21         2412         16.3         17.3         100         300           22.5         2437         16.3         17.5         100         300           21         2462         16.3         17.2         100         300           21         2462         16.3         17.2         100         300           Vode:         11n/ac20         11n/ac20         Bandwidth (MHz)         RBW Setting (kHz)           Setting         Frequency (MHz)         6dB         99%         6dB         99%           20         2412         17.5         18.4         100         300           23         2437         17.6         18.7         100         300	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$Mode: \begin{array}{c ccccccccccccccccccccccccccccccccccc$			Frequency (MHz)						
22.5         2437         16.3         17.5         100         300           21         2462         16.3         17.2         100         300           Mode:         11n/ac20         Power Setting         Frequency (MHz)         Bandwidth (MHz)         RBW Setting (kHz)           20         2412         17.5         18.4         100         300           23         2437         17.6         18.7         100         300	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	22.5 $2437$ $16.3$ $17.5$ $100$ $300$ $21$ $2462$ $16.3$ $17.2$ $100$ $300$ Mode: $11n/ac20$ Power Setting       Frequency (MHz)       Bandwidth (MHz) 6dB $99%$ $6dB$ $99%$ $20$ $2412$ $17.5$ $18.4$ $100$ $300$ $23$ $2437$ $17.6$ $18.7$ $100$ $300$ $21$ $2462$ $17.7$ $18.4$ $100$ $300$ Mode: $11n/ac40$ Eandwidth (MHz)       RBW Setting (kHz)       Setting (kHz)       Setting (kHz) $5etting$ Frequency (MHz)       Bandwidth (MHz)       RBW Setting (kHz) $6dB$ $99%$ $19.5$ $2422$ $35.2$ $36.2$ $100$ $300$ $23$ $2437$ $35.2$ $36.3$ $100$ $300$			2412						
21         2462         16.3         17.2         100         300           Mode:         11n/ac20           Power Setting         Frequency (MHz)         Bandwidth (MHz) 6dB         RBW Setting (kHz) 6dB         99% 99%           20         2412         17.5         18.4         100         300           23         2437         17.6         18.7         100         300	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	21 $2462$ $16.3$ $17.2$ $100$ $300$ Mode: $11n/ac20$ Power         Frequency (MHz)         Bandwidth (MHz)         RBW Setting (kHz) $6dB$ $99%$ $20$ $2412$ $17.5$ $18.4$ $100$ $300$ $300$ $23$ $2437$ $17.6$ $18.7$ $100$ $300$ $300$ $21$ $2462$ $17.7$ $18.4$ $100$ $300$ $300$ $21$ $2462$ $17.7$ $18.4$ $100$ $300$									
Mode:         11n/ac20           Power Setting         Frequency (MHz)         Bandwidth (MHz)         RBW Setting (kHz)           6dB         99%         6dB         99%           20         2412         17.5         18.4         100         300           23         2437         17.6         18.7         100         300	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Dide:       11n/ac20         Power       Frequency (MHz)       Bandwidth (MHz)       RBW Setting (kHz)         Setting       Frequency (MHz)       6dB       99%         20       2412       17.5       18.4       100       300         23       2437       17.6       18.7       100       300         21       2462       17.7       18.4       100       300         ode:       11n/ac40       Frequency (MHz)       Bandwidth (MHz)       RBW Setting (kHz)         Setting       Frequency (MHz)       6dB       99%       6dB       99%         19.5       2422       35.2       36.2       100       300         23       2437       35.2       36.3       100       300	Mode:         11n/ac20           Power         Frequency (MHz)         Bandwidth (MHz)         RBW Setting (kHz)           Setting         Frequency (MHz)         6dB         99%         6dB         99%           20         2412         17.5         18.4         100         300           23         2437         17.6         18.7         100         300           21         2462         17.7         18.4         100         300           21         2462         17.7         18.4         100         300           Aode:         11n/ac40         Frequency (MHz)         Bandwidth (MHz)         RBW Setting (kHz)           Setting         Frequency (MHz)         6dB         99%         6dB         99%           19.5         2422         35.2         36.2         100         300           23         2437         35.2         36.3         100         300									
Power Setting         Frequency (MHz)         Bandwidth (MHz) 6dB         RBW Setting (kHz) 6dB         99%           20         2412         17.5         18.4         100         300           23         2437         17.6         18.7         100         300	Power Setting         Frequency (MHz)         Bandwidth (MHz) 6dB         RBW Setting (kHz) 6dB         99%           20         2412         17.5         18.4         100         300           23         2437         17.6         18.7         100         300           21         2462         17.7         18.4         100         300           21         2462         17.7         18.4         100         300           Object to the set of t	Power Setting         Frequency (MHz)         Bandwidth (MHz) 6dB         RBW Setting (kHz) 6dB         99%           20         2412         17.5         18.4         100         300           23         2437         17.6         18.7         100         300           21         2462         17.7         18.4         100         300           21         2462         17.7         18.4         100         300           20         2422         35.2         36.2         100         300           23         2437         35.2         36.3         100         300	Power Setting         Frequency (MHz)         Bandwidth (MHz) 6dB         RBW Setting (kHz) 6dB         99% 90%           20         2412         17.5         18.4         100         300           23         2437         17.6         18.7         100         300           21         2462         17.7         18.4         100         300           21         2462         17.7         18.4         100         300           Mode:           In/ac40           Power Setting         Frequency (MHz)         Bandwidth (MHz) 6dB         RBW Setting (kHz) 6dB         99%           19.5         2422         35.2         36.2         100         300           23         2437         35.2         36.3         100         300		L					·I		
Setting         Frequency (WH2)         6dB         99%         6dB         99%           20         2412         17.5         18.4         100         300           23         2437         17.6         18.7         100         300	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	SettingPrequency (MH2)6dB99%6dB99%20241217.518.410030023243717.618.710030021246217.718.410030021246217.718.4100300ode:11n/ac40Frequency (MHz)Bandwidth (MHz)RBW Setting (kHz)SettingFrequency (MHz)6dB99%6dB99%6dB99%19.5242235.236.210023243735.236.3100300	Setting         Prequency (MP2)         6dB         99%         6dB         99%           20         2412         17.5         18.4         100         300           23         2437         17.6         18.7         100         300           21         2462         17.7         18.4         100         300           21         2462         17.7         18.4         100         300           Index 40           Power         Frequency (MHz)         Bandwidth (MHz)         RBW Setting (kHz)           6dB         99%         6dB         99%           19.5         2422         35.2         36.2         100         300           23         2437         35.2         36.3         100         300	lode:				41- / 1 41 1 \		()		
Setting         6dB         99%         6dB         99%           20         2412         17.5         18.4         100         300           23         2437         17.6         18.7         100         300	Setting         6dB         99%         6dB         99%           20         2412         17.5         18.4         100         300           23         2437         17.6         18.7         100         300           21         2462         17.7         18.4         100         300           de:         11n/ac40           Power Setting         Frequency (MHz)         Bandwidth (MHz) 6dB         RBW Setting (kHz) 6dB         99%           19.5         2422         35.2         36.2         100         300	Setting       0dB       99%       0dB       99%         20       2412       17.5       18.4       100       300         23       2437       17.6       18.7       100       300         21       2462       17.7       18.4       100       300         ode:       11n/ac40       Inversion       Frequency (MHz)       Bandwidth (MHz)       RBW Setting (kHz)         Setting       Frequency (MHz)       6dB       99%       6dB       99%         19.5       2422       35.2       36.2       100       300         23       2437       35.2       36.3       100       300	Setting         6dB         99%         6dB         99%           20         2412         17.5         18.4         100         300           23         2437         17.6         18.7         100         300           21         2462         17.7         18.4         100         300           21         2462         17.7         18.4         100         300           Mode:         11n/ac40         Bandwidth (MHz)         RBW Setting (kHz)         6dB         99%           19.5         2422         35.2         36.2         100         300           23         2437         35.2         36.3         100         300			Frequency (MHz)						
23 2437 17.6 18.7 100 300	23         2437         17.6         18.7         100         300           21         2462         17.7         18.4         100         300           de:         11n/ac40           Power Setting           Setting         Frequency (MHz)         Bandwidth (MHz)         RBW Setting (kHz)           6dB         99%         6dB         99%           19.5         2422         35.2         36.2         100         300	23         2437         17.6         18.7         100         300           21         2462         17.7         18.4         100         300           ode:         11n/ac40           Power Setting         Frequency (MHz)         Bandwidth (MHz) 6dB         RBW Setting (kHz) 6dB         99%           19.5         2422         35.2         36.2         100         300           23         2437         35.2         36.3         100         300	23         2437         17.6         18.7         100         300           21         2462         17.7         18.4         100         300           lode:         11n/ac40         Power Setting         Frequency (MHz)         Bandwidth (MHz)         RBW Setting (kHz)           19.5         2422         35.2         36.2         100         300           23         2437         35.2         36.3         100         300									
	21         2462         17.7         18.4         100         300           de:         11n/ac40           Power Setting         Frequency (MHz)         Bandwidth (MHz) 6dB         RBW Setting (kHz) 6dB         99% 99%           19.5         2422         35.2         36.2         100         300	21         2462         17.7         18.4         100         300           ode:         11n/ac40           Power Setting         Frequency (MHz)         Bandwidth (MHz) 6dB         RBW Setting (kHz) 6dB         99%           19.5         2422         35.2         36.2         100         300           23         2437         35.2         36.3         100         300	21         2462         17.7         18.4         100         300           Iode:         11n/ac40           Power Setting         Frequency (MHz)         Bandwidth (MHz) 6dB         RBW Setting (kHz) 6dB         99% 99%           19.5         2422         35.2         36.2         100         300           23         2437         35.2         36.3         100         300									
	de:       11n/ac40         Power       Frequency (MHz)       Bandwidth (MHz)       RBW Setting (kHz)         Setting       6dB       99%       6dB       99%         19.5       2422       35.2       36.2       100       300	Dde:       11n/ac40         Power Setting       Frequency (MHz)       Bandwidth (MHz) 6dB       RBW Setting (kHz) 6dB       99%         19.5       2422       35.2       36.2       100       300         23       2437       35.2       36.3       100       300	Power Setting         Frequency (MHz)         Bandwidth (MHz) 6dB         RBW Setting (kHz) 6dB         99%           19.5         2422         35.2         36.2         100         300           23         2437         35.2         36.3         100         300									
	Power Setting         Frequency (MHz)         Bandwidth (MHz) 6dB         RBW Setting (kHz) 6dB         99%           19.5         2422         35.2         36.2         100         300	Power Setting         Frequency (MHz)         Bandwidth (MHz) 6dB         RBW Setting (kHz) 6dB         99% 99%           19.5         2422         35.2         36.2         100         300           23         2437         35.2         36.3         100         300	Power Setting         Frequency (MHz)         Bandwidth (MHz) 6dB         RBW Setting (kHz) 6dB         RBW Setting (kHz)           19.5         2422         35.2         36.2         100         300           23         2437         35.2         36.3         100         300		I							
	Setting         Frequency (MH2)         6dB         99%         6dB         99%           19.5         2422         35.2         36.2         100         300	Setting         Frequency (WH2)         6dB         99%         6dB         99%           19.5         2422         35.2         36.2         100         300           23         2437         35.2         36.3         100         300	Setting         Prequency (WP2)         6dB         99%         6dB         99%           19.5         2422         35.2         36.2         100         300           23         2437         35.2         36.3         100         300	lode:			Donaluit	th (MU-)		tting (kUr)		
	<u>19.5 2422 35.2 36.2 100 300</u>	19.5         2422         35.2         36.2         100         300           23         2437         35.2         36.3         100         300	19.5         2422         35.2         36.2         100         300           23         2437         35.2         36.3         100         300			Frequency (MHz)						
		23 2437 35.2 36.3 100 300	23 2437 35.2 36.3 100 300			2422						

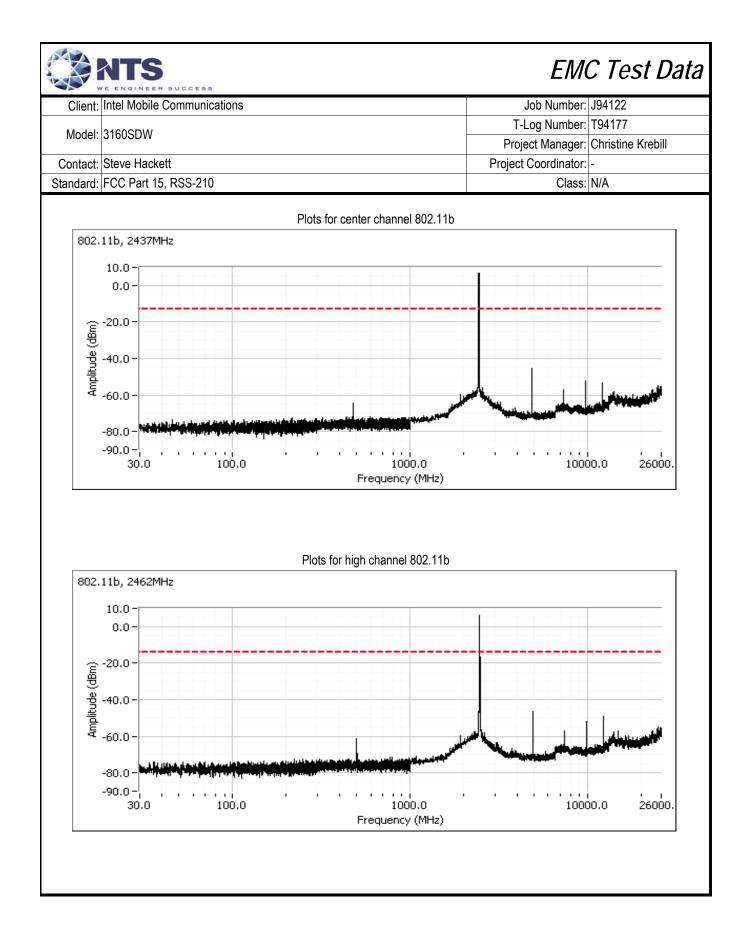


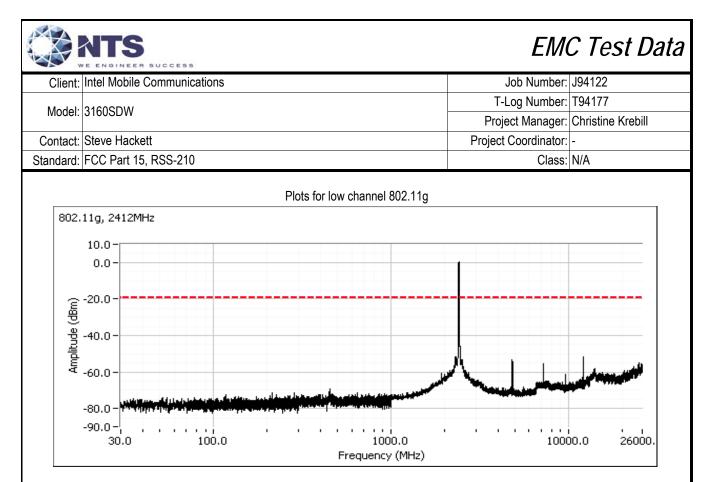
Client	: Intel Mobile Communica	tions			Job Number:	J94122
Madal	24000014				T-Log Number:	T94177
woder	: 3160SDW				Project Manager:	Christine Krebil
Contact	: Steve Hackett				Project Coordinator:	-
Standard	: FCC Part 15, RSS-210				Class:	N/A
ın #/lə∙ (	Out of Band Spurious Ei	missions				
		1113310113				
	Date of Test: 1/2/2014	l'a al		Config. Use		
	est Engineer: Joseph Cac est Location: FT Lab #4a			Config Chang FLIT Voltag	e: None e: Powered by host	
				Lot voltag	c. I owered by host	
lode:	<u>11b</u>	•				
	Frequency (MHz)	Power	Mode	Limit	Result	
	2412	Setting 21	11b	-20dBc	Pass	
	2412	21	11b	-20dBc	Pass	
	2462	21	11b	-20dBc	Pass	
	2402	22		-20000	1 435	
lode:	11g					
	Frequency (MHz)	Power	Mode	Limit	Result	
		Setting				
	2412	21	11g	-20dBc	Pass	
	2437	21	11g	-20dBc	Pass	
	2462	21	11g	-20dBc	Pass	
lode:	11n/ac20					
	Frequency (MHz)	Power	Mode	Limit	Result	
		Setting				
	2412	20	n/ac20	-20dBc	Pass	
	2437	21	n/ac20	-20dBc	Pass	
	2462	21	n/ac20	-20dBc	Pass	
lode:	11n/ac40					
	Frequency (MHz)	Power Setting	Mode	Limit	Result	
	0.400	19.5	n/ac40	-20dBc	Pass	
	2422		n/ac40	-20dBc	Pass	
	2422 2437	20.5	11/4040	-20dBc	Pass	



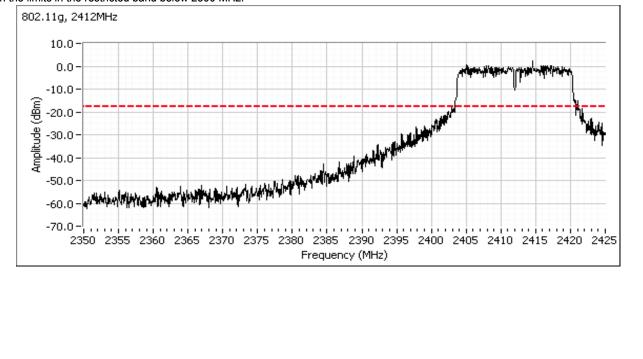
Additional plot showing compliance with -20dBc limit from 2390 MHz to 2400 MHz. Radiated measurements used to show compliance with the limits in the restricted band below 2390 MHz.

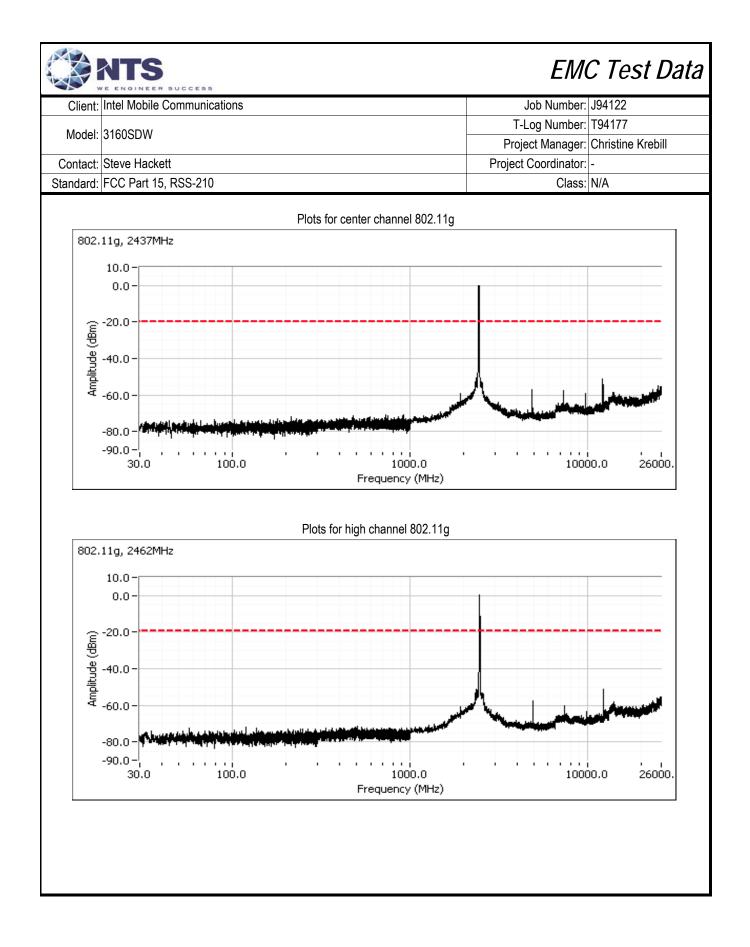


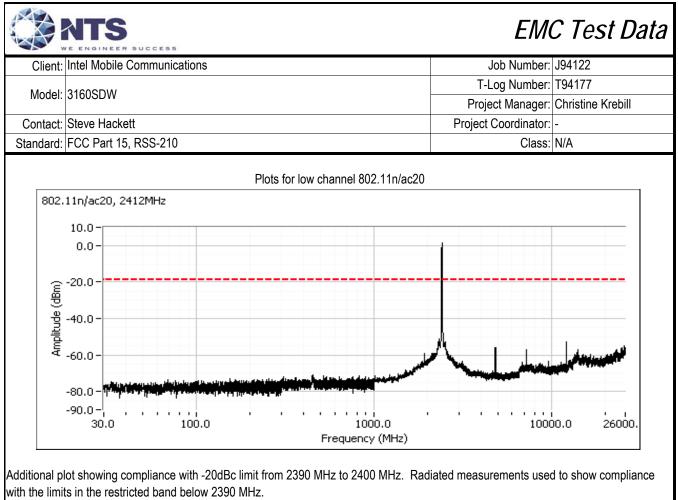


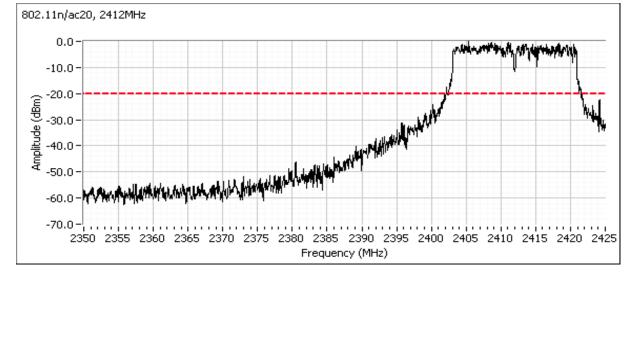


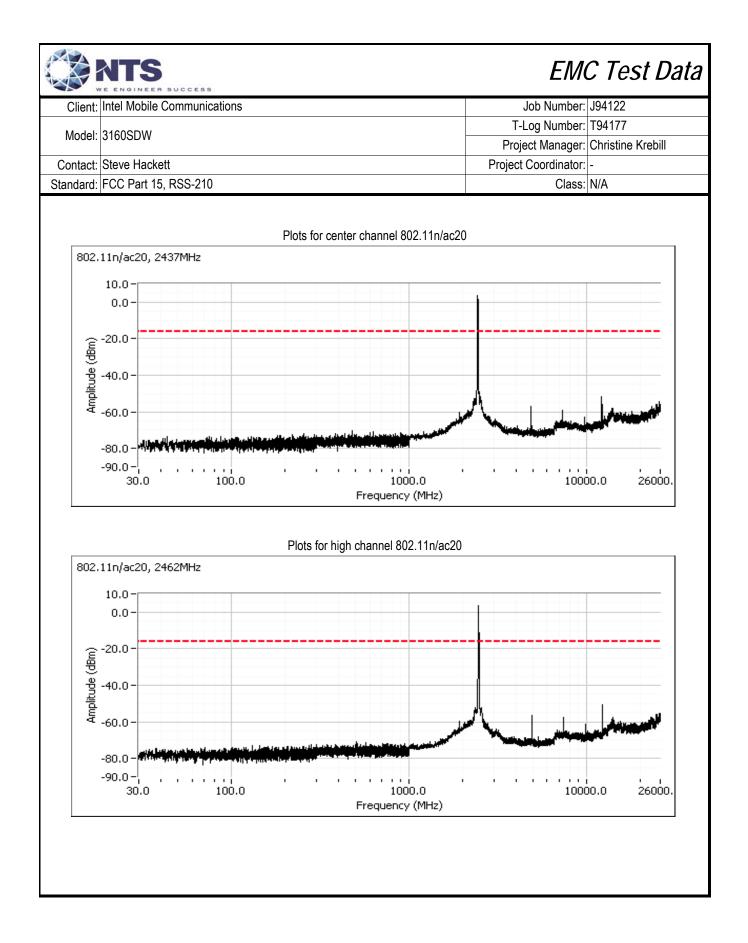
Additional plot showing compliance with -20dBc limit from 2390 MHz to 2400 MHz. Radiated measurements used to show compliance with the limits in the restricted band below 2390 MHz.

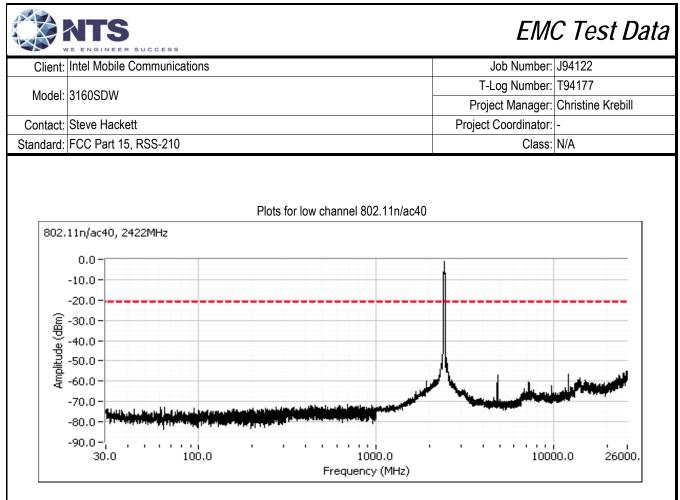




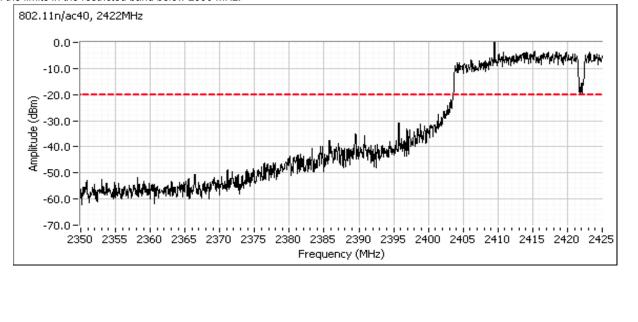


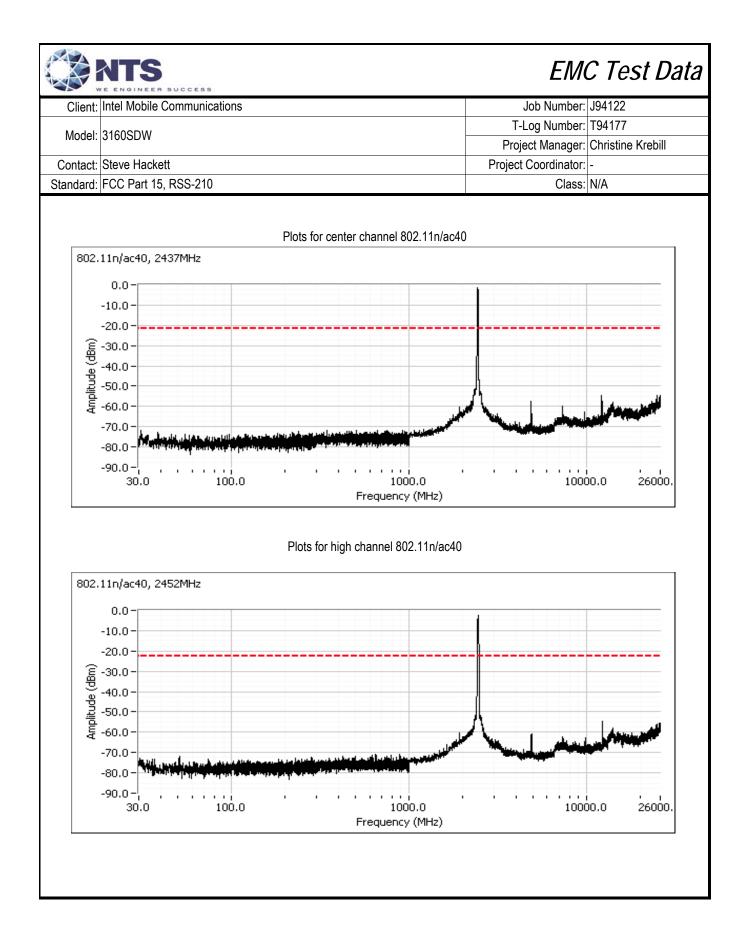






Additional plot showing compliance with -20dBc limit from 2390 MHz to 2400 MHz. Radiated measurements used to show compliance with the limits in the restricted band below 2390 MHz.





# EMC Test Data

	VE ENGINEER SUCCESS		
Client:	Intel Mobile Communications	Job Number:	J94122
Madal	3160SDW	T-Log Number:	T94177
wouer.	31003DW	Project Manager:	Christine Krebill
Contact:	Steve Hackett	Project Coordinator:	-
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.

### General Test Configuration

ITS

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. For radiated emissions testing the measurement antenna was located 3 meters from the EUT, unless otherwise noted.

#### Ambient Conditions:

Temperature:	22 °C
Rel. Humidity:	35 %

# Summary of Results - Device Operating in the 2400-2483.5 MHz Band

MAC Address: 001500E60B22 DRTU Tool Version 1.7.4-845 Driver version 16.8.0.3

Run #	Mode	Channel	Target Power	Power Setting	Test Performed	Limit	Result / Margin
	b	1 - 2412MHz	16.5	21.0	Restricted Band Edge (2390 MHz)		47.9 dBµV/m @ 2385.9 MHz (-6.1 dB)
1	b	11 - 2462MHz	16.5	22.0	Restricted Band Edge (2483.5 MHz)		50.9 dBµV/m @ 2488.8 MHz (-3.1 dB)
0	g	1 - 2412MHz	15.0	21.0	Restricted Band Edge (2390 MHz)		51.2 dBµV/m @ 2390.0 MHz (-2.8 dB)
2	g	11 - 2462MHz	15.0	21.5	Restricted Band Edge (2483.5 MHz)	FCC Part 15.209 /	53.4 dBµV/m @ 2483.5 MHz (-0.6 dB)
3	n/ac20	1 - 2412MHz	15.0	20.5	Restricted Band Edge (2390 MHz)	15.247( c)	52.1 dBµV/m @ 2390.0 MHz (-1.9 dB)
3	n/ac20	11 - 2462MHz	15.0	21.5	Restricted Band Edge (2483.5 MHz)		52.4 dBµV/m @ 2483.5 MHz (-1.6 dB)
4	n/ac40	3 - 2422MHz	13.3	19.5	Restricted Band Edge (2390 MHz)		52.8 dBµV/m @ 2389.9 MHz (-1.2 dB)
4	n/ac40	9 - 2452MHz	15.0	21.0	Restricted Band Edge (2483.5 MHz)		51.1 dBµV/m @ 2483.5 MHz (-2.9 dB)



# EMC Test Data

N N	E ENGINEER SUCCESS		
Client:	Intel Mobile Communications	Job Number:	J94122
Madal	3160SDW	T-Log Number:	T94177
woder.	31003DW	Project Manager:	Christine Krebill
Contact:	Steve Hackett	Project Coordinator:	-
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.

# Procedure Comments:

Measurements performed in accordance with FCC KDB 558074

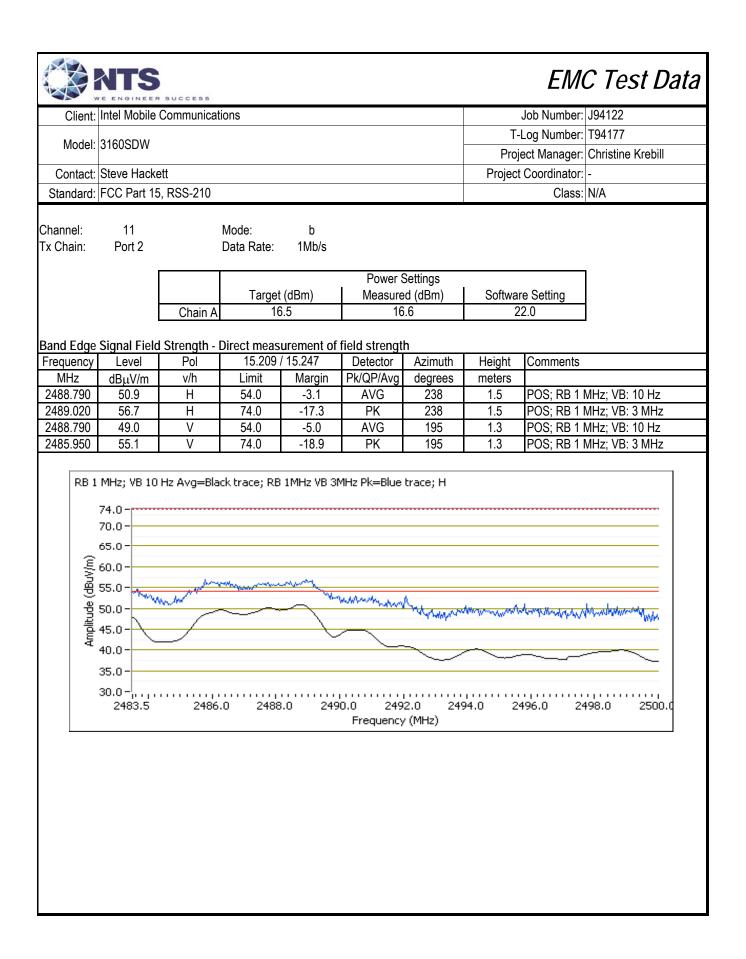
Peak measurements performed with: RBW=1MHz, VBW=3MHz, peak detector, max hold, auto sweep time Unless otherwise stated/noted, emission has duty cycle ≥ 98% and was measured using RBW=1MHz, VBW=10Hz, peak detector, linear average mode, auto sweep time, max hold.

Mode	Data Rate	Duty Cycle (x)	Constant DC?	T (ms)	Pwr Cor Factor*	Lin Volt Cor Factor**	Min VBW for FS (Hz)
11b	1Mb/s	0.99	Yes	10	0	0	100
11g	6Mb/s	0.99	Yes	8	0	0	125
n20	HT0	0.98	Yes	6	0	0	166.66667
n40	HT0	0.97	Yes	5	0.1219152	0.2438305	200

# Measurement Specific Notes:

Note 3:	Emission has duty cycle < 98%, but constant, average measurement performed: RBW=1MHz, VBW=10Hz, peak detector, linear averaging, auto sweep, trace average 100 traces, measurement corrected by Linear Voltage correction factor
Note 6:	Plots of the average and peak bandedge do not account for any duty cycle correction. Refer to the tabular results for final measurements.

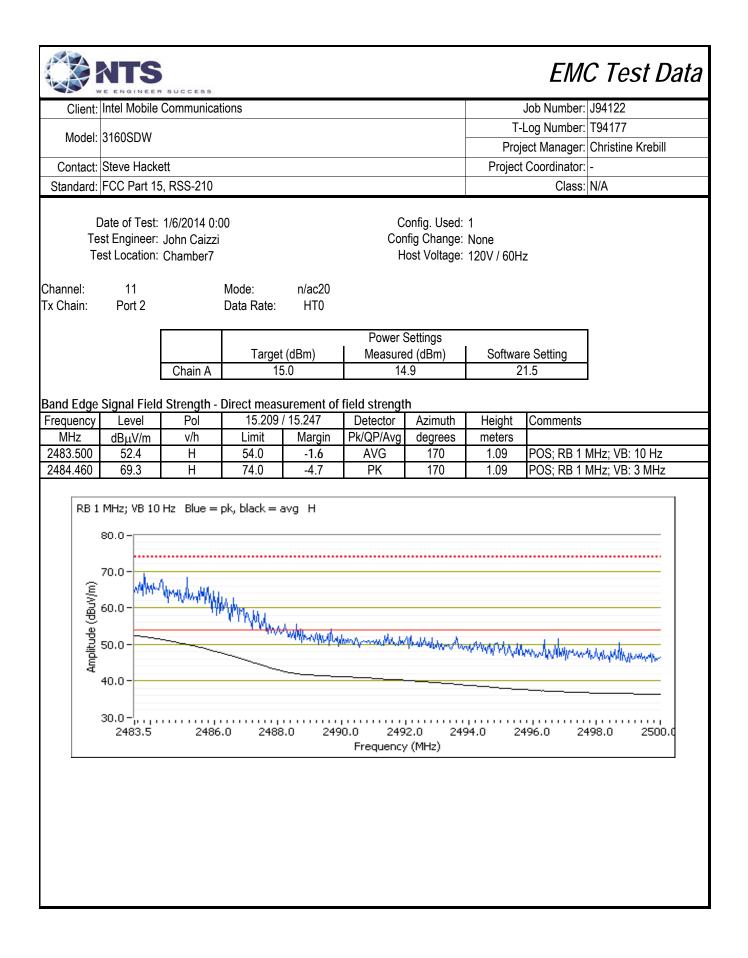
Client:	Intel M	obile (	Communicat	ions					Job Number:	J94122
Madalı	21600							T-	Log Number:	T94177
Model:	31003	DVV						Proj	ect Manager:	Christine Krebill
Contact:	Steve	Hacket	tt					Project	Coordinator:	-
Standard:	FCC P	art 15,	RSS-210						Class:	N/A
] Te	Date of est Engi	Test: ′ neer: 、	edge Meas 12/30/2013 Jack Liu FT chamber	0:00		Cor	onfig. Used: ifig Change: UT Voltage:	None	/ host	
nannel: Chain:	1 Por	t 2		Mode: Data Rate:	b 1Mb/s					
		Г				Power	Settings			
					(dBm)	Measure	ed (dBm)		re Setting	
			Chain A	16	ŝ.5	16	5.5	2	1.0	l
and Eda-	Cianal	Field	Ctropath	Direct mess	uromont of	field atreast	h			
requency			Pol		/ 15.247	field strengt Detector	n Azimuth	Height	Comments	
MHz	dBµ\		v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	Commenta	
2385.910	85.910 47.9 H 54.0 -6.1						223	1.0	POS; RB 1	MHz; VB: 10 Hz
2386.150							223	1.0		MHz; VB: 3 MHz
385.830	45.		V	54.0	-9.0	AVG	253	1.2		MHz; VB: 10 Hz
386.150	52.	1	V	74.0	-21.9	PK	253	1.2	POS; RB 1	MHz; VB: 3 MHz
Amplitude (dBuV/m)	74.0 - 70.0 - 65.0 - 55.0 - 50.0 - 45.0 - 40.0 - 35.0 - 30.0 -	~	chadylly, all	der hit Unsheredh		MHz Pk=Blue	abumadrina		~~~~	380 2385 2390
		10 23	15 2320 .	2323 2330	2000 2040	Frequency		00 2303 2	370 2375 2	.300 2303 2390



	Intel Mobile (	Communicat	ons					Job Number:	J94122
M	240000144						T-	Log Number:	T94177
Model:	3160SDW						Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	tt					Project	Coordinator:	-
Standard:	FCC Part 15	, RSS-210						Class:	N/A
	adiated Band				0	. C. 11. 1			
	Date of Test: est Engineer:					onfig. Used: fig Change:			
	est Location:					UT Voltage:		/ host	
			<del>,</del> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		-	er voltage.		11031	
hannel:	1		Mode:	g					
Chain:	Port 2		Data Rate:	6Mb/s					
	г				Power S	Settings			1
			Target	(dBm)	Measure		Softwa	e Setting	
	-	Chain A	15		14	· /		1.0	
	L								
					field strengt			1	
requency	Level	Pol	15.209		Detector	Azimuth	Height	Comments	
MHz	dBμV/m 51.2	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		МЦ \/R· 10 Ц
2390.000         51.2         H         54.0         -2.8         AVG         232         1.0         POS; RB 1 MHz; VB: 10 Hz           2390.000         67.5         H         74.0         -6.5         PK         232         1.0         POS; RB 1 MHz; VB: 3 MHz									
390 000	0/0								
	67.5 48.2	V	54.0	-5.8	AVG	258	1.2		MHz; VB: 3 10112 MHz; VB: 10 Hz
390.000								POS; RB 1 I	
2390.000 2389.920	48.2 65.8	V V	54.0 74.0	-5.8 -8.2	AVG	258 258	1.2	POS; RB 1 I	MHz; VB: 10 Hz
2390.000 2389.920	48.2 65.8 MHz; VB 10 74.0	V V	54.0 74.0 ck trace; RB	-5.8 -8.2 1MHz VB 3	AVG PK	258 258 trace; H	1.2 1.2	POS; RB 1 I	MHz; VB: 10 Hz
2390.000 2390.000 2389.920 RB 1	48.2 65.8 . MHz; VB 10 74.0 -	V V	54.0 74.0 ck trace; RB	-5.8 -8.2 1MHz VB 3	AVG PK MHz Pk=Blue	258 258 trace; H	1.2 1.2	POS; RB 1 I	MHz; VB: 10 Hz
2390.000 2389.920 RB 1	48.2 65.8 MHz; VB 10 74.0 - 70.0 - 65.0 -	V V Hz Avg=Bla	54.0 74.0 ck trace; RB	-5.8 -8.2 1MHz VB 3	AVG PK MHz Pk=Blue	258 258 trace; H	1.2 1.2	POS; RB 1 I POS; RB 1 I	MHz; VB: 10 Hz MHz; VB: 3 MHz
390.000 389.920 RB 1	48.2 65.8 MHz; VB 10 74.0 - 70.0 - 65.0 -	V V Hz Avg=Bla	54.0 74.0 ck trace; RB	-5.8 -8.2 1MHz VB 3	AVG PK MHz Pk=Blue	258 258 trace; H	1.2 1.2	POS; RB 1 I POS; RB 1 I	MHz; VB: 10 Hz MHz; VB: 3 MHz
390.000 389.920 RB 1	48.2 65.8 MHz; VB 10 74.0 - 70.0 - 65.0 -	V V Hz Avg=Bla	54.0 74.0 ck trace; RB	-5.8 -8.2 1MHz VB 3	AVG PK MHz Pk=Blue	258 258 trace; H	1.2 1.2	POS; RB 1 I POS; RB 1 I	MHz; VB: 10 Hz MHz; VB: 3 MHz
390.000 389.920 RB 1	48.2 65.8 MHz; VB 10 74.0 - 70.0 - 65.0 -	V V Hz Avg=Bla	54.0 74.0 ck trace; RB	-5.8 -8.2 1MHz VB 3	AVG PK MHz Pk=Blue	258 258 trace; H	1.2 1.2	POS; RB 1 I POS; RB 1 I	MHz; VB: 10 Hz MHz; VB: 3 MHz
2390.000 2389.920 RB 1	48.2 65.8 MHz; VB 10 74.0 - 70.0 - 65.0 -	V V Hz Avg=Bla	54.0 74.0 ck trace; RB	-5.8 -8.2 1MHz VB 3	AVG PK MHz Pk=Blue	258 258 trace; H	1.2 1.2	POS; RB 1 I POS; RB 1 I	MHz; VB: 10 Hz MHz; VB: 3 MHz
2390.000 2389.920 RB 1	48.2 65.8 MHz; VB 10 74.0 - 70.0 - 65.0 -	V V Hz Avg=Bla	54.0 74.0 ck trace; RB	-5.8 -8.2 1MHz VB 3	AVG PK MHz Pk=Blue	258 258 trace; H	1.2 1.2	POS; RB 1 I POS; RB 1 I	MHz; VB: 10 Hz MHz; VB: 3 MHz
390.000 389.920 RB 1	48.2 65.8 MHz; VB 10 74.0 - 70.0 - 65.0 - 60.0 - 55.0 - 55.0 - 45.0 -	V V Hz Avg=Bla	54.0 74.0 ck trace; RB	-5.8 -8.2 1MHz VB 3	AVG PK MHz Pk=Blue	258 258 trace; H	1.2 1.2	POS; RB 1 I POS; RB 1 I	MHz; VB: 10 Hz MHz; VB: 3 MHz
2390.000 2389.920 RB 1	48.2 65.8 MHz; VB 10 74.0 - 65.0 - 65.0 - 55.0 - 55.0 - 45.0 - 45.0 - 35.0 -	V V Hz Avg=Bla	54.0 74.0 ck trace; RB	-5.8 -8.2 1MHz VB 3I	AVG PK MHz Pk=Blue	258 258 trace; H	1.2 1.2	POS; RB 1 I POS; RB 1 I	MHz; VB: 10 Hz MHz; VB: 3 MHz
2390.000 2389.920 RB 1	48.2 65.8 MHz; VB 10 74.0 - 70.0 - 65.0 - 65.0 - 55.0 - 55.0 - 45.0 - 45.0 - 35.0 - 35.0 - 35.0 -	V V Hz Avg=Bla	54.0 74.0 ck trace; RB	-5.8 -8.2 1MHz VB 3I	AVG PK MHz Pk=Blue	258 258 trace; H	1.2 1.2	POS; RB 1 I POS; RB 1 I	MHz; VB: 10 Hz MHz; VB: 3 MHz

Model:								Job Number	
	316050W							Log Number	
0 1 1								•	: Christine Krebill
	Steve Hacke						Project	Coordinator	
Standard:	FCC Part 15	5, RSS-210						Class	: N/A
Tes	Date of Test: est Engineer: est Location: 11	John Caizzi			Con	onfig. Used: fig Change: ost Voltage:	None	z	
Chain:	Port 2		Mode: Data Rate:	g 6Mb/s					
					Power S	Settinas			1
			Target	(dBm)	Measure		Softwa	re Setting	
		Chain A	15		15			1.5	]
	Cianal El-L	Ctrongth	Direct	uromort - f	field other still				
equency	Level	Pol	Direct meas		field strengt	n Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	Comments	
483.530	49.3	V	54.0	-4.7	AVG	266	1.07	POS; RB 1	MHz; VB: 10 Hz
484.330	64.2	V	74.0	-9.8	PK	266	1.07		MHz; VB: 3 MHz
483.500	53.4	Н	54.0	-0.6	AVG	9	1.11	POS; RB 1	MHz; VB: 10 Hz
484.130	70.4	Н	74.0	-3.6	PK	9	1.11	POS; RB 1	MHz; VB: 3 MHz
Amplitude (dBuV/m)	40.0-	W.M. Martin	www.ww.		0.0 249:	2.0 249		VIIda III. ph. ph. ph. ph. ph. ph. ph. ph. ph. ph	498.0 2500.0
					Frequency	(MHz)			

			S	SUCCESS						EM	C Test Data
С	lient:	Intel Mo	bile	Communicat	ions					Job Number:	J94122
									T-	Log Number:	T94177
Mo	odel:	3160SD	VV						Proje	ect Manager:	Christine Krebill
Con	tact:	Steve H	lacke	ett						Coordinator:	
Stand	dard:	FCC Pa	rt 15	, RSS-210						Class:	N/A
				,							
Run #3	C Te	ate of T st Engin	est: eer:	ledge Meas 1/6/2014 0:( John Caizzi Chamber7			Con	onfig. Used: fig Change: ost Voltage:		z	
Channe Tx Cha		1 Port :	2		Mode: Data Rate:	n/ac20 HT0					
					Target		Measure			e Setting	
				Chain A	15	5.0	14	.9	2	0.5	J
Dand	-	Ciamal [	-:	Ctronath	Direct messes		field stronget	<b>h</b>			
Freque	_	Leve		Pol	15.209		field strengt Detector	Azimuth	Height	Comments	
MH		dBµV/		v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	Commenta	
2390.0		52.1		H	54.0	-1.9	AVG	308	1.00	POS; RB 1	MHz; VB: 10 Hz
2388.	560	66.7	'	Н	74.0	-7.3	PK	308	1.00		MHz; VB: 3 MHz
	Amplitude (dBuV/m)	80.0-		aanaa dhala wa				) 23			www. 385 2390



		SUCCESS						EM	C Test Data
Client:	Intel Mobile	Communicat	ions					Job Number:	J94122
							T-	Log Number:	T94177
Model:	3160SDW							-	Christine Krebill
Contact:	Steve Hacke	ett					-	Coordinator:	
	FCC Part 15						,	Class:	
		,							
C Te	ndiated Band Date of Test: est Engineer: est Location:	12/30/2013 Joseph Cad	0:00 igal		Con	onfig. Used: fig Change: UT Voltage:		y host	
Channel: Tx Chain:	3 Port 2		Mode: Data Rate:	n/ac40 HT0					
	[				Power S	Settings			
				(dBm)	Measure	d (dBm)	Softwar	re Setting	
		Chain A	15	5.0	-			-	
Dand Edua	Circuit Field	Characteria	D:		Cold also work	L			
Band Edge Frequency	Level	Pol	Direct meas		field strengt Detector	n Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	Comments	
2389.920	52.8	H	54.0	-1.2	AVG	232	1.0	POS: RB 1 I	MHz; VB: 10 Hz
2385.350	65.0	Н	74.0	-9.0	PK	232	1.0		MHz; VB: 3 MHz
2389.680	49.1	V	54.0	-4.9	AVG	307	2.5		MHz; VB: 10 Hz
2388.160	60.9	V	74.0	-13.1	PK	307	2.5	POS; RB 1 I	MHz; VB: 3 MHz
Amplitude (dBuV/m)	75.0 - 70.0 - 65.0 - 55.0 - 50.0 - 45.0 - 40.0 - 35.0 -	n jashan dahan	handhalana	And Interference		MMMM 23	New Apres	AMMAN MANANA 	aminalina in a second s

Client:	Intel Mobile	Communica	tions					Job Number	
Model	3160SDW							Log Number	
							-		: Christine Krebill
	Steve Hacke						Project	Coordinator	
tandard:	FCC Part 15	, RSS-210						Class	:: N/A
ſ	Date of Test:	1/6/2014 0.0	00		C	onfig. Used:	1		
	est Engineer:					fig Change:			
Te	est Location:	Chamber7			H	ost Voltage:	120V / 60H	Z	
annel:	9		Mode:	n/ac40					
Chain:	9 Port 2		Data Rate:	HT0					
			-	( 15 )	Power S			0	
		Chain A	Target		Measure	· /		re Setting 1.0	-
		Chain A	15	0.0	14	.J	2	1.0	
and Edge	Signal Field	Strength -	<u>Direct meas</u>	urement of	field strengtl	<u>ו</u>			
requency	Level	Pol	15.209		Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
483.500 484.190	49.4 62.0	V V	54.0 74.0	-4.6 -12.0	AVG PK	264 264	1.08 1.08		MHz; VB: 10 Hz MHz; VB: 3 MHz
483.500	51.1	 H	74.0 54.0	-12.0	AVG	<u>204</u> 6	1.00		MHZ; VB: 3 MHZ MHZ; VB: 10 HZ
484.590	63.1	H	74.0	-10.9	PK	6	1.12		MHz; VB: 3 MHz
Amplitude (dBuV/m)	50.0 - 40.0 -	M. M	manakatan karangan 	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				 ·   · · · · · · · ·	M-44/4-144/4-44/4-44/4-44/4-44/4-44/4-44
					Frequency	(MHz)			

		R SUCCESS				EM	C Test Data
Client:	Intel Mobile	Communicat	ions			Job Number:	J94122
Madalı	246000W					T-Log Number:	T94177
woder:	3160SDW					Project Manager:	Christine Krebill
Contact:	Steve Hack	ett				Project Coordinator:	-
Standard:	FCC Part 15	5, RSS-210				Class:	N/A
Test Spec	R R		Ind FCC	15.247 (I	DTS) Radiated Sp	ourious Emissior	IS
		<del>.</del>	e of this test listed above	session is to e.	perform final qualification	testing of the EUT with	respect to the
General T The EUT an		0	ient were loc	ated on the t	urntable for radiated spur	ious emissions testing.	
For radiated	emissions te	esting the me	asurement a	intenna was	located 3 meters from the	EUT, unless otherwise r	noted.
Ambient	Condition	S:					
			emperature:	22	°C		
			el. Humidity:		%		
Summary	of Result	ts - Device	Operatin	g in the 24	100-2483.5 MHz Ban	d	
MAC Addre	ss: 001500E	E60B22 DRT	U Tool Vers	sion 1.7.4-84	5 Driver version 16.8.0.	3	
Run #	Mode	Channel	Target Power	Power Setting	Test Performed	Limit	Result / Margin
	b	1-	16.5	21.0	Radiated Emissions,	FCC Part 15.209 /	45.8 dBµV/m @ 4824.0
	~	2412MHz	10.0	21.0	<u>1 - 25 GHz</u>	<u>15.247( c)</u>	MHz (-8.2 dB)
1	b	6 -	16.5	22.0	Radiated Emissions,	FCC Part 15.209 /	49.9 dBµV/m @ 4874.0
		2437MHz 11 -			<u>1 - 25 GHz</u> Radiated Emissions,	<u> </u>	MHz (-4.1 dB) 47.1 dBµV/m @ 4924.0
	b	2462MHz	16.5	22.0	1 - 25 GHz	15.247( c)	MHz (-6.9 dB)
Scans on ce	nter channe		OFDM modes	s to determin	e the worst case mode.	10.2 11 ( 0)	
		6 -		22.5			44.1 dBµV/m @
	g	2437MHz		22.5			12181.8 MHz (-9.9 dB)
0	n/ac20	6 -	10 5	23.0	Radiated Emissions,	FCC Part 15.209 /	45.1 dBµV/m @
2		2437MHz	16.5		1 - 25 GHz	15.247( c)	12182.9 MHz (-8.9 dB)
	n/ac40	6 -		23.0		. ,	43.1 dBµV/m @ 12176.2 MHz
	11/4040	2437MHz		23.0			(-10.9 dB)
Measureme	nts on low ar	nd high chanr	nels in worst-	-case OFDM	mode.		(-10.9 ub)
		- T					42.2 dBµV/m @
		1- 2412MH-	16.5	23.0	Radiated Emissions,	FCC Part 15.209 /	12058.3 MHz
3	n/ac20	2412MHz			1 - 25 GHz	15.247( c)	(-11.8 dB)
		11 -	16.5	23.5		10.247(0)	44.8 dBµV/m @
		2462MHz		_0.0			12311.2 MHz (-9.2 dB)



# EMC Test Data

N N	E ENGINEER SUCCESS		
Client:	Intel Mobile Communications	Job Number:	J94122
Madal	3160SDW	T-Log Number:	T94177
woder.	31003DW	Project Manager:	Christine Krebill
Contact:	Steve Hackett	Project Coordinator:	-
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.

### Procedure Comments:

Measurements performed in accordance with FCC KDB 558074.

Peak measurements performed with: RBW=1MHz, VBW=3MHz, peak detector, max hold, auto sweep time.

Unless otherwise stated/noted, emission has duty cycle ≥ 98% and was measured using RBW=1MHz, VBW=10Hz, peak detector, linear average mode, auto sweep time, max hold.

2.4GHz band reject filter used.

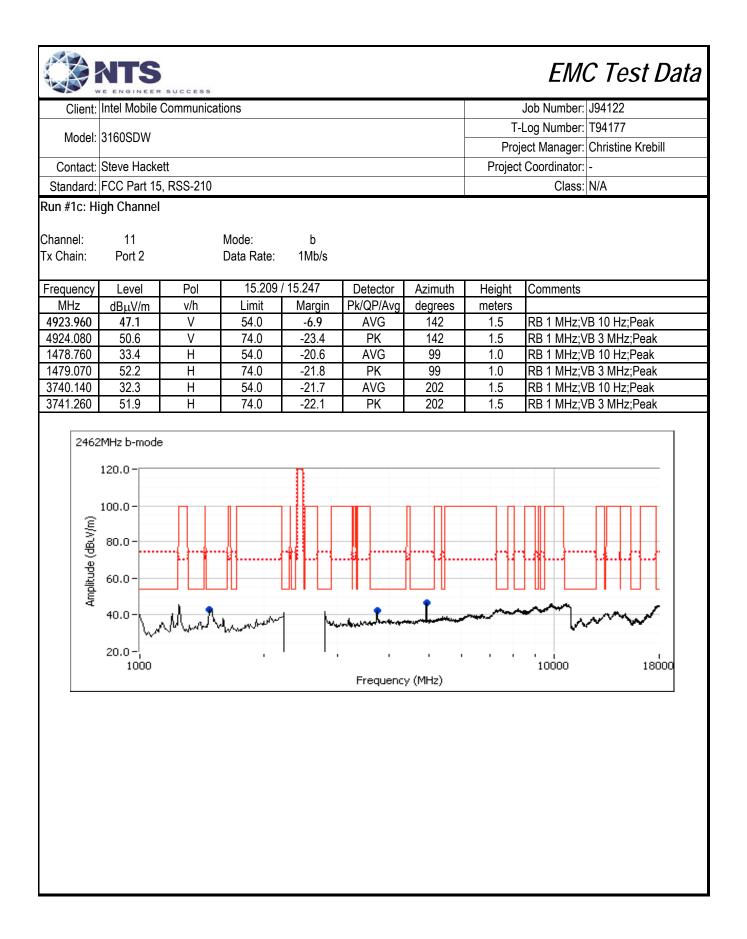
	Mode	Data Rate	Duty Cycle (x)	Constant DC?	T (ms)	Pwr Cor Factor*	Lin Volt Cor Factor**	Min VBW for FS (Hz)
ſ	11b	1Mb/s	0.99	Yes	10	0.00	0.00	100.0
	11g	6Mb/s	0.99	Yes	8	0.00	0.00	125.0
	n20	HT0	0.98	Yes	6	0.00	0.00	166.7
	n40	HT0	0.97	Yes	5	0.12	0.24	200.0

# Measurement Specific Notes:

Note 1:	Emission in non-restricted band, but limit of 15.209 used.
	Emission in non-restricted band, the limit was set 30dB below the level of the fundamental and measured in 100kHz.
Note 3:	Emission has duty cycle < 98%, but constant, average measurement performed: RBW=1MHz, VBW=10Hz, peak detector,
NOLE J.	linear averaging, auto sweep, trace average 100 traces, measurement corrected by Linear Voltage correction factor

Ullent:	Intel Mobile	Communica	tions					Job Number:	J94122
							T-	Log Number:	T94177
Model:	3160SDW							3	Christine Krebill
Contact:	Steve Hacke	ett					-	Coordinator:	
Standard:	FCC Part 15	5. RSS-210						Class:	
l Te Te	adiated Spur Date of Test: est Engineer: est Location: .ow Channel	12/30/2013 Joseph Cad FT chamber	0:00 ligal	25,000 MH	Cor	Mode: 802.1 onfig. Used: ıfig Change: UT Voltage:	1 None	/ host	
hannel: x Chain:	1 Port 2		Mode: Data Rate:	b 1Mb/s					
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
4823.980	45.8	V	54.0	-8.2	AVG	185	2.5		/B 10 Hz;Peak
4823.970	49.4	V	74.0	-24.6	PK	185	2.5		B 3 MHz;Peak
1198.850	30.3	V	54.0	-23.7	AVG	45	1.0		B 10 Hz;Peak
1199.120	49.8	V H	74.0	-24.2	PK	45 192	1.0		/B 3 MHz;Peak
7406.980 7407.640	39.9 51.1	H H	54.0 74.0	-14.1 -22.9	AVG PK	192	2.0 2.0		′ <u>B 10 Hz;</u> Peak ′B 3 MHz;Peak
1593.890	31.7	H	54.0	-22.9	AVG	263	1.0		B 10 Hz;Peak
1596.210	49.7	H	74.0	-24.3	PK	263	1.0		/B 3 MHz;Peak
241; (m//mplitude (dBu//m)	2MHz b-mode 120.0 - 100.0 - 80.0 - 60.0 - 40.0 - 20.0 -							· 10000	18 <sup>0</sup> 00
	1000				Frequenc	v (MH2)			

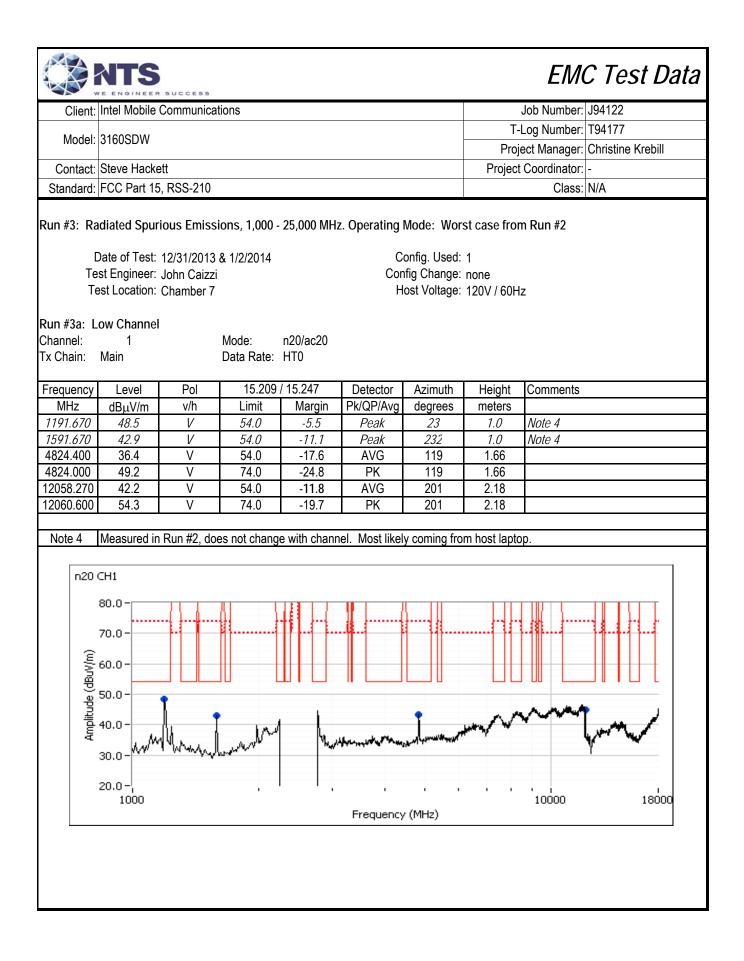
		success						EM	C Test Data
Client	Intel Mobile	Communicat	tions					Job Number:	J94122
Model	3160SDW						T-l	_og Number:	Т94177
									Christine Krebill
	Steve Hacke						Project	Coordinator:	
Standard	FCC Part 15	5, RSS-210						Class:	N/A
Channel:	Center Chan	nel	Mode:	b					
Tx Chain:	Port 2		Data Rate:	1Mb/s					
Frequency		Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
4873.980	49.9	V	54.0	-4.1	AVG	148	1.5		/B 10 Hz;Peak
4874.060	52.5	V	74.0	-21.5	PK	148	1.5		/B 3 MHz;Peak
1480.070	33.6	Н	54.0	-20.4	AVG	94	1.0		/B 10 Hz;Peak
1477.520	50.7	Н	74.0	-23.3	PK	94	1.0		/B 3 MHz;Peak
3744.010 3744.660	31.9 51.3	H	54.0 74.0	-22.1 -22.7	AVG PK	213 213	1.5 1.5		'B 10 Hz;Peak 'B 3 MHz;Peak
Amplitude (dBuV/m)	7MHz b-mode 120.0 - 100.0 - 80.0 - 60.0 - 40.0 - 20.0 - 1000	) I I I I Mul	-		Frequence	y (MHz)			18000

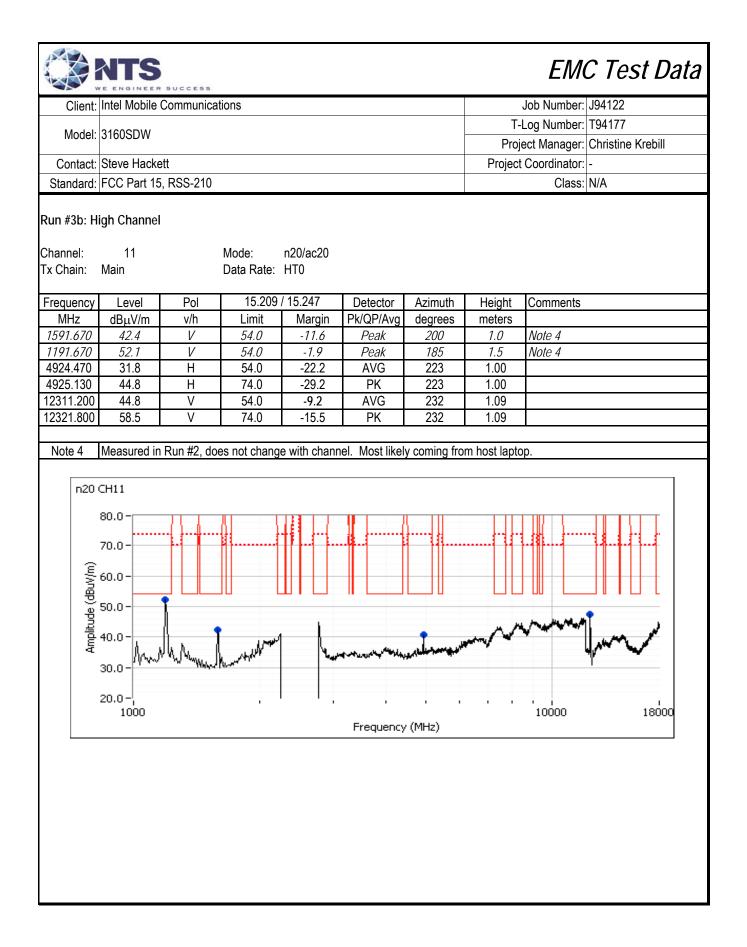


		SUCCESS						EM	C Test Da	ta
Client:	Intel Mobile	Communicat	ions				,	Job Number:	J94122	
Mar Lat	240000144						T-l	Log Number:	T94177	
Model:	3160SDW						Proje	ect Manager:	Christine Krebill	
Contact:	Steve Hacke	ett					Project	Coordinator:	-	
Standard:	FCC Part 15	, RSS-210						Class:	N/A	
[	Date of Test:	12/31/2013		25,000 MHz		onfig. Used:	1			
	st Engineer:					ifig Change:				
Te	est Location:	Chamber 7			Н	ost Voltage:	120V / 60Hz	Z		
Channel:	Center Chanr 6 Main	nel	Mode: Data Rate:	g 6Mb/s						
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments		
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters			
1197.600	36.6	V	54.0	-17.4	AVG	204	1.40			
1199.600	62.9	V	74.0	-11.1	PK	204	1.40			
3744.870	29.2	Н	54.0	-24.8	AVG	220	1.00			
3741.400	41.6	Н	74.0	-32.4	PK	220	1.00			
4874.530	32.1	Н	54.0	-21.9	AVG	302	1.00			
4871.930	45.4	Н	74.0	-28.6	PK	302	1.00			
12181.800	44.1	V	54.0	-9.9	AVG	147	1.00			
12184.270	57.4	V	74.0	-16.6	PK	147	1.00			
Note:					asurement al ficant emissi				its antennas 20-50	)cm
Amplitude (dBuV/m)	80.0-	Madaw	and a second second		Frequency	(MHz)		10000	18000	

Client:	Intel Mobile	Communica	tions					Job Number:	J94122
							Ţ.	Log Number:	
Model:	3160SDW							-	Christine Krebill
Contact:	Steve Hacke	ett						t Coordinator:	
Standard:	FCC Part 15	5, RSS-210						Class:	
Run #2b: C Channel: Tx Chain:	Center Chanr 6 Main	nel	Mode: Data Rate:	n20/ac20 HT0					
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
1196.270	40.0	V	54.0	-14.0	AVG	204	1.35		
1196.470	63.0	V	74.0	-11.0	PK	204	1.35	-	
1593.800	33.9	V	54.0	-20.1	AVG	220	1.05		
1596.140	56.8 32.3	V H	74.0	-17.2 -21.7	PK	220 184	1.05		
4873.670 4875.200	32.3 45.3	<u>н</u> Н	54.0 74.0	-21.7 -28.7	AVG		1.00 1.00		
					PK AVG	184 135			
2182.870 2175.670 Note:	45.1 59.0 Scans made	V V V	54.0 74.0 18 - 25 GHz I	-8.9 -15.0 with the mea	AVG PK	135 135 ntenna move	1.00 1.00		its antennas 20-50
2182.870 2175.670 <i>Note:</i> (w/\ngp) aphrtiduw	45.1 59.0 <i>Scans made</i> <i>from the de</i> ⊂H6 80.0 – 70.0 –	V V V	54.0 74.0 18 - 25 GHz I	-8.9 -15.0 with the mea	AVG PK	135 135 ntenna move	1.00 1.00		its antennas 20-50

Client:	Intel Mobile C	Communicat	tions					Job Number: J94122	
Madalı	24600010						T-	Log Number: T94177	
wodel:	3160SDW					-	Proj	ect Manager: Christine Krebi	ill
	Steve Hacket						Project	t Coordinator: -	
Standard:	FCC Part 15,	RSS-210						Class: N/A	
un #2c: C	enter Channe	el							
hannel:	6		Mode:	n40/ac40					
c Chain:	Main		Data Rate:	HT0					
requency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
212.670	38.9	V	54.0	-15.1	AVG	353	1.04		
198.070	60.3	V	74.0	-13.7	PK	353	1.04		
594.070	36.0	H	54.0	-18.0	AVG	276	1.00		
	56.1	Н	74.0	-17.9	PK	276	1.00 1.64		
		V	5/ O	20.2					
869.600	31.3	V	54.0 74.0	-22.7 -29.8	AVG PK	126 126			
869.600 871.670	31.3 44.2	V	74.0	-29.8	PK	126	1.64		
869.600 871.670 176.200 179.700 <i>Note:</i>	31.3 44.2 43.1 55.1 Scans made from the dev	V V V	74.0 54.0 74.0 78 - 25 GHz I	-29.8 -10.9 -18.9 with the mea	PK AVG PK	126 148 148	1.64 1.00 1.00	the card and its antennas 2 ange.	20-50
n40	31.3 44.2 43.1 55.1 Scans made from the dev CH6 80.0 –	V V V	74.0 54.0 74.0 78 - 25 GHz I	-29.8 -10.9 -18.9 with the mea	PK AVG PK asurement ar	126 148 148	1.64 1.00 1.00		20-50





NTS			EMO	C Test Da
Client: Intel Mobile Communication	ons		Job Number:	J94122
Model: 3160SDW			T-Log Number:	T94177
			Project Manager:	Christine Krebill
Contact: Steve Hackett			Project Coordinator:	
Standard: FCC Part 15, RSS-210			Class:	N/A
	and FCC 15.247 (D <sup>-</sup> Power, PSD, Bandwidt	•	Port Measurements s Emissions	5
est Specific Details				
•		rform final qualifica	tion testing of the EUT with r	espect to the
General Test Configuration The EUT was connected to the spec chain.	trum analyzer or power me	ter via a suitable at	tenuator. All measurements	were made on a sin
All measurements have been correct	ted to allow for the external	attenuators used.		
Ambient Conditions:	Temperature: Rel. Humidity:	15-18 °C 30-40 %		
No modifications Made During Te	•			
Deviations From The Standard No deviations were made from the r		I.		

EMC Test Data											
Client:	Intel Mobile Communicat	ions	Job Number: J94122								
M. 1.1	246205144				T-Log Number: T94177						
Wodel:	3160SDW		Project Manager: Christine Krebill								
Contact:	Steve Hackett		Project Coordinator: -								
	FCC Part 15, RSS-210		Class: N/A								
MAC Addre Run #	ss: 001500E60B22 DRT Pwr setting	U Tool Version 1.7.4-845 Driver ve Test Performed	-	3 mit	Pass / Fail	Result / Margin					
			Liı		Pass / Fail PASS	11a: 20.4dBm n20: 20.4dBm					
						n40: 20.4dBm ac80: 21.0dBm					
2	Refer to run for details	Power spectral Density (PSD)	15.24	47(d)	PASS	11a: -2.6 dBm/10kHz n20: -3.9dBm/10kHz n40: -5.1dBm/10kHz ac80: -8.5dBm/10kHz					
3	Refer to run for details	Minimum 6dB Bandwidth	15.24	47(a)	PASS	11a: 16.3MHz n20: 17.5MHz n40: 35.0MHz ac80: 72.5MHz					
						11a: 18.2MHz					

RSS GEN

15.247(b)

Pass

# Procedure Comments:

3

4

Measurements performed in accordance with FCC KDB 558074

Refer to run for details

Refer to run for details

Mode	Data Rate	Duty Cycle (x)	Constant DC?	T (ms)	Pwr Cor Factor*	Lin Volt Cor Factor**	Min VBW for FS (Hz)
11a	6Mb/s	0.99	Yes	8	0	0	125
n20	HT0	0.98	Yes	6	0	0	166.7
n40	HT0	0.97	Yes	5	0.1	0.2	200
ac80	VHT0	0.94	Yes	2	0.3	0.5	500

99% Bandwidth

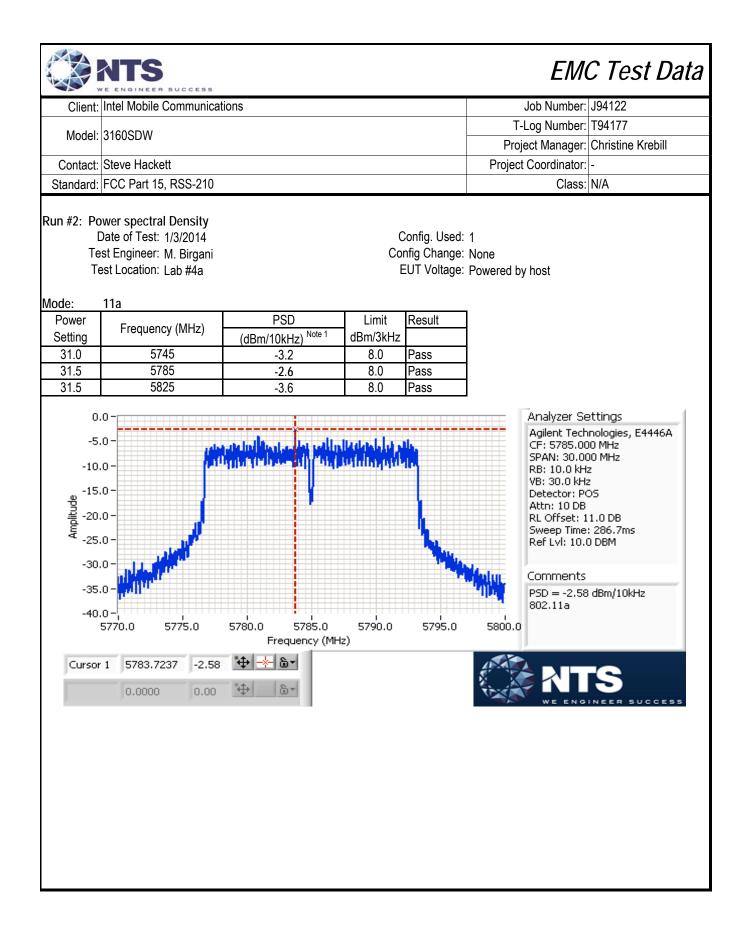
Spurious emissions

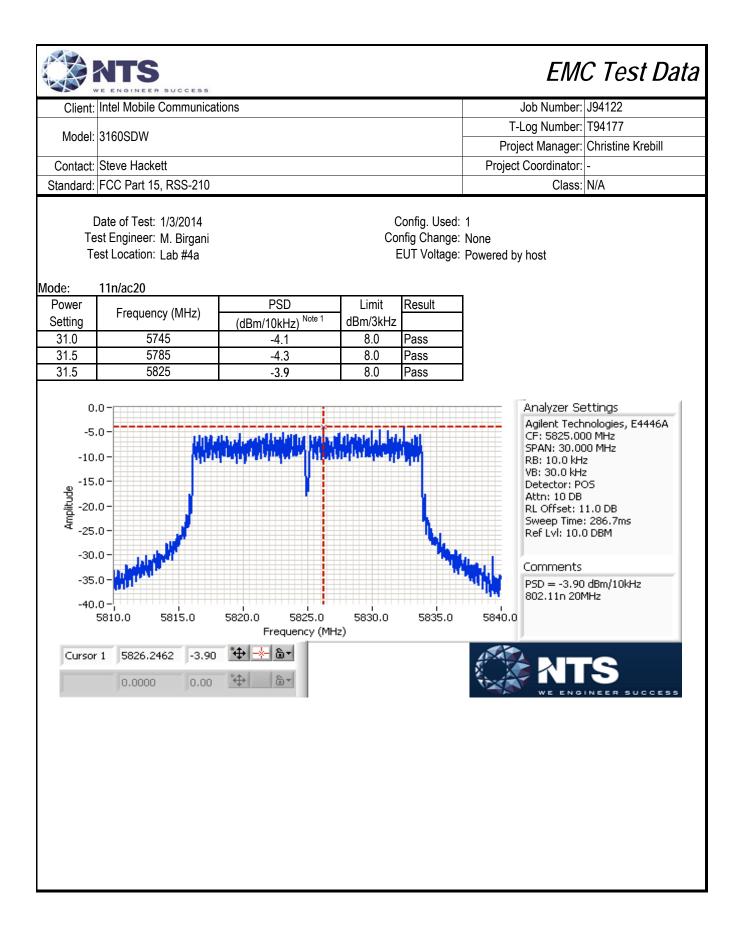
n20: 19.1MHz

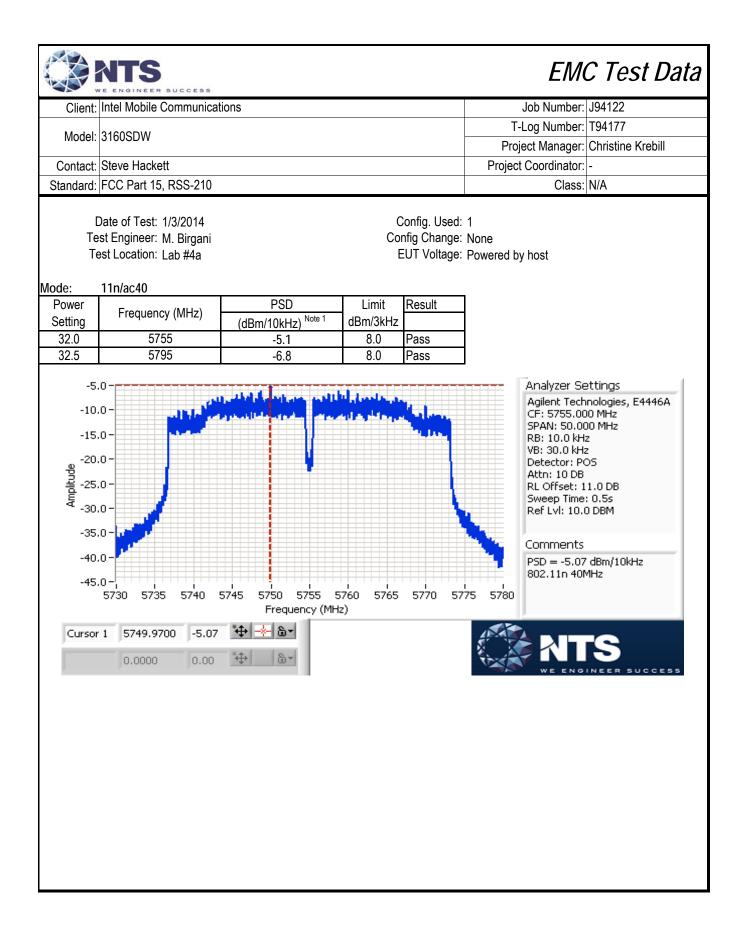
n40: 36.3MHz ac80: 75.0MHz

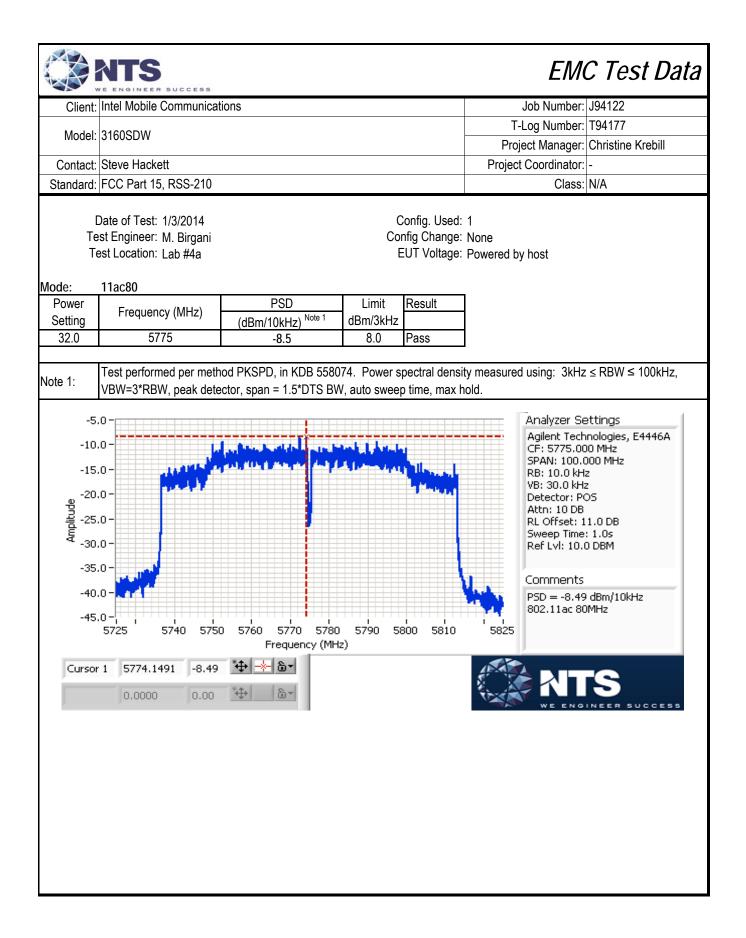
All emissions >20dBc

Client:	Intel Mobile Communica	tions				,	lob Number:	J94122	
						T-L	.og Number:	T94177	
Model:	3160SDW						-	Christine Kre	ebill
Contact:	Steve Hackett						Coordinator:		
Standard:	FCC Part 15, RSS-210						Class:	N/A	
ın #1: Ou Mode:	utput Power								
Power		Output	Power	Antenna		EII	RP	Output	Power
Setting <sup>2</sup>	Frequency (MHz)	(dBm) <sup>1</sup>	mW	Gain (dBi)	Result	dBm	W	(dBm) <sup>3</sup>	mW
31.0	5745	20.3	107.2	5.0	Pass	25.3	0.339	16.4	43.7
31.5	5785	20.4	109.6	5.0	Pass	25.4	0.347	16.7	46.8
31.5	5825	20.1	102.3	5.0	Pass	25.1	0.324	16.5	44.7
Mode: Power Setting <sup>2</sup>	11n/ac20 Frequency (MHz)	Output (dBm) <sup>1</sup>	Power mW	Antenna Gain (dBi)	Result	Ell dBm	RP W	Output (dBm) <sup>3</sup>	Power mW
31.0	5745	20.4	109.6	5.0	Pass	25.4	0.347	16.4	43.7
31.5	5785	20.4	109.6	5.0	Pass	25.4	0.347	16.6	45.7
31.5	5825	20.1	102.3	5.0	Pass	25.1	0.324	16.6	45.7
Power Setting <sup>2</sup>	11n/ac40 Frequency (MHz)	(dBm) <sup>1</sup>	Power mW	Antenna Gain (dBi)	Result	Ell dBm	W	Output (dBm) <sup>3</sup>	mW
32.0	5755	20.4	109.6	5.0	Pass	25.4	0.347	16.4	43.7
32.5	5795	20.4	109.6	5.0	Pass	25.4	0.347	16.4	43.7
	11ac80	Output	Power mW	Antenna Gain (dBi)	Result	Ell dBm	RP W	Output (dBm) <sup>3</sup>	Power mW
Mode: Power Setting <sup>2</sup>	Frequency (MHz)	(dBm) <sup>1</sup>	11177						
Power	Frequency (MHz) 5775	(dBm) <sup>1</sup> 21.0	125.9	5.0	Pass	26.0	0.398	16.0	39.8

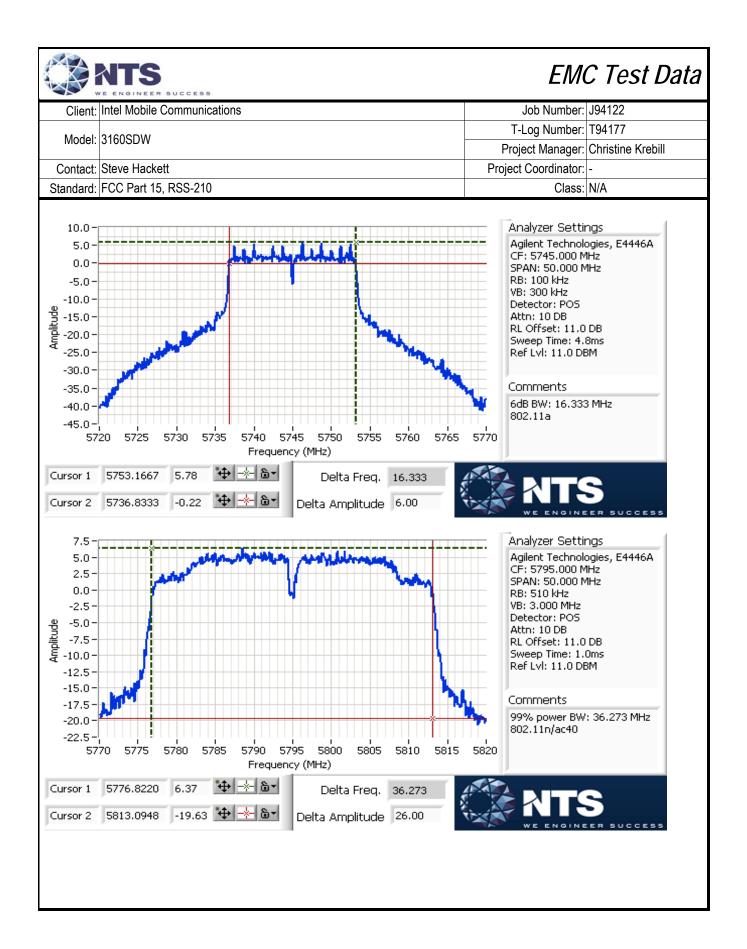




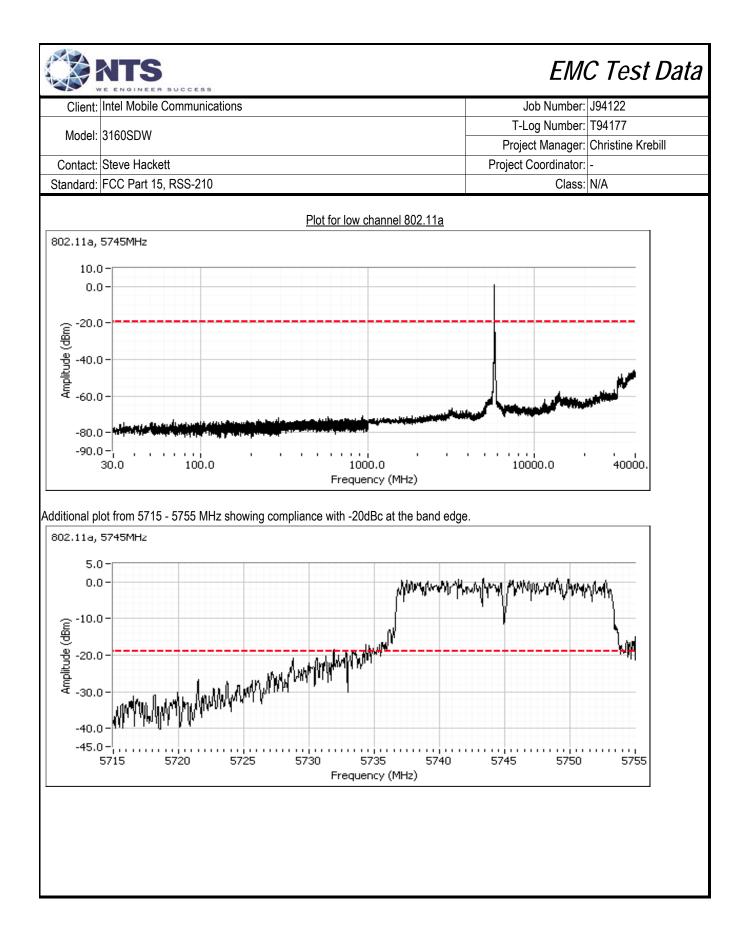


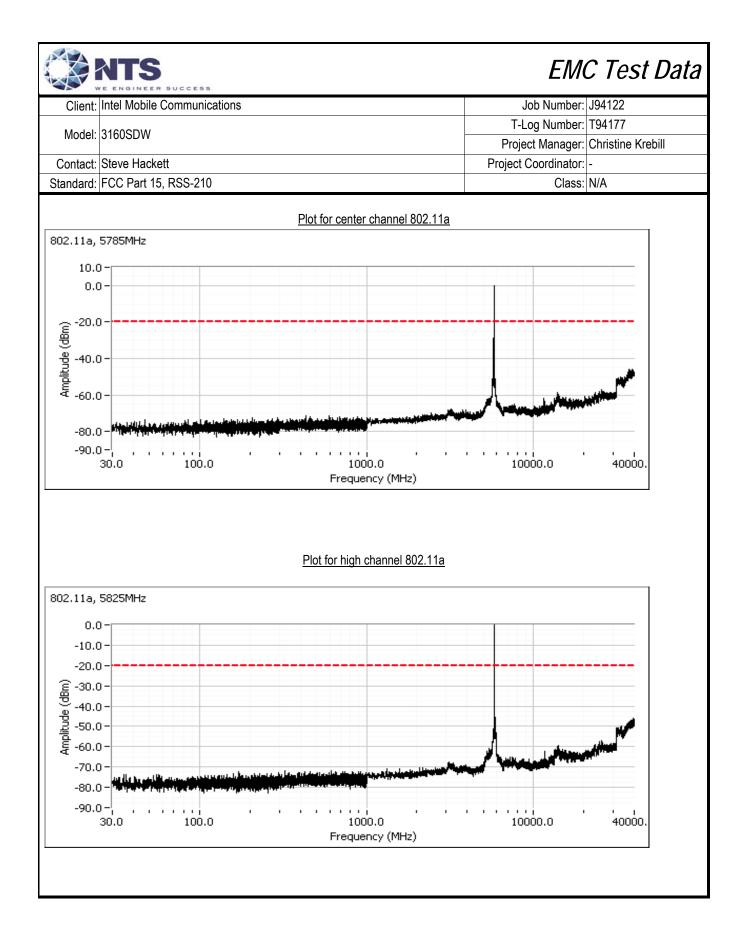


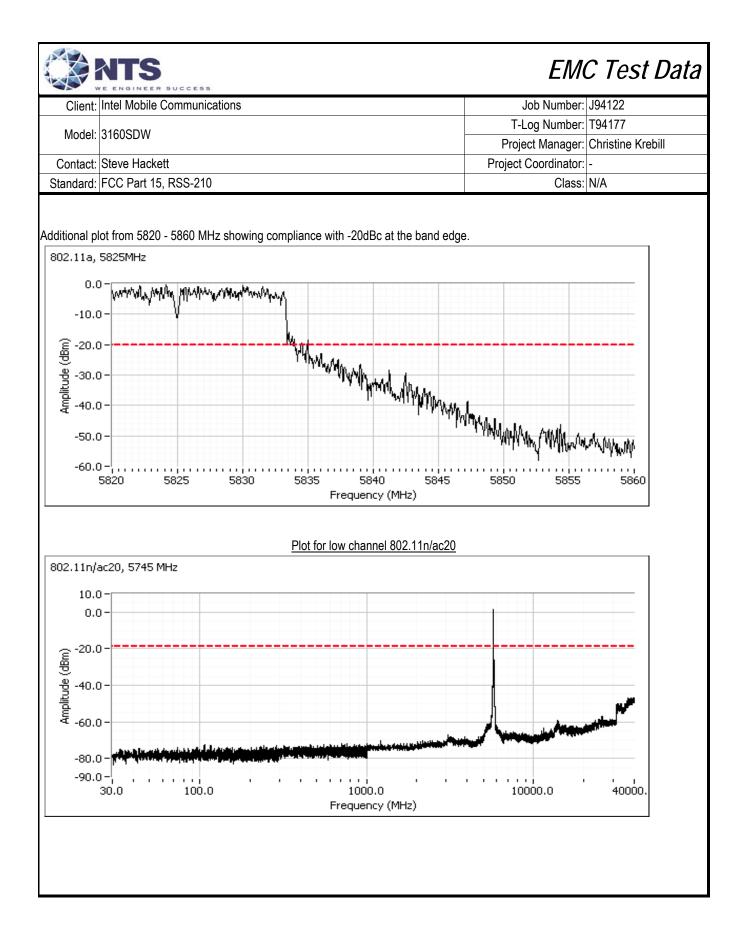
Client	: Intel Mobile (	Communications					b Number: J94122
Model	: 3160SDW					T-Lo	g Number: T94177
wouer	. 51003070					Project	Manager: Christine Kreb
Contact	: Steve Hacke	tt				Project Co	pordinator: -
Standard	: FCC Part 15	, RSS-210					Class: N/A
		·					
Run #3: S	ignal Bandwi	dth					
	Date of Test:				Config. Used:		
		Joseph Cadigal		Co	nfig Change:	None	
Т	est Location:	Lab #4a		I	EUT Voltage:	Powered by h	ost
lode:	11a						
	Power	Frequency (MHz)		lth (MHz)		ting (MHz)	
	Setting		6dB	99%	6dB	99%	
	31	5745	16.3	17.7	100	300	
	31.5	5785	16.3	18.0	100	300	
	31.5	5825	16.3	18.2	100	300	
ode:	11n/2020						
oue.	11n/ac20 Power		Randwid	lth (MHz)	RBW Cat	ting (MHz)	
		Frequency (MHz)	6dB	99%	6dB	99%	
	Setting 31	5745	17.5	99% 19.1	100	300	
	31.5	5785	17.5	19.1	100	300	
	31.5	5825	17.6	18.7	100	300	
	01.0	0020	17.0	10.7	100	300	
lode:	11n/ac40						
	Power	Frequency (MHz)	Bandwid	lth (MHz)	RBW Set	ting (MHz)	
	Setting	Frequency (MHz)	6dB	99%	6dB	99%	
	32	5755	35.0	36.3	100	300	
	32.5	5795	35.0	36.3	100	300	
	44 65						
lode:	11ac80		Devision				
	Power	Frequency (MHz)		lth (MHz)		ting (MHz)	
	Setting	5775	6dB	99%	6dB	99%	
	32	5775	72.5	75.0	100	300	
		BW=100kHz, VBW $\geq$ 3*R	BW peak d	etector max	hold auto su	veen time	
	IDIS RW PI		ut a view of the second			•	
ote 1:		BW=1-5% of of 99%BW, '	$\langle R N \rangle > 3*DC$	RNN near da	tantar mav h	old auto swoo	n timo

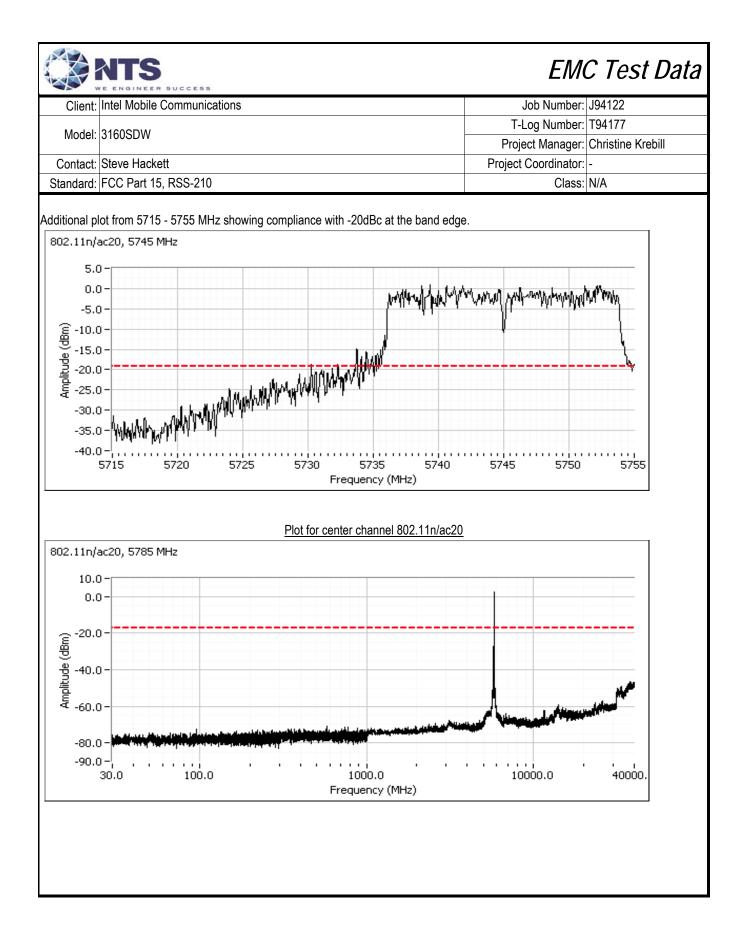


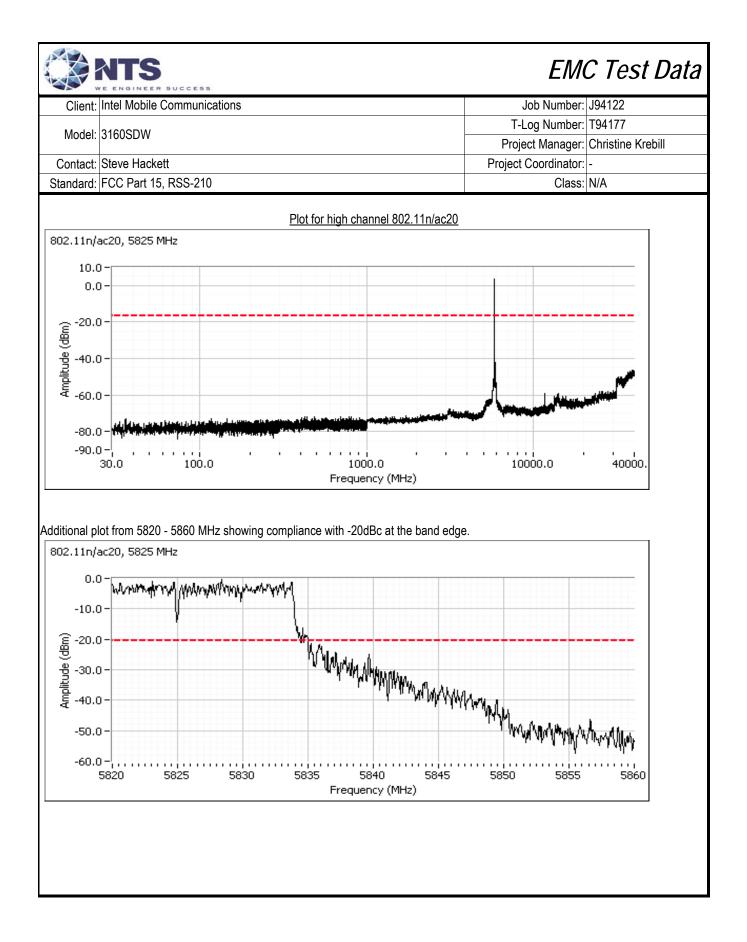
	t: Intel Mobile Communica	tions			Job Number:	
Mode	el: 3160SDW				T-Log Number:	
Ocate					Project Manager:	
	t: Steve Hackett				Project Coordinator:	
	d: FCC Part 15, RSS-210				Class:	N/A
kun #4a:	Out of Band Spurious Er Date of Test: 1/3/2014	nissions		Config. Use	ed: 1	
-	Test Engineer: Joseph Cad	ligal		Config Chang		
	Test Location: Lab #4a	igui			ge: Powered by host	
					- <b>·</b>	
lode:	11a	<del></del>				1
	Frequency (MHz)	Power	Mode	Limit	Result	
	5745	Setting 31	11a	-20dBc	Pass	
	5785	31.5	11a	-20dBc	Pass	
	5825	31.5	11a	-20dBc	Pass	
/lode:	11n/ac20	<del></del>				1
	Frequency (MHz)	Power	Mode	Limit	Result	
	5745	Setting 31	n/ac20	-20dBc	Pass	
	5785	31.5	n/ac20	-20dBc	Pass	
	5825	31.5	n/ac20	-20dBc	Pass	
/lode:	11n/ac40					
iouc.		Power			<b>D</b> "	]
	Frequency (MHz)	Setting	Mode	Limit	Result	
	5755	32	n/ac40	-20dBc	Pass	
	5795	32.5	n/ac40	-20dBc	Pass	
	44					
lodo	112080					]
lode:	11ac80	Power		Linnit	Deput	
lode:	Frequency (MHz)	Power Setting	Mode	Limit	Result	

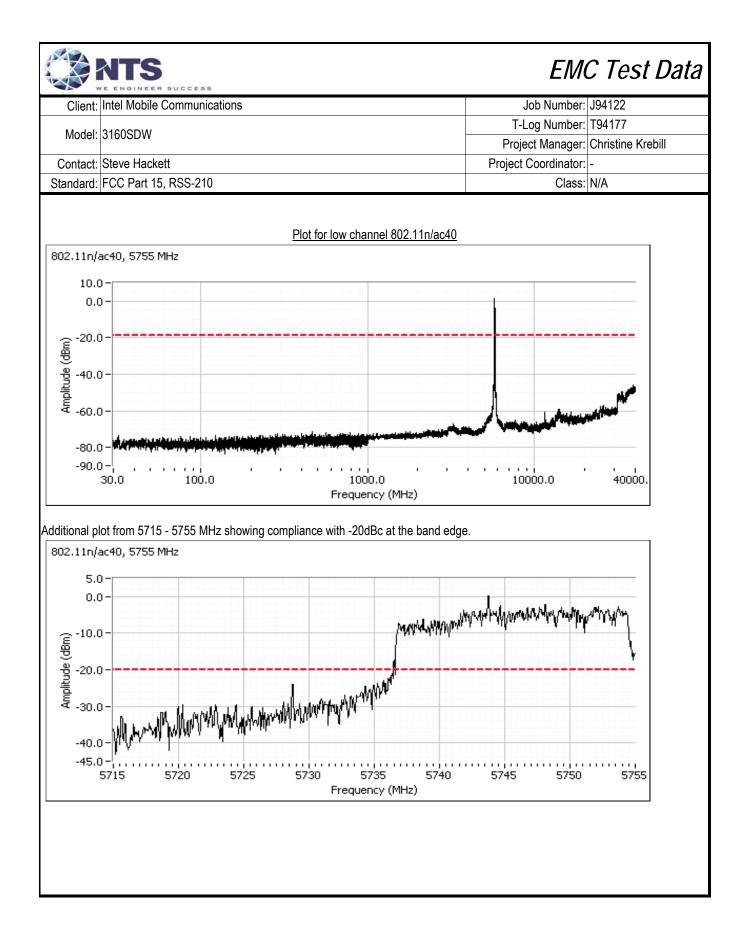


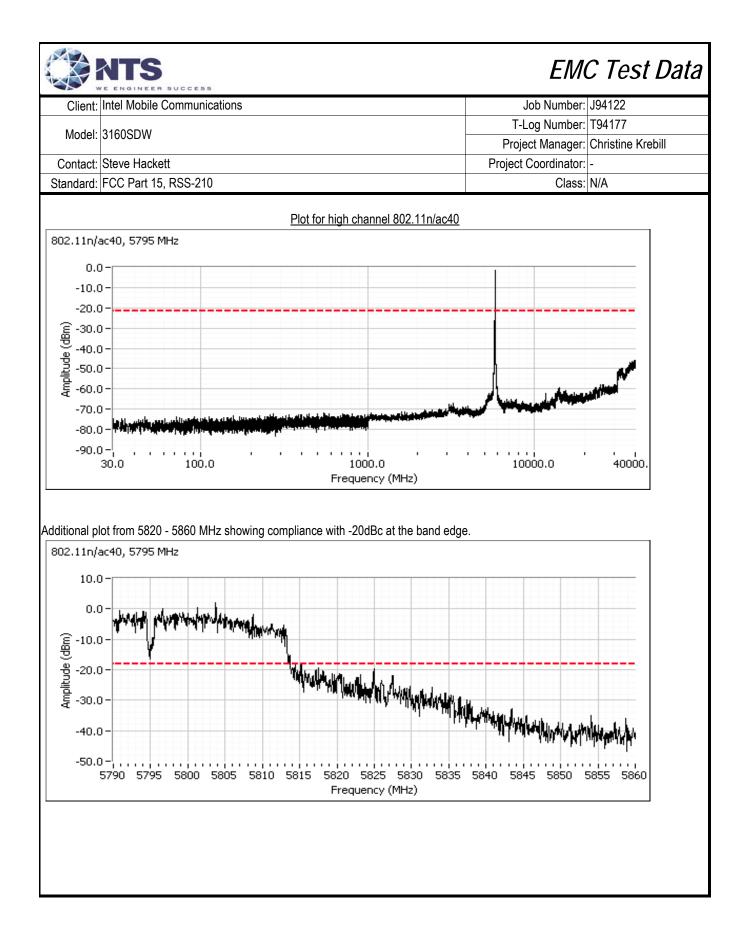


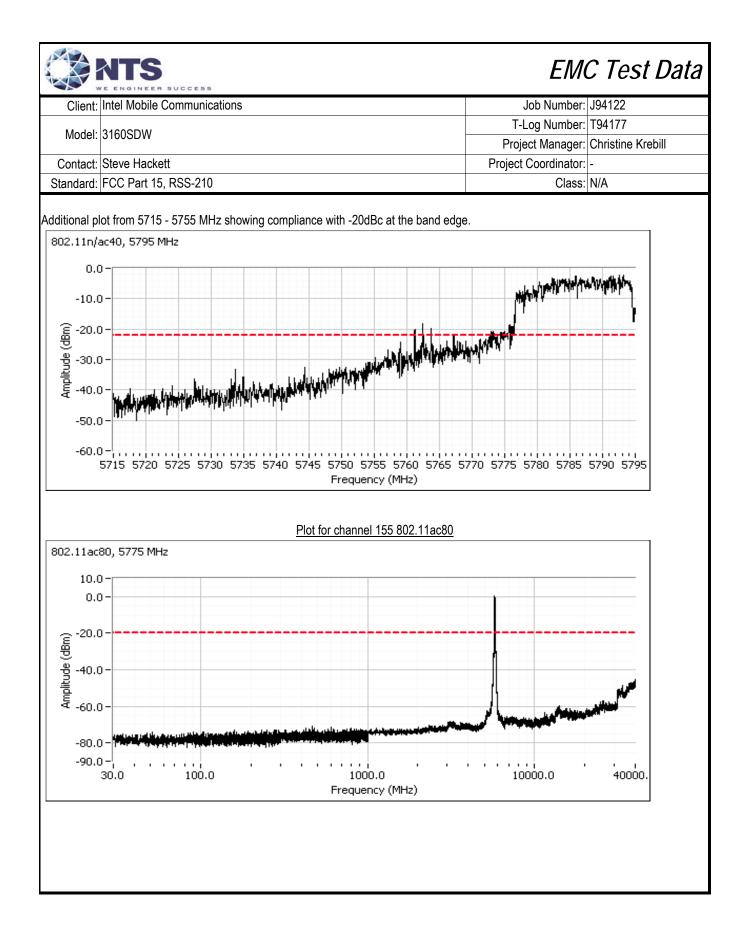


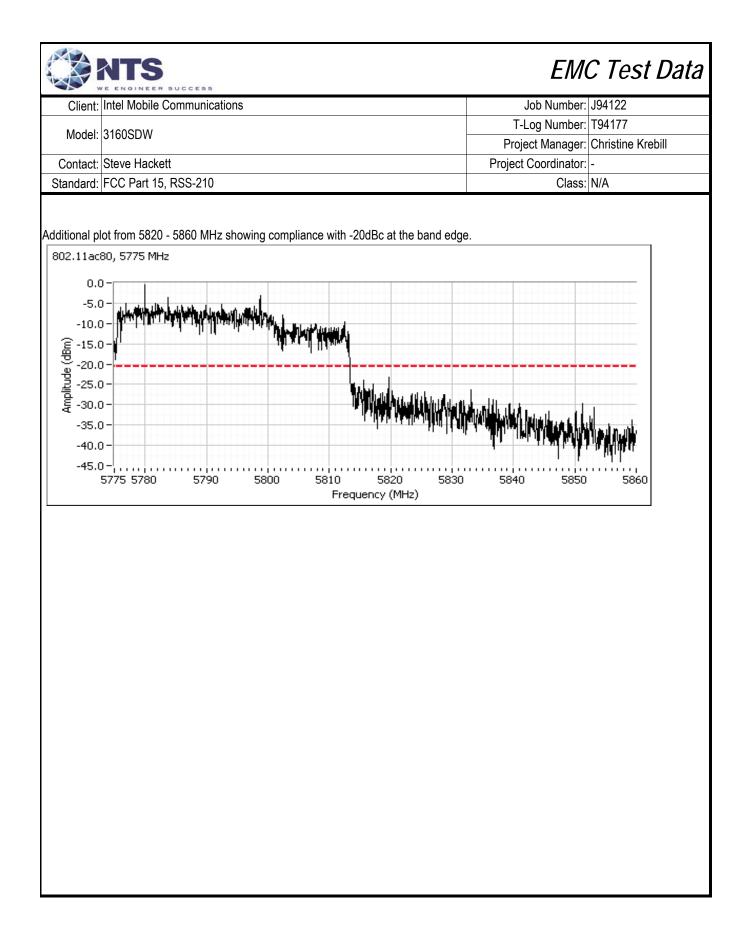












Cilent.	Intel Mobile	Communicat	ions			Job Numbe	r: J94122
Model	3160SDW					T-Log Numbe	r: T94177
							r: Christine Krebill
	Steve Hack					Project Coordinato	
Standard:	FCC Part 1	D, KOO-210				Class	s: N/A
	F	RSS 210 a	and FCC	15.247 (	DTS) Radiated Sp	ourious Emissio	ns
est Spe	cific Detai	ls					
·	Objective:	The chiection			o perform final qualification	n testing of the EUT with	respect to the
ieneral 1	Test Confi	guration					
		•	ent were loo	cated on the	turntable for radiated spur	rious emissions testing.	
r radiated	d emissions t	esting the me	asurement a	antenna was	located 3 meters from the	EUT, unless otherwise	noted.
mbient	Condition		omoroturou	10	•••		
mbient	Condition	Т	emperature: el. Humidity:		3 ℃ ) %		
		T Ri	el. Humidity:	30	0 %		
ummary	y of Resul	T Re ts - Device	el. Humidity: Operatin	30 <b>g in th</b> e 5	9 % 725-5850 MHz Band	2	
ummary AC Addre	y of Resul	T Re ts - Device E60B22 DRT	el. Humidity: Operatin U Tool Vers	30 <b>g in th</b> e 5	9 % 725-5850 MHz Band 45 Driver version 16.8.0. 1		
ummary AC Addre Run #	y of Result ess: 0015001 Mode	T Re ts - Device E60B22 DRT Channel	el. Humidity: <b>Operatin</b> U Tool Vers Target Power	30 g in the 5 sion 1.7.4-84 Power Setting	725-5850 MHz Band 5 Driver version 16.8.0. Test Performed	3 Limit	Result / Margin
ummary AC Addre Run #	y of Result ess: 0015001 Mode	T Ro E60B22 DRT Channel Lin all four O	el. Humidity: <b>Operatin</b> U Tool Vers Target Power	30 g in the 5 sion 1.7.4-84 Power Setting	9 % 725-5850 MHz Band 45 Driver version 16.8.0. 1		
ummary AC Addre Run #	y of Result ess: 0015001 Mode	T Ref 560B22 DRT Channel in all four OI 157 -	el. Humidity: <b>Operatin</b> U Tool Vers Target Power	30 g in the 5 sion 1.7.4-84 Power Setting	725-5850 MHz Band 5 Driver version 16.8.0. Test Performed		52.1 dBµV/m @ 374
ummary AC Addre Run #	y of Result ess: 001500I Mode enter channe a	T Re 560B22 DRT Channel in all four OI 157 - 5785MHz 157 -	el. Humidity: Operatin U Tool Vers Target Power FDM modes 16.5	30 g in the 5 sion 1.7.4-84 Power Setting to determine 31.5	725-5850 MHz Band 5 Driver version 16.8.0. Test Performed the worst case mode.	Limit	52.1 dBµV/m @ 374 MHz (-21.9 dB) 51.8 dBµV/m @ 374
ummary AC Addre Run #	y of Result ess: 0015001 Mode enter channe a n/ac20	T R E E E E E E E E E E E E E E E E E E	el. Humidity: COperatin U Tool Vers Target Power FDM modes 16.5 16.5	30 g in the 5 sion 1.7.4-84 Power Setting to determine 31.5 31.5	725-5850 MHz Band 725-5850 MHz Band 75 Driver version 16.8.0. Test Performed the worst case mode. Radiated Emissions,	Limit FCC Part 15.209 /	52.1 dBμV/m @ 374 MHz (-21.9 dB) 51.8 dBμV/m @ 374 MHz (-22.2 dB)
ummary AC Addre Run # ans on ce	y of Result ess: 001500I Mode enter channe a	T Ref 50B22 DRT Channel in all four O 157 - 5785MHz 157 - 5785MHz 159 - 5795MHz	el. Humidity: Operatin U Tool Vers Target Power FDM modes 16.5	30 g in the 5 sion 1.7.4-84 Power Setting to determine 31.5	725-5850 MHz Band 5 Driver version 16.8.0. Test Performed the worst case mode.	Limit	52.1 dBμV/m @ 374 MHz (-21.9 dB) 51.8 dBμV/m @ 374 MHz (-22.2 dB) 29.9 dBμV/m @ 399 MHz (-24.1 dB)
ummary AC Addre Run # ans on ce	y of Result ess: 0015001 Mode enter channe a n/ac20	T Ref 50B22 DRT Channel in all four OI 157 - 5785MHz 157 - 5785MHz 159 - 5795MHz 155 -	el. Humidity: COperatin U Tool Vers Target Power FDM modes 16.5 16.5	30 g in the 5 sion 1.7.4-84 Power Setting to determine 31.5 31.5	725-5850 MHz Band 725-5850 MHz Band 75 Driver version 16.8.0. Test Performed the worst case mode. Radiated Emissions,	Limit FCC Part 15.209 /	52.1 dBµV/m @ 374 MHz (-21.9 dB) 51.8 dBµV/m @ 374 MHz (-22.2 dB) 29.9 dBµV/m @ 399 MHz (-24.1 dB) 52.3 dBµV/m @ 374
AC Addre Run # ans on ce	y of Result ess: 0015000 Mode enter channe a n/ac20 n/ac40 ac80	T R R T R T T R T T T T T T T T T T T T	el. Humidity: COperatin U Tool Vers Target Power FDM modes 16.5 16.5 16.5 16.5	30 g in the 5 sion 1.7.4-84 Power Setting to determine 31.5 31.5 31.5 31.5 31.0	725-5850 MHz Band Test Performed the worst case mode. Radiated Emissions, 1 - 40 GHz	Limit FCC Part 15.209 /	52.1 dBμV/m @ 374 MHz (-21.9 dB) 51.8 dBμV/m @ 374 MHz (-22.2 dB) 29.9 dBμV/m @ 399 MHz (-24.1 dB)
ummary AC Addre Run # ans on ce	y of Result ess: 0015000 Mode enter channe a n/ac20 n/ac40 ac80	T R R Channel Channel In all four O 157 - 5785MHz 157 - 5785MHz 159 - 5795MHz 155 - 5775MHz 155 - 5775MHz 149 -	el. Humidity: COperatin U Tool Vers Target Power FDM modes 16.5 16.5 16.5 16.5	30 g in the 5 sion 1.7.4-84 Power Setting to determine 31.5 31.5 31.5 31.5 31.0	725-5850 MHz Band 5 Driver version 16.8.0. Test Performed the worst case mode. Radiated Emissions, 1 - 40 GHz	Limit FCC Part 15.209 / 15.247( c)	52.1 dBµV/m @ 374 MHz (-21.9 dB) 51.8 dBµV/m @ 374 MHz (-22.2 dB) 29.9 dBµV/m @ 399 MHz (-24.1 dB) 52.3 dBµV/m @ 374 MHz (-21.7 dB) 48.8 dBµV/m @ 119
AC Addre Run # ans on ce	y of Result ess: 0015000 Mode enter channe a n/ac20 n/ac40 ac80	T R R T S S - Device Channel Channel 157 - 5785MHz 157 - 5785MHz 159 - 5795MHz 155 - 5775MHz 155 - 5775MHz	el. Humidity: COperatin U Tool Vers Target Power FDM modes 16.5 16.5 16.5 16.5 16.5 16.5 16.5	30 g in the 5 sion 1.7.4-84 Power Setting to determine 31.5 31.5 31.5 31.0 -case OFDM 31.0	725-5850 MHz Band Test Performed the worst case mode. Radiated Emissions, 1 - 40 GHz	Limit FCC Part 15.209 / 15.247( c) FCC Part 15.209 /	52.1 dBμV/m @ 374 MHz (-21.9 dB) 51.8 dBμV/m @ 374 MHz (-22.2 dB) 29.9 dBμV/m @ 399 MHz (-24.1 dB) 52.3 dBμV/m @ 374 MHz (-21.7 dB) 48.8 dBμV/m @ 119 MHz (-5.2 dB)
AC Addre Run # ans on ce	y of Result ess: 0015000 Mode enter channe a n/ac20 n/ac40 ac80 ents on low an	T R Channel Channel Channel In all four OI 157 - 5785MHz 157 - 5785MHz 159 - 5795MHz 155 - 5775MHz 155 - 5775MHz 149 - 5745MHz	el. Humidity: Operatin U Tool Vers Target Power FDM modes 16.5 16.5 16.5 16.0 mels in worst	30 g in the 5 sion 1.7.4-84 Power Setting to determine 31.5 31.5 31.5 31.5 31.0 -case OFDM	725-5850 MHz Band 5 Driver version 16.8.0. Test Performed the worst case mode. Radiated Emissions, 1 - 40 GHz mode. Radiated Emissions,	Limit FCC Part 15.209 / 15.247( c)	52.1 dBµV/m @ 374 MHz (-21.9 dB) 51.8 dBµV/m @ 374 MHz (-22.2 dB) 29.9 dBµV/m @ 399 MHz (-24.1 dB) 52.3 dBµV/m @ 374 MHz (-21.7 dB) 48.8 dBµV/m @ 119
AC Addre Run # ans on ce 1 asureme	y of Result ess: 0015000 Mode anter channe a n/ac20 n/ac40 ac80 ents on low an a	T R T R T R T T T T T T T T T T T T T	el. Humidity: COperatin U Tool Vers Target Power FDM modes 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5	30 g in the 5 sion 1.7.4-84 Power Setting to determine 31.5 31.5 31.5 31.0 -case OFDM 31.0	725-5850 MHz Band 5 Driver version 16.8.0. Test Performed the worst case mode. Radiated Emissions, 1 - 40 GHz mode. Radiated Emissions,	Limit FCC Part 15.209 / 15.247( c) FCC Part 15.209 /	52.1 dBµV/m @ 374 MHz (-21.9 dB) 51.8 dBµV/m @ 374 MHz (-22.2 dB) 29.9 dBµV/m @ 399 MHz (-24.1 dB) 52.3 dBµV/m @ 374 MHz (-21.7 dB) 48.8 dBµV/m @ 119 MHz (-5.2 dB) 46.3 dBµV/m @ 119



## EMC Test Data

N N	VE ENGINEER SUCCESS		
Client:	Intel Mobile Communications	Job Number:	J94122
Madal	3160SDW	T-Log Number:	T94177
MOUEI.	31003DW	Project Manager:	Christine Krebill
Contact:	Steve Hackett	Project Coordinator:	-
Standard:	FCC Part 15, RSS-210	Class:	N/A

## Procedure Comments:

Measurements performed in accordance with FCC KDB 558074

Peak measurements performed with: RBW=1MHz, VBW=3MHz, peak detector, max hold, auto sweep time

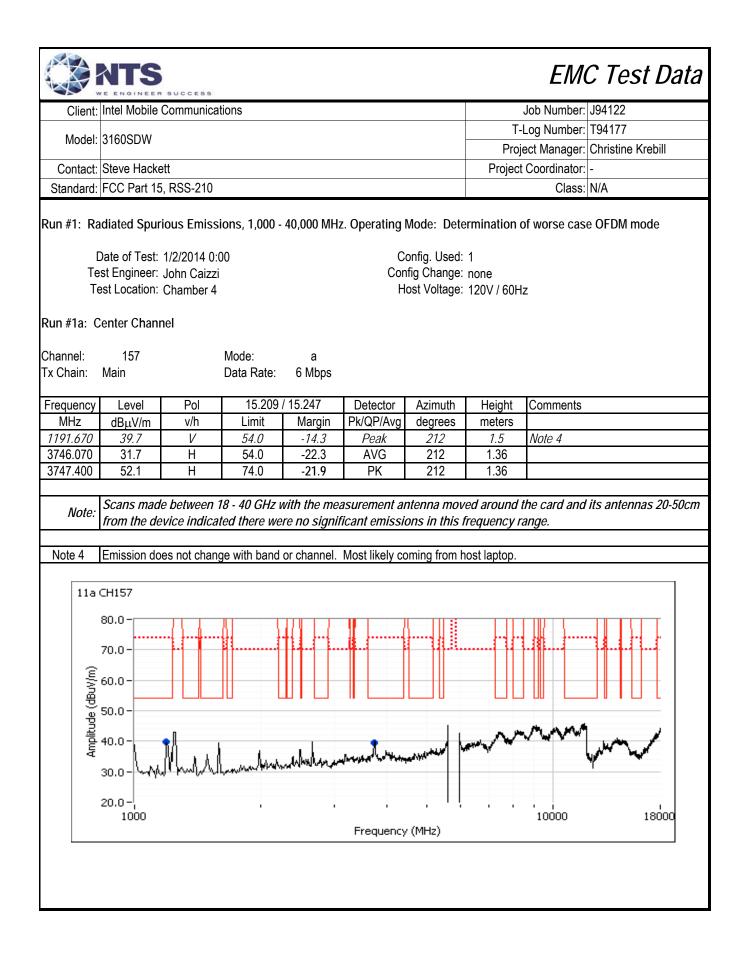
Unless otherwise stated/noted, emission has duty cycle ≥ 98% and was measured using RBW=1MHz, VBW=10Hz, peak detector, linear average mode, auto sweep time, max hold.

5.7GHz band reject filter used

Mode	Data Rate	Duty Cycle (x)	Constant DC?	T (ms)	Pwr Cor Factor*	Lin Volt Cor Factor**	Min VBW for FS (Hz)
11a	6Mb/s	0.99	Yes	8	0.0	0.0	125
n20	HT0	0.98	Yes	6	0.0	0.0	166.7
n40	HT0	0.97	Yes	5	0.1	0.2	200
ac80	VHT0	0.94	Yes	2	0.3	0.5	500

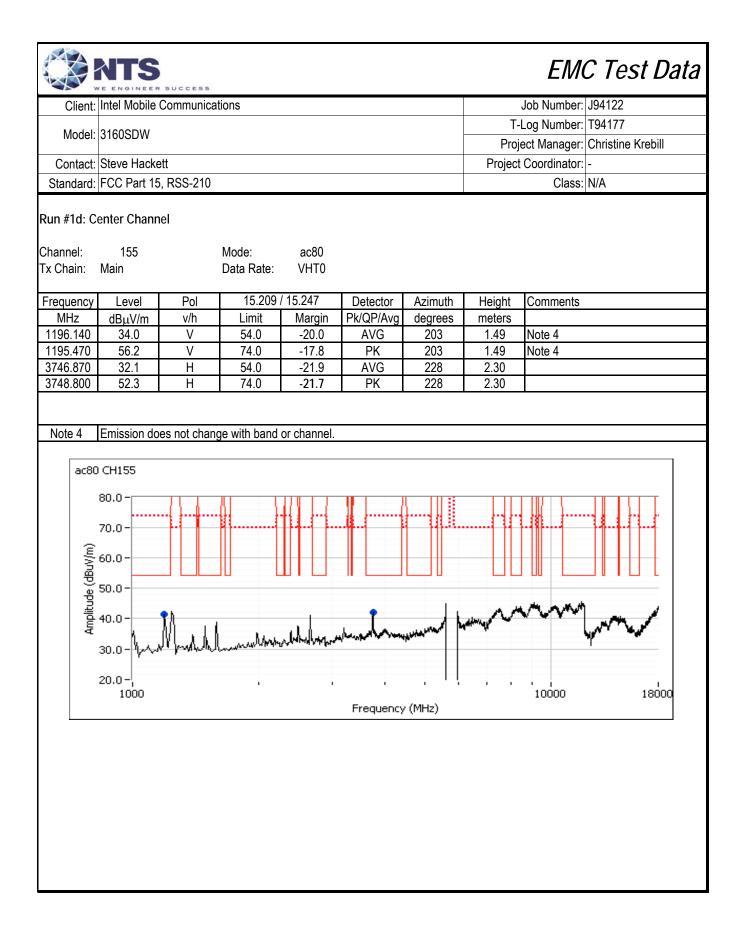
## Measurement Specific Notes:

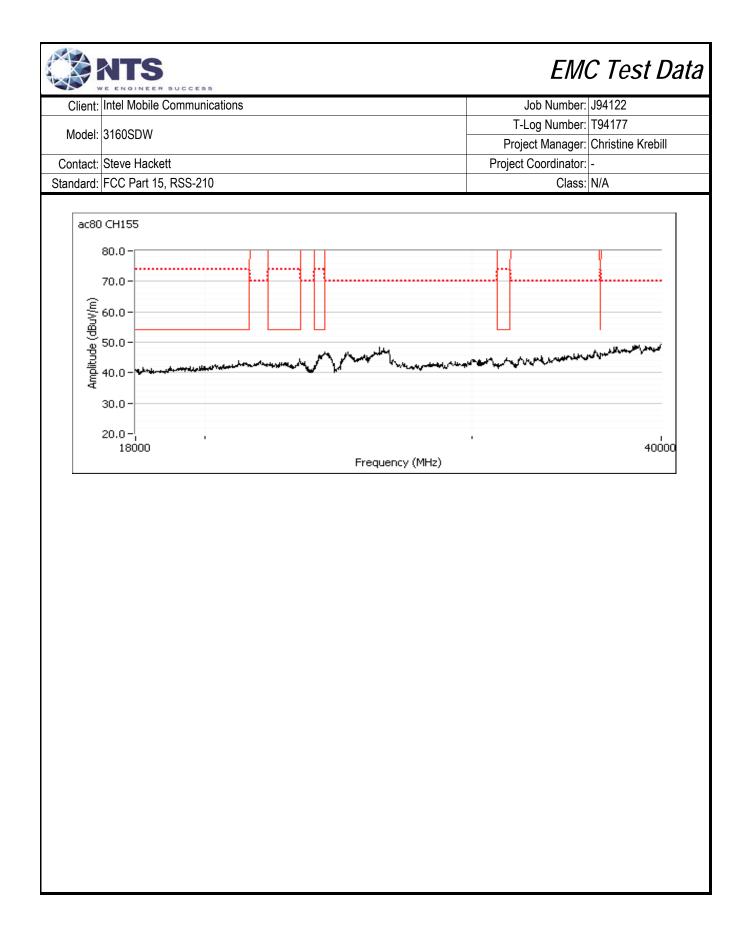
Note 1:	Emission in non-restricted band, but limit of 15.209 used.
	Emission in non-restricted band, the limit was set 30dB below the level of the fundamental and measured in 100kHz.
Note 3:	Emission has duty cycle < 98%, but constant, average measurement performed: RBW=1MHz, VBW=10Hz, peak detector,
	linear averaging, auto sweep, trace average 100 traces, measurement corrected by Linear Voltage correction factor



		SUCCESS						EMO	C Test Data
Client:	Intel Mobile	Communicat	tions					Job Number:	J94122
							T-	Log Number:	T94177
Model:	3160SDW					-			Christine Krebill
Contact:	Steve Hacke	ett						Coordinator:	-
Standard:	FCC Part 15	, RSS-210						Class:	N/A
Channel:	enter Chani 157	nel	Mode:	n20					
Tx Chain:	Main		Data Rate:	HT0					
Frequency	Level	Pol	15.209/	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
1200.000	41.7	V	54.0	-12.3	Peak	209	1.5	Note 4	
3748.000	31.2	V	54.0	-22.8	AVG	177	1.06		
3742.740	51.8	V	74.0	-22.2	PK	177	1.06		
	CH157 80.0 - 70.0 - 60.0 - 50.0 - 40.0 -								
	40.0 - 30.0 - \	Muddl	nunderlindet	adulta lungan	, <b>, , , , , , , , , , , , , , , , , , </b>		· · ·	`10000	18000

Client:	Intel Mobile	Communicat	tions					Job Number: J94122
								Log Number: T94177
Model:	3160SDW							ect Manager: Christine Krebill
Contact:	Steve Hacke	tt					Project	Coordinator: -
Standard:	FCC Part 15	, RSS-210						Class: N/A
cun #1c: C channel: x Chain:	enter Chann 159 Main	el	Mode: Data Rate:	n40 HT0				
x Griain.	IVIAIII		Dala Nale.	1110				
requency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1191.670	41.3	V	54.0	-12.7	Peak	202	1.5	Note 4
3744.530	29.1	Н	54.0	-24.9	AVG	238	1.04	
3748.270	46.4	Н	74.0	-27.6	PK	238	1.04	
3996.540	29.9	V	54.0	-24.1	AVG	188	1.43	
3988.200	43.6	V	74.0	-30.4	PK	188	1.43	
Note 4			ge with band		ficant emissio	ons in this t	requency n	ange.
n40	CH159 80.0 - 70.0 -							
Amplitude (dBuV/m)	CH159 80.0 - 70.0 -				Frequency			





	V		S EER SUG	CESS						EM	C Test Da	ata
Clier	nt:	Intel Mol	oile Com	municat	tions					Job Number:	J94122	
									T-	Log Number:	T94177	
Mod	el:	3160SD	/V						Proje	ect Manager:	Christine Krebill	
Conta	ict:	Steve Ha	ackett						Project	Coordinator:	-	
Standar	rd:	FCC Par	t 15, RS	S-210						Class:	N/A	
											l.	
Run #2:	Ra	diated S	purious	Emissi	ons, 1,000 -	40,000 MH	z. Operating	Mode: Wor	st case fro	m Run #1.		
				0044.0.0	0		0	anfin Ilaadu	4			
		ate of Te			, Joseph Cad	liaal		onfig. Used: fig Change:				
		st Locati			, Juseph Cau	liyal		ost Voltage:		7		
			on ond					eet renager	1201 / 0011	-		
Run #2a:			nel									
Channel:		149			Mode:	а						
Tx Chain:	:	Main			Data Rate:	6 Mbps						
Frequence	cv	Level		Pol	15.209	/ 15 247	Detector	Azimuth	Height	Comments		
MHz	<u> </u>	dBµV/		v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	Commento		
1191.67	0	48.8		V	54.0	-5.2	Peak	185	1.5	Note 4		
1591.67	'0	43.8		V	54.0	-10.2	Peak	221	1.0	Note 4		
			<u> </u>					_				
Not	· ^ ·										its antennas 20-5	oUCM
Note 4	_				ge with band		ficant emissio		requency h	ange		
	Ī						e there is only	one 80 MH	z channel. ti	ne hiah & low	channels from the	next
Note 5					were scanne					ie ingli ei ie i		
11	1a(	H149										
		120.0-										
		120.0										
		100.0-										
		100.0										
	Ň.	80.0-										
	Ë.			.) - 1	°\$1	1.					******	
	Ĩ	60.0-										
	Amplitude (dBuV/m)											
	a.	40.0-			•				$\sim$	my.	and the second s	
		-	mynn 4	Arran My	handersland	a hander		A REAL PROPERTY AND A REAL		~	çan war	
		20.0-									1	
		100	)0				Frequency	. /641.1=3		10000	18000	
							Frequency	/ (MHZ)				

Client:	Intel Mobile	Communicat	tions					Job Number:	J94122
N	040000144						T-	Log Number:	T94177
wodel:	3160SDW						Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	ett					Project	Coordinator:	-
Standard:	FCC Part 15	, RSS-210					-	Class:	N/A
	igh Channel		M. 1.						
hannel: x Chain:	165 Main		Mode: Data Rate:	a 6 Mhno					
x Ghain.	Main		Dala Rale.	6 Mbps					
requency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
1191.670	46.3	Н	54.0	-7.7	Peak	204	1.0		
1591.670	42.3	V	54.0	-11.7	Peak	198	1.0		
Note 5	ac80 was the	e worst case				y one 80 MH	z channel, tl	he high & low	channels from the
11a	ac80 was the worst OFDN	e worst case	mode from I	run #1. Sinc		y one 80 MH:	z channel, t	he high & low	channels from the
11a	ac80 was th worst OFDM ⊂H165 120.0 - 100.0 - 80.0 -	e worst case	mode from I	run #1. Sinc		y one 80 MH	z channel, ti	he high & low	channels from the

V	VE ENGINEER SUCCESS		
Client:	Intel Mobile Communications	Job Number:	J94122
Madal	3160SDW	T-Log Number:	T94177
Model.	5100SDW	Project Manager:	Christine Krebill
Contact:	Steve Hackett	Project Coordinator:	-
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.

## General Test Configuration

NTS

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. For radiated emissions testing the measurement antenna was located 3 meters from the EUT, unless otherwise noted.

#### Ambient Conditions:

Temperature:18 °CRel. Humidity:30 %

## Summary of Results - Device Operating in the 2400-2483.5 MHz Band

MAC Address: 001500E60B22 DRTU Tool Version 1.7.4-855 Driver version 16.8.0.3

Run #	Mode	Channel	Power Setting	-	Test Performed	Limit	Result / Margin							
1a		2402	Max	-	Restricted Band Edge (2390 MHz)		34.0 dBµV/m @ 2389.5 MHz (-20.0 dB)							
ia		2402	Max	-	Radiated Emissions,		46.6 dBµV/m @ 4803.9							
			Мах		1 - 26 GHz		MHz (-7.4 dB)							
1b	BI F	BI F	BI F	BLE	2440	Max	_	Radiated Emissions,	FCC Part 15.209 /	40.5 dBµV/m @ 4879.9				
10	DEE	2440	Max	_	1 - 26 GHz	15.247( c)	MHz (-13.5 dB)							
	24		Max	_	Restricted Band Edge		34.6 dBµV/m @ 2485.1							
1c			2480	2480	2480	2480	2480	2490	2490	IVIAA	_	(2483.5 MHz)		MHz (-19.4 dB)
10		2400	Max		Radiated Emissions,		33.8 dBµV/m @ 1495.3							
			IVIAX	-	1 - 26 GHz		MHz (-20.2 dB)							

## 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.



# EMC Test Data

N N	E ENGINEER SUCCESS		
Client:	Intel Mobile Communications	Job Number:	J94122
Madal	3160SDW	T-Log Number:	T94177
MOUEI.	31003DW	Project Manager:	Christine Krebill
Contact:	Steve Hackett	Project Coordinator:	-
Standard:	FCC Part 15, RSS-210	Class:	N/A

## Procedure Comments:

Measurements performed in accordance with FCC KDB 558074

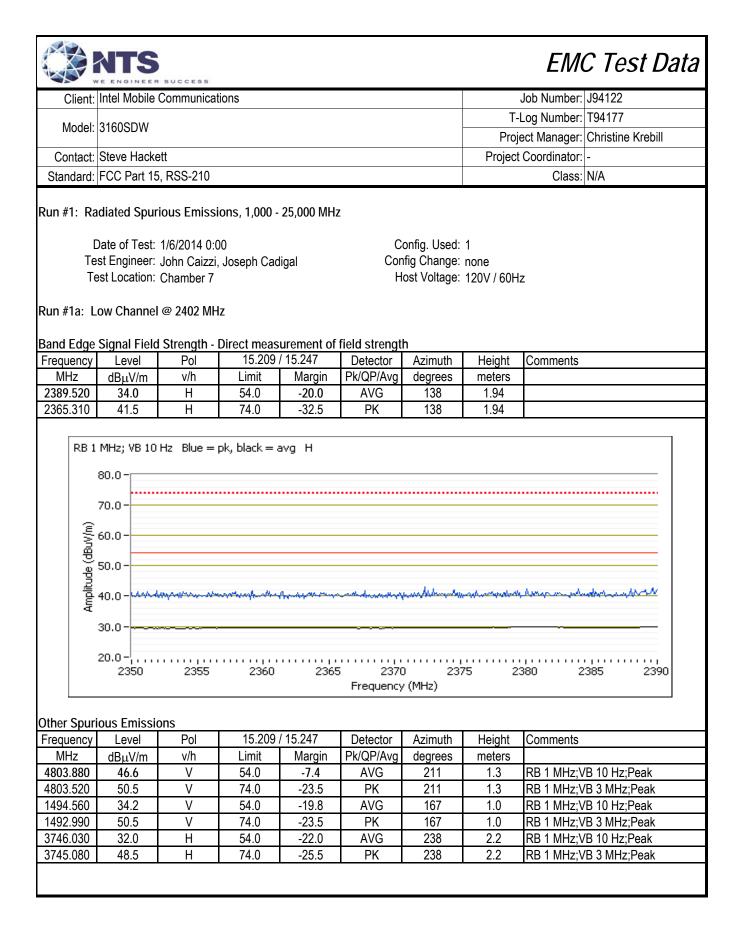
Peak measurements performed with: RBW=1MHz, VBW=3MHz, peak detector, max hold, auto sweep time

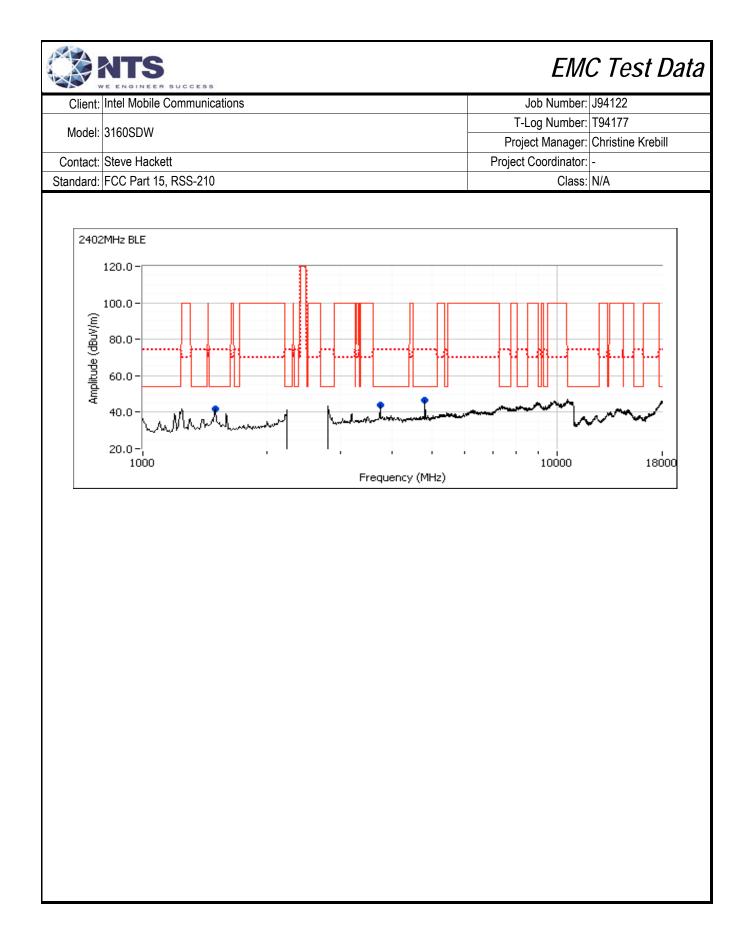
Unless otherwise stated/noted, emission has duty cycle ≥ 98% and was measured using RBW=1MHz, VBW=10Hz, peak detector, linear average mode, auto sweep time, max hold.

Mode	Data Rate	Duty Cycle (x)	Constant DC?	T (ms)	Pwr Cor Factor*	Lin Volt Cor Factor**	Min VBW for FS (Hz)
BLE	-	0.63	Yes	0.4	2.0	3.9	2500

## Measurement Specific Notes:

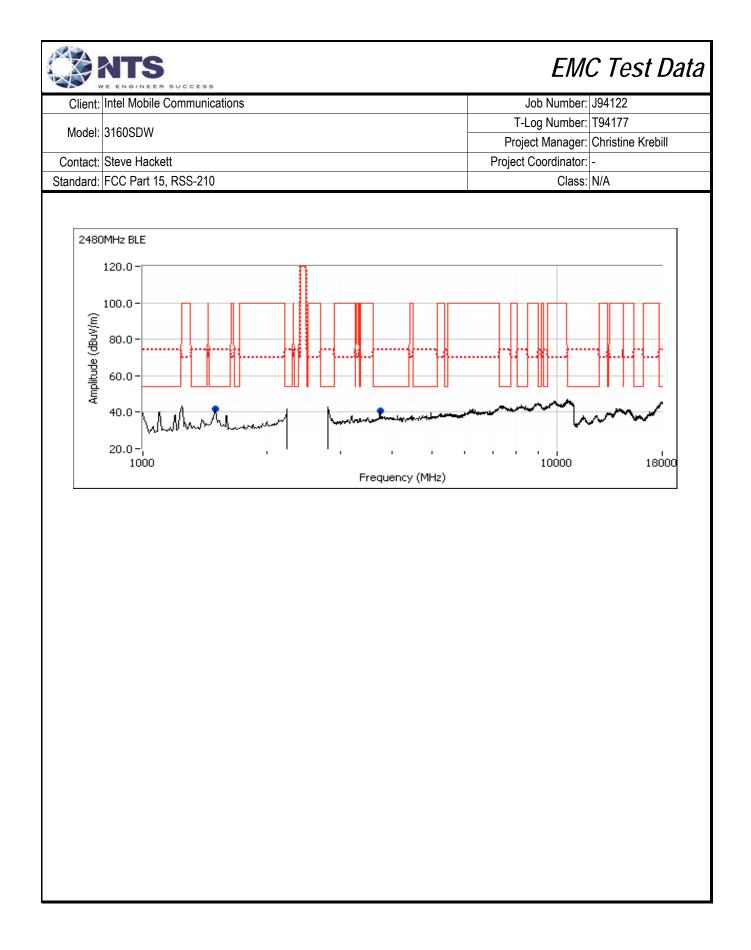
	······ • • • • • • • • • • • • • • • •
Note 1:	Emission in non-restricted band, but limit of 15.209 used.
Note 2:	Emission in non-restricted band, the limit was set 20dB below the level of the fundamental and measured in 100kHz.
Note 3:	Emission has duty cycle < 98%, but constant, average measurement performed: RBW=1MHz, VBW=10Hz, peak detector,
NOLE 5.	linear averaging, auto sweep, trace average 100 traces, measurement corrected by Linear Voltage correction factor
Note 6:	Plots of the average bandedge do not account for any duty cycle correction. Refer to the tabluar results for final
note o.	measurements.





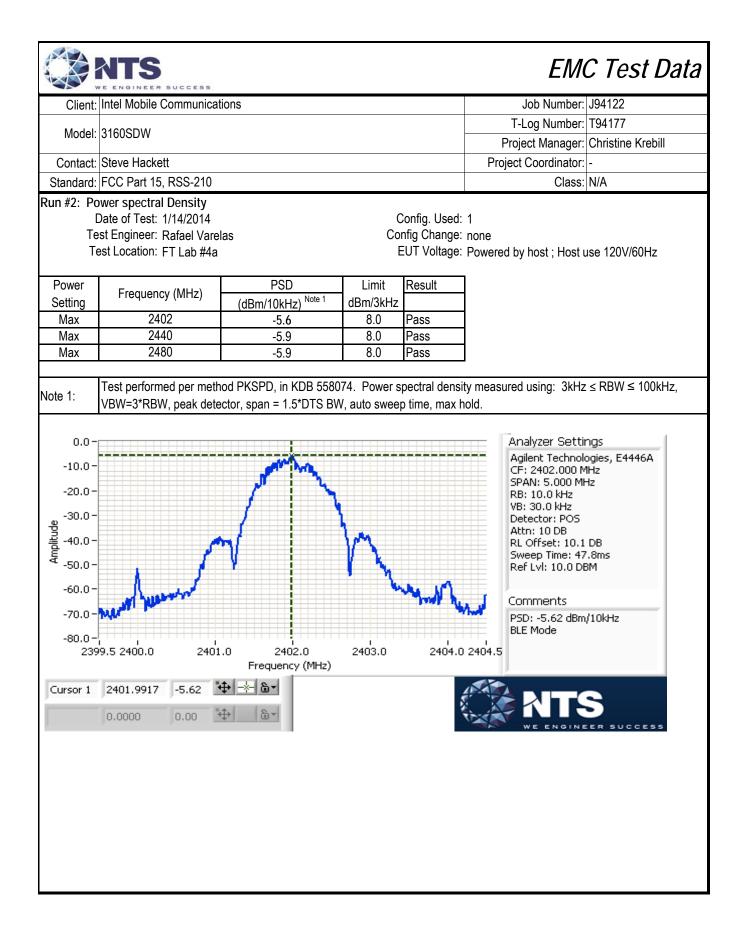
		SUCCESS						EMO	C Test Data	
Client:	Intel Mobile	Communicat	ons				Job Number: J94122			
	040000144						T-Log Number: T9417		T94177	
Model:	3160SDW				Proj	ect Manager:	Christine Krebill			
Contact:	Steve Hacke	tt	Project	Coordinator:	-					
Standard:	FCC Part 15	, RSS-210						Class:	N/A	
C Te Te		1/6/2014 0:0 Joseph Cadi Chamber 7 mission leve missions ou	0 gal	icted bands:	Cor H 77.3 57.3	onfig. Used: fig Change: ost Voltage: <u>dBµV/m</u> <u>dBµV/m</u> dBµV/m	none 120V / 60H	Bc (Peak po	wer measurement) ver measurement)	
						abattin				
Frequency	Level	Pol	15.209	15.247	Detector	Azimuth	Height	Comments		
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters			
4879.910	40.5	V	54.0	-13.5	AVG	215	1.0		'B 10 Hz;Peak	
4879.810	45.8	V	74.0	-28.2	PK	215	1.0	,	'B 3 MHz;Peak	
1495.290	33.1	V	54.0	-20.9	AVG	100	1.9		B 10 Hz;Peak	
1493.500	50.2	V	74.0	-23.8	PK	100	1.9		'B 3 MHz;Peak	
3738.000 3738.780	32.9 52.9	H H	54.0 74.0	-21.1 -21.1	AVG PK	228 228	2.2		'B 10 Hz;Peak 'B 3 MHz;Peak	
									its antennas 20-50cn	
					Frequenc	y (MHz)				

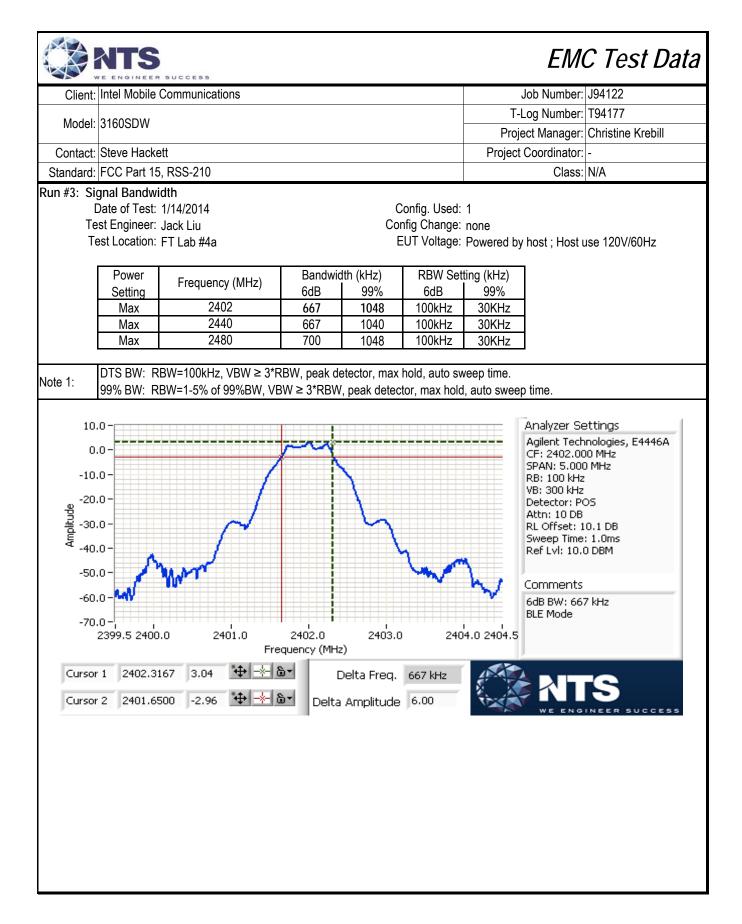
Client:	Intel Mobile	Communicat	tions					Job Number:	J94122
							T-	Log Number:	T94177
Model:	3160SDW						Proj	ect Manager:	Christine Krebi
Contact:	Steve Hacke	ett					Project	t Coordinator:	-
Standard:	FCC Part 18	5, RSS-210						Class:	N/A
un #1c: H	ligh Channel	@ 2480 MH	z						
	Date of Test:					onfig. Used:			
	est Engineer:		ligal			nfig Change:			
10	est Location:	Chamber /			Н	lost Voltage:	120V / 60H	Z	
Band Edge	Signal Field	d Strenath -	Direct meas	urement of	field strengt	h			
Frequency		Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
2485.120	34.6	Н	54.0	-19.4	AVG	312	1.2		MHz; VB: 10 Hz
2493.620 2489.420	42.6	H	74.0	-31.4	PK	312	1.2		MHz; VB: 3 MHz
	30.9	V	54.0	-23.1	AVG	204	1.3	POS; RB 11	MHz; VB: 10 Hz
2492.690 RB 1	45.9 I MHz; VB 10 80.0 - 70.0 -	V Hz Blue =	74.0 pk, black = -	-28.1 avg H	PK	204	1.3	POS; RB 1 I	MHz; VB: 3 MH;
2492.690 RB 1	1 MHz; VB 10 80.0 - 70.0 - 60.0 - 50.0 - 40.0 -	Hz Blue =	pk, black = ,	avg H	олинисти 1	2.0 249	~~~~~h_w,w,w	Waayad Jupe Ahd	MHz; VB: 3 MH;
2492.690 RB 1 (W/Mg) aphilitude	1 MH2; VB 10 80.0 - 70.0 - 60.0 - 50.0 - 40.0 - 40.0 - 20.0 - 2483.5	Hz Blue =	pk, black = .	avg H	enter plane enter	2.0 249	~~~~~h_w,w,w	Waayad Jupe Ahd	
2492.690 RB 1 (W/\Angp) phnildwy Dther Spur	I MH2; VB 10 80.0 - 70.0 - 60.0 - 50.0 - 40.0 - 30.0 - 20.0 - 2483.5	Hz Blue =	pk, black = ، ساریم سریا است. .0 2488	avg H	0.0 249 Frequency	2.0 249 / (MHz)	<i>مــــــــــــــــــــــــــــــــــــ</i>	₩₩₩₽~\$ <u>₩</u> ₩₽~^\$ <u>₩</u> 496.0 24	
2492.690 RB 1 (w/\ngp) apnalldww wither Spur Frequency	I MHz; VB 10 80.0 - 70.0 - 60.0 - 50.0 - 40.0 - 20.0 - 20.0 - 2483.5 ious Emissi Level	Hz Blue =	pk, black = - 	avg H 4	0.0 249 Frequency	2.0 249 / (MHz)	<u>مریم ایسیمیر</u> 94.0 2 Height	Waayad Jupe Ahd	
2492.690 RB 1 (w/\ngp) photoent wher Spur Frequency MHz	I MH2; VB 10 80.0 - 70.0 - 60.0 - 50.0 - 40.0 - 30.0 - 20.0 - 2483.5	Hz Blue =	pk, black = ، ساریم سریا است. .0 2488	avg H	0.0 249 Frequency	2.0 249 / (MHz)	<i>مــــــــــــــــــــــــــــــــــــ</i>	496.0 24	
2492.690 RB 1 (W/\ngp) epnallduwy Dther Spur Frequency MHz 1495.330 1497.940	I MH2; VB 10 80.0 - 70.0 - 60.0 - 50.0 - 40.0 - 40.0 - 20.0 - 20.0 - 2483.5 ious Emissi Level dBµV/m 37.7 51.8	Hz Blue =	pk, black = - 	avg H 444 3.0 249 / 15.247 Margin -16.3 -22.2	0.0 249 Frequency Detector Pk/QP/Avg AVG PK	2.0 249 / (MHz) Azimuth degrees 174 174		۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲ ۲	198.0 250 /B 10 Hz;Peak /B 3 MHz;Peak
2492.690 RB 1 (W/Angp) apnnaliduwe 20ther Spur Frequency MHz 1495.330	I MHz; VB 10 80.0 - 70.0 - 60.0 - 50.0 - 40.0 - 20.0 - 20.0 - 2483.5 ious Emissi Level dBµV/m 37.7	Hz Blue =	pk, black = - 	avg H 444444444444444444444444444444444444	0.0 249 Frequency Detector Pk/QP/Avg AVG	2.0 249 / (MHz) Azimuth degrees 174		Comments RB 1 MHz;V RB 1 MHz;V RB 1 MHz;V	98.0 250 /98.1 Hz;Peak

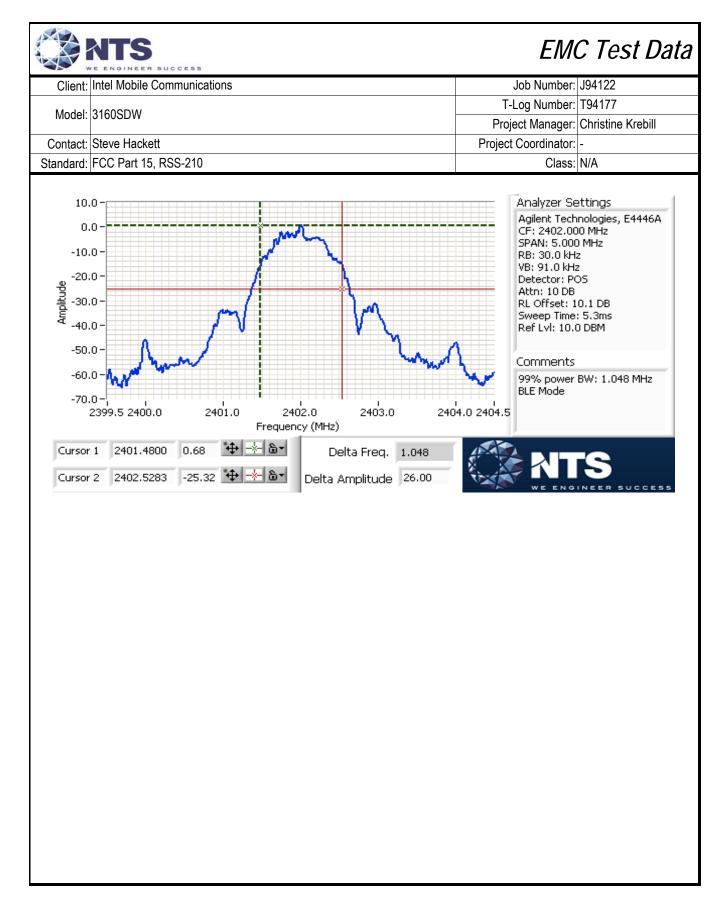


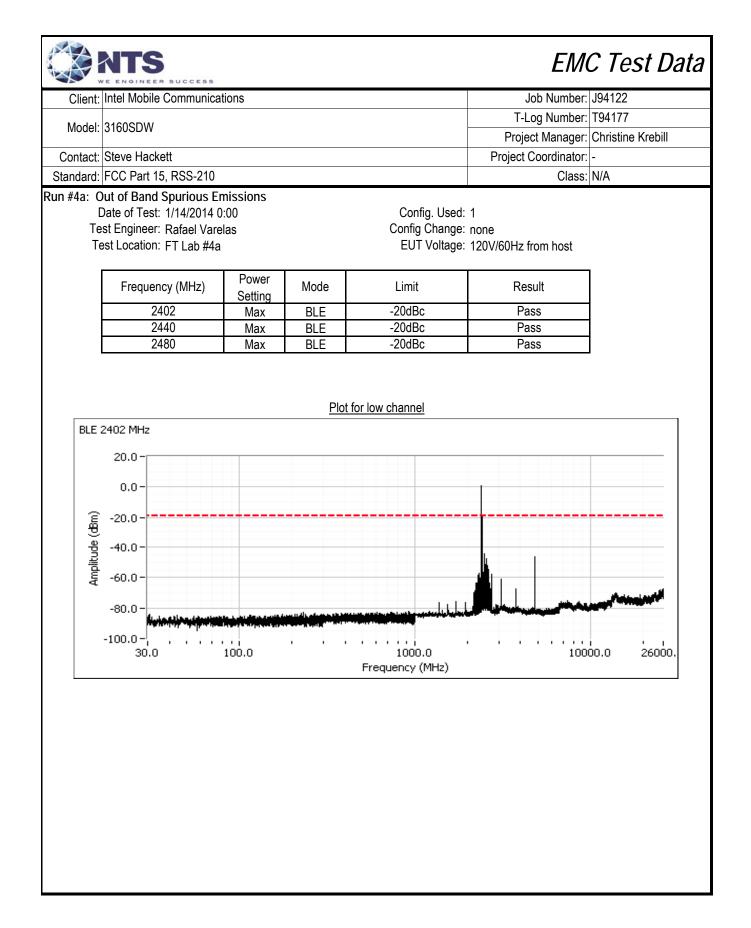
								<b>— — — — — — — — — —</b>	
		R SUCCESS						EM	C Test Data
Client:	Intel Mobile	Communicat	ions					Job Number:	J94122
Madal	2160001		T-I	Log Number:	T94177				
woder.	3160SDW						Proje	ect Manager:	Christine Krebill
Contact:	Steve Hack	ett					Project	Coordinator:	-
Standard:	FCC Part 15	5, RSS-210						Class:	N/A
	I				• •	itenna Po Spurious E		urements	S
Test Spe	cific Detai	ls							
	Objective:		e of this test i listed above		perform fina	al qualificatior	n testing of th	he EUT with r	espect to the
	Test Configure	•	rum analyzer	or power me	eter via a sui	table attenua	tor. All mea	surements w	ere made on a single
All measure	ments have	been correcte	ed to allow fo	r the externa	attenuators	sused.			
Amplent	Condition			10					
			emperature:		°C				
		R	el. Humidity:	30	%				
Summary	y of Result	ts							
	•	E6085C DRT	U Tool Vers	sion 1.7.4-85	5 Driver ve	rsion 16.8.0.	3		
Run #	Pwr setting	-	Т	est Performe	ed	Lir	nit	Pass / Fail	Result / Margin
1	Max	-	(	Output Powe	r	15.24	47(b)	Pass	3.4 dBm
2	Max	-	Power sp	pectral Densi	ity (PSD)	15.24	47(d)	Pass	-5.6 dBm/10kHz
3	Max	-	Minim	um 6dB Ban	dwidth	15.24	47(a)	Pass	667 kHz
3	Max	-	-	9% Bandwid	-	RSS		-	1.048 MHz
4	Max	-	Spι	urious emissi	ons	15.24	47(b)	Pass	All emissions < -20dBc
No modifica Deviatior	itions were m	e During Te ade to the El ne Standar	UT during tes	-	d				
IND DEVIATION	ns were made	e from the red	quirements 0	n the standar	u.				
Procedur	re Comme	nts:							
		d in accordar	nce with FCC	CKDB 55807	4				
	Mode	Data Rate	Duty Cycle (x)	Constant DC?	T (ms)	Pwr Cor Factor*	Lin Volt Cor Factor**	Min VBW for FS (Hz)	
	BLE	-	0.63	Yes	0.4	2.0	3.9	2500	

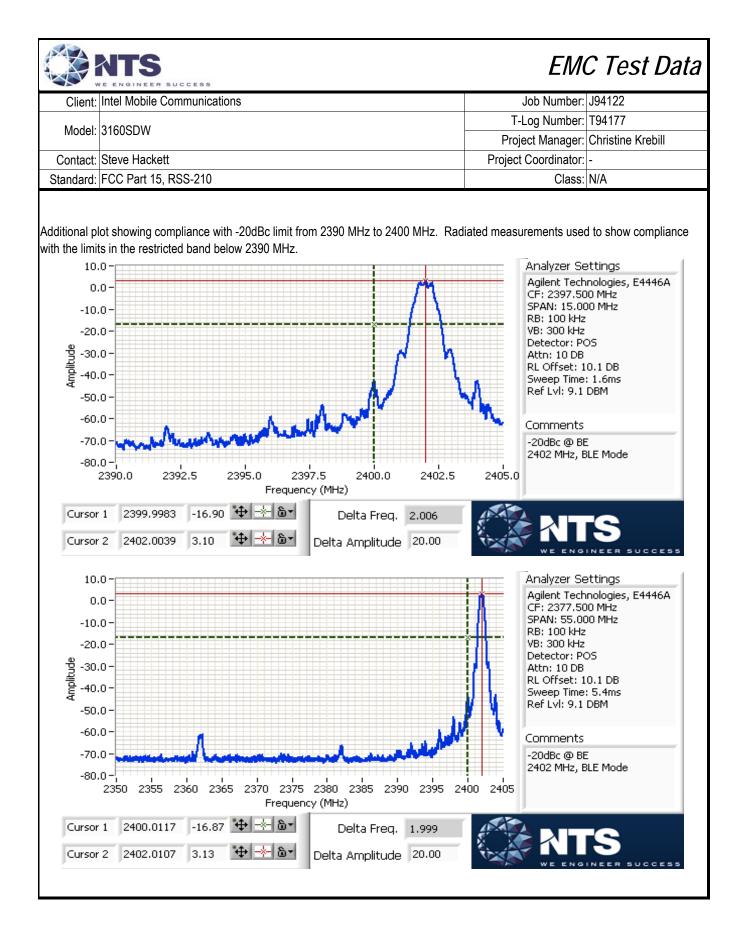
	ATS						EMO	C Test	Data
Client:	Intel Mobile Communicat	Job Number: J94122							
Medeli	24600010	T-L	og Number:	T94177					
wodel:	3160SDW	Proje	ect Manager:	Christine Kr	ebill				
Contact:	Steve Hackett		-	Coordinator:					
Standard:	FCC Part 15, RSS-210		,	Class:					
	Itput Power								
	Date of Test: 1/14/2014			C	onfig. Used:	1			
Te	st Engineer: Jack Liu			Con	fig Change:	none			
Te	est Location: FT Lab #4a			E	UT Voltage:	Powered by	host ; Host u	ise 120V/60H	łz
			_					• • •	_
Power	Frequency (MHz)	-	Power	Antenna	Result	El			Power
Setting <sup>2</sup>		(dBm) <sup>1</sup>	mW	Gain (dBi)		dBm	W	(dBm) <sup>3</sup>	mW
Max	2402	2.9	1.9	3.2	Pass	6.1	0.004		
Max	2440 2480	3.2	2.1	3.2	Pass	6.4	0.004		
Max	2400	3.4	2.2	3.2	Pass	6.6	0.005		

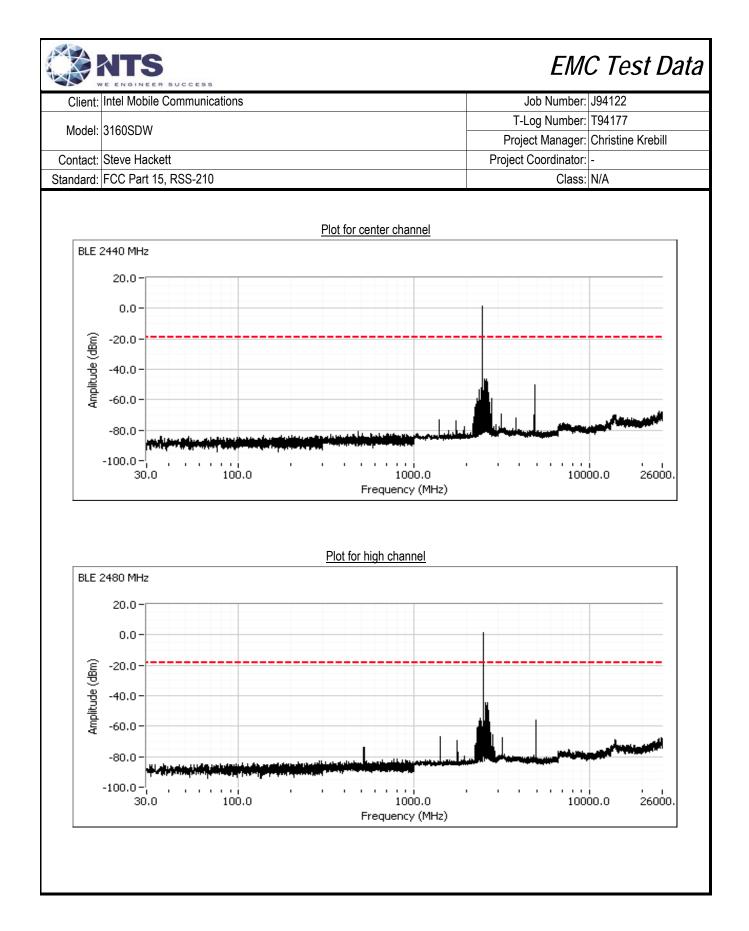


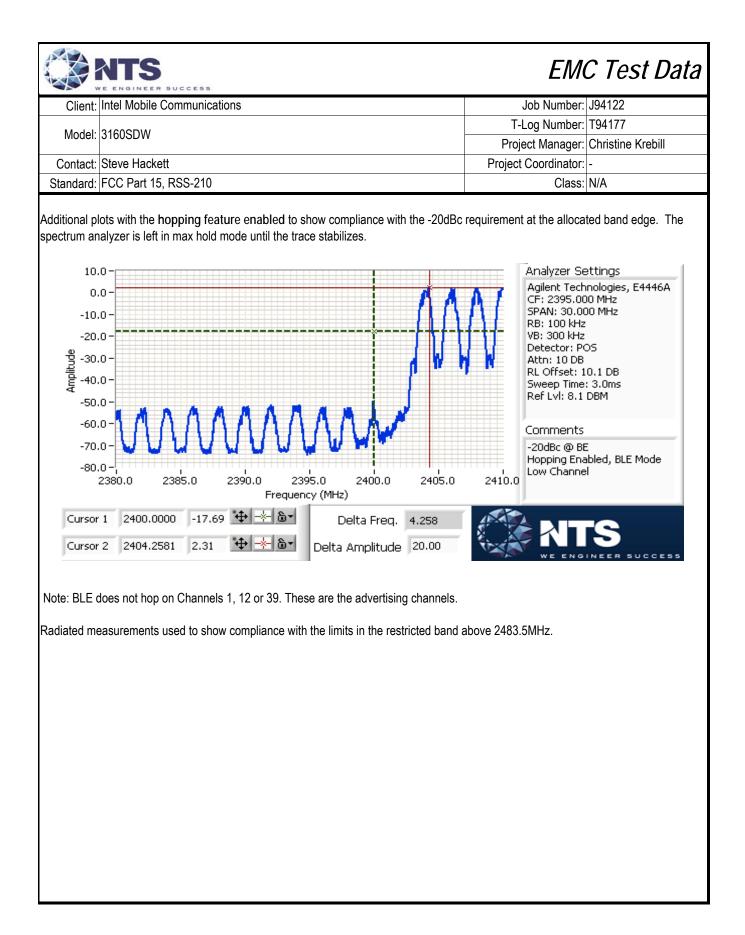


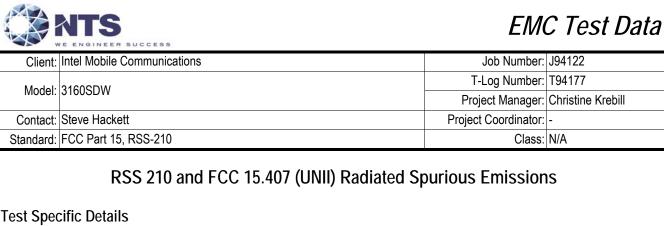












Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

### General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. For radiated emissions testing the measurement antenna was located 3 meters from the EUT, unless otherwise noted.

#### Ambient Conditions:

Temperature:	20 °C
Rel. Humidity:	31 %

#### Summary of Results

For Wi-Fi, Chain A (2) is used for Tx and Rx. For Bluetooth, chain B (1) is used for Tx and Rx.

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
1	BT Basic	2402MHz	9	-			48.8 dBµV/m @ 4804.0
	11b DT Daoia	2412MHz 2480MHz	21.0 9				MHz (-5.2 dB) 42.6 dBµV/m @ 4960.0
2	BT Basic 11b	2460MHz	9 22.0	-	Radiated Emissions,	FCC Part 15.209 /	42.0 dBp v/m @ 4900.0 MHz (-11.4 dB)
2	BT Basic	2402MHz	9		1 - 10 GHz	15.247( c)	49.0 dBµV/m @ 4804.1
3	11g	2412MHz	22.5	-			MHz (-5.0 dB)
4	BT Basic	2480MHz	9				42.9 dBµV/m @ 4960.0
4	11g	2462MHz	22.5	-			MHz (-11.1 dB)
Wi-Fi mode	for the follow	ing runs bas	ed on the wo	orst case mod	le from runs 1 through 4		
5		2402MHz	9				44.9 dBµV/m @ 4804.0
5		2437MHz	22.5	-			MHz (-9.1 dB)
6		2441MHz	9				42.8 dBµV/m @ 4882.0
0	BT Basic	2412MHz	22.5	-	Radiated Emissions,	FCC Part 15.209 /	MHz (-11.2 dB)
7	11g	2441MHz	9		1 - 10 GHz	15.247( c)	41.7 dBµV/m @ 4882.0
I		2462MHz	22	-			MHz (-12.3 dB)
8		2480MHz	9				40.6 dBµV/m @ 4960.0
0		2437MHz	22.5	-			MHz (-13.4 dB)

Client:	Intel Mobile	Communicati	ons			Job Number	J94122
Madal	3160SDW					T-Log Number:	T94177
wodel:	31002010					Project Manager:	Christine Krebill
Contact:	Steve Hacke	ett				Project Coordinator:	: -
Standard:	FCC Part 15	5, RSS-210				Class	N/A
/i-Fi mode	and channel	r		or the followi	ng runs based on the wors	t case mode from runs 1	
9		2402MHz	1	-			56.3 dBµV/m @ 124
•	BT EDR	2412MHz	22.5		Radiated Emissions,	FCC Part 15.209 /	MHz (-17.7 dB)
10	11g	2402MHz	1	-	1 - 10 GHz	15.247( c)	56.2 dBµV/m @ 124
		2437MHz	22.5				MHz (-17.8 dB)
ach 5 GHz	band	2402MHz	9				48.5 dBµV/m @ 480
11		5200MHz	29	-			MHz (-5.5 dB)
40		2441MHz	9				46.3 dBµV/m @ 488
12		5200MHz	29	-			MHz (-7.7 dB)
10		2480MHz	9				43.9 dBµV/m @ 496
13		5200MHz	29	-			MHz (-10.1 dB)
14		2402MHz	9				49.3 dBµV/m @ 480
14		5300MHz	28.5	-			MHz (-4.7 dB)
15	BT Basic	2402MHz	9		Radiated Emissions,	FCC Part 15.209 /	47.1 dBµV/m @ 480
15	n20	5580MHz	30.5	-	1 - 15 GHz	15.247( c) / 15.407	MHz (-6.9 dB)
16		2402MHz	9	_			49.7 dBµV/m @ 480
10		5785MHz	31.5	_			MHz (-4.3 dB)
17		2480MHz	9	-			57.5 dBµV/m @ 119
		5300MHz	28.5		4		MHz (-16.5 dB)
		2480MHz	9	-			No measurable
18		5580MHz	30.5		4		emission.
18	1	2480MHz 5785MHz	9 31.5	-			No measurable
18 19			21 5	1			emission.

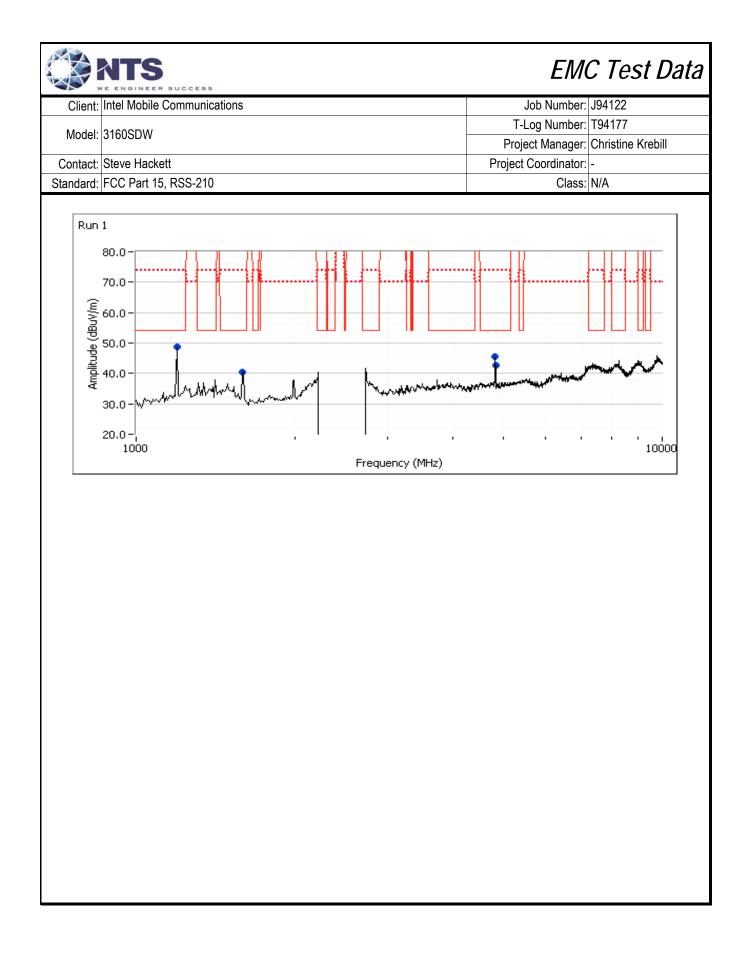
# Deviations From The Standard

No deviations were made from the requirements of the standard.

## Test Notes

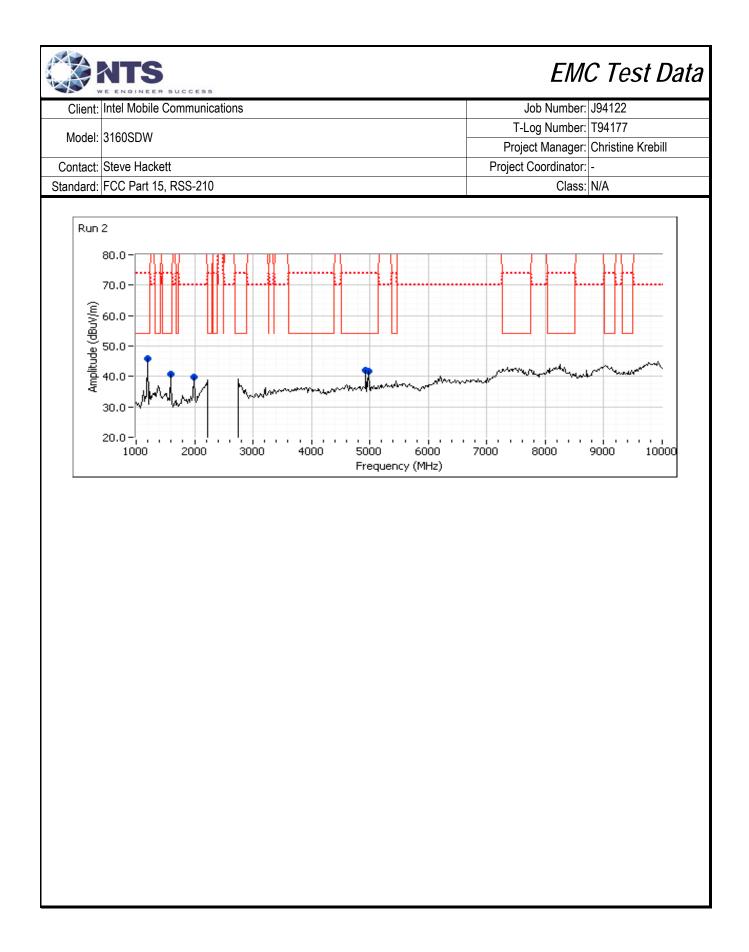
Scans in the near field performed without the external preamplifier and band reject filter

Model:         3160SDW         T-Log Number:         T94           Contact:         Steve Hackett         Project Manager:         Chri           Standard:         FCC Part 15, RSS-210         Class:         N/A           Run #1:         Radiated Spurious Emissions, 1-10GHz.         Operating Mode:         11b @ 2412, BT Basic @ 2402 MHz           Date of Test:         1/7/2014         Test Engineer:         John Caizzi           Test Location:         Chamber 7         Power Settings           WiFi         16.5         21.0           BT         7.0         -         9.0           Preliminary Spurious Emissions excluding allocated band (Peak versus average limit)           Frequency           Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dB <sub>µ</sub> U/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           1195.000         48.6         V         54.0         -5.4         Peak         178         1.5         Note 1           1592.500         40.4         V         54.0         -8.5         Peak         213         1.0         4825.000         42.8	ristine Krebill
Project Manager: Chri         Contact:       Steve Hackett       Project Coordinator: -         Standard:       FCC Part 15, RSS-210       Class: N/A         Run #1:       Radiated Spurious Emissions, 1-10GHz. Operating Mode:       11b @ 2412, BT Basic @ 2402 MHz         Date of Test:       1/7/2014         Test Engineer:       John Caizzi         Test Location:       Chamber 7         Power Settings         WiFi       16.5       21.0         BT       7.0       -       9.0         Preliminary Spurious Emissions excluding allocated band (Peak versus average limit)         Frequency       Level       Pol       15.209 / 15.247       Detector       Azimuth       Height       Comments         MHz       dBµV/m       v/h       Limit       Margin       Pk/QP/Avg       degrees       meters       1195.000       48.6       V       54.0       -5.4       Peak       178       1.5       Note 1         1592.500       40.4       V       54.0       -13.6       Peak       21.3       1.0	
Contact:       Steve Hackett       Project Coordinator:         Standard:       FCC Part 15, RSS-210       Class: N/A         Run #1:       Radiated Spurious Emissions, 1-10GHz. Operating Mode:       11b @ 2412, BT Basic @ 2402 MHz         Date of Test:       1/7/2014         Test Engineer:       John Caizzi         Test Location:       Chamber 7         ViFi       16.5       21.0         BT       7.0       -         Preliminary Spurious Emissions excluding allocated band (Peak versus average limit)       Frequency         Frequency       Level       Pol       15.209 / 15.247       Detector       Azimuth       Height       Comments         MHz       dBµV/m       v/h       Limit       Margin       Pk/QP/Avg       degrees       meters         1195.000       48.6       V       54.0       -5.4       Peak       178       1.5       Note 1         1592.500       40.4       V       54.0       -5.4       Peak       21.0       Note 1         1592.500       40.4       V       54.0       -5.4       Peak       2.2.0       Note 1	
Standard:FCC Part 15, RSS-210Class: N/ARun #1: Radiated Spurious Emissions, 1-10GHz. Operating Mode: 11b @ 2412, BT Basic @ 2402 MHzDate of Test: 1/7/2014Test Engineer: John CaizziTest Location: Chamber 7WiFi 16.521.0BT 7.0Over SettingsWiFi 16.521.0BT 7.0Oreliminary Spurious Emissions excluding allocated band (Peak versus average limit)FrequencyLevelPol15.209 / 15.247DetectorAzimuthHeightCommentsMHzdB $\mu$ V/mv/hLimitMarginPk/QP/Avgdegreesmeters1195.00048.6V54.0-5.4Peak1781.5Note 11592.50040.4V54.0-13.6Peak22.0Note 14810.00045.5V54.0-8.5Peak2131.0	4
Run #1: Radiated Spurious Emissions, 1-10GHz. Operating Mode: 11b @ 2412, BT Basic @ 2402 MHzDate of Test: 1/7/2014Test Engineer: John CaizziTest Engineer: John CaizziTest Location: Chamber 7WiFi 16.521.0BT 7.0Over SettingsWiFi 16.521.0BT 7.0Over SettingsOver SettingsDate of Target (dBm)Measured (dBm)Software SettingWiFi 16.521.0BT 7.0Over SettingsPreliminary Spurious Emissions excluding allocated band (Peak versus average limit)FrequencyLevelPol15.209 / 15.247DetectorAzimuthHeightCommentsMHzdB $\mu$ V/mv/hLimitMargin Pk/QP/Avgdegreesmeters1195.00048.6V54.0-5.4Peak1781.5Note 11592.50040.4V54.0-13.6Peak22.0Note 14810.00045.5V54.0-8.5Peak2131.0	<u>,                                     </u>
Target (dBm)         Measured (dBm)         Software Setting           WiFi         16.5         21.0           BT         7.0         -         9.0           eliminary Spurious Emissions excluding allocated band (Peak versus average limit)           requency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBμV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters         -           195.000         48.6         V         54.0         -5.4         Peak         178         1.5         Note 1           592.500         40.4         V         54.0         -13.6         Peak         2         2.0         Note 1           810.000         45.5         V         54.0         -8.5         Peak         213         1.0	
Target (dBm)Measured (dBm)Software SettingWiFi16.521.0BT7.0-9.0Preliminary Spurious Emissions excluding allocated band (Peak versus average limit)FrequencyLevelPol15.209 / 15.247DetectorAzimuthHeightCommentsMHzdBµV/mV/hLimitMHzdBµV/mV/hLimitMHz01195.00048.6V54.0-5.4Peak1781.5Note 11592.50040.4V54.0-8.5Peak21.0Note 14810.00045.5V54.0-8.5Peak21.010	
WiFi16.521.0BT7.0-9.0Preliminary Spurious Emissions excluding allocated band (Peak versus average limit)FrequencyLevelPol15.209 / 15.247DetectorAzimuthHeightCommentsMHzdB $\mu$ V/mv/hLimitMarginPk/QP/Avgdegreesmeters1195.00048.6V54.0-5.4Peak1781.5Note 11592.50040.4V54.0-13.6Peak22.0Note 14810.00045.5V54.0-8.5Peak2131.0	
BT         7.0         -         9.0           Preliminary Spurious Emissions excluding allocated band (Peak versus average limit)         -         9.0           Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBμV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           1195.000         48.6         V         54.0         -5.4         Peak         178         1.5         Note 1           1592.500         40.4         V         54.0         -13.6         Peak         2         2.0         Note 1           4810.000         45.5         V         54.0         -8.5         Peak         213         1.0	
Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBμV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           1195.000         48.6         V         54.0         -5.4         Peak         178         1.5         Note 1           1592.500         40.4         V         54.0         -13.6         Peak         2         2.0         Note 1           4810.000         45.5         V         54.0         -8.5         Peak         213         1.0	
inal measurements at 3m         Frequency       Level       Pol       15.209 / 15.247       Detector       Azimuth       Height       Comments         MHz       dBµV/m       v/h       Limit       Margin       Pk/QP/Avg       degrees       meters         4804.030       48.8       V       54.0       -5.2       AVG       209       1.26         4824.020       41.5       V       54.0       -12.5       AVG       233       1.54         4804.080       50.9       V       74.0       -23.1       PK       209       1.26         4824.000       46.5       V       74.0       -27.5       PK       233       1.54	



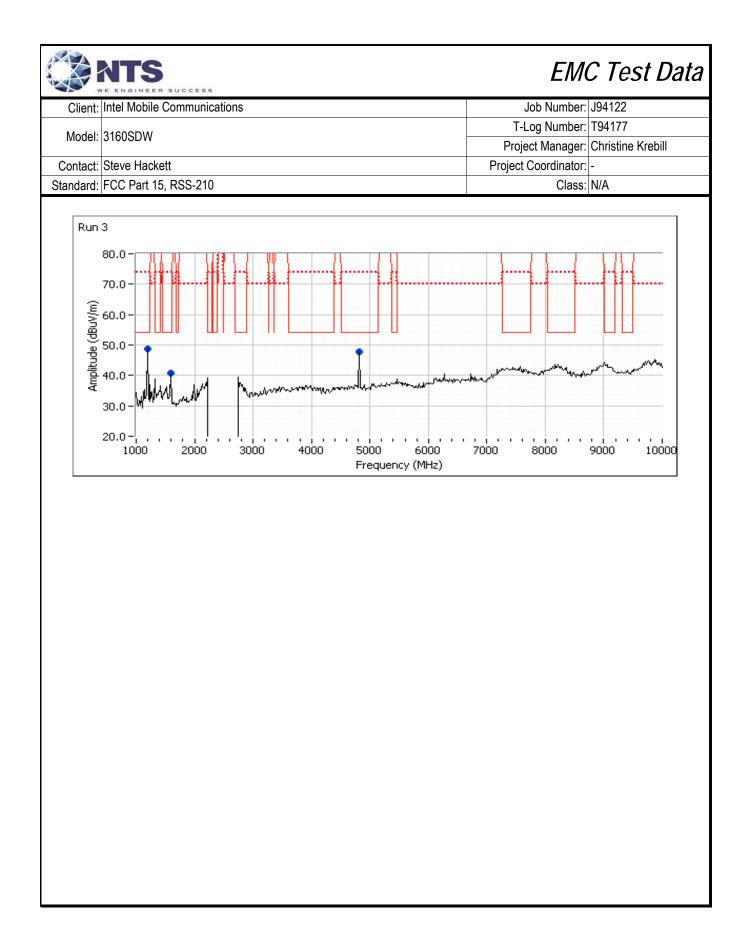
Client:	Intel Mobile (	Communicat	ions					Job Number:	J94122
Madalı	24600014						T-	Log Number:	T94177
woder:	3160SDW						Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	tt					Project	Coordinator:	-
Standard:	FCC Part 15	, RSS-210					-	Class:	N/A
reliminary reliminary	Spurious Er	<i>Ocm from th</i> missions at	<i>ne product t</i> 30cm from	2.1	eotential signa	verage limit)			
Frequency	Level	Pol v/h			Detector	Azimuth	Height	Comments	
MHz 2351.300	dBµV/m 39.1	V/n V	Limit 54.0	Margin -14.9	Pk/QP/Avg Peak	degrees 360	meters 1.0	noise floor	
2772.810	39.1	V	54.0	-14.9	Peak	360	1.0	noise floor	
MHz 2352.150	dBµV/m 30.5	v/h V	Limit 54.0	Margin -23.5	Pk/QP/Avg AVG	degrees 360	meters 1.0	noise floor	
requency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
								noise floor	
2351.030	41.6	V	74.0	-32.4	PK	360	1.0	noise floor	
2774.140	32.1	V	54.0	-21.9	AVG	360	1.0	noise floor	
2771.650	43.6	V	74.0	-30.4	PK	360	1.0	noise floor	
2350.880	30.4	Н	54.0	-23.6	AVG	0	1.0	noise floor	
2350.810	41.2	Н	74.0	-32.8	PK	0	1.0	noise floor	
2773.410 2771.480	32.3 43.7	H H	54.0 74.0	-21.7 -30.3	AVG PK	0	<u>1.0</u> 1.0	noise floor noise floor	
			74.0	-00.0	ΪŇ	0	1.0		
Run	1				1 1				
	100.0-								
Amplitude (dBuV/m)	80.0-								
					11, 11				
3	60.0-								
1.1					╵╿╏ └┥		4		
mplit	40.0-	and the second state of th	- 19 m to		m Interme	-	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		~
Amplit	here we are a second								A
Amplit									

Client:	Intel Mobile (	Communicat	ions					Job Number:	J94122
							T-	Log Number:	T94177
Model:	3160SDW							•	Christine Krebill
Contact:	Steve Hacke	tt						Coordinator:	
	FCC Part 15						1 10,000	Class:	
C Te	diated Spuri Date of Test: st Engineer: est Location:	1/7/2014 John Caizzi	ons, 1-10Gł	Iz. Operatir	ng Mode: 11b	@ 2462, BT	Basic @ 2	480 MHz	
	Г				Power S	Settings			l
			Target	(dBm)	Measure		Softwar	e Setting	
	ŀ	WiFi		6.5				2.0	
	ŀ	BT		.0		-		9.0	
requency MHz 1195.000 1585.000 1990.000 4930.000 4975.000 4975.000 4975.000 4975.000 4975.000 4960.000 4923.980 4960.370	Level dBµV/m 45.9 40.8 39.9 42.1 41.6 urements at Level dBµV/m 42.6 41.5 46.4	Pol v/h V V V V 3m Pol v/h V V V V V	15.209 Limit 54.0 54.0 54.0 54.0 15.209 Limit 54.0 54.0 54.0 74.0	/ 15.247 Margin -8.1 -13.2 -30.1 -11.9 -12.4 / 15.247 Margin -11.4 -12.5 -27.6	Peak versu Peak Peak Peak Peak Peak Peak Peak Peak	Azimuth degrees 30 250 360 210 210 210 Azimuth degrees 214 214 214	Height meters 1.0 1.0 1.0 1.0 1.0 Height meters 1.40 1.00 1.40	Comments Note 1 Note 1 Note 1 Comments	
4924.100	46.3	V	74.0	-27.7	PK	214	1.00		
Note 1:	Emission fro	m host lapto	p.						



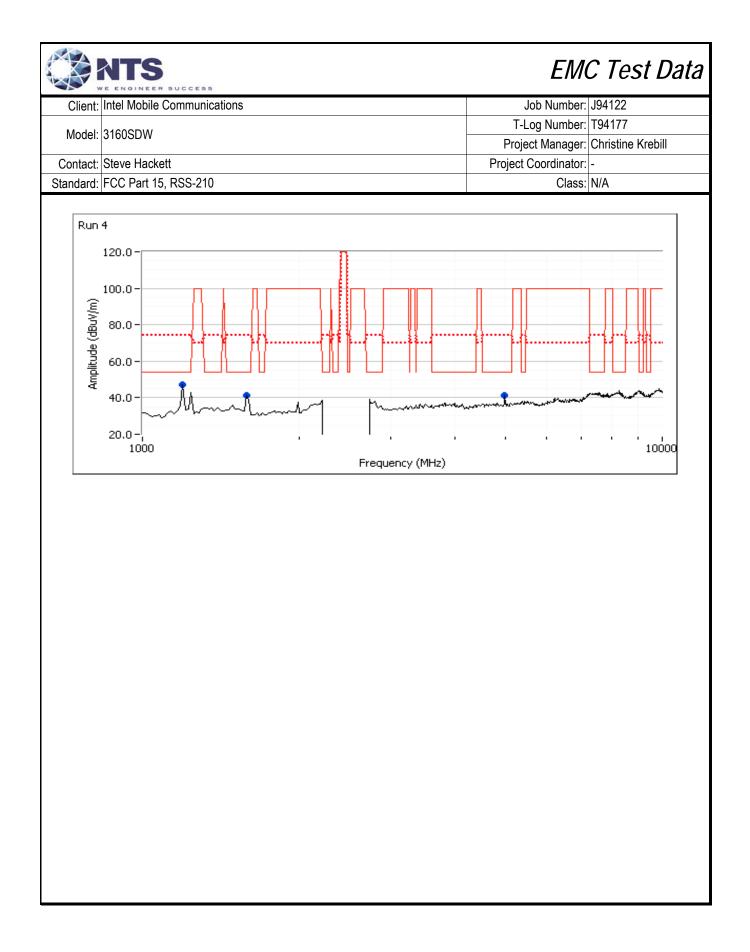
Client:	Intel Mobile (	Communicat	ions					Job Number:	J94122
Madalı	24600014						T-	Log Number:	T94177
wodel:	3160SDW						Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	tt					Project	Coordinator:	-
Standard:	FCC Part 15	RSS-210						Class:	
reliminary	Spurious Er	<i>Ocm from th</i> missions at	<i>ne product t</i> 30cm from	2-3 GHz (P	otential signa	verage limit)			
Frequency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
2740.990	40.0	V	54.0	-14.0	Peak	360	1.0	noise floor	
2342.750	36.8	V	54.0	-17.2	Peak	360	1.0	noise floor	
2742.450 2740.170	dBμV/m 32.1 43.2	V V	54.0 74.0	Margin -21.9 -30.8	Pk/QP/Avg AVG PK	degrees 360 360	meters 1.0 1.0	noise floor noise floor	
2742.450				-21.9			1.0		
2740.170	43.2 30.4	V V	74.0 54.0	-30.8 -23.6	AVG	360	1.0	noise floor	
2341.560	41.9	V V	54.0 74.0	-23.0	PK	360	1.0	noise floor	
2740.330	32.2	H	54.0	-32.1	AVG	0	1.0	noise floor	
2739.780	43.2	H	74.0	-30.8	PK	0	1.0	noise floor	
2342.530	30.4	Н	54.0	-23.6	AVG	0	1.0	noise floor	
2342.970	41.8	Н	74.0	-32.2	PK	0	1.0	noise floor	
Run	120.0 - 100.0 - 80.0 -								
Amplitude (dBuV/m)	60.0 - 40.0 -		∼etvLpl~~*\~+₩	han-addan of the association	and the the	****	and the second	and the state of t	-

Client:	Intel Mobile	Communicat	tions					Job Number: J94122	
								Log Number: T94177	
Model:	3160SDW							ect Manager: Christine Kre	ahill
Contact	Steve Hacke							Coordinator: -	5011
							Fiojeci		
Standard:	FCC Part 15	, RSS-210						Class: N/A	
l Te	adiated Spur Date of Test: est Engineer: est Location:	1/7/2014 John Caizzi	ons, 1-10Gl	Hz. Operatir	ng Mode: 11g	@ 2412, BT	Basic @ 2	402 MHz	
					Power S	Settinas			
			Targe	t (dBm)	Measure	-	Softwa	e Setting	
		WiFi		6.5		. (		2.5	
		BT		.0		-		9.0	
	Level	missions ex Pol		/ 15.247	d (Peak versu Detector	Azimuth		Comments	
Frequency MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	Height meters	Comments	
1195.000	48.6	V	54.0	-5.4	Peak	201	1.5	Note 1	
1585.000	40.8	V	54.0	-13.2	Peak	250	1.0	Note 1	
4810.000	47.7	V	54.0	-6.3	Peak	206	1.0		
							-		
	urements at		1					•	
Frequency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
4804.050	49.0	V	54.0	-5.0	AVG	210	1.30		
4823.930	33.2	V	54.0	-20.8	AVG	162	1.07		
4803.800	50.8	V	74.0	-23.2	PK	210	1.30		
4832.300	45.5	V	74.0	-28.5	PK	162	1.07		
Note 1:	Emission fro	m hoot lanta	n						



Client:	Intel Mobile (	Communicat	ions					Job Number:	J94122
Madalı	24600014						T-	Log Number:	T94177
woder:	3160SDW						Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	tt					Project	Coordinator:	-
Standard:	FCC Part 15	, RSS-210						Class:	N/A
reliminary reliminary	Spurious Er	<i>Ocm from th</i> missions at	<i>ne product to</i> 30cm from	2-3 GHz (Pe	otential signa	verage limit)			
Frequency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz 2760.460	dBµV/m 39.4	v/h V	Limit 54.0	Margin -14.6	Pk/QP/Avg Peak	degrees 360	meters 1.0	noise floor	
2343.000	36.6	V	54.0	-14.0	Peak	360	1.0	noise floor	
MHz 2759.710	dBµV/m 32.3	v/h V	Limit 54.0	Margin -21.7	Pk/QP/Avg AVG	degrees 360	meters 1.0	noise floor	
requency	urements at Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
2759.710 2761.660	32.3 42.9	V V	54.0 74.0	-21.7 -31.1	AVG PK	360	1.0 1.0	noise floor	
2760.000	32.3	V V	54.0	-31.1	AVG	360	1.0	noise floor	
2759.830	43.4	V	74.0	-30.6	PK	360	1.0	noise floor	
2759.920	32.4	H	54.0	-21.6	AVG	0	1.0	noise floor	
2760.130	43.6	Н	74.0	-30.4	PK	0	1.0	noise floor	
2759.450	32.4	Н	54.0	-21.6	AVG	0	1.0	noise floor	
2760.580	43.9	Н	74.0	-30.1	PK	0	1.0	noise floor	
Amplitude (dBuV/m)	3 120.0 - 100.0 - 80.0 - 60.0 - 40.0 -	**********				nounder		****	·····
Amplitu	~~~~								

Client:	Intel Mobile (	Communicat	tions					Job Number:	J94122
							T-	Log Number:	T94177
Model:	3160SDW							-	Christine Krebill
Contact.	Steve Hacke	tt						Coordinator:	
	FCC Part 15							Class:	
l Te	adiated Spuri Date of Test: est Engineer: . est Location:	1/7/2014 Joseph Cad	igal	Hz. Operatir	ng Mode: 11g	@ 2462, BT	Basic @ 2	480 MHz	
	Г				Power S	Settinas			]
			Targe	t (dBm)	Measure	· ·	Softwa	re Setting	
	-	WiFi		ô.5		. ,		2.5	
	ľ	BT	8	.0		-	(	9.0	]
Preliminary Frequency	/ Spurious Er Level	missions ex Pol		ocated band / 15.247	l (Peak versu Detector	s average li Azimuth	mit) Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
1194.700	47.2	V	54.0	-6.8	Peak	44	1.0		
	41.3	V	54.0	-12.7	Peak	123	2.0		
1598.030			54.0	-12.9	Peak	214	1.0		
	41.1	V	04.0						
4960.020		_	04.0						
4960.020 inal meas	urements at	3m		/ 15 247	Detector	Azimuth	Height	Comments	
1960.020 inal meas requency	urements at Level	3m Pol	15.209	/ 15.247 Margin	Detector Pk/QP/Avg	Azimuth degrees	Height	Comments	
4960.020 inal meas requency MHz	urements at	3m	15.209 Limit	/ 15.247 Margin -11.1	Pk/QP/Avg	Azimuth degrees 214	meters		/B 10 Hz:Peak
4960.020 inal meas Frequency MHz 4960.040	urements at Level dBµV/m	3m Pol v/h	15.209	Margin		degrees		RB 1 MHz;\	/B 10 Hz;Peak /B 3 MHz;Peak
4960.020 inal meas requency	urements at Level dBµV/m 42.9	3m Pol v/h V	15.209 Limit 54.0	Margin -11.1	Pk/QP/Avg AVG	degrees 214	meters 1.0	RB 1 MHz;\	
4960.020 inal meas requency MHz 4960.040 1960.070 1196.200 1195.270	urements at 2 Level dBµV/m 42.9 47.1 33.7 55.9	3m Pol v/h V V V V V	15.209 Limit 54.0 74.0 54.0 74.0 74.0	Margin -11.1 -26.9 -20.3 -18.1	Pk/QP/Avg AVG PK AVG PK	degrees 214 214 44 44	meters 1.0 1.0 1.0 1.0 1.0	RB 1 MHz;\ RB 1 MHz;\ note 1 note 1	
1960.020 nal meas requency MHz 1960.040 1960.070 1196.200	urements at 2 Level dBµV/m 42.9 47.1 33.7	3m Pol v/h V V V	15.209 Limit 54.0 74.0 54.0	Margin -11.1 -26.9 -20.3	Pk/QP/Avg AVG PK AVG	degrees 214 214 44	meters 1.0 1.0 1.0	RB 1 MHz;\ RB 1 MHz;\ note 1	



Client:	Intel Mobile (	Communicat	ions					Job Number:	J94122
M. 1.1	24000014						T-	Log Number:	T94177
Model:	3160SDW					-	Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	tt					Project	Coordinator:	-
Standard:	FCC Part 15,	RSS-210						Class:	N/A
reliminary		Ocm from th	ne product to	2.1	otential signa eak versus av			ge limit)	
Frequency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
2348.350	38.0	V	54.0	-16.0	Peak	360	1.0	noise floor	
2744.630	39.4	V	54.0	-14.6	Peak	360	1.0	noise floor	
2744.350 2744.540 2348.420 2348.640	32.2 43.7 30.4 41.7	> > H H	54.0 74.0 54.0 74.0	-21.8 -30.3 -23.6 -32.3	AVG PK AVG PK	360 360 0 0	1.0 1.0 1.0 1.0	noise floor noise floor noise floor noise floor	
2743.320	32.3	Н	54.0	-21.7	AVG	0	1.0	noise floor	
2743.180	44.1	Н	74.0	-29.9	PK	0	1.0	noise floor	
Run	4 120.0 - 100.0 - 80.0 -								
Amplitude (dBuV/m)	60.0 - 40.0 -	tall and the second		~~~ <b>~</b> P		manna	anteri anteri a	~~ <del>@</del> ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	the summers

		SUCCESS							C Test Data
Client:	Intel Mobile	Communicat	ions					Job Number:	
Model:	3160SDW							Log Number:	
								-	Christine Krebill
	Steve Hacke						Project	Coordinator:	
	FCC Part 15							Class:	
C Te	Date of Test: st Engineer: st Location:	1/8/2014 John Caizzi	ons, 1-10GF	iz. Operatin	g Mode: Tig	@ 2437 MH	z, bi basi	c @ 2402 MH	Z
					Power S	Settings			
			Target	(dBm)	Measure	-	Softwar	re Setting	
		WiFi	16	.5	16	.4		2.5	
		BT	7.	0	-	-	Ç	9.0	
Droliminory	Courious F	missions	voluding alla	aatad band	(Peak versu	o ovorogo li	mit)		
Frequency	Level	Pol	15.209		Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	o onninon to	
1195.000	49.6	V	54.0	-4.4	Peak	198	1.5	Note 1	
1585.000	40.4	Н	54.0	-13.6	Peak	128	1.5	Note 1	
1990.000	40.7	V	70.0	-29.3	Peak	178	1.0	Note 1	
4810.000	47.0	V	54.0	-7.0	Peak	218	1.0		
Final measu	irements at	3m							
Frequency	Level	Pol	15.209	15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
4804.020	44.9	V	54.0	-9.1	AVG	210	1.00		
4804.200	47.9	V	74.0	-26.1	PK	210	1.00		
Note 1:	Emission fro	m host lapto	р.						
Run	5								
itude (dBuV/m)	70.0 - 60.0 - 50.0 - 40.0 -					or men fro			you have a second
	30.0- <b>4 1</b> 20.0-1 1 1000	2000	3000	4000	5000 Frequency	6000 (MHz)	7000		9000 10000

Client:	Intel Mobile	Communica	tions					Job Number: Log Number:	
Model:	3160SDW							-	Christine Krebill
Contact:	Steve Hacke	ett						Coordinator:	
	FCC Part 15						,	Class:	
eliminary	/ Spurious E	Ocm from ti	<i>he product t</i> 30cm from		otential sign eak versus av Detector			ge limit) Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	Commenta	
inal meas	urements at	3m							
requency		Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
Amplitude (dBuV/m)	120.0 - 100.0 - 80.0 - 60.0 - 40.0 - 20.0 -								
	20.0 1 1	2100	2200	2300 2	2400 250 Frequenc	0 2600	2700	2800	2900 3000

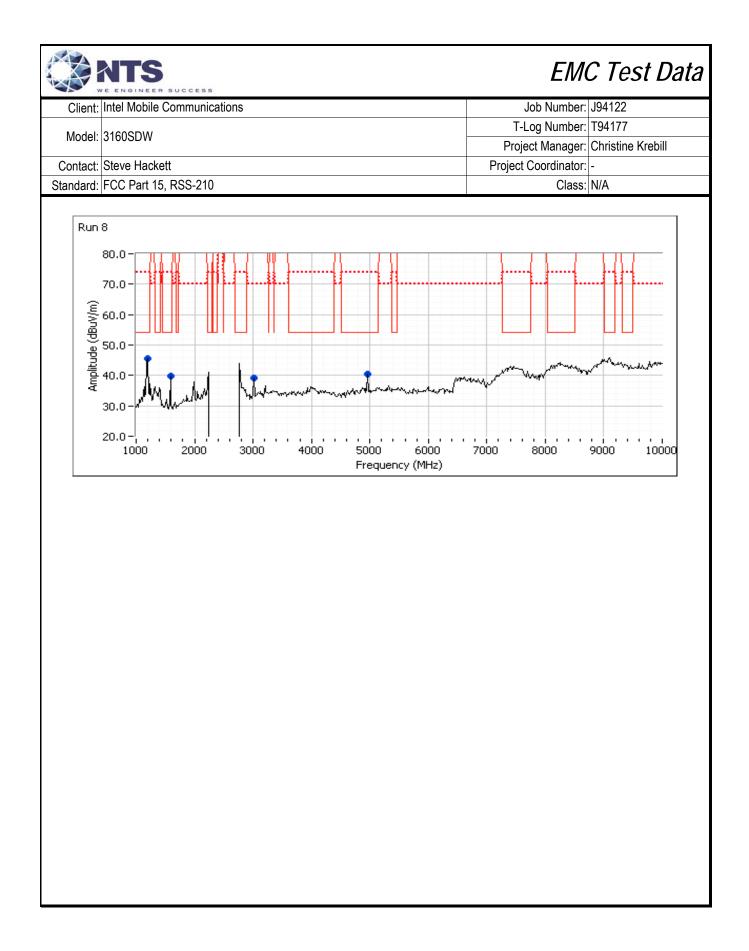
		SUCCESS						ЕМС	C Test Data
Client:	Intel Mobile	Communicat	ions					Job Number:	J94122
Madalı	21600014/						T-	Log Number:	T94177
wodel:	3160SDW						Proje	ect Manager:	Christine Krebill
Contact:	Steve Hacke	ett					Project	Coordinator:	-
Standard:	FCC Part 15	, RSS-210					<b>F</b>	Class:	N/A
			ons, 1-10GF	lz. Operatin	g Mode: 11g	@ 2412 MH	z, BT Basic	: @ 2441 MH	Z
Te	Date of Test: est Engineer: est Location:	Joseph Cad							
					Power S	-			
			Target		Measure	ed (dBm)		re Setting	
		WiFi		6.5				2.5	
	l	BT	8	.U		-		9.0	
Preliminary	Spurious E	missions ex	cluding allo	cated band	(Peak versu	is average li	mit)		
Frequency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
1593.040	40.4	V	54.0	-13.6	Peak	137	2.5		
4881.810	44.0	V	54.0	-10.0	Peak	173	1.5		
1195.800	48.9	V	54.0	-5.1	Peak	199	1.5		
Final meas	urements at	3m							
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
4882.020	42.8	V	54.0	-11.2	AVG	173	1.5	RB 1 MHz;V	'B 10 Hz;Peak
4881.560	46.8	V	74.0	-27.2	PK	173	1.5		'B 3 MHz;Peak
1593.310	30.0	V	54.0	-24.0	AVG	137	2.5		'B 10 Hz;Peak
1594.030	45.6	V	74.0	-28.4	PK	137	2.5		B 3 MHz;Peak
1194.800	33.5	V V	54.0	-20.5	AVG	199 199	1.5		B 10 Hz;Peak
1195.860	57.0	V	74.0	-17.0	PK	199	1.5	RB I MHZ;V	'B 3 MHz;Peak
Amplitude (dBuV/m)	6 120.0 - 100.0 - 80.0 - 60.0 - 40.0 - 20.0 - 1000				Frequenc	, (MHz)			10000

	Intel Mobile C	Communicat	ions					Job Number:	J94122
NA	040000144						T-	Log Number:	T94177
Model:	3160SDW						Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacket	tt					Project	Coordinator:	-
Standard:	FCC Part 15,	, RSS-210						Class:	N/A
	/ Scan at ~ 30 / Spurious En Level dBμV/m			2-3 GHz (Pe				Comments	
nal meas requency MHz	urements at 3 Level dBµV/m	3m Pol v/h	15.209 Limit 0.0	/ 15.247 Margin 0.0	Detector Pk/QP/Avg	Azimuth degrees	Height meters	Comments	
	120.0-								

Client:         Intel Mobile Communications         Job Number:         Joh Number:         Junt         Junt <thjunt< th="">         Junt         Junt         <th< th=""><th></th><th></th><th>SUCCESS</th><th></th><th></th><th></th><th></th><th></th><th>EM</th><th>C Test Data</th></th<></thjunt<>			SUCCESS						EM	C Test Data
Model:         3150SUW         Project Manager:         Christ           Contact:         Steve Hackett         Project Coordinator:         Class:         N/A           Run #7:         Radiated Spurious Emissions, 1-10GHz.         Operating Mode:         11g @ 2462 MHz, BT Basic @ 2440 MHz         Date of Test:         17/2014           Test Engineer:         Joseph Cadigal         Test Location:         FT Chamber#7           Preliminary Spurious Emissions excluding allocated band (Peak versus average limit)         Project Comments           Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµ//m         v/h         Limit         Margin         PK/QP/Avg         degrees         meters           4882.200         44.5         V         54.0         -9.5         Peak         156         1.0           1198.590         47.2         V         54.0         -12.5         Peak         166         1.0           1198.590         41.5         V         54.0         -12.5         Peak         166         1.0         1198.580           Final measurements at 3m         Frequency         Level         Pol         152.09 / 15.247         Detector </td <td>Client:</td> <td>Intel Mobile</td> <td>Communicat</td> <td>ions</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Client:	Intel Mobile	Communicat	ions						
Project Manager: Christ           Contact:         Steve Hackett         Project Coordinator: I           Standard:         FCC Part 15, RSS-210         Class: IN/A           Run #7:         Radiated Spurious Emissions, 1-10GHz. Operating Mode:         11g @ 2462 MHz, BT Basic @ 2440 MHz           Date of Test:         J77/2014         Test Engineer:         Joseph Cadigal           Test Location:         FT Chamber#7           Project Manager:         Only and the structure         Software Setting           WiFi         16.5         22.0           BT         8.0         -         9.0           Preliminary Spurious Emissions excluding allocated band (Peak versus average limit)         Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4882.200         44.5         V         54.0         -9.5         Peak         156         1.0         1198.590         1.0         15209 / 15.247         Detector         Azimuth         Height         Comments           HHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg <td>Model:</td> <td>3160SDW</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Model:	3160SDW								
Standard: FCC Part 15, RSS-210         Class: N/A           Radiated Spurious Emissions, 1-10GHz. Operating Mode: 11g @ 2462 MHz, BT Basic @ 2440 MHz           Date of Test: 177/2014           Target (dBm)         Measured (dBm)         Software Setting           WiFi         16.5         22.0           BT         8.0         -         9.0           Preliminary Spurious Emissions excluding allocated band (Peak versus average limit)           Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height Comments           MHz         dBµV/m         v/h         Limit         Magn/Pk/QP/Avg         degrees         meters         4882.200         44.5         V         54.0         -9.5         Peak         156         1.0         1198.590         47.2         V         54.0         -12.5         Peak         360         2.0         Final measurements at 3m           Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         w								-	_	
Run #7:       Radiated Spurious Emissions, 1-10GHz. Operating Mode: 11g @ 2462 MHz, BT Basic @ 2440 MHz         Date of Test: 1/7/2014       Test Engineer: Joseph Cadigal         Test Location: FT Chamber#7       Power Settings         WiFi       16.5       22.0         BT       8.0       -       9.0         Preliminary Spurious Emissions excluding allocated band (Peak versus average limit)       Frequency       Evel       Poil         Frequency       Level       Poil       15.209 / 15.247       Detector       Azimuth       Height       Comments         MHz       dBµV/m       v/h       Limit       Margin       PkiQP/Avg       degrees       meters       4882.200       44.5       V       54.0       -9.5       Peak       136       1.0       1198.590       47.2       V       54.0       -9.5       Peak       136       1.0       1198.590       47.2       V       54.0       -12.5       Peak       1360       2.0       1568       1.0       1198.590       47.2       V       54.0       -12.5       Peak       1366       1.0       RI 1MHz/VB 3M         Frequency       Level       Pol       15.209 / 15.247       Detector       Azimuth       Height       Comments         MHz								Project		
Date of Test: 1/7/2014           Test Engineer: Joseph Cadigal           Test Location: FT Chamber#7           Preliminary Spurious Emissions excluding allocated band (Peak versus average limit)           Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         PK/QP/Avg         degrees         meters         4882.200         44.5         V         54.0         -9.5         Peak         186         1.0         11198.590         47.2         V         54.0         -12.5         Peak         186         1.0         11198.590         27.0         V         54.0         -12.5         Peak         186         1.0         11198.590         41.5         V         54.0         -12.5         Peak         180         2.0         V         54.0         -12.5         Peak         360         2.0         V         54.0         -12.5         Peak         180         1.0         11198.500         41.7         V         54.0         -12.3         AVG         156         1.0         RB 1 MHz;VB 10H           HHz         dBµV/m         v/n <td></td>										
Target (dBm)         Measured (dBm)         Software Setting           WiFi         16.5         22.0           BT         8.0         -         9.0           Preliminary Spurious Emissions excluding allocated band (Peak versus average limit)         Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4882.200         44.5         V         54.0         -9.5         Peak         156         1.0           1198.590         47.2         V         54.0         -12.5         Peak         360         2.0           Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         V/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4882.040         41.7         V         54.0         -12.3         AVG         156         1.0         RB 1 MHz;VB 10 H           1197.350         31.4         V         54.0         -22.6         AVG         360	D Tes	ate of Test: st Engineer:	1/7/2014 Joseph Cad	igal	iz. Operatir			HZ, BT Bas	ic @ 2440 Mi	HZ
WiFi         16.5         22.0           BT         8.0         -         9.0           Preliminary Spurious Emissions excluding allocated band (Peak versus average limit)           Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµU/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4882.200         44.5         V         54.0         -9.5         Peak         156         1.0           1198.590         47.2         V         54.0         -6.8         Peak         181         1.0           1596.860         41.5         V         54.0         -12.5         Peak         360         2.0           Final measurements at 3m         Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµLV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4882.040         41.7         V         54.0         -22.6         AVG <td< td=""><td></td><td>ľ</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>		ľ								
BT         8.0         -         9.0           Preliminary Spurious Emissions excluding allocated band (Peak versus average limit)           Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4882.200         44.5         V         54.0         -9.5         Peak         156         1.0           1198.590         47.2         V         54.0         -6.8         Peak         181         1.0           1596.860         41.5         V         54.0         -12.5         Peak         360         2.0           Final measurements at 3m         Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4882.040         41.7         V         54.0         -12.3         AVG         156         1.0         RB 1 MHz;VB 3M           1197.350         31			\A/:			Measure	ed (dBm)		-	{
Preliminary Spurious Emissions excluding allocated band (Peak versus average limit)           Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters         4882.200         44.5         V         54.0         -9.5         Peak         156         1.0         1193.590         47.2         V         54.0         -12.5         Peak         180         1.0         1596.860         41.5         V         54.0         -12.5         Peak         360         2.0           Fraquency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4882.040         41.7         V         54.0         -12.3         AVG         156         1.0         RB 1 MHz;VB 10 H           4882.040         41.7         V         54.0         -22.6         AVG         181         1.0         RB 1 MHz;VB 3M           1199.760         55.3         V										4
Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dB <sub>µ</sub> V/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4882.200         44.5         V         54.0         -9.5         Peak         156         1.0           1198.590         47.2         V         54.0         -6.8         Peak         181         1.0           1596.860         41.5         V         54.0         -12.5         Peak         360         2.0           Final measurements at 3m         Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         Vh         Limit         Margin         Pk/QP/Avg         degrees         meters           4882.040         41.7         V         54.0         -12.3         AVG         156         1.0         RB 1 MHz;VB 10 H           4881.550         46.7         V         74.0         -27.3         PK         181         1.0         RB 1 MHz;VB 3M           1199.760         55.3         V         74.0		L							7.0	]
MHz         dB <sub>1</sub> V/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4882.200         44.5         V         54.0         -9.5         Peak         156         1.0           1198.590         47.2         V         54.0         -6.8         Peak         181         1.0           1596.860         41.5         V         54.0         -12.5         Peak         360         2.0           Final measurements at 3m         Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dB <sub>1</sub> V/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4882.040         41.7         V         54.0         -12.3         AVG         156         1.0         RB 1 MHz;VB 10 H           4881.550         46.7         V         74.0         -27.3         PK         156         1.0         RB 1 MHz;VB 30 H           1197.350         31.4         V         54.0         -22.6         AVG         181         1.0         RB 1 MHz;VB 30 H           1596.230         29.4         V         54.0						7			Commonte	
4882.200         44.5         V         54.0         -9.5         Peak         156         1.0           1198.590         47.2         V         54.0         -6.8         Peak         181         1.0           1596.860         41.5         V         54.0         -12.5         Peak         360         2.0           Final measurements at 3m         Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         PK/QP/Avg         degrees         meters           4882.040         41.7         V         54.0         -12.3         AVG         156         1.0         RB 1 MHz;VB 10 H           4881.550         46.7         V         74.0         -27.3         PK         156         1.0         RB 1 MHz;VB 3M           1197.350         31.4         V         54.0         -22.6         AVG         181         1.0         RB 1 MHz;VB 3M           1596.230         29.4         V         54.0         -24.6         AVG         360         2.0         RB 1 MHz;VB 3M           1596.460         42.5         V					-				Comments	
1198.590       47.2       V       54.0       -6.8       Peak       181       1.0         1596.860       41.5       V       54.0       -12.5       Peak       360       2.0         Final measurements at 3m       Frequency       Level       Pol       15.209 / 15.247       Detector       Azimuth       Height       Comments         MHz       dBµV/m       v/h       Limit       Margin       Pk/QP/Avg       degrees       meters         4882.040       41.7       V       54.0       -12.3       AVG       156       1.0       RB 1 MHz;VB 10 H         4882.040       41.7       V       54.0       -22.6       AVG       156       1.0       RB 1 MHz;VB 3 M         1197.350       31.4       V       54.0       -22.6       AVG       181       1.0       RB 1 MHz;VB 3 M         1199.760       55.3       V       74.0       -18.7       PK       181       1.0       RB 1 MHz;VB 3 M         1596.230       29.4       V       54.0       -24.6       AVG       360       2.0       RB 1 MHz;VB 3 M         199.60.0       -       -       -       -       -       -       -       -       -						ů	-			
Final measurements at 3m           Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4882.040         41.7         V         54.0         -12.3         AVG         156         1.0         RB 1 MHz;VB 10 H           4881.550         46.7         V         74.0         -27.3         PK         156         1.0         RB 1 MHz;VB 3 M           1197.350         31.4         V         54.0         -22.6         AVG         181         1.0         RB 1 MHz;VB 3 M           1596.230         29.4         V         54.0         -24.6         AVG         360         2.0         RB 1 MHz;VB 10 H           1596.460         42.5         V         74.0         -31.5         PK         360         2.0         RB 1 MHz;VB 3 M           1596.460         42.5         V         74.0         -31.5         PK         360         2.0         RB 1 MHz;VB 3 M           100.0										
Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4882.040         41.7         V         54.0         -12.3         AVG         156         1.0         RB 1 MHz;VB 10 H           4881.550         46.7         V         74.0         -27.3         PK         156         1.0         RB 1 MHz;VB 3 M           1197.350         31.4         V         54.0         -22.6         AVG         181         1.0         RB 1 MHz;VB 3 M           1199.760         55.3         V         74.0         -18.7         PK         181         1.0         RB 1 MHz;VB 3 M           1596.230         29.4         V         54.0         -24.6         AVG         360         2.0         RB 1 MHz;VB 3 M           1596.460         42.5         V         74.0         -31.5         PK         360         2.0         RB 1 MHz;VB 3 M           9         60.0         -         -         -         -         -         -         -         -         -         - <td< td=""><td></td><td></td><td>V</td><td></td><td>-12.5</td><td>Peak</td><td>360</td><td>2.0</td><td></td><td></td></td<>			V		-12.5	Peak	360	2.0		
Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4882.040         41.7         V         54.0         -12.3         AVG         156         1.0         RB 1 MHz;VB 10 H           4881.550         46.7         V         74.0         -27.3         PK         156         1.0         RB 1 MHz;VB 3 M           1197.350         31.4         V         54.0         -22.6         AVG         181         1.0         RB 1 MHz;VB 3 M           1199.760         55.3         V         74.0         -18.7         PK         181         1.0         RB 1 MHz;VB 3 M           1596.230         29.4         V         54.0         -24.6         AVG         360         2.0         RB 1 MHz;VB 3 M           1596.460         42.5         V         74.0         -31.5         PK         360         2.0         RB 1 MHz;VB 3 M           9         60.0         -         -         -         -         -         -         -         -         -         - <td< td=""><td>Final measu</td><td>irements at</td><td>3m</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	Final measu	irements at	3m							
MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4882.040         41.7         V         54.0         -12.3         AVG         156         1.0         RB 1 MHz;VB 10 H           4881.550         46.7         V         74.0         -27.3         PK         156         1.0         RB 1 MHz;VB 3 M           1197.350         31.4         V         54.0         -22.6         AVG         181         1.0         RB 1 MHz;VB 10 H           1199.760         55.3         V         74.0         -18.7         PK         181         1.0         RB 1 MHz;VB 3 M           1596.230         29.4         V         54.0         -24.6         AVG         360         2.0         RB 1 MHz;VB 3 M           1596.460         42.5         V         74.0         -31.5         PK         360         2.0         RB 1 MHz;VB 3 M           60.0         -				15.209	/ 15.247	Detector	Azimuth	Height	Comments	
4881.550       46.7       V       74.0       -27.3       PK       156       1.0       RB 1 MHz;VB 3 M         1197.350       31.4       V       54.0       -22.6       AVG       181       1.0       RB 1 MHz;VB 10 H         1199.760       55.3       V       74.0       -18.7       PK       181       1.0       RB 1 MHz;VB 3 M         1596.230       29.4       V       54.0       -24.6       AVG       360       2.0       RB 1 MHz;VB 10 H         1596.460       42.5       V       74.0       -31.5       PK       360       2.0       RB 1 MHz;VB 3 M         100.0		dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees			
1197.350       31.4       V       54.0       -22.6       AVG       181       1.0       RB 1 MHz;VB 10 H         1199.760       55.3       V       74.0       -18.7       PK       181       1.0       RB 1 MHz;VB 3 M         1596.230       29.4       V       54.0       -24.6       AVG       360       2.0       RB 1 MHz;VB 10 H         1596.460       42.5       V       74.0       -31.5       PK       360       2.0       RB 1 MHz;VB 3 M         100.0										
1199.760       55.3       V       74.0       -18.7       PK       181       1.0       RB 1 MHz;VB 3 M         1596.230       29.4       V       54.0       -24.6       AVG       360       2.0       RB 1 MHz;VB 10 H         1596.460       42.5       V       74.0       -31.5       PK       360       2.0       RB 1 MHz;VB 3 M         100.0       -       -       -       -       360       2.0       RB 1 MHz;VB 3 M         100.0       -       -       -       -       -       360       2.0       RB 1 MHz;VB 3 M         99       60.0       -       -       -       -       -       -       -         40.0       -       -       -       -       -       -       -       -									,	
1596.230         29.4         V         54.0         -24.6         AVG         360         2.0         RB 1 MHz; VB 10 H           1596.460         42.5         V         74.0         -31.5         PK         360         2.0         RB 1 MHz; VB 3 M           Run 7         120.0         100.0         <										
1596.460 42.5 V 74.0 -31.5 PK 360 2.0 RB 1 MHz;VB 3 M										
Run 7 120.0- 100.0- (W) Ng 80.0- 900100 40.0- 40.0- 1000- 1000- 10000- 1000-										,
120.0- 100.0- (W) 80.0- 60.0- 40.0- 40.0-	1330.400	42.5	v	74.0	-01.0		500	2.0		
1000 Frequency (MHz)		120.0 - 100.0 - 80.0 - 60.0 - 40.0 - 20.0 -	In		-41			, and a second		 

Client:	Intel Mobile	Communicat	tions					Job Number:	J94122
Madalı	246000W						T-	Log Number:	T94177
woder:	3160SDW						Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	ett					Project	Coordinator:	-
Standard:	FCC Part 15	, RSS-210						Class:	N/A
eliminary	/ Spurious E	missions at Pol	30cm from 15.209	2-3 GHz (Pe / 15.247	eak versus av Detector	verage limit) Azimuth	Height	ge limit) Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
			0.0	0.0					
		Pol		/ 15.247	Detector	Azimuth	Height	Comments	
requency MHz	dBµV/m	v/h	Limit 0.0	Margin 0.0	Pk/QP/Avg	degrees	meters		

T-Log Number: T41177           Model:         3160SDW         T-Log Number:         T41177           Project Manager:         Christine Krebil         Christine Krebil           Standard:         FCC Part 15, RSS-210         Class:         N/A           Run #8:         Radiated Spurious Emissions, 1-10GHz.         Operating Mode:         11g @ 2437 MHz, BT Basic @ 2480 MHz           Date of Test:         1/8/2014         Test Engineer:         John Caizzi           Test Location:         Chass:         N/A	Client	Intel Mobile (	Communicat	tions					Job Number:	J94122
Model:         3160SDW         Project Manager:         Christine Krebil           Contact:         Steve Hackett         Project Coordinator:         -           Standard:         FCC Part 15, RSS-210         Class:         N/A           un #8:         Radiated Spurious Emissions, 1-10GHz.         Operating Mode:         11g @ 2437 MHz, BT Basic @ 2480 MHz           Date of Test:         1/8/2014         Test Engineer:         John Caizzi           Test Location:         Chamber 7         MiFi         16.5         16.4         22.5           BT         7.0         -         9.0         9.0         9.0           reliminary Spurious Emissions excluding allocated band (Peak versus average limit)           reequery         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           195.000         45.4         V         54.0         -13.6         Peak         202         1.5         Note 1           1960.000         40.4         V         54.0         -13.6         Peak         299         1.5         3010.000         39.2								T-		
Contact:         Steve Hackett         Project Coordinator:           Standard:         FCC Part 15, RSS-210         Class:         N/A           Standard:         FCC Part 15, RSS-210         Class:         N/A           tun #8:         Radiated Spurious Emissions, 1-10GHz.         Operating Mode:         11g @ 2437 MHz, BT Basic @ 2480 MHz           Date of Test:         1/8/2014         Test Engineer:         John Caizzi           Test Location:         Chamber 7         Measured (dBm)         Software Setting           WiFi         16.5         16.4         22.5           BT         7.0         9.0           reguency         Level         Pol         15.209 / 15.247           Detector         Azimuth         Height         Comments           MHz         dBµV/m         Vh         Limit         Margin           195.000         39.8         V         54.0         -8.6         Peak         202         1.5         Note 1           195.000         49.4         V         54.0         -13.6         Peak         202         1.5         3010.00         39.2         V         70.0         -30.8         Peak         164         1.0         1.0         1.0         1.0	Model:	3160SDW							-	
Standard:         FCC Part 15, RSS-210         Class:         N/A           tun #8:         Radiated Spurious Emissions, 1-10GHz.         Operating Mode:         11g @ 2437 MHz, BT Basic @ 2480 MHz           Date of Test:         1/8/2014           Test Engineer: John Caizzi           Test Location: Chamber 7           WiFi         16.5         16.4         22.5           BT         7.0         -         9.0           reliminary Spurious Emissions excluding allocated band (Peak versus average limit)           Trequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         V/h         Limit         Margin         PK/QP/Avg         degrees         meters         1195.000         45.4         V         54.0         -8.6         Peak         360         1.0         Note 1           15.009 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         Vh         54.0         -8.6         Peak         202         1.5         Note 1           15.000         39.8	Contrat	Stava Haaka	44						-	
Run #8: Radiated Spurious Emissions, 1-10GHz. Operating Mode: 11g @ 2437 MHz, BT Basic @ 2480 MHz           Date of Test: 1/8/2014           Test Engineer: John Caizzi           Test Location: Chamber 7           WiFi 16.5 16.4 22.5           BT 7.0 - 9.0           Treliminary Spurious Emissions excluding allocated band (Peak versus average limit)           Frequency         Level Pol 15.209 / 15.247 Detector Azimuth Height Comments           MHz         dB <sub>II</sub> V/m         v/h         Limit         Margin Pk/QP/Avg         degrees         meters           1195.000         45.4         V         54.0         -8.6         Peak         360         1.0         Note 1           1585.000         39.8         V         54.0         -13.6         Peak         202         1.5         Note 1           3010.000         39.2         V         70.0         -30.8         Peak         104         1.0         1           inal measurements at 3m         Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments         M           4960.000         40.4         V         54.0         -13.6         Peak								Project		
Date of Test: 1/8/2014 Test Engineer: John Caizzi Test Location: Chamber 7Image: Chamber 7 <td>Standard:</td> <td>FCC Part 15</td> <td>, RSS-210</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Class:</td> <td>N/A</td>	Standard:	FCC Part 15	, RSS-210						Class:	N/A
Test Engineer: John Caizzi         Test Location: Chamber 7         Power Settings         Target (dBm)       Measured (dBm)       Software Setting         WiFi       16.5       16.4       22.5         BT       7.0       -       9.0         reliminary Spurious Emissions excluding allocated band (Peak versus average limit)         Trequency       Level       Pol       15.209 / 15.247       Detector       Azimuth       Height Comments         MHz       dBµV/m       v/h       54.0       - 8.6       Peak       360       1.0       Note 1         195.000       45.4       V       54.0       -14.2       Peak       202       1.5       Note 1         1585.000       39.8       V       54.0       -13.6       Peak       299       1.5         3010.000       39.2       V       70.0       -30.8       Peak       164       1.0       1.0         inal measurements at 3m <th< td=""><td>un #8: Ra</td><td>diated Spuri</td><td>ous Emissi</td><td>ons, 1-10Gł</td><td>Iz. Operati</td><td>ng Mode: 11</td><td>g @ 2437 M</td><td>Hz, BT Bas</td><td>ic @ 2480 MI</td><td>Hz</td></th<>	un #8: Ra	diated Spuri	ous Emissi	ons, 1-10Gł	Iz. Operati	ng Mode: 11	g @ 2437 M	Hz, BT Bas	ic @ 2480 MI	Hz
Test Engineer: John Caizzi         Power Settings         Target (dBm)       Measured (dBm)       Software Setting         WiFi       16.5       16.4       22.5         BT       7.0       -       9.0         reliminary Spurious Emissions excluding allocated band (Peak versus average limit)         Frequency       Level       Pol       15.209 / 15.247       Detector       Azimuth       Height Comments         MHz       dBµ//m       v/h       54.0       -       9.0         Trequency       Level       Pol       15.209 / 15.247       Detector       Azimuth       Height Comments         MHz       dBµ//m       v/       70.0       -3.0.8       Peak       164       1.0         Inal measurements at 3m       Tequency       Level       Pol       15.209 / 15.247       Detector       Azimuth       Height C	C	Date of Test:	1/8/2014							
Test Location: Chamber 7           Power Settings           Target (dBm)         Measured (dBm)         Software Setting           WiFi         16.4         22.5           BT         7.0         -         9.0           treliminary Spurious Emissions excluding allocated band (Peak versus average limit)           Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height Comments           MHz         dB <sub>L</sub> V/m         v/h         5.6           1195.000         45.4         V         54.0         -8.6         Peak         306         1.0         Note 1           155.00         39.8         V         70.0         -30.8         Peak         202         1.5           10.00         40.4         1.0         1.5           10.00         30.2         V         70.0         <										
Target (dBm)         Measured (dBm)         Software Setting           WiFi         16.5         16.4         22.5           BT         7.0         -         9.0           reliminary Spurious Emissions excluding allocated band (Peak versus average limit)         Comments           Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           1195.000         45.4         V         54.0         -8.6         Peak         360         1.0         Note 1           1585.000         39.8         V         54.0         -14.2         Peak         202         1.5         Note 1           1585.000         39.8         V         54.0         -13.6         Peak         209         1.5           3010.000         39.2         V         70.0         -30.8         Peak         164         1.0           inal measurements at 3m										
Target (dBm)         Measured (dBm)         Software Setting           WiFi         16.5         16.4         22.5           BT         7.0         -         9.0           reliminary Spurious Emissions excluding allocated band (Peak versus average limit)           Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµLV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           1195.000         45.4         V         54.0         -8.6         Peak         360         1.0         Note 1           1585.000         39.8         V         54.0         -14.2         Peak         202         1.5         Note 1           3010.000         39.2         V         70.0         -30.8         Peak         164         1.0           inal measurements at 3m           Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4		ſ				Power S	Settings			1
WiFi16.516.422.5BT7.0-9.0Preliminary Spurious Emissions excluding allocated band (Peak versus average limit)FrequencyLevelPol15.209 / 15.247DetectorAzimuthHeightCommentsMHzdBµV/mv/hLimitMarginPk/QP/Avgdegreesmeters11195.00045.4V54.0-8.6Peak3601.0Note 11585.00039.8V54.0-14.2Peak2021.5Note 11585.00040.4V54.0-13.6Peak2991.51.53010.00039.2V70.0-30.8Peak1641.01.0FrequencyLevelPol15.209 / 15.247DetectorAzimuthHeightCommentsTinal measurements at 3mFrequencyLevelPol15.209 / 15.247DetectorAzimuthHeightCommentsMHzdBµV/mv/hLimitMarginPk/QP/Avgdegreesmeters4960.00040.6V54.0-13.4AVG2921.644960.00040.6V54.0-28.6PK2921.642991.73028.2V54.0-25.8AVG1721.00Note 22987.27039.6<				Tarcet	(dBm)			Softwa	re Setting	
BT         7.0         -         9.0           Preliminary Spurious Emissions excluding allocated band (Peak versus average limit)         -         9.0           Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           1195.000         45.4         V         54.0         -8.6         Peak         360         1.0         Note 1           1585.000         39.8         V         54.0         -14.2         Peak         202         1.5         Note 1           3010.000         40.4         V         54.0         -13.6         Peak         299         1.5           3010.000         39.2         V         70.0         -30.8         Peak         164         1.0           "inal measurements at 3m         Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4960.000         40.6		F	WiFi				( /		-	
Preliminary Spurious Emissions excluding allocated band (Peak versus average limit)           Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters		ŀ				1	-			
Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           1195.000         45.4         V         54.0         -8.6         Peak         360         1.0         Note 1           1585.000         39.8         V         54.0         -14.2         Peak         202         1.5         Note 1           4960.000         40.4         V         54.0         -13.6         Peak         299         1.5           3010.000         39.2         V         70.0         -30.8         Peak         164         1.0           Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           Tinal measurements at 3m         Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4960.000         40.6         V <t< td=""><td></td><td>L</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1</td></t<>		L								1
MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           1195.000         45.4         V         54.0         -8.6         Peak         360         1.0         Note 1           1585.000         39.8         V         54.0         -14.2         Peak         202         1.5         Note 1           4960.000         40.4         V         54.0         -13.6         Peak         299         1.5           3010.000         39.2         V         70.0         -30.8         Peak         164         1.0           inal measurements at 3m           Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4960.000         40.6         V         54.0         -13.4         AVG         292         1.64           4960.380         45.4         V         74.0         -28.6         PK         292         1.64           2991.730         28.2         V         54.0         -25.8<	reliminary	Spurious Er	missions ex	cluding allc	cated band	l (Peak versu	is average li	mit)		
1195.000       45.4       V       54.0       -8.6       Peak       360       1.0       Note 1         1585.000       39.8       V       54.0       -14.2       Peak       202       1.5       Note 1         4960.000       40.4       V       54.0       -13.6       Peak       299       1.5	×					· ·			Comments	
1195.000       45.4       V       54.0       -8.6       Peak       360       1.0       Note 1         1585.000       39.8       V       54.0       -14.2       Peak       202       1.5       Note 1         4960.000       40.4       V       54.0       -13.6       Peak       299       1.5         3010.000       39.2       V       70.0       -30.8       Peak       164       1.0         inal measurements at 3m         Frequency       Level       Pol       15.209 / 15.247       Detector       Azimuth       Height       Comments         MHz       dBµV/m       v/h       Limit       Margin       Pk/QP/Avg       degrees       meters         4960.300       40.6       V       54.0       -13.4       AVG       292       1.64         4960.380       45.4       V       74.0       -28.6       PK       292       1.64         2991.730       28.2       V       54.0       -25.8       AVG       172       1.00       Note 2         2987.270       39.6       V       74.0       -34.4       PK       172       1.00       Note 2         Not	MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees			
4960.000         40.4         V         54.0         -13.6         Peak         299         1.5           3010.000         39.2         V         70.0         -30.8         Peak         164         1.0           inal measurements at 3m           Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBμV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4960.000         40.6         V         54.0         -13.4         AVG         292         1.64           4960.380         45.4         V         74.0         -28.6         PK         292         1.64           2991.730         28.2         V         54.0         -25.8         AVG         172         1.00         Note 2           2987.270         39.6         V         74.0         -34.4         PK         172         1.00         Note 2	1195.000		V	54.0	-8.6	Peak		1.0	Note 1	
3010.000         39.2         V         70.0         -30.8         Peak         164         1.0           inal measurements at 3m         Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4960.000         40.6         V         54.0         -13.4         AVG         292         1.64           4960.380         45.4         V         74.0         -28.6         PK         292         1.64           2991.730         28.2         V         54.0         -25.8         AVG         172         1.00         Note 2           2987.270         39.6         V         74.0         -34.4         PK         172         1.00         Note 2	1585.000	39.8	V	54.0	-14.2	Peak	202	1.5	Note 1	
inal measurements at 3m           Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBμV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4960.000         40.6         V         54.0         -13.4         AVG         292         1.64           4960.380         45.4         V         74.0         -28.6         PK         292         1.64           2991.730         28.2         V         54.0         -25.8         AVG         172         1.00         Note 2           2987.270         39.6         V         74.0         -34.4         PK         172         1.00         Note 2	4960.000	40.4	V	54.0	-13.6	Peak	299	1.5		
Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dB <sub>μ</sub> V/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4960.000         40.6         V         54.0         -13.4         AVG         292         1.64           4960.380         45.4         V         74.0         -28.6         PK         292         1.64           2991.730         28.2         V         54.0         -25.8         AVG         172         1.00         Note 2           2987.270         39.6         V         74.0         -34.4         PK         172         1.00         Note 2           Note 1:	3010.000	39.2	V	70.0	-30.8	Peak	164	1.0		
Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4960.000         40.6         V         54.0         -13.4         AVG         292         1.64           4960.380         45.4         V         74.0         -28.6         PK         292         1.64           2991.730         28.2         V         54.0         -25.8         AVG         172         1.00         Note 2           2987.270         39.6         V         74.0         -34.4         PK         172         1.00         Note 2           Note 1:         Emission from host laptop.	inal measu	urements at	3m							
MHz         dBμV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4960.000         40.6         V         54.0         -13.4         AVG         292         1.64           4960.380         45.4         V         74.0         -28.6         PK         292         1.64           2991.730         28.2         V         54.0         -25.8         AVG         172         1.00         Note 2           2987.270         39.6         V         74.0         -34.4         PK         172         1.00         Note 2           Note 1:         Emission from host laptop.				15.209	/ 15.247	Detector	Azimuth	Height	Comments	
4960.000         40.6         V         54.0         -13.4         AVG         292         1.64           4960.380         45.4         V         74.0         -28.6         PK         292         1.64           2991.730         28.2         V         54.0         -25.8         AVG         172         1.00         Note 2           2987.270         39.6         V         74.0         -34.4         PK         172         1.00         Note 2           Note 1: Emission from host laptop.										
4960.380         45.4         V         74.0         -28.6         PK         292         1.64           2991.730         28.2         V         54.0         -25.8         AVG         172         1.00         Note 2           2987.270         39.6         V         74.0         -34.4         PK         172         1.00         Note 2           Note 1: Emission from host laptop.	4960.000									
2991.730         28.2         V         54.0         -25.8         AVG         172         1.00         Note 2           2987.270         39.6         V         74.0         -34.4         PK         172         1.00         Note 2           Note 1: Emission from host laptop.			V							
2987.270         39.6         V         74.0         -34.4         PK         172         1.00         Note 2           Note 1:         Emission from host laptop.         Emission from host l			V						Note 2	
Note 1: Emission from host laptop.			V							
						· · · · ·			-	
	Note 1:	Emission from	m host lapto	р.						
					imit of 15.20	9 used.				



Client:	Intel Mobile (	Communicat	ions					Job Number:	J94122
Madal	24000014						T-	Log Number:	T94177
wodel:	3160SDW					-	Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	tt					Project	Coordinator:	-
Standard:	FCC Part 15,	RSS-210						Class:	N/A
reliminary reliminary requency	Spurious Er	Ocm from th missions at Pol	<i>ne product t</i> 30cm from	2-3 GHz (P / 15.247	ootential signa eak versus av Detector			ge limit) Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
			0.0	0.0					
			0.0						
Run									
Run	8								
Run									
	120.0 -								
	120.0-								
	120.0 - 100.0 - 80.0 -								
	120.0 -								
Amplitude (dBuv/m)	120.0 - 100.0 - 80.0 -								
	120.0 - 100.0 - 80.0 - 60.0 -								
	120.0 - 100.0 - 80.0 - 60.0 - 40.0 - 20.0 -	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		2300					2200 300
	120.0 - 100.0 - 80.0 - 60.0 - 40.0 -	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	2200	2300 2300	2400 250 Frequenci	0 2600	2700		2900 3000

		SUCCESS						EMO	C Test Data
Client:	Intel Mobile	Communicat	ions					Job Number:	
Madal	3160SDW						T-	Log Number:	T94177
wouer.	31003DW						Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	ett					Project	Coordinator:	-
Standard:	FCC Part 15	. RSS-210						Class:	
		-	ons. 1-10GF	lz Operatir	ng Mode: 11g	1 @ 2412 MF	IZ. BT FDR		
Tes	ate of Test: st Engineer: st Location:	John Caizzi							
					Power S	Settings			
			Target	(dBm)	Measure	-	Softwar	e Setting	
		WiFi	16					2.5	
		BT	1.	0		-		1.0	
Preliminary	Spurious E	missions ex	cluding allo	cated band	(Peak versu	s average li	mit)		
Frequency	Level	Pol	15.209		Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
1240.000	46.6	Н	54.0	-7.4	Peak	205	1.0		
3745.000	40.7	V	54.0	-13.3	Peak	194	1.0		
Final measu	rements at	3m							
Frequency	Level	Pol	15.209	15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
1247.870	33.7	Н	54.0	-20.3	AVG	226	1.00	Note 2	
1244.670	56.3	Н	74.0	-17.7	PK	226	1.00	Note 2	
3748.000	31.1	V	54.0	-22.9	AVG	194	1.00		
3740.400	53.3	V	74.0	-20.7	PK	194	1.00		
Note 2:	Emission in	non-restricte	d band, but li	mit of 15.20	9 used.				
Amplitude (dBuV/m)	9 30.0 - 70.0 - 50.0 - 50.0 - 40.0 - 30.0 -	Ne menere a la companya de la compa	h. subma	l l	www.www.ekw.	www.	Anna and an anna		
	20.0-¦ , , 1000	2000	3000	4000	5000 Frequency	6000	7000	8000	9000 10000

	E ENGINEER SUCCESS	EMO	C Test Data
Client:	Intel Mobile Communications	Job Number:	J94122
Madal	3160SDW	T-Log Number:	Т94177
MOUEI.	31003DW	Project Manager:	Christine Krebill
Contact:	Steve Hackett	Project Coordinator:	-
Standard:	FCC Part 15, RSS-210	Class:	N/A

Spurious Radiated Emissions, 2 - 3GHz

100.0

80.0

60.0

40.0

20.0-| |

2000

. . ÷ 4

2100

÷

2200

÷ ÷

- 1

2300

i j i

2400

÷й

2500

Frequency (MHz)

1.1.1

2600

÷

2700

÷А

2900

.

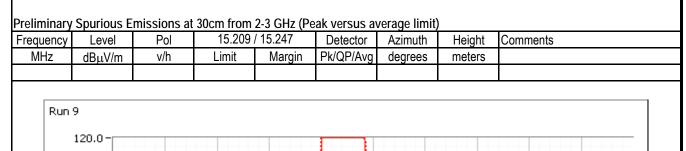
2800

- E - E

3000

Amplitude (dBuV/m)

Preliminary Scan at ~ 30cm from the product to identify potential signals (Peak versus average limit)

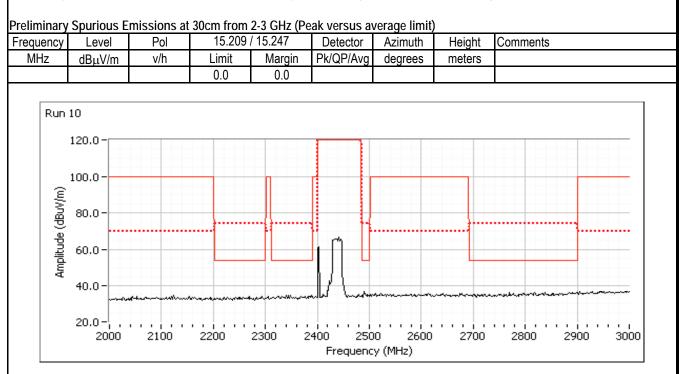


		SUCCESS							C Test Data
Client:	Intel Mobile	Communicat	ions					Job Number:	
Model	3160SDW						T-	Log Number:	T94177
	51003010						Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	ett					Project	Coordinator:	-
Standard:	FCC Part 15	, RSS-210						Class:	N/A
Run #10: R	adiated Spu	rious Emiss	sions, 1-10G	Hz. Operat	ing Mode: 1	1g @ 2372 M	MHz, BT ED	R @ 2402 Mł	Ηz
Tes	ate of Test: st Engineer: st Location:	John Caizzi							
	[				Power S	Settings			
			Target	(dBm)	Measure	-	Softwar	e Setting	
		WiFi	16		16	· /		2.5	
		BT	1.	0		-		1.0	
					(Peak versu				
Frequency	Level	Pol	15.209		Detector	Azimuth	Height	Comments	
MHz 1240.000	dBµV/m 42.1	v/h H	Limit	Margin	Pk/QP/Avg	Č.	meters		
3745.000	42.1	H V	54.0 54.0	-11.9 -13.9	Peak Peak	238 160	1.0 1.0		
3743.000	40.1	V	04.0	-13.9	reak	100	1.0		
inal measu	rements at	3m							
Frequency	Level	Pol	15.209	15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
1248.200	33.9	Н	54.0	-20.1	AVG	230	1.00	Note 2	
1245.930	56.2	Н	74.0	-17.8	PK	230	1.00	Note 2	
3747.470	31.4	V	54.0	-22.6	AVG	198	1.00		
3747.070	53.6	V	74.0	-20.4	PK	198	1.00		
					<u> </u>				
Note 2:	Emission in	non-restricte	d band, but li	mit of 15.20	9 used.				
Run 1									
Run	10								
1	80.0-	JU 119		п				JIJ	
			-					•	
	70.0-	1		1				TT TT	
(£,	60.0-								
P P P	50.0-								
jtud								June .	Alandarthat
Amplitude (dBuV/m)	40.0-	. 1		1		. m	any and a	mar in	
	30.0-WW	Umulun	Jurant	, with a second for	Larder Contraction	ndeneral			
	20.0-, , ,								
	1000	2000	3000	4000	5000 Frequency	6000	7000		9000 10000

E ENGINEER BUCCESS	EMO	C Test Data
Intel Mobile Communications	Job Number:	J94122
21600010/	T-Log Number:	T94177
31603DW	Project Manager:	Christine Krebill
Steve Hackett	Project Coordinator:	-
FCC Part 15, RSS-210	Class:	N/A
	Intel Mobile Communications 3160SDW Steve Hackett	Intel Mobile Communications Job Number: 3160SDW T-Log Number: Project Manager: Steve Hackett Project Coordinator:

Spurious Radiated Emissions, 2 - 3GHz

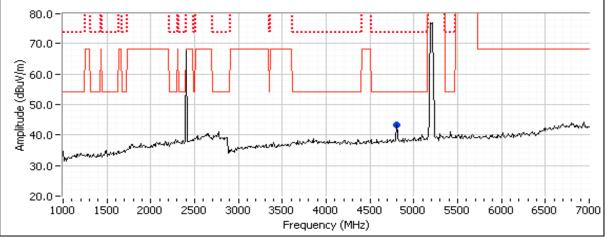
Preliminary Scan at ~ 30cm from the product to identify potential signals (Peak versus average limit)



R94331

Client:	Intel Mobile	Communicat	ions					Job Number:	J94122
Madalı	3160SDW						T-	Log Number:	T94177
Model.	31003DW						Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	ett					Project	Coordinator	-
Standard:	FCC Part 15	5, RSS-210						Class	N/A
l Te	Radiated Spu Date of Test: est Engineer: est Location:	1/8/2014 & 1 J.Cadigal &	1/9/14 J.Caizzi	GHz. Opera	ting Mode: n2	20 @ 5200 N	1Hz, BT Bas	sic @ 2402 N	1Hz
					Dewer	Nottine and			1
			Target	: (dBm)	Power S Measure		Softwar	re Setting	
		WiFi		6.5	16	\ /		9.0	1
		BT	7	.0	· ·	-	Ç	9.0	]
requency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
MHz inal meas	urements at	3m				-			
MHz inal meas requency	urements at Level	3m Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz inal meas	urements at	3m				-			
MHz Frequency MHz Run	urements at Level dBµV/m	3m Pol	15.209	/ 15.247	Detector	Azimuth	Height		<u>در معلم المعلم الم</u>

Client:	t: Intel Mobile Communications							Job Number:	J94122
	lodel: 3160SDW							Log Number:	T94177
Model:	3160SDW						Project Manager:		Christine Krebill
Contact:	Steve Hackett							Coordinator:	
	1: FCC Part 15, RSS-210							Class:	
			30cm from	1-7 GHz (Pe	otential signa eak versus av			<u></u>	
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
4800.000	43.4	V	54.0	-10.6	Peak	0	1.0		
··· • · · · • • •	urements at	3m							
Inal meas			45 000	145 047	Detector	Azimuth	Height	Comments	
	Level	Pol	15.209	/ 13.247	Detector	Azimum	Toight		
	1	Pol v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
Frequency MHz 4804.030	Level dBµV/m 48.5	v/h V			Pk/QP/Avg AVG	degrees 203	v		
Frequency MHz 4804.030 4804.180	Level dBµV/m 48.5 50.8	v/h V V	Limit	Margin	Pk/QP/Avg	degrees 203 203	meters		
Frequency MHz 4804.030	Level dBµV/m 48.5	v/h V	Limit 54.0	Margin -5.5	Pk/QP/Avg AVG	degrees 203	meters 1.75		



Client.	Intel Mobile	Communicat	ons					Job Number:	J94122
								Log Number:	
Model: 3160SDW								Project Manager: Christine Ki	
Contact: Steve Hackett								Coordinator:	
Standard: FCC Part 15, RSS-210								Class:	
[ Te	Date of Test: est Engineer:	1/8/2014 & 1 J.Cadigal & .	/9/14 J.Caizzi	GHz. Opera	ting Mode: n2	20 @ 5200 N	1Hz, BT Bas	sic @ 2441 M	Hz
le	est Location:	Chambers 7	& 4		Power	Settings			1
		Target (dE		(dBm)	Power Settings dBm) Measured (dBm)			e Setting	
		WiFi	16	6.5	16.6		2	9.0	
		BT	7	.0		-	Ç	9.0	]
nal measi	urements at	3m							
requency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
			15.209 / Limit	/ 15.247 Margin	Detector Pk/QP/Avg	Azimuth degrees	Height meters	Comments	
WHz Whitnde (dBu/\m)	Level dBµV/m	Pol							

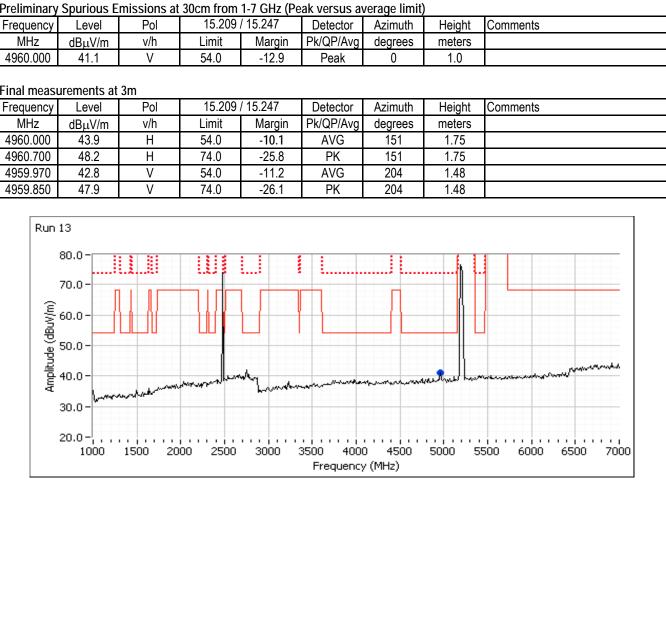
	NTS e engineer success	EMO	C Test Data
Client:	Intel Mobile Communications	Job Number:	J94122
Medali	24600010	T-Log Number:	T94177
woder:	3160SDW	Project Manager:	Christine Krebill
Contact:	Steve Hackett	Project Coordinator:	-
Standard:	FCC Part 15, RSS-210	Class:	N/A
•	adiated Emissions, 1 - 7GHz	tial airmala (Daale warawa awarana limit)	

duct to identify notential signals (Deak yersus average limit) 1:. 20 c., 11. .

nal measurements at 3m         requency       Level       Pol       15.209 / 15.247       Detector       Azimuth       Height       Comments         MHz       dBµV/m       v/h       Limit       Margin       Pk/QP/Avg       degrees       meters         882.000       46.3       V       54.0       -7.7       AVG       212       1.07         882.400       50.1       V       74.0       -23.9       PK       212       1.07         882.000       46.0       H       54.0       -8.0       AVG       153       1.48	880.000         41.2         V         54.0         -12.8         Peak         0         1.0           nal measurements at 3m         requency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dB <sub>µ</sub> V/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           882.000         46.3         V         54.0         -7.7         AVG         212         1.07           882.000         46.0         H         54.0         -8.0         AVG         153         1.48           881.780         49.3         H         74.0         -24.7         PK         153         1.48           State of the	requency	Level	Pol		/ 15.247	eak versus av Detector	Azimuth	Height	Comments
inal measurements at 3m requency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments MHz dB <sub>µ</sub> V/m v/h Limit Margin Pk/QP/Avg degrees meters 4882.000 46.3 V 54.0 -7.7 AVG 212 1.07 4882.400 50.1 V 74.0 -23.9 PK 212 1.07 4882.000 46.0 H 54.0 -8.0 AVG 153 1.48 4881.780 49.3 H 74.0 -24.7 PK 153 1.48 $\frac{1}{12} = \frac{1}{100} = \frac{1}{10$	inal measurements at 3m requency Level Pol 15.209 / 15.247 Detector Azimuth Height Comments MHz dB <sub>µ</sub> V/m v/h Limit Margin Pk/QP/Avg degrees meters 4882.000 46.3 V 54.0 -7.7 AVG 212 1.07 4882.400 50.1 V 74.0 -23.9 PK 212 1.07 4882.000 46.0 H 54.0 -8.0 AVG 153 1.48 4881.780 49.3 H 74.0 -24.7 PK 153 1.48 $\frac{1}{12} = \frac{1}{100} = \frac{1}{10$						Pk/QP/Avg	degrees	meters	
MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4882.000         46.3         V         54.0         -7.7         AVG         212         1.07           4882.400         50.1         V         74.0         -23.9         PK         212         1.07           4882.400         50.1         V         74.0         -23.9         PK         212         1.07           4882.000         46.0         H         54.0         -8.0         AVG         153         1.48           4881.780         49.3         H         74.0         -24.7         PK         153         1.48           60.0         -         -         -         -         24.7         PK         153         1.48           70.0         -	Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4882.000         46.3         V         54.0         -7.7         AVG         212         1.07           4882.000         50.1         V         74.0         -23.9         PK         212         1.07           4882.000         46.0         H         54.0         -8.0         AVG         153         1.48           4881.780         49.3         H         74.0         -24.7         PK         153         1.48           60.0         -         -         -         70.0         -	4880.000	41.2	V	54.0	-12.8	Peak	0	1.0	
Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4882.000         46.3         V         54.0         -7.7         AVG         212         1.07           4882.000         50.1         V         74.0         -23.9         PK         212         1.07           4882.000         46.0         H         54.0         -8.0         AVG         153         1.48           4881.780         49.3         H         74.0         -24.7         PK         153         1.48           60.0         -         -         -         70.0         -	Frequency         Level         Pol         15.209 / 15.247         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4882.000         46.3         V         54.0         -7.7         AVG         212         1.07           4882.000         50.1         V         74.0         -23.9         PK         212         1.07           4882.000         46.0         H         54.0         -8.0         AVG         153         1.48           4881.780         49.3         H         74.0         -24.7         PK         153         1.48           60.0         -         -         -         70.0         -	inal measu	irements at	3m						
MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4882.000         46.3         V         54.0         -7.7         AVG         212         1.07           4882.000         50.1         V         74.0         -23.9         PK         212         1.07           4882.000         46.0         H         54.0         -8.0         AVG         153         1.48           4881.780         49.3         H         74.0         -24.7         PK         153         1.48           60.0         -         -         -         -         24.7         PK         153         1.48           70.0         -         -         -         -         24.7         PK         153         1.48           9         50.0         - <td>MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4882.000         46.3         V         54.0         -7.7         AVG         212         1.07           4882.000         50.1         V         74.0         -23.9         PK         212         1.07           4882.000         46.0         H         54.0         -8.0         AVG         153         1.48           4881.780         49.3         H         74.0         -24.7         PK         153         1.48           60.0         -         -         -         -         24.7         PK         153         1.48           70.0         -         -         -         -         24.7         PK         153         1.48           9         50.0         -<td></td><td></td><td></td><td>15.209</td><td>/ 15.247</td><td>Detector</td><td>Azimuth</td><td>Height</td><td>Comments</td></td>	MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           4882.000         46.3         V         54.0         -7.7         AVG         212         1.07           4882.000         50.1         V         74.0         -23.9         PK         212         1.07           4882.000         46.0         H         54.0         -8.0         AVG         153         1.48           4881.780         49.3         H         74.0         -24.7         PK         153         1.48           60.0         -         -         -         -         24.7         PK         153         1.48           70.0         -         -         -         -         24.7         PK         153         1.48           9         50.0         - <td></td> <td></td> <td></td> <td>15.209</td> <td>/ 15.247</td> <td>Detector</td> <td>Azimuth</td> <td>Height</td> <td>Comments</td>				15.209	/ 15.247	Detector	Azimuth	Height	Comments
4882.400       50.1       V       74.0       -23.9       PK       212       1.07         4882.000       46.0       H       54.0       -8.0       AVG       153       1.48         4881.780       49.3       H       74.0       -24.7       PK       153       1.48         Run 12       80.0       60.0 <th< td=""><td>4882.400       50.1       V       74.0       -23.9       PK       212       1.07         4882.000       46.0       H       54.0       -8.0       AVG       153       1.48         4881.780       49.3       H       74.0       -24.7       PK       153       1.48         Run 12       80.0       60.0       <th< td=""><td></td><td>dBµV/m</td><td>v/h</td><td>Limit</td><td>Margin</td><td>Pk/QP/Avg</td><td>degrees</td><td></td><td></td></th<></td></th<>	4882.400       50.1       V       74.0       -23.9       PK       212       1.07         4882.000       46.0       H       54.0       -8.0       AVG       153       1.48         4881.780       49.3       H       74.0       -24.7       PK       153       1.48         Run 12       80.0       60.0 <th< td=""><td></td><td>dBµV/m</td><td>v/h</td><td>Limit</td><td>Margin</td><td>Pk/QP/Avg</td><td>degrees</td><td></td><td></td></th<>		dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees		
4882.000       46.0       H       54.0       -8.0       AVG       153       1.48         4881.780       49.3       H       74.0       -24.7       PK       153       1.48         Run 12       80.0       60.0       <	4882.000       46.0       H       54.0       -8.0       AVG       153       1.48         4881.780       49.3       H       74.0       -24.7       PK       153       1.48         Run 12       80.0       60.0       70.0         0.0       1000       1500       2000       2500       3000       3500       4000       4500       5000       5500       6000       6500 <td< td=""><td>4882.000</td><td></td><td>V</td><td>54.0</td><td>-7.7</td><td>AVG</td><td>212</td><td>1.07</td><td></td></td<>	4882.000		V	54.0	-7.7	AVG	212	1.07	
4881.780     49.3     H     74.0     -24.7     PK     153     1.48         Run 12       000     000     000     000     000     000     000     000       000     000     000     2500     3000     3500     4000     4500     5000     5500     6000     6500     7000	4881.780     49.3     H     74.0     -24.7     PK     153     1.48       Run 12     80.0     - </td <td>4882.400</td> <td>50.1</td> <td>V</td> <td>74.0</td> <td>-23.9</td> <td>PK</td> <td>212</td> <td>1.07</td> <td></td>	4882.400	50.1	V	74.0	-23.9	PK	212	1.07	
Run 12 80.0 70.0 (Windowski) 60.0 90 90 90 90 90 90 90 90 90 9	Run 12 80.0 70.0 (Windowski) 60.0 90 90 90 90 90 90 90 90 90 9	4882.000	46.0		54.0	-8.0	AVG	153	1.48	
80.0 70.0 60.0 50.0 40.0 20.0 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 6500 7000	80.0 70.0 70.0 60.0 50.0 40.0 20.0 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 6500 7000	4881.780	49.3	Н	74.0	-24.7	PK	153	1.48	
Frequency (MHz)	Frequency (MHz)		40.0 - 30.0				3500 4000	) 4500		
							Frequency	(MHz)		

Client:	Intel Mobile	Communicat	ions					Job Number:	J94122
Madalı	24000014/						T-	Log Number:	T94177
wodel:	3160SDW						Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	ett					Project	Coordinator:	-
Standard:	FCC Part 15	, RSS-210						Class:	N/A
C Te	Radiated Spu Date of Test: est Engineer: est Location:	1/8/2014 & 1 J.Cadigal &	/9/14 J.Caizzi	GHz. Opera	ting Mode: n2	20 @ 5200 N	IHz, BT Bas	sic @ 2480 M	Hz
	ſ				Power S	Settings			l
			Target	(dBm)	Measure		Softwar	e Setting	
		WiFi	16	6.5	16		2	9.0	
	[	BT	7	.0	-		ç	9.0	
	Level dBuV/m	Pol v/h		/ 15.247 Margin	Detector Pk/QP/Ava	Azimuth dearees	Height meters	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	Comments	
MHz nal measu requency	dBμV/m urements at	v/h	Limit					Comments	
MHz nal measu	dBμV/m urements at	v/h 3m	Limit	Margin	Pk/QP/Avg	degrees	meters		
inal measu Frequency MHz Run (w/\ngp) aphntiduw	dBμV/m urements at Level dBμV/m	v/h 3m Pol	Limit 15.209	Margin / 15.247	Pk/QP/Avg Detector	degrees Azimuth	meters Height		

Client:	Intel Mobile	Communicat	tions					Job Number:	J94122
Madal	240000						T-	Log Number:	T94177
Model:	3160SDW						Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	ett					Project	Coordinator:	-
Standard:	FCC Part 15	i, RSS-210						Class:	N/A
Preliminary	Spurious E	missions at	30cm from	1-7 GHz (Pe	eak versus av	verage limit)	1		
Preliminary Frequency	Spurious E	missions at Pol		<u>1-7 GHz (Pe</u> / 15.247	eak versus av Detector	verage limit) Azimuth	Height	Comments	
								Comments	
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
Frequency MHz 4960.000	Level dBµV/m	Pol v/h V	15.209 Limit	/ 15.247 Margin	Detector Pk/QP/Avg	Azimuth degrees	Height meters	Comments	
Frequency MHz 4960.000 Final measu	Level dBµV/m 41.1	Pol v/h V	15.209 Limit 54.0	/ 15.247 Margin	Detector Pk/QP/Avg	Azimuth degrees	Height meters	Comments Comments	
Frequency MHz 4960.000 Final measu Frequency MHz	Level dBµV/m 41.1 urements at Level dBµV/m	Pol v/h V 3m Pol v/h	15.209 Limit 54.0	/ 15.247 Margin -12.9 / 15.247 Margin	Detector Pk/QP/Avg Peak Detector Pk/QP/Avg	Azimuth degrees 0 Azimuth degrees	Height meters 1.0 Height meters		
Frequency MHz 4960.000 Final measu Frequency MHz 4960.000	Level dBµV/m 41.1 urements at Level dBµV/m 43.9	Pol v/h V 3m Pol v/h H	15.209 Limit 54.0 15.209	/ 15.247 Margin -12.9 / 15.247	Detector Pk/QP/Avg Peak Detector Pk/QP/Avg AVG	Azimuth degrees 0 Azimuth degrees 151	Height meters 1.0 Height		
Frequency           MHz           4960.000           Final measu           Frequency           MHz           4960.000           4960.000           4960.000           4960.000	Level dBµV/m 41.1 urements at Level dBµV/m 43.9 48.2	Pol v/h V 3m Pol v/h H H	15.209 Limit 54.0 15.209 Limit 54.0 74.0	/ 15.247 Margin -12.9 / 15.247 Margin -10.1 -25.8	Detector Pk/QP/Avg Peak Detector Pk/QP/Avg AVG PK	Azimuth degrees 0 Azimuth degrees 151 151	Height meters 1.0 Height neters 1.75 1.75		
Frequency MHz 4960.000 Final measu Frequency MHz 4960.000	Level dBµV/m 41.1 urements at Level dBµV/m 43.9	Pol v/h V 3m Pol v/h H	15.209 Limit 54.0 15.209 Limit 54.0	/ 15.247 Margin -12.9 / 15.247 Margin -10.1	Detector Pk/QP/Avg Peak Detector Pk/QP/Avg AVG	Azimuth degrees 0 Azimuth degrees 151	Height meters 1.0 Height meters 1.75		



Client	Intel Mobile	SUCCESS	iono					Job Number:	10/122
Client.		Communicat	10115					Log Number:	
Model:	3160SDW							-	
Orinteet	Steve Hacke	11							Christine Krebill
							Project	Coordinator:	
Standard:	FCC Part 15	, KSS-210						Class:	IN/A
l Te	Radiated Spu Date of Test: est Engineer: est Location:	1/8/2014 & 1 J.Cadigal &	I/9/14 J.Caizzi	GHz. Operat	ing Mode: n	20 @ 5300 N	1Hz, BT Bas	sic @ 2402 N	lHz
	г				Dewer	2			1
			Tarnel	t (dBm)	Power S Measure		Softwar	re Setting	
		WiFi		6.5	16	· /		8.5	1
		BT		.0		-		9.0	1
	/ Spurious E	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
requency MHz	Level dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
MHz	dBµV/m	v/h		Margin	Pk/QP/Avg	degrees	meters		
MHz inal meas requency	dBμV/m urements at	v/h	Limit	/ 15.247	Pk/QP/Avg Detector	degrees Azimuth	meters Height	Comments	
MHz inal meas	dBμV/m urements at	v/h 3m	Limit					Comments	
inal meas Frequency MHz Run	dBμV/m urements at Level dBμV/m	v/h 3m Pol	Limit 15.209	/ 15.247	Detector	Azimuth	Height		15000

Client:	Intel Mobile	Communicat	tions					Job Number:	J94122
NA							T-	Log Number:	T94177
Model:	3160SDW					-	Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	tt					Project	Coordinator:	-
Standard:	FCC Part 15	. RSS-210						Class:	N/A
eliminary		Ocm from tl	he product to	5.	<i>otential signa</i> eak versus av	·		ge limit)	
requency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
4810.000	43.1	V	54.0	-10.9	Peak	0	1.0		
200.000	39.4	V	54.0	-14.6	Peak	0	1.0		
440.000	51.0	V	68.3	-17.3	Peak	0	1.0	Note 3	
requency	urements at Level	Pol	15.209	15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
803.980	49.3	V	54.0	-4.7	AVG	201	1.72		
804.070	51.2	V	74.0	-22.8	PK	201	1.72		
804.030	47.3	Н	54.0	-6.7	AVG	158	1.77		
804.200	49.9	H	74.0	-24.1	PK	158	1.77		
197.930	31.9	V	54.0	-22.1	AVG	141	1.68		
198.470	57.2	V	74.0	-16.8	PK	141	1.68		
195.800 198.800	32.6 57.5	<u>Н</u> Н	54.0 74.0	-21.4 -16.5	AVG PK	136 136	1.89 1.89		
	NTS WiFi lea								
Run	14 80.0- 70.0-	.1							
- A	60.0-								
Amplitu	40.0- 30.0-	unanat and	,	-Lonam	amintra anti-anta an	n an	Kurrent	<b>Ŀ</b> ĸĸŧĸĸĊţĸĸŶŦĬĸĸ <sup>ĸ</sup> ĸĬ	
	20.0-		00 2500	3000	3500 4000		5000 5	500 6000	

	VE ENGINEER	SUCCESS						EM	
Client:	Intel Mobile	Communicat	ions					Job Number:	
Model <sup>.</sup>	3160SDW							Log Number:	
								-	Christine Krebill
	Steve Hacke						Project	Coordinator:	
Standard:	FCC Part 15	, RSS-210						Class:	N/A
C Te	Radiated Spu Date of Test: est Engineer: est Location:	1/8/2014 & 1 J.Cadigal &	1/9/14 J.Caizzi	GHz. Operat	ing Mode: n2	20 @ 5580 N	1Hz, BT Bas	sic @ 2402 M	IHz
	r				Damas	D = #:= ==			1
			Target	t (dBm)	Power S Measure		Softwar	re Setting	
		WiFi		6.5		6.6		0.5	1
		BT	7	.0		-	ç	9.0	]
requency		Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
requency MHz	Level dBµV/m	Pol v/h	15.209 Limit	/ 15.247 Margin	Detector Pk/QP/Avg	Azimuth degrees	Height meters	Comments	
requency MHz nal measu	Level dBµV/m urements at	Pol v/h 3m	15.209 Limit	/ 15.247	Pk/QP/Avg	degrees	meters		
requency MHz nal measu	Level dBµV/m urements at	Pol v/h	15.209 Limit	/ 15.247 Margin				Comments Comments	
inal measu irequency MHz MHz Run (ɯ//ʌnɡp) əpnţijdwy	Level dBµV/m urements at Level dBµV/m	Pol v/h 3m Pol	15.209 Limit 15.209	/ 15.247 Margin / 15.247	Pk/QP/Avg	degrees Azimuth	meters Height		

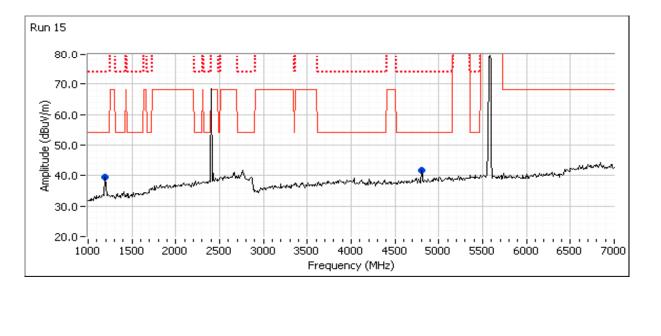


## EMC Test Data

Client:	Intel Mobile	Communicat	ions					Job Number:	J94122
Madali	240000144						T-Log Number: T94177		
Wodel:	3160SDW				Proj	ect Manager:	Christine Krebill		
Contact:	Steve Hacke	ett			Project	Coordinator:	-		
Standard:	FCC Part 15	6, RSS-210						Class:	N/A
		ssions, 1 - 7 <i>Ocm from th</i>		o identify po	otential sign	als (Peak ve	rsus avera	ae limit)	
Preliminary	/ Scan at ~ 3	Ocm from th	ne product to	2.1	otential sign eak versus av	-		ge limit)	
Preliminary	/ Scan at ~ 3	Ocm from th	ne product to 30cm from	2.1	C C	-		<i>ge limit)</i> Comments	
Preliminary Preliminary	/ Scan at ~ 3	Ocm from the missions at	ne product to 30cm from	1-7 GHz (Pe	ak versus av	verage limit) Azimuth			
Preliminary Preliminary Frequency	/ <i>Scan at ~ 3</i> / Spurious E Level	Ocm from the missions at Pol	ne product to 30cm from 15.209 /	1-7 GHz (Pe / 15.247	eak versus av Detector	verage limit) Azimuth	Height		n run 14.

## Final measurements at 3m

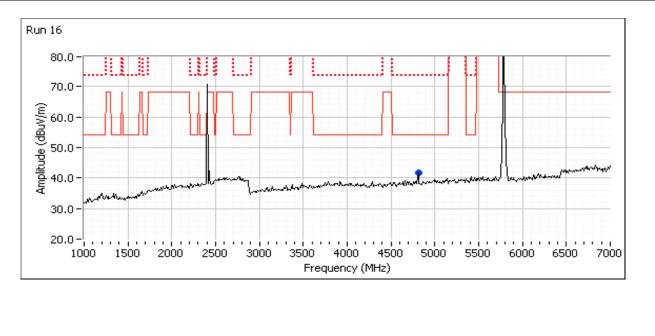
i mai mouou	al officinto at	0111						
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4804.050	47.1	Н	54.0	-6.9	AVG	152	1.44	
4803.720	49.8	Н	74.0	-24.2	PK	152	1.44	
4803.930	47.1	V	54.0	-6.9	AVG	204	1.71	
4803.820	49.8	V	74.0	-24.2	PK	204	1.71	



Cliont	Intel Mobile	Communicat	tions					Job Number:	10/122
Cilent.		Communica	10113					Log Number:	
Model:	3160SDW							-	Christine Krebill
Contact	Steve Hacke	att					-	Coordinator:	
	FCC Part 15						TOJECI	Class:	
Stanuaru.		, 1100-210						01833.	N/A
[ Te	Radiated Spu Date of Test: est Engineer: est Location:	1/8/2014 & J.Cadigal &	1/9/14 J.Caizzi	GHz. Operat	ting Mode: n	20 @ 5785 N	1Hz, BT Bas	sic @ 2402 M	IHz
					Dewer	Cattinga			1
			Targe	t (dBm)		Settings ed (dBm)	Softwar	e Setting	
		WiFi		6.5		6.6		1.5	1
		BT		.0	-	-		9.0	1
		Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
requency MHz	Level dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
MHz inal meas	dBµV/m urements at	v/h 3m					meters		
MHz inal measu requency	dBµV/m urements at Level	v/h 3m Pol	15.209	/ 15.247	Detector	Azimuth	meters Height	Comments	
MHz inal measure	dBµV/m urements at	v/h 3m					meters	Comments	
inal measu Frequency MHz Run	dBμV/m urements at Level dBμV/m 16 90.0 -	v/h 3m Pol	15.209	/ 15.247	Detector	Azimuth	meters Height	Comments	
MHz inal measu requency MHz Run	dBμV/m urements at Level dBμV/m 16 90.0 -	v/h 3m Pol	15.209	/ 15.247	Detector	Azimuth	meters Height	Comments	
MHz inal measu requency MHz Run (w/\ngp) apni	dBμV/m urements at Level dBμV/m 16 90.0 -	v/h 3m Pol	15.209	/ 15.247	Detector	Azimuth	meters Height	Comments	

		SUCCESS				EM	C Test Data		
Client:	Intel Mobile	Communicat	ions		,	Job Number:	J94122		
Madalı	246000144					T-L	_og Number:	T94177	
Model:	3160SDW					Proje	ect Manager:	Christine Krebill	
Contact:	Steve Hacke	ett			Project	Coordinator:	-		
Standard:	FCC Part 15	5, RSS-210						Class:	N/A
Preliminary	/ Scan at ~ 3		ne product t	5.	otential sign eak versus av	·		ge limit)	
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
4810.000	41.8	V	54.0	-12.2	Peak	0	1.0		

Final measu	urements at	3m						
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
4804.030	49.7	V	54.0	-4.3	AVG	201	1.71	
4803.930	51.7	V	74.0	-22.3	PK	201	1.71	
4803.980	47.3	Н	54.0	-6.7	AVG	157	1.55	
4803.900	49.9	Н	74.0	-24.1	PK	157	1.55	



	WE ENGINEER	SUCCESS							C Test Da
Client:	Intel Mobile	Communicat	ions					Job Number:	
Model	3160SDW						T-	Log Number:	T94177
							Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	ett					Project	Coordinator:	-
Standard:	FCC Part 15	, RSS-210						Class:	N/A
l Te	Radiated Spu Date of Test: est Engineer: est Location:	1/8/2014 & 1 J.Cadigal &	I/9/14 J.Caizzi	GHz. Operat	ting Mode: n2	20 @ 5300 N	1Hz, BT Bas	sic @ 2480 M	IHz
	[				Power S	Settings			1
			Target	t (dBm)	Measure		Softwar	re Setting	
		WiFi	16	6.5	16	( /	2	8.5	]
		BT	7	.0		-	Ç	9.0	J
requency		Pol	15.209	/ 15.247	Detector	Azimuth degrees	Height	Comments	
Frequency MHz	Level dBµV/m	Pol v/h				Azimuth degrees		Comments	
Trequency MHz inal meas	Level dBµV/m urements at	Pol v/h	15.209 Limit	/ 15.247	Detector		Height meters	Comments	
requency MHz nal meas	Level dBµV/m urements at	Pol v/h 3m	15.209 Limit	/ 15.247 Margin	Detector Pk/QP/Avg	degrees	Height		
inal meas requency MHz Run	Level dBµV/m urements at Level dBµV/m	Pol v/h 3m Pol	15.209 Limit 15.209	/ 15.247 Margin / 15.247	Detector Pk/QP/Avg Detector	degrees Azimuth	Height meters Height		

Client:	Intel Mobile	Communicat	ions					Job Number: J94122
Model:	3160SDW							Log Number: T94177
								ect Manager: Christine Krebill
	Steve Hacke						Project	Coordinator: -
Standard:	FCC Part 15	, RSS-210						Class: N/A
Preliminary		Ocm from th	<i>ne product t</i> 30cm from	1-7 GHz (Pe	<i>otential sign</i> a eak versus av	-		
Frequency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2420.000 1200.000	47.1 38.1	V V	68.3 54.0	-21.2 -15.9	Peak Peak	0	1.0 1.0	Note 3 Measured in run 14.
1200.000	JO. I	V	54.0	-10.9	reak	U	1.0	
- inal measu	urements at	3m						
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1195.800	32.6	Н	54.0	-21.4	AVG	136	1.89	From run 4.
1198.800	57.5	Н	74.0	-16.5	PK	136	1.89	From run 4.
Amplitude (dBu'	80.0 - 70.0 - 60.0 - 50.0 - 40.0 - 30.0 -				3500 4000	0 4500		500 6000 6500 7000
					Frequency	/ (MHZ)		

	E ENGINEER	SUCCESS					1	EM	
Client:	Intel Mobile (	Communicat	ions					Job Number:	
Model:	3160SDW							Log Number:	
								-	Christine Krebill
	Steve Hacke						Project	Coordinator:	
Standard:	FCC Part 15	, RSS-210						Class:	N/A
[ Te	adiated Spu Date of Test: st Engineer: est Location:	1/8/2014 & 1 J.Cadigal & .	I/9/14 J.Caizzi	GHz. Operat	ing Mode: n2	20 @ 5580 N	/Hz, BT Bas	sic @ 2480 M	Ηz
	г					2			1
			Taroot	t (dBm)	Power S Measure		Softwa	re Setting	
	ŀ	WiFi		6.5		6.6		0.5	1
	ŀ	BT		.0		-		9.0	1
eliminary		missions ex	cluding allo	ocated band	l (Peak versu				
			cluding allo	ocated band / 15.247 Margin	(Peak versu Detector Pk/QP/Avg	is average li Azimuth degrees	imit) Height meters	Comments	
reliminary requency MHz	Spurious Er Level dBµV/m	missions ex Pol v/h	cluding allo 15.209	/ 15.247	Detector	Azimuth	Height	Comments	
requency MHz nal measu	Spurious Er	missions ex Pol v/h	ccluding allo 15.209 Limit	/ 15.247	Detector	Azimuth	Height meters	Comments	
eliminary equency MHz nal measu	Spurious Er Level dBµV/m urements at	missions ex Pol v/h 3m	ccluding allo 15.209 Limit	/ 15.247 Margin	Detector Pk/QP/Avg	Azimuth degrees	Height		
reliminary requency MHz nal measu requency	Spurious Er Level dBµV/m urements at Level	missions ex Pol v/h 3m Pol	ccluding allo 15.209 Limit 15.209	/ 15.247 Margin / 15.247	Detector Pk/QP/Avg Detector	Azimuth degrees Azimuth	Height meters Height		
reliminary requency MHz nal measu requency	Spurious Er Level dBµV/m urements at Level dBµV/m 18	missions ex Pol v/h 3m Pol	ccluding allo 15.209 Limit 15.209	/ 15.247 Margin / 15.247	Detector Pk/QP/Avg Detector	Azimuth degrees Azimuth	Height meters Height		
eliminary requency MHz nal measu requency MHz	Spurious Er Level dBµV/m urements at Level dBµV/m	missions ex Pol v/h 3m Pol	ccluding allo 15.209 Limit 15.209	/ 15.247 Margin / 15.247	Detector Pk/QP/Avg Detector	Azimuth degrees Azimuth	Height meters Height		
eliminary requency MHz nal measu requency MHz	Spurious Er Level dBµV/m urements at Level dBµV/m 18	missions ex Pol v/h 3m Pol	ccluding allo 15.209 Limit 15.209	/ 15.247 Margin / 15.247	Detector Pk/QP/Avg Detector	Azimuth degrees Azimuth	Height meters Height		
eliminary requency MHz nal measu requency MHz Run	Spurious Er Level dBµV/m urements at Level dBµV/m 18 90.0 –	missions ex Pol v/h 3m Pol	ccluding allo 15.209 Limit 15.209	/ 15.247 Margin / 15.247	Detector Pk/QP/Avg Detector	Azimuth degrees Azimuth	Height meters Height		
eliminary requency MHz nal measu requency MHz Run	Spurious Er Level dBµV/m urements at Level dBµV/m 18 90.0 –	missions ex Pol v/h 3m Pol	ccluding allo 15.209 Limit 15.209	/ 15.247 Margin / 15.247	Detector Pk/QP/Avg Detector	Azimuth degrees Azimuth	Height meters Height		
eliminary requency MHz nal measu requency MHz Run	Spurious Er Level dBµV/m urements at Level dBµV/m 18 90.0 –	missions ex Pol v/h 3m Pol	ccluding allo 15.209 Limit 15.209	/ 15.247 Margin / 15.247	Detector Pk/QP/Avg Detector	Azimuth degrees Azimuth	Height meters Height		
eliminary requency MHz nal measu requency MHz Run	Spurious Er Level dBµV/m urements at Level dBµV/m 18 90.0 –	missions ex Pol v/h 3m Pol	ccluding allo 15.209 Limit 15.209	/ 15.247 Margin / 15.247	Detector Pk/QP/Avg Detector	Azimuth degrees Azimuth	Height meters Height		
eliminary requency MHz nal measu requency MHz Run	Spurious Er Level dBμV/m urements at Level dBμV/m 18 90.0 - 80.0 - 70.0 - 60.0 -	missions ex Pol v/h 3m Pol	ccluding allo 15.209 Limit 15.209	/ 15.247 Margin / 15.247	Detector Pk/QP/Avg Detector	Azimuth degrees Azimuth	Height meters Height		
reliminary requency MHz nal measu requency MHz Run (ɯ//nɡp) əpnţijdwy	Spurious Er Level dBµV/m urements at Level dBµV/m 18 90.0 –	missions ex Pol v/h 3m Pol	ccluding allo 15.209 Limit 15.209	/ 15.247 Margin / 15.247	Detector Pk/QP/Avg Detector	Azimuth degrees Azimuth	Height meters Height		

	Intel Mobile	Communicat	ions					Job Number:	J94122
Madal	3160SDW							Log Number:	
							Proj	ect Manager:	Christine Krebill
	Steve Hacke						Project	Coordinator	
Standard:	FCC Part 15	, RSS-210						Class	N/A
reliminary		Ocm from the	<i>he product</i> 30cm from	1-7 GHz (Pe	otential signa	verage limit)			
Frequency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
			0.0	0.0	<u> </u>			<u> </u>	
inal measu requency	urements at Level	3m Pol	15 209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	Comments	
	de provinsi		0.0	0.0					
itude (dBuV/m)	70.0 - 60.0 - 50.0 - 40.0 - 30.0 -	a term			monte	nen gerand he	weekken		

- N	VE ENGINEER	SUCCESS							C Test Da
Client:	Intel Mobile	Communica	tions					Job Number:	J94122
Model	3160SDW						T-	Log Number:	T94177
would.	510000010							-	Christine Krebill
Contact:	Steve Hacke	ett					Project	Coordinator:	-
Standard:	FCC Part 15	, RSS-210						Class:	N/A
[ Te	Radiated Spu Date of Test: est Engineer: est Location:	1/8/2014 & J.Cadigal &	1/9/14 J.Caizzi	GHz. Operat	ting Mode: n2	20 @ 5785 N	1Hz, BT Bas	sic @ 2480 M	IHz
					Dewer	Cattinga			1
			Tarnel	t (dBm)	Power a Measure	Settings ed (dBm)	Softwar	e Setting	
		WiFi		6.5		6.6		1.5	1
		BT		.0	-	-		9.0	1
requency	Spurious E	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
reliminary requency MHz			xcluding allo 15.209 Limit	ocated band / 15.247 Margin				Comments	
requency MHz nal measu	Level dBµV/m urements at	Pol v/h 3m	15.209 Limit	/ 15.247 Margin	Detector Pk/QP/Avg	Azimuth degrees	Height meters		
nal measu requency	Level dBµV/m urements at Level	Pol v/h 3m Pol	15.209 Limit 15.209	/ 15.247 Margin / 15.247	Detector Pk/QP/Avg Detector	Azimuth degrees Azimuth	Height meters Height	Comments Comments	
nal measu	Level dBµV/m urements at	Pol v/h 3m	15.209 Limit	/ 15.247 Margin	Detector Pk/QP/Avg	Azimuth degrees	Height meters		
nal measu requency	Level dBµV/m urements at Level dBµV/m	Pol v/h 3m Pol	15.209 Limit 15.209	/ 15.247 Margin / 15.247	Detector Pk/QP/Avg Detector	Azimuth degrees Azimuth	Height meters Height		
requency MHz nal measu requency MHz Run	Level dBµV/m urements at Level dBµV/m	Pol v/h 3m Pol	15.209 Limit 15.209	/ 15.247 Margin / 15.247	Detector Pk/QP/Avg Detector	Azimuth degrees Azimuth	Height meters Height		
nal measu requency MHz MHz Run	Level dBμV/m urements at Level dBμV/m 19 90.0 - 80.0 -	Pol v/h 3m Pol	15.209 Limit 15.209	/ 15.247 Margin / 15.247	Detector Pk/QP/Avg Detector	Azimuth degrees Azimuth	Height meters Height		
nal measu requency MHz MHz Run	Level dBμV/m urements at Level dBμV/m 19 90.0 - 80.0 -	Pol v/h 3m Pol	15.209 Limit 15.209	/ 15.247 Margin / 15.247	Detector Pk/QP/Avg Detector	Azimuth degrees Azimuth	Height meters Height		
nal measu requency MHz MHz Run	Level dBμV/m urements at Level dBμV/m 19 90.0 - 80.0 -	Pol v/h 3m Pol	15.209 Limit 15.209	/ 15.247 Margin / 15.247	Detector Pk/QP/Avg Detector	Azimuth degrees Azimuth	Height meters Height		
nal measu mHz requency MHz Run	Level dBμV/m urements at Level dBμV/m 19 90.0 - 80.0 -	Pol v/h 3m Pol	15.209 Limit 15.209	/ 15.247 Margin / 15.247	Detector Pk/QP/Avg Detector	Azimuth degrees Azimuth	Height meters Height		
requency MHz nal measu requency MHz Run	Level dBμV/m urements at Level dBμV/m 19 90.0 - 80.0 -	Pol v/h 3m Pol	15.209 Limit 15.209	/ 15.247 Margin / 15.247	Detector Pk/QP/Avg Detector	Azimuth degrees Azimuth	Height meters Height		
mHz mal measu requency MHz Run (m/mp) mHz	Level dBµV/m urements at Level dBµV/m 90.0 - 80.0 - 70.0 -	Pol v/h 3m Pol	15.209 Limit 15.209	/ 15.247 Margin / 15.247	Detector Pk/QP/Avg Detector	Azimuth degrees Azimuth	Height meters Height		

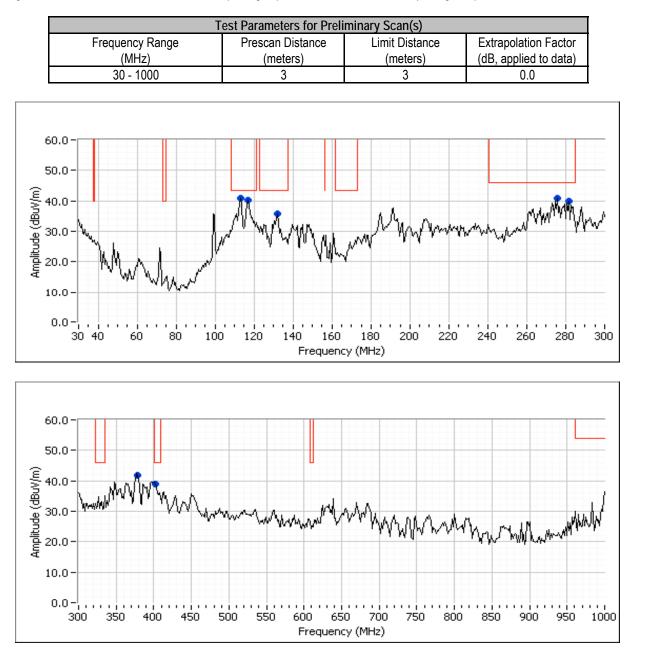
Client:	Intel Mobile	Communicat	ions					Job Number: J94122
								Log Number: T94177
Wodel:	3160SDW						Proj	ect Manager: Christine Krebill
Contact:	Steve Hacke	ett						t Coordinator: -
Standard:	FCC Part 15	, RSS-210						Class: N/A
<i>reliminary</i> reliminary	Spurious E	Ocm from the	<i>ne product i</i> 30cm from	1-7 GHz (Pe	otential signa	verage limit)		- ·
Frequency MHz		Pol v/h	15.209 Limit	/ 15.247	Detector Pk/QP/Avg	Azimuth	Height	Comments
IVIFIZ	dBµV/m	V/[]	0.0	Margin 0.0	FNQP/AVg	degrees	meters	
nal meas	urements at Level	3m Pol	15,209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
			0.0	0.0				
Amplitude (dBuV/m)	30.0-	1500 20	,,	~~~{ 				500 6000 6500 700

	ntel Mobile Communications		J	ob Number: J94122
			T-Lo	og Number: T94177
Model: 3	3160SDW			ct Manager: Christine Krebill
Contact: S	Steve Hackett		-	Coordinator: -
	CC Part 15, RSS-210			Class: B
ost Snoci	(Elliott Laboratories Fre	ns 30-1000 MHz (T mont Facility, Semi-Anec		•
est speci	fic Details Objective: The objective of this test session is specification listed above.	s to perform final qualificati	on testing of t	the EUT with respect to the
	ate of Test: 1/10/2014	Config. Used:		
	t Engineer: John Caizzi	Config Change:		
Tes	st Location: Chamber 4	Host Voltage:	120V / 60Hz	
ntenna, and	manipulation of the EUT's interface cables.			
Summary	Rel. Humidity: 34	1 °C 4 %		
Summary	Temperature: 2 Rel. Humidity: 3 of Results s: 001500E60B22 DRTU Tool Version 1.7.4	4 % -855 Driver version 16.8.		
Summary	Temperature: 2 Rel. Humidity: 3 of Results s: 001500E60B22 DRTU Tool Version 1.7.4 # Test Performed	4 % I-855 Driver version 16.8. Limit		Margin 32.9 dBu\V/m @ 112.19 MHz
Summary	Temperature:       2         Rel. Humidity:       34         of Results         s: 001500E60B22       DRTU Tool Version 1.7.4         #       Test Performed         Radiated Emissions	4 % -855 Driver version 16.8.		32.9 dBµV/m @ 112.19 MHz
Summary IAC Addres Run	Temperature:       2         Rel. Humidity:       34         of Results       34         s: 001500E60B22       DRTU Tool Version 1.7.4         #       Test Performed         Radiated Emissions       30 - 1000 MHz, Preliminary         Radiated Emissions       30 - 1000 MHz, Maximized	4 % I-855 Driver version 16.8. Limit	Result	32.9 dBµV/m @ 112.19 MHz (-10.6 dB) 32.9 dBµV/m @ 112.19 MHz (-10.6 dB)
Summary IAC Addres Run 1	Temperature:       2         Rel. Humidity:       3         of Results         s: 001500E60B22 DRTU Tool Version 1.7.4         #       Test Performed         Radiated Emissions       30 - 1000 MHz, Preliminary         Radiated Emissions       30 - 1000 MHz, Maximized         Radiated Emissions       30 - 1000 MHz, Preliminary         State of the second s	4 % -855 Driver version 16.8. Limit FCC 15.209 / RSS 210	Result Eval	32.9 dBµV/m @ 112.19 MHz (-10.6 dB) 32.9 dBµV/m @ 112.19 MHz (-10.6 dB) 28.6 dBµV/m @ 30.04 MHz (-11.4 dB)
Summary ( MAC Addres Run 1 2	Temperature:       2'         Rel. Humidity:       3'         of Results       3'         s: 001500E60B22       DRTU Tool Version 1.7.4         #       Test Performed         Radiated Emissions       30 - 1000 MHz, Preliminary         Radiated Emissions       30 - 1000 MHz, Maximized         30 - 1000 MHz, Maximized       Radiated Emissions	4 % 	Result Eval Pass	32.9 dBμV/m @ 112.19 MHz (-10.6 dB) 32.9 dBμV/m @ 112.19 MHz (-10.6 dB) 28.6 dBμV/m @ 30.04 MHz

	NTS VE ENGINEER BUCCESS	EM	C Test Data
Client:	Intel Mobile Communications	Job Number:	J94122
Madal	3160SDW	T-Log Number:	Т94177
	31003DW	Project Manager:	Christine Krebill
Contact:	Steve Hackett	Project Coordinator:	-
Standard:	FCC Part 15, RSS-210	Class:	В

Run #1: Preliminary Radiated Emissions, 30 - 1000 MHz

Configured to TX, 802.11b 16.5dBm on chain A (setting 22) on channel 6, BLE chain B (setting Max) on channel 2440MHz.

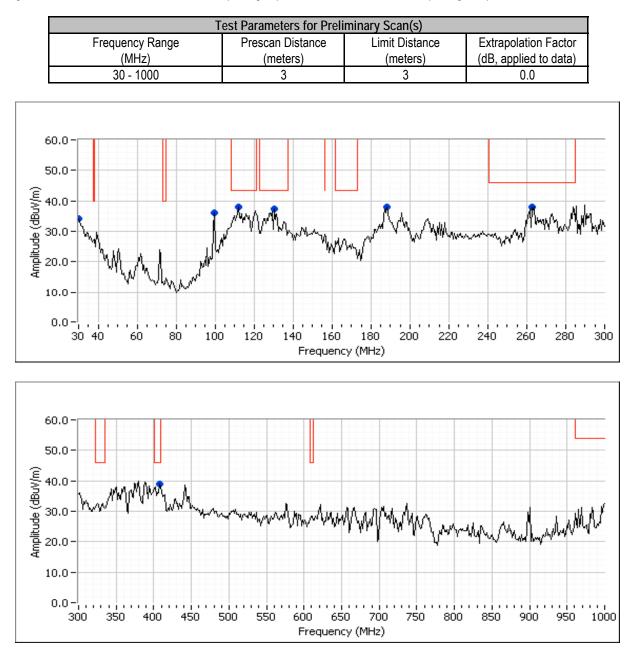


		SUCCESS						EMC Test Data
Client:	Intel Mobile	Communic	cations					Job Number: J94122
							T-	Log Number: T94177
Model:	3160SDW					·		ect Manager: Christine Krebill
Contact:	Steve Hacke	ett						: Coordinator: -
	FCC Part 15		)				i iojoot	Class: B
otanaara.	1 O O T dit 10	,100210	,					
Preliminary	peak readir	nas captu	red during p	re-scan				
Frequency	Level	Pol	FCC 15.209		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
112.185	40.7	V	43.5	-2.8	Peak	285	1.0	
116.275	40.1	V	43.5	-3.4	Peak	231	1.0	
276.109	40.8	Н	46.0	-5.2	Peak	178	1.0	
279.509	39.8	Н	46.0	-6.2	Peak	347	1.5	
403.050	39.0	Н	46.0	-7.0	Peak	209	1.5	
133.439	35.6	V	43.5	-7.9	Peak	102	1.5	
375.754	41.8	Н	46.0	-4.2	Peak	211	1.5	Note 1
			(no manipul				Llaiabt	Commente
Frequency MHz		Pol	FCC 15.209			Azimuth	Height	Comments
	dBµV/m	v/h H	Limit	Margin	Pk/QP/Avg	degrees	meters	
279.509	28.7	H V	46.0	-17.3	QP OD	345	1.01	
112.185 116.275	32.9 28.3	V	43.5	-10.6	QP OD	171	1.00	
375.754	<u>    28.3</u> 33.3	V H	43.5	-15.2 -12.7	QP QP	149 220	1.00	
403.050	33.3 32.2	H	46.0 46.0	-12.7	QP QP	220	<u>1.01</u> 1.00	
276.109	32.2	H	46.0	-13.0 -15.7	QP QP	205	1.00	
133.439	25.5	V	40.0	-15.7	QP QP	113	1.00	
155.459	20.0	V	43.3	-10.0	QF	113	1.01	
lote 1:	Emission in	non-restric	ted band. bu	t limit of 15 2	ng used			
Run #2: Ma	aximized Rea	adings Fro			.00 0300.			
un #2: Ma	aximized Re	adings Fro	om Run #1			sheed Deer."		
Run #2: Ma			om Run #1 Te	st Paramete	rs for Maxim			Extrapolation Factor
2un #2: Ma		quency Ra	om Run #1 Te	st Paramete Test D	ers for Maxim istance	Limit Di	istance	Extrapolation Factor
tun #2: Ma		quency Ra (MHz)	om Run #1 Te: ange	st Paramete Test D (me	ers for Maxim istance ters)	Limit Di (met	istance ers)	(dB, applied to data)
	Fre	quency Ra (MHz) 30 - 1000	om Run #1 Te: ange	st Paramete Test D (me	e <mark>rs for Maxim</mark> istance ters) 3	Limit Di (met 3	istance ers)	
laximized (	Fre	quency Ra (MHz) 30 - 1000	om Run #1 Te: ange	st Paramete Test D (mei cinipulation d	e <mark>rs for Maxim</mark> istance ters) 3	Limit Di (met 3	istance rers) 3	(dB, applied to data) 0.0
1aximized (	Free quasi-peak Level	quency Ra (MHz) 30 - 1000 readings (	om Run #1 Te: ange (includes ma	st Paramete Test D (me c nipulation c 2 / RSS 210	rs for Maxim istance ters) 3 of EUT interf	Limit Di (met 3 ace cables) Azimuth	istance ers) 3 Height	(dB, applied to data)
laximized (	Free quasi-peak	quency Ra (MHz) 30 - 1000 readings ( Pol	om Run #1 Te: ange (includes ma FCC 15.209	st Paramete Test D (mei cinipulation d	rs for Maxim istance ters) 3 of EUT interf Detector	Limit Di (met ace cables)	istance rers) 3	(dB, applied to data) 0.0
laximized ( Frequency MHz	Free quasi-peak Level dBµV/m	quency Ra (MHz) 30 - 1000 readings ( Pol v/h	om Run #1 Te: ange (includes ma FCC 15.209 Limit	st Paramete Test D (me anipulation o ) / RSS 210 Margin	ors for Maxim istance ters) 3 of EUT interf Detector Pk/QP/Avg	Limit Di (met ace cables) Azimuth degrees	istance ers) 3 Height meters	(dB, applied to data) 0.0 Comments
laximized Frequency MHz 279.509 112.185	Free quasi-peak Level dBµV/m 28.7	quency Ra (MHz) 30 - 1000 readings ( Pol v/h H	om Run #1 Te: ange (includes ma FCC 15.209 Limit 46.0	st Paramete Test D (me anipulation o 7 RSS 210 Margin -17.3	ors for Maxim istance ters) 3 of EUT interf Detector Pk/QP/Avg QP	Limit Di (met ace cables) Azimuth degrees 345	istance iers) 3 Height meters 1.01	(dB, applied to data) 0.0 Comments Moving cables lowered reading.
flaximized Frequency MHz 279.509	Free quasi-peak Level dBµV/m 28.7 32.9	quency Ra (MHz) 30 - 1000 readings ( Pol v/h H V	om Run #1 Te: ange (includes ma FCC 15.209 Limit 46.0 43.5	st Paramete Test D (me) anipulation of 2 / RSS 210 Margin -17.3 -10.6	ors for Maxim istance ters) 3 of EUT interf Detector Pk/QP/Avg QP QP	Limit Di (met ace cables) Azimuth degrees 345 171	istance iers) 3 Height meters 1.01 1.00	(dB, applied to data) 0.0 Comments Moving cables lowered reading. Moving cables lowered reading.
Maximized of Frequency MHz 279.509 112.185 116.275	Free quasi-peak Level dBµV/m 28.7 32.9 28.3	quency Ra (MHz) 30 - 1000 readings ( Pol v/h H V V	om Run #1 Te: ange (includes ma FCC 15.209 Limit 46.0 43.5 43.5	st Paramete Test D (me 20 / RSS 210 Margin -17.3 -10.6 -15.2	rs for Maxim istance ters) 3 of EUT interf Detector Pk/QP/Avg QP QP QP	Limit Di (met ace cables) Azimuth degrees 345 171 149	Height Height 1.01 1.00 1.00	(dB, applied to data) 0.0 Comments Moving cables lowered reading. Moving cables lowered reading. Moving cables lowered reading.
Maximized of Frequency MHz 279.509 112.185 116.275 375.754	Free quasi-peak 1 Level dBµV/m 28.7 32.9 28.3 33.3	quency Ra (MHz) 30 - 1000 readings ( Pol V/h H V V V H	om Run #1 Te: ange (includes ma FCC 15.209 Limit 46.0 43.5 43.5 43.5	st Paramete Test D (me canipulation of 7 RSS 210 Margin -17.3 -10.6 -15.2 -12.7	ors for Maxim istance ters) 3 of EUT interf Detector Pk/QP/Avg QP QP QP QP	Limit Di (met 3 ace cables) Azimuth degrees 345 171 149 220	Height Height Heters 1.01 1.00 1.00 1.01	(dB, applied to data) 0.0 Comments Moving cables lowered reading. Moving cables lowered reading. Moving cables lowered reading. Moving cables lowered reading.

		EMO	C Test Data
Client:	Intel Mobile Communications	Job Number:	J94122
Madalı	3160SDW	T-Log Number:	T94177
	31003044	Project Manager:	Christine Krebill
Contact:	Steve Hackett	Project Coordinator:	-
Standard:	FCC Part 15, RSS-210	Class:	В

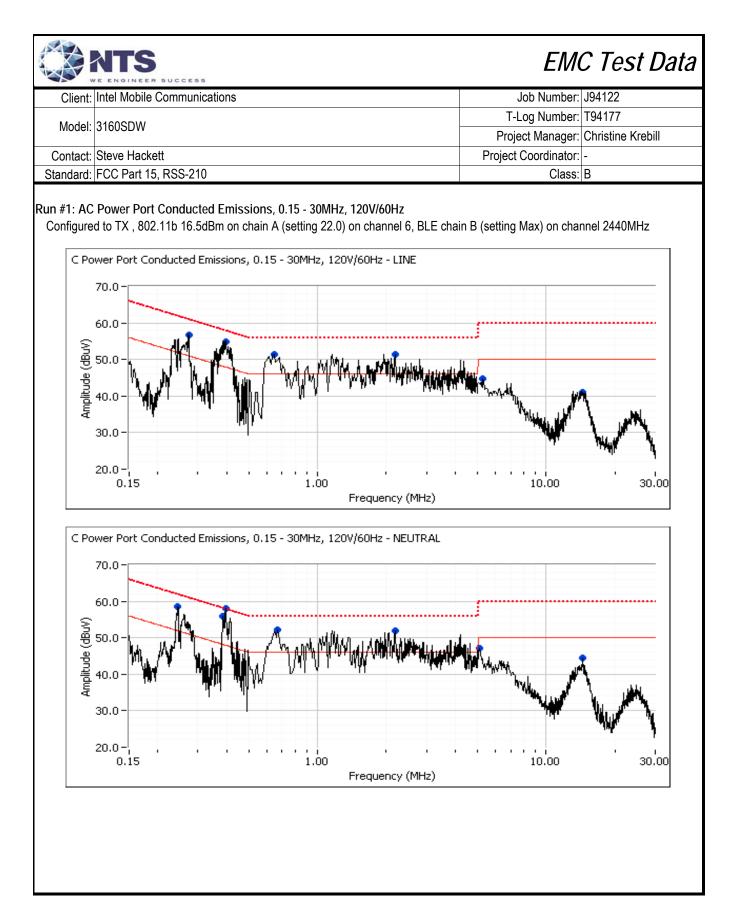
Run #3: Preliminary Radiated Emissions, 30 - 1000 MHz

Configured to TX, 802.11a 16.5dBm on chain A (setting 30) on channel 100, BLE chain B (setting Max) on channel 2480MHz.



,	Intel Mobile	Communio	cations					Job Number: J94122
Madalı	3160SDW						T-	Log Number: T94177
Model:	3 1002010						Proj	ect Manager: Christine Krebill
Contact:	Steve Hacke	ett					Project	t Coordinator: -
	FCC Part 15		)				,	Class: B
010110010		,						
Preliminary	v peak readir	ngs captu	red during p	re-scan (pea	ak readings	vs. average	limit)	
Frequency	Level	Pol	FCC 15.209		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
114.078	38.1	V	43.5	-5.4	Peak	140	2.0	
188.629	38.0	Н	43.5	-5.5	Peak	175	2.0	Note 1
30.038	34.0	V	40.0	-6.0	Peak	57	1.0	Note 1
130.441	37.4	V	43.5	-6.1	Peak	117	1.0	
403.794	39.0	Н	46.0	-7.0	Peak	202	1.0	
99.812	36.1	V	43.5	-7.4	Peak	224	1.5	Note 1
262.665	37.9	Н	46.0	-8.1	Peak	81	2.5	
			(no manipu					1.
Frequency	Level	Pol	FCC 15.209		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
99.812	25.8	V	43.5	-17.7	QP	233	1.68	
403.794	31.5	Н	46.0	-14.5	QP	208	1.00	
188.629	26.2	Н	43.5	-17.3	QP	153	1.64	
114.078	30.2	V	43.5	-13.3	QP	122	1.01	
130.441	26.0	V	43.5	-17.5	QP	134	1.00	
30.038	28.6	V	40.0	-11.4	QP	31	1.01	
Run #4: Ma	aximized Rea	0	Te		rs for Maxin		5.7	
Run #4: Ma		quency Ra	Te	Test D	istance	Limit D	istance	Extrapolation Factor
Run #4: Ma		quency Ra (MHz)	Te ange	Test D (me	istance ters)	Limit D (met	istance ters)	(dB, applied to data)
Run #4: Ma		quency Ra	Te ange	Test D (me	istance	Limit D	istance ters)	
	Fre	quency Ra (MHz) 30 - 1000	Te ange	Test D (me	istance ters) 3	Limit D (met	istance ters)	(dB, applied to data)
Maximized	Fre quasi-peak	quency Ra (MHz) 30 - 1000 readings	Te ange (includes ma	Test D (me	istance ters) 3 of EUT interf	Limit D (met ace cables)	ters)	(dB, applied to data) 0.0
<i>N</i> aximized Frequency	Fre quasi-peak Level	quency Ra (MHz) 30 - 1000 readings	Te ange (includes ma FCC 15.209	Test D (me nipulation o 2 / RSS 210	istance ters) 3 of EUT interf Detector	Limit D (met ace cables) Azimuth	istance ters) 3 Height	(dB, applied to data)
<u>Maximized</u> Frequency MHz	Fre quasi-peak Level dBµV/m	quency Ra (MHz) 30 - 1000 readings Pol v/h	Te ange (includes ma FCC 15.209 Limit	Test D (me anipulation o ) / RSS 210 Margin	istance ters) 3 of EUT interf Detector Pk/QP/Avg	Limit D (met ace cables) Azimuth degrees	istance ters) 3 Height meters	(dB, applied to data) 0.0 Comments
Maximized Frequency MHz 99.812	Fre quasi-peak Level dBµV/m 25.8	quency Ra (MHz) 30 - 1000 readings Pol v/h V	Te ange (includes ma FCC 15.209 Limit 43.5	Test D (me anipulation o 7 RSS 210 Margin -17.7	istance ters) 3 of EUT interf Detector Pk/QP/Avg QP	Limit D (met ace cables) Azimuth degrees 233	Height 1.68	(dB, applied to data) 0.0 Comments Moving cables lowered reading.
Maximized Frequency MHz 99.812 403.794	Fre quasi-peak Level dBµV/m 25.8 31.5	quency Ra (MHz) 30 - 1000 readings Pol v/h V H	Te ange (includes ma FCC 15.209 Limit 43.5 46.0	Test D (me anipulation o 7 (RSS 210 Margin -17.7 -14.5	istance ters) 3 of EUT interf Detector Pk/QP/Avg QP QP	Limit D (met ace cables) Azimuth degrees 233 208	Height Heters 1.68 1.00	(dB, applied to data) 0.0 Comments Moving cables lowered reading. Moving cables lowered reading.
Maximized Frequency MHz 99.812 403.794 188.629	Fre quasi-peak Level dBµV/m 25.8 31.5 26.2	quency Ra (MHz) 30 - 1000 readings Pol V/h V H H	Te ange (includes ma FCC 15.209 Limit 43.5 46.0 43.5	Test D (me ) (mipulation o ) (RSS 210 Margin -17.7 -14.5 -17.3	istance ters) 3 of EUT interf Detector Pk/QP/Avg QP QP QP	Limit D (met ace cables) Azimuth degrees 233 208 153	Height Height 1.68 1.64	(dB, applied to data) 0.0 Comments Moving cables lowered reading. Moving cables lowered reading. Moving cables lowered reading.
Maximized Frequency MHz 99.812 403.794	Fre quasi-peak Level dBµV/m 25.8 31.5	quency Ra (MHz) 30 - 1000 readings Pol v/h V H	Te ange (includes ma FCC 15.209 Limit 43.5 46.0	Test D (me anipulation o 7 (RSS 210 Margin -17.7 -14.5	istance ters) 3 of EUT interf Detector Pk/QP/Avg QP QP	Limit D (met ace cables) Azimuth degrees 233 208	Height Heters 1.68 1.00	(dB, applied to data) 0.0 Comments Moving cables lowered reading. Moving cables lowered reading.

	VE ENGINEER	SUCCESS			EM	
Client:	Intel Mobile	Communications			Job Number:	J94122
Model	3160SDW			T	-Log Number:	T94177
				Pro	ject Manager:	Christine Krebill
	Steve Hacke			Projec	t Coordinator:	-
Standard:	FCC Part 15	, RSS-210			Class:	В
Fest Spec	cific Detail	(Elliott Laboratories Frem	missions (Transn oont Facility, Semi-Anecl	•	ber)	
	Objective:	The objective of this test session is to specification listed above.	perform final qualification	n testing of	the EUT with I	respect to the
	Date of Test:		Config. Used:			
	st Engineer:		Config Change:			
Te	est Location:	Chamber #4	EUT Voltage:	120 V, 60 I	Hz	
For tableto coupling p located ou	plane and 800 utside of the s	guration t, the EUT host system was located o cm from the LISN. A second LISN w semi-anechoic chamber. Any cables seed through a ferrite clamp upon exit	as used for all local support	ort equipme	ent. Remote s	support equipment was
For tablete coupling p located ou and when	op equipmen blane and 800 utside of the s possible pas Conditions	t, the EUT host system was located o cm from the LISN. A second LISN w semi-anechoic chamber. Any cables esed through a ferrite clamp upon exit S: Temperature: Rel. Humidity:	ras used for all local support running to remote support ing the chamber. 15-18 °C	ort equipme	ent. Remote s	support equipment was
For tableta coupling p located ou and when Ambient ( Summary	op equipmen olane and 800 utside of the s possible pas Conditions	t, the EUT host system was located o cm from the LISN. A second LISN w semi-anechoic chamber. Any cables used through a ferrite clamp upon exit s: Temperature: Rel. Humidity: S	vas used for all local support running to remote support ing the chamber. 15-18 °C 30-40 %	ort equipme t equipment	ent. Remote s	support equipment was
For tablete coupling p located ou and when Ambient ( Summary IAC Addre	op equipmen olane and 800 utside of the s possible pas Conditions	t, the EUT host system was located o cm from the LISN. A second LISN w semi-anechoic chamber. Any cables esed through a ferrite clamp upon exit S: Temperature: Rel. Humidity:	vas used for all local support running to remote support ing the chamber. 15-18 °C 30-40 %	ort equipme t equipment	ent. Remote s	support equipment was
For tableta coupling p located ou and when Ambient ( Summary <u>MAC Addre</u> Ru	op equipmen olane and 800 utside of the s possible pas <b>Conditions</b> <b>v of Result</b> ess: 001500E in #	t, the EUT host system was located o cm from the LISN. A second LISN w semi-anechoic chamber. Any cables used through a ferrite clamp upon exit s: Temperature: Rel. Humidity: S 60B22 DRTU Tool Version 1.7.4-85	vas used for all local support running to remote support ing the chamber. 15-18 °C 30-40 % 55 Driver version 16.8.0.	ort equipme equipment	ent. Remote s where routed	support equipment was





## EMC Test Data

Client:	Intel Mobile Communications	Job Number:	J94122
Madal	3160SDW	T-Log Number:	T94177
woder.	31003DW	Project Manager:	Christine Krebill
Contact:	Steve Hackett	Project Coordinator:	-
Standard:	FCC Part 15, RSS-210	Class:	В

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

Configured to TX, 802.11b 16.5dBm on chain A (setting 22.0) on channel 6, BLE chain B (setting Max) on channel 2440MHz

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

ricininary	peak readin	igs cupture	a aaning pro	Scull (pcuk	Teadings v	
Frequency	Level	AC	RSS 210	/ 15.207	Detector	Comments
MHz	dBμV	Line	Limit	Margin	QP/Ave	
0.398	57.9	Neutral	47.9	10.0	Peak	
0.385	55.8	Neutral	48.1	7.7	Peak	
0.394	54.9	Line	47.9	7.0	Peak	
0.244	58.5	Neutral	51.9	6.6	Peak	
0.648	52.1	Neutral	46.0	6.1	Peak	
2.184	51.9	Neutral	46.0	5.9	Peak	
0.275	56.8	Line	51.0	5.8	Peak	
0.656	51.5	Line	46.0	5.5	Peak	
2.178	51.5	Line	46.0	5.5	Peak	
5.008	47.1	Neutral	50.0	-2.9	Peak	
5.129	44.7	Line	50.0	-5.3	Peak	
14.237	44.6	Neutral	50.0	-5.4	Peak	
14.394	41.1	Line	50.0	-8.9	Peak	

Client:	Intel Mobile	Communicat	tions		Job Number:			
Model	3160SDW	2160001//						T94177
MOUEI.	איעפטטונ						Project Manager:	Christine Krebill
Contact:	Steve Hack	ett		Project Coordinator:	-			
Standard:	FCC Part 1	5, RSS-210	Class:	В				
nal quasi	-peak and a	verage readi	ings					
requency	Level AC RSS 210 / 15.207 Detector Comments				Comments			
MHz	dBµV	Line	Limit	Margin	QP/Ave			
0.398	45.7	Neutral	47.9	-2.2	AVG	AVG (0.10s)		
0.385	45.7	Neutral	48.2	-2.5	AVG	AVG (0.10s)		
0.398	55.0	Neutral	57.9	-2.9	QP	QP (1.00s)		
0.394	45.0	Line	48.0	-3.0	AVG	AVG (0.10s)		
0.385	55.2	Neutral	58.2	-3.0	QP	QP (1.00s)		
0.394	54.9	Line	58.0	-3.1	QP	QP (1.00s)		
0.656	40.7	Line	46.0	-5.3	AVG	AVG (0.10s)		
2.184	40.2	Neutral	46.0	-5.8	AVG	AVG (0.10s)		
0.656	50.1	Line	56.0	-5.9	QP	QP (1.00s)		
0.648	49.9	Neutral	56.0	-6.1	QP	QP (1.00s)		
0.243	55.7	Neutral	62.0	-6.3	QP	QP (1.00s)		
0.648	39.6	Neutral	46.0	-6.4	AVG	AVG (0.10s)		
2.184	49.4	Neutral	56.0	-6.6	QP	QP (1.00s)		
2.178	39.1	Line	46.0	-6.9	AVG	AVG (0.10s)		
0.275	53.7	Line	61.0	-7.3	QP	QP (1.00s)		
0.275	43.1	Line	51.0	-7.9	AVG	AVG (0.10s)		
2.178	47.8	Line	56.0	-8.2	QP	QP (1.00s)		
0.243	42.6	Neutral	52.0	-9.4	AVG	AVG (0.10s)		
14.237	33.4	Neutral	50.0	-16.6	AVG	AVG (0.10s)		
5.008	32.6	Neutral	50.0	-17.4	AVG	AVG (0.10s)		
14.394	31.4	Line	50.0	-18.6	AVG	AVG (0.10s)		
5.008	41.0	Neutral	60.0	-19.0	QP	QP (1.00s)		
5.129	30.6	Line	50.0	-19.4	AVG	AVG (0.10s)		
14.237	40.1	Neutral	60.0	-19.9	QP OD	QP (1.00s)		
5.129	38.5	Line	60.0	-21.5	QP	QP (1.00s)		
14.394	37.4	Line	60.0	-22.6	QP	QP (1.00s)		

## End of Report

This page is intentionally blank and marks the last page of this test report.