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EMC Test Report

## Application for Grant of Equipment Authorization

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

## 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: January 2, 3, and 6 - 12, 2014 TOTAL NUMBER OF PAGES: 184

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### **REVISION HISTORY**

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

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#### **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 E requirements for UNII Devices

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 General UNII Test Procedures KDB789033

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:

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

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

The test results recorded herein are based on a single type test of 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

#### UNII / LELAN DEVICES

#### **Operation in the 5.15 – 5.25 GHz Band**

FCC Rule Part	RSS Rule Part	Description	Measured Value / Comments	Limit / Requirement	Result
15.407(e)	-	Indoor operation only	Refer to user's manual	N/A	Complies
15.407(a) (2)	-	Min 26dB Bandwidth	11a: 37.1MHz n/ac20: 36.6MHz n/ac40: 42.3MHz ac80: 80.4MHz	N/A – limits output power if < 20MHz	N/A
-	A9.2(1)	Min 99% Bandwidth	11a: 17.0MHz n/ac20: 18.5MHz n/ac40: 36.1MHz ac80: 74.9MHz	N/A – limits output power if < 20MHz	N/A
15.407 (a) (1)	A9.2(1)	Output Power	11a: 16.3dBm (42.7mW) n/ac20: 16.4dBm (44.7mW) n/ac40: 16.6dBm (45.2mW) ac80: 12.0dBm (15.7mW) (Max eirp: 0.103W)	17dBm / 50mW (eirp < 23 dBm)	Complies
15.407 (a) (1)	-	Power Spectral	11a: 3.4dBm/MHz n/ac20: 3.3dBm/MHz	4 dBm/MHz	Complies
-	A9.5 (2)	Density	n/ac40: 1.1dBm/MHz ac80: -6.2dBm/MHz	6.4 dBm/MHz	Complies

FCC Rule Part	RSS Rule Part	Description	Measured Value / Comments	Limit / Requirement	Result (margin)
15.407(a) (2)	-	26dB Bandwidth	11a: 37.4MHz n/ac20: 38.3MHz n/ac40: 43.5MHz ac80:87.8MHz	N/A – limits output power if < 20MHz	N/A
-	A9.2(1)	Min 99% Bandwidth	11a:17.4MHz n/ac20:18.2MHz n/ac40: 36.1MHz ac80: 75.0MHz	N/A – limits output power if < 20MHz	N/A
15.407(a) (2)	A9.2(2)	Output Power	11a: 16.5dBm (44.6mW) n/ac20: 16.3dBm (42.5mW) n/ac40: 14.9dBm (30.6mW) ac80: 13.9dBm (24.4mW) (Max eirp: 0.105W)	24 dBm / 250mW (eirp < 30dBm)	Complies
15.407(a) (2)	-	Power Spectral Density	11a: 3.7dBm/MHz n/ac20: 3.2dBm/MHz	11.0 dBm/MHz	Complies
-	A9.2(2) / A9.5 (2)	Power Spectral Density	n/ac40: -0.6dBm/MHz ac80: -4.2dBm/MHz	11.0 dBm / $MHz^1$	Complies

**Operation in the 5.25 – 5.35 GHz Band** 

<sup>1</sup> Reduced from 11dBm because highest value exceeded the average value by more than 3dB

Operation in the 5.47 – 5.725 GHz Band						
FCC	RSS	Description	Measured Value /	Limit / Requirement	Result	
Rule Part	Rule Part	2000-priori	Comments		(margin)	
			11a:27.3MHz			
15.407(a)	_	26dB Bandwidth	n/ac20: 26.2MHz	N/A – limits output	N/A	
(2)		200D Danawidth	n/ac40: 41.6MHz	power if < 20MHz	14/74	
			ac80: 80.7MHz			
			11a:17.0MHz			
	A9.2(1)	Min 99% Bandwidth	n/ac20:18.2MHz	N/A – limits output	N/A	
_	$A_{2}(1)$	Will 9970 Bandwidth	n/ac40: 36.1MHz	power if < 20MHz	14/74	
			ac80: 74.9MHz			
			11a: 16.2dBm			
			(41.4mW)			
			n/ac20: 16.5dBm			
15.407(a)			(44.5mW)	24 dBm / 250mW		
15.407(a)	A9.2(2)	Output Power	n/ac40: 16.5dBm	(eirp < 30 dBm)	Complies	
(2)			(44.7mW)	(enp < soubin)		
			ac80: 15.9dBm			
			(38.7mW)			
			(Max eirp: 0.135W)			
15.407(a)		Dowor Spootrol Dongity	11a: 3.5dBm/MHz	11.0 dBm/MHz	Complias	
(2))		Power Spectral Density	n/ac20: 3.5dBm/MHz		Complies	
	A9.2(2) /	Power Spectral Density	n/ac40: 1.0dBm/MHz	$11.0 \text{ dBm} / \text{MHz}^2$	Complies	
	A9.5 (2)	Tower spectral Delisity	ac80: -2.2dBm/MHz		Complies	
KDB		Non-operation in	Device cannot operate i	n the 5600 _ 5650		
443999	A9	5600 – 5650 MHz	Device cannot operate in the 5600 – 5650 MHz band –refer to Operational Description		Complies	
++3777		sub band				

**Operation in the 5.47 – 5.725 GHz Band** 

 $^2$  Reduced from 11dBm because highest value exceeded the average value by more than 3dB

Requirements f	for all U-NII/L	ELAN bands		<b>A</b>	<u> </u>
FCC Rule Part	RSS Rule Part	Description	Measured Value / Comments	Limit / Requirement	Result
15.407	A9.5a	Modulation	Digital Modulation is used (OFDM)	Digital modulation is required	Complies
15.407(b) (5) / 15.209	A9.3	below IGHZ (-10.6 dB)		Defende nom 24	Complies
15.407(b) (5) / 15.209	A9.3	Spurious Emissions above 1GHz	51.7 dBµV/m @ 5350.0 MHz (-2.3 dB)	Refer to page 24	Complies
15.407(a)(6)	-	Peak Excursion Ratio	8.4dB	< 13dB	Complies
	A9.5 (3)	- Channel Selection	Spurious emissions tested at outermost channels in each band	Device was tested on the top, bottom	N/A
15			Measurements on three channels in each band	and center channels in each band	N/A
15.407 (c)	A9.5(4)	Operation in the absence of information to transmit	Operation is discontinued in the absence of information (Operational Description page 9)	Device shall automatically discontinue operation in the absence of information to transmit	Complies
15.407 (g)	A9.5 (5)	Frequency Stability	Frequency stability is better than 20ppm (Operational Description page 9)	Signal shall remain within the allocated band	Complies
15.407 (h1)	A9.4	Transmit Power Control	TPC is not required as the device operates at below 500mW eirp	The U-NII device shall have the capability to operate with a mean EIRP value lower than 24dBm (250mW)	Complies
15.407 (h2)	A9.4	Dynamic frequency Selection (device without radar detection)	Refer to separate test report, reference R94329	Channel move time < 10s Channel closing transmission time < 260ms	Complies
	A9.9g	User Manual information	Refer to Users Manual exhibit for details	Warning regarding interference from Satellite Systems	Complies

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 22	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 Users Manual exhibit for details	Statement required regarding non- interference	Complies
-	RSP 100 RSS GEN 7.1.2	User Manual	Refer to Users Manual exhibit for details	Statement for products with detachable antenna	Complies
-	RSP 100 RSS GEN 4.4.1	Max 99% Bandwidth	11a: 17.6MHz n/ac20: 18.8MHz n/ac40: 36.6MHz 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 January 2, 3, and 6 - 12, 2014. The EUT consisted of the following component(s):

Compa	ny	Model	Description	MAC Address:	FCC ID
Intel Mot	oile	3160SDW	Wireless Network	001500E60B22	PD93160SD
Communica	ations		Adapter	001500E6085C	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	DCCY	Desktop Computer	BJYN64J	N/A
-	ACK-260UAC	Keyboard	805229537(USA)	N/A
Logitech	M-BD69	Mouse	LNA20956449	N/A
HANNS	HX191	Monitor	017GR3XY00286	N/A
Agilent	-	Power Supply	-	-
Intel	NGFF Extender (ASS00390-101)	Test Fixture	N/A	-

#### Used for Tx Spurious >1GHz and UNII Antenna Port measurements

Used for Simultaneous transmission, Tx spurious <1GHz, and AC conducted emissions

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:

#### Used for Tx Spurious >1GHz and UNII Antenna Port measurements

Port		Cable(s)		
From	То	Description	Shielded/Unshielded	Length(m)
Computer – USB	Keyboard	Multiconductor	Shielded	1.5
Computer – USB	Mouse	Multiconductor	Shielded	1.5
Computer – VGA	Monitor	Multiconductor	Shielded	1.5
PCIe Port	Test Fixture	Ribbon Cable	Unshielded	0.8
EUT – RF ports (x2)	Antenna Fixture	coaxial (x2)	Shielded	0.2
Power Supply	Test Fixture	2wire	Unshielded	0.8

Port		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

Used for Simultaneous	tronomiccion	Ty only inla	$/1CU_{7}$	and AC con	duated amiggiona
Used for Simulaneous	transmission.	T X SDUHOUS *	$\mathbb{N}$ UITZ.	and AU con	aucted emissions

#### 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	Registration Numbers		Location	
Site	FCC	Canada	Location	
Chamber 3	769238	2845B-3	41020 Dovoo Dood	
Chamber 4	211948	2845B-4	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.

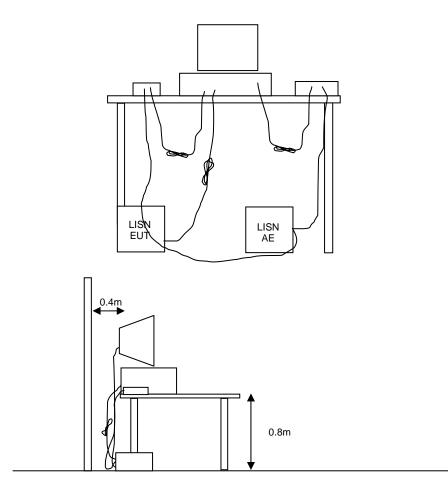


Figure 1 Typical Conducted Emissions Test Configuration

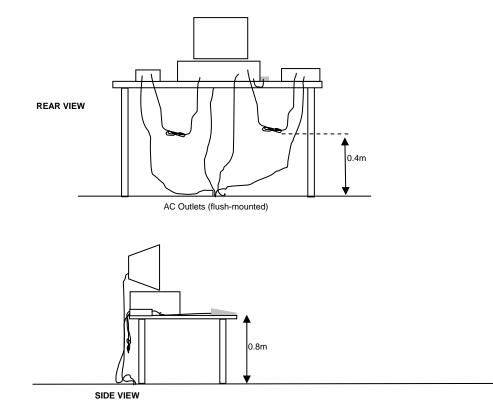
#### RADIATED EMISSIONS

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.

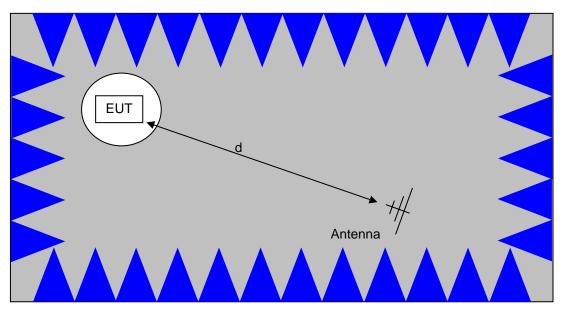
A speaker is provided in the receiver to aid in discriminating between EUT and ambient emissions. Other methods used during the preliminary scan for EUT emissions involve scanning with near field magnetic loops, monitoring I/O cables with RF current clamps, and cycling power to the EUT.

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.

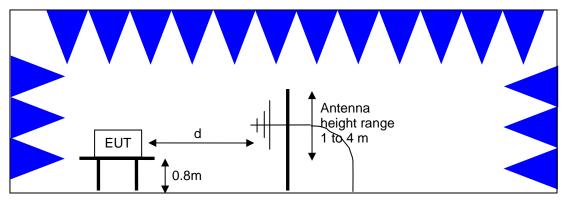


Typical Test Configuration for Radiated Field Strength Measurements



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.

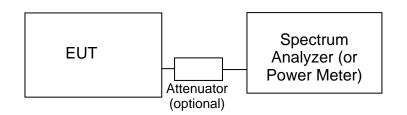
Floor-standing equipment is placed on the floor with insulating supports between the unit and the ground plane.



<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>3</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

#### FCC 15.407 (a) OUTPUT POWER LIMITS

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

Operating Frequency (MHz)	Output Power	Power Spectral Density
5150 - 5250	50mW (17 dBm)	4 dBm/MHz
5250 - 5350	250 mW (24 dBm)	11 dBm/MHz
5725 - 5825	1 Watts (30 dBm)	17 dBm/MHz

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

The peak excursion envelope is limited to 13dB.

<sup>&</sup>lt;sup>3</sup> The restricted bands are detailed in FCC 15.203, RSS 210 Table 1 and RSS 310 Table 2

#### OUTPUT POWER LIMITS -LELAN DEVICES

The table below shows the limits for output power and output power density defined by RSS 210. Where the signal bandwidth is less than 20 MHz the maximum output power is reduced to the power spectral density limit plus 10 times the log of the bandwidth (in MHz).

Operating Frequency (MHz)	Output Power	Power Spectral Density
5150 - 5250	200mW (23 dBm) eirp	10 dBm/MHz eirp
5250 - 5350	$250 \text{ mW} (24 \text{ dBm})^4$ 1W (30dBm) eirp	11 dBm/MHz
5470 - 5725	250 mW (24 dBm) <sup>5</sup> 1W (30dBm) eirp	11 dBm/MHz
5725 - 5825	1 Watts (30 dBm) 4W eirp	17 dBm/MHz

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

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

#### SPURIOUS EMISSIONS LIMITS –UNII and LELAN DEVICES

The spurious emissions limits for signals below 1GHz are the FCC/RSS-GEN general limits. For emissions above 1GHz, signals in restricted bands are subject to the FCC/RSS GEN general limits. All other signals have a limit of -27dBm/MHz, which is a field strength of 68.3dBuV/m/MHz at a distance of 3m. For devices operating in the 5725-5850Mhz bands under the LELAN/UNII rules, the limit within 10MHz of the allocated band is increased to -17dBm/MHz.

#### SAMPLE CALCULATIONS - CONDUCTED EMISSIONS

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

$$R_r - S = M$$

where:

 $R_r = Receiver Reading in dBuV$ 

S = Specification Limit in dBuV

M = Margin to Specification in +/- dB

<sup>&</sup>lt;sup>4</sup> If EIRP exceeds 500mW the device must employ TPC

<sup>&</sup>lt;sup>5</sup> If EIRP exceeds 500mW the device must employ TPC

#### 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

Manufacturer	Description	Model	<u>Asset #</u>	Cal Due
Radio Antenna Port, 3 Rohde & Schwarz	Signal Analyzer 20 Hz - 26.5	FSQ26	2327	4/25/2014
Agilent Technologies	GHz USB Average Power Sensor	U2001A	2442	12/19/2014
Radiated Emissions, 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	ec-13		
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 Emissions, Hewlett Packard	<b>1,000 - 40,000 MHz, 02-Jan-14</b> Microwave Preamplifier, 1- 26.5GHz	8449B	785	10/31/2014
EMCO	Antenna, Horn, 1-18 GHz	3115	1142	8/23/2014
Hewlett Packard	(SA40-Red) SpecAn 30 Hz -40 GHz, SV (SA40) Red	8564E (84125C)	1148	9/14/2014
Micro-Tronics	Band Reject Filter, 5150-5350 MHz	BRC50703-02	2251	10/3/2014
Radiated Emissions,	1,000 - 18,000 MHz, 03-Jan-14			
EMCO Hewlett Packard	Antenna, Horn, 1-18 GHz SpecAn 9 kHz - 40 GHz, FT	3115 8564E (84125C)	487 1393	7/19/2014 5/9/2014
Hewlett Packard	(SA40) Blue Microwave Preamplifier, 1- 26.5GHz	8449B	1780	11/26/2014
Micro-Tronics	Band Reject Filter, 5150-5350 MHz	BRC50703-02	2239	9/18/2014
Hewlett Packard	High Pass filter, 8.2 GHz (Purple System)	P/N 84300-80039	1767	11/26/2014
Radiated Emissions,	1000 - 18,000 MHz, 04-Jan-14			
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	High Pass filter, 8.2 GHz (Purple System)	P/N 84300-80039	1767	11/26/2014
Hewlett Packard	Microwave Preamplifier, 1-	8449B	1780	11/26/2014
Micro-Tronics	26.5GHz 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
	1,000 - 40,000 MHz, 06-Jan-14	2115	407	7/10/2014
EMCO	Antenna, Horn, 1-18 GHz	3115	487	7/19/2014 Page 27
File: R94333				Page 27

		Report	t Date: Janua	ary 23, 2014
<u>Manufacturer</u> Hewlett Packard	<u>Description</u> SpecAn 9 kHz - 40 GHz, FT (SA40) Blue	<u>Model</u> 8564E (84125C)	<u>Asset #</u> 1393	<u>Cal Due</u> 5/9/2014
Hewlett Packard	Head (Inc flex cable, (1742,1743) Blue)	84125C	1620	5/15/2014
Hewlett Packard	(1742,1743) Blue) HF Amplifier, 45 MHz -50 GHz (with 1620)	83051A (84125C)	1742	5/13/2014
Hewlett Packard	(with 1620) HF Amplifier, 45 MHz -50 GHz (with 1620)	83051A (84125C)	1743	5/13/2014
Hewlett Packard	High Pass filter, 8.2 GHz (Purple System)	P/N 84300-80039	1767	11/26/2014
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, 5470-5725 MHz	SAS-574, p/n: 2581 BRC50704-02	2160 2240	6/28/2014 9/18/2014
Radiated Emissions I EMCO Rohde & Schwarz	<b>BE, 1000 - 6,000 MHz, 07-Jan-14</b> Antenna, Horn, 1-18 GHz EMI Test Receiver, 20 Hz-7 GHz	3115 ESIB7	487 1756	7/19/2014 6/8/2014
Radio Antenna Port ( Agilent Technologies Agilent Technologies	Power and Spurious Emissions), USB Average Power Sensor 3Hz -44GHz PSA Spectrum Analyzer	<b>07-Jan-14 to 12-Jan-1</b> 4 U2001A E4446A	<b>4</b> 2442 2796	12/19/2014 1/28/2014
Radiated Emissions, Micro-Tronics	<b>1000 - 26,500 MHz, 07-Jan-14</b> Band Reject Filter, 2400-2500	BRM50702-02	1683	8/2/2014
Hewlett Packard	MHz Head (Inc W1-W4, 1946 , 1947)	84125C	1772	6/18/2014
A. H. Systems Hewlett Packard	Purple Red System Horn, 18-40GHz Microwave Preamplifier, 1-	SAS-574, p/n: 2581 8449B	2161 2199	6/10/2014 2/19/2014
Hewlett Packard	26.5GHz SpecAn 9 kHz - 40 GHz, (SA40) Purple	8564E (84125C)	2415	8/24/2014
Radiated Spurious Er	missions, 1000 - 25,000 MHz, 07-Ja	an-14		
EMCO	Antenna, Horn, 1-18GHz	3115	868	6/19/2014
EMCO Hewlett Packard	Antenna, Horn, 1-18 GHz Head (Inc W1-W4, 1946 , 1947)	3115 84125C	1561 1772	7/12/2014 6/18/2014
A. H. Systems Hewlett Packard	Purple Red System Horn, 18-40GHz Microwave Preamplifier, 1-	SAS-574, p/n: 2581 8449B	2161 2199	6/10/2014 2/19/2014
Micro-Tronics	26.5GHz 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
Radiated Spurious Er	missions, 1000 - 15,000 MHz, 08-Ja	an-14		
Narda West EMCO	High Pass Filter, 8 GHz Antenna, Horn, 1-18 GHz	HPF 180 3115	821 1142	3/13/2014 8/23/2014
Hewlett Packard	(SA40-Red) SpecAn 9 kHz - 40 GHz, FT (SA40) Blue	8564E (84125C)	1393	5/9/2014
Rohde & Schwarz	(SA40) Blue Signal Analyzer 20 Hz - 26.5 GHz	FSQ26	2327	4/25/2014

Test Report Report Date: January 23, 2014

				<i>,</i>
<u>Manufacturer</u> Agilent Technologies Hewlett Packard	<u>Description</u> USB Average Power Sensor Microwave Preamplifier, 1- 26.5GHz	<u>Model</u> U2001A 8449B	<u>Asset #</u> 2442 1780	<u>Cal Due</u> 12/19/2014 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	BRC50705-02	2241	9/18/2014
Micro-Tronics	Band Reject Filter, 2400-2500 MHz	BRM50702-02	2249	10/3/2014
Radiated Emissions,	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	BRC50705-02	1682	3/13/2014
MICIO-TIONICS	MHz	BRC50705-02	1002	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 (I	Power and Spurious Emissions),	09-Jan-14		
Agilent Technologies	PSA, Spectrum Analyzer, (installed options, 111, 115, 123, 1DS, B7J, HYX,	E4446A	2139	3/7/2014
Padiated Emissions	20 1 000 MHz 10 lop 14			
	30 - 1,000 MHz, 10-Jan-14	IDO	4540	0/0/004 4
Sunol Sciences	Biconilog, 30-3000 MHz	JB3	1548	8/9/2014
Rohde & Schwarz	EMI Test Receiver, 20 Hz-7 GHz	ESIB7	1756	6/8/2014
Com-Power	Preamplifier, 1-1000 MHz	PAM-103	2885	11/1/2014
Conducted Emissions	s - AC Power Ports, 10-Jan-14			
EMCO	LISN, 10 kHz-100 MHz	3825/2	1293	2/14/2014
Rohde & Schwarz	Pulse Limiter	ESH3 Z2	1401	5/15/2014
Rohde & Schwarz	EMI Test Receiver, 20 Hz-7 GHz	ESIB7	1756	6/8/2014

## Appendix B Test Data

T94177 Pages 31 – 183



# EMC Test Data

WE ENGINEER SI	UCCESS		
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

WE ENGINEER SUCCESS						
Client:	Intel Mobile Communications	Job Number:	J94122			
Model	3160SDW	T-Log Number:	Т94177			
wouer.	21002DW	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 with this 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

**NTS** 

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			
	11	16.4			
	6	15.2			
	9	15.1			
	12	15.1	20.0		
900 11a	18	15.1			
802.11g	24	15.0	20.0		
	36	14.9			
	48	14.8	1		
	54	14.8			

	ommunication	5		Job Number: J94122 Log Number: T94177		
odel: 3160SDW					ect Manager: Christine Krebill	
ntact: Steve Hackett			Coordinator: -			
dard: FCC Part 15, RSS-210					Class: N/A	
Jaiu. FCC Fait 15, f	(33-210				Class. IN/A	
Mod	e	Data Rate	Power (dBm)	Power setting	]	
		6.5	11.6	g	1	
		13	11.2			
		19.5	11.0			
000 44		26	10.8			
802.11r 20MF		39	10.6	20.0		
ZUMF	12	52	10.4			
		58.5	10.4			
		65	10.4			
		78	10.1		<<-11ac mode only	
		13.5	10.5			
		27	10.4			
		40.5	10.3	20.0		
		54	10.2			
802.11r	n/ac	81	10.1			
40MF	lz	108	10.0			
		121.5	10.0			
		135	10.0			
		162	9.9		<<-11ac mode only	
		180	9.9		<<-11ac mode only	
		29.3	10.1			
		58.5	10.0			
		87.8	9.9			
		117	9.8			
802.11ac 8		175.5	9.7	20.0		
002.1180		234	9.6	20.0		
		266.3	9.5			
		292.5	9.4			
					-	
	E	351 390	9.4 9.4			



# EMC Test Data

 Client:
 Intel Mobile Communications
 Job Number:
 J94122

 Model:
 3160SDW
 T-Log Number:
 T94177

 Contact:
 Steve Hackett
 Project Manager:
 Christine Krebill

 Standard:
 FCC Part 15, RSS-210
 Class:
 N/A

# Duty Cycle

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

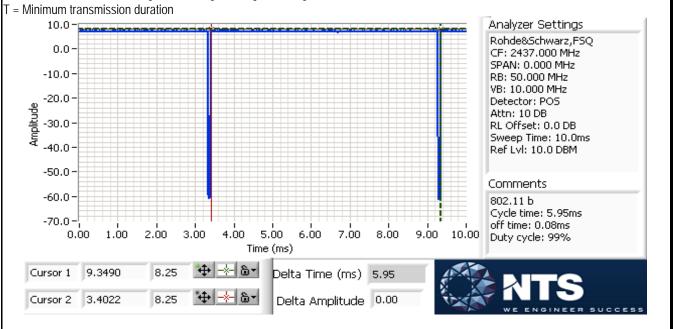
Duty cycle measurements performed on the worse case data rate for power.

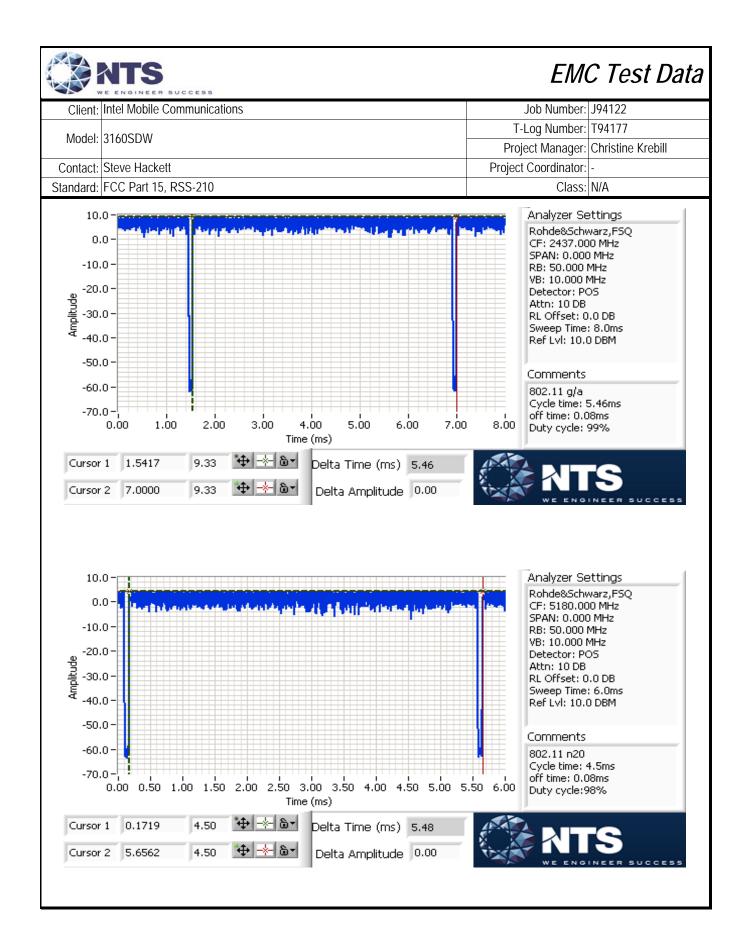
Notes: Measurements taken with maximum RBW/VBW settings allowed.

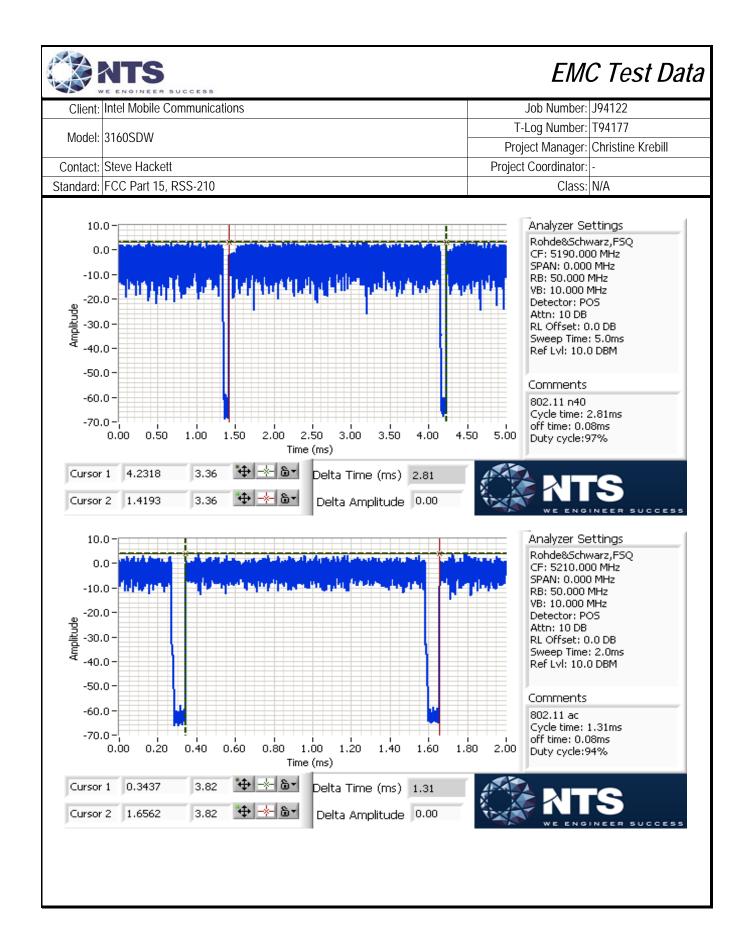
Mode	Data Rate	Duty Cycle (x)	Constant DC?	T (ms)	Pwr Cor Factor*	Lin Volt Cor Factor**	Min VBW for FS (Hz)
11b	1Mb/s	0.99	Yes	10	0	0	100
11g	6Mb/s	0.99	Yes	8	0	0	125
11a	6Mb/s	0.99	Yes	8	0	0	125
n20	HT0	0.98	Yes	6	0	0	166.67
n40	HT0	0.97	Yes	5	0.12	0.24	200
ac80	VHT0	0.94	Yes	2	0.26	0.51	500
BLE	-	0.63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

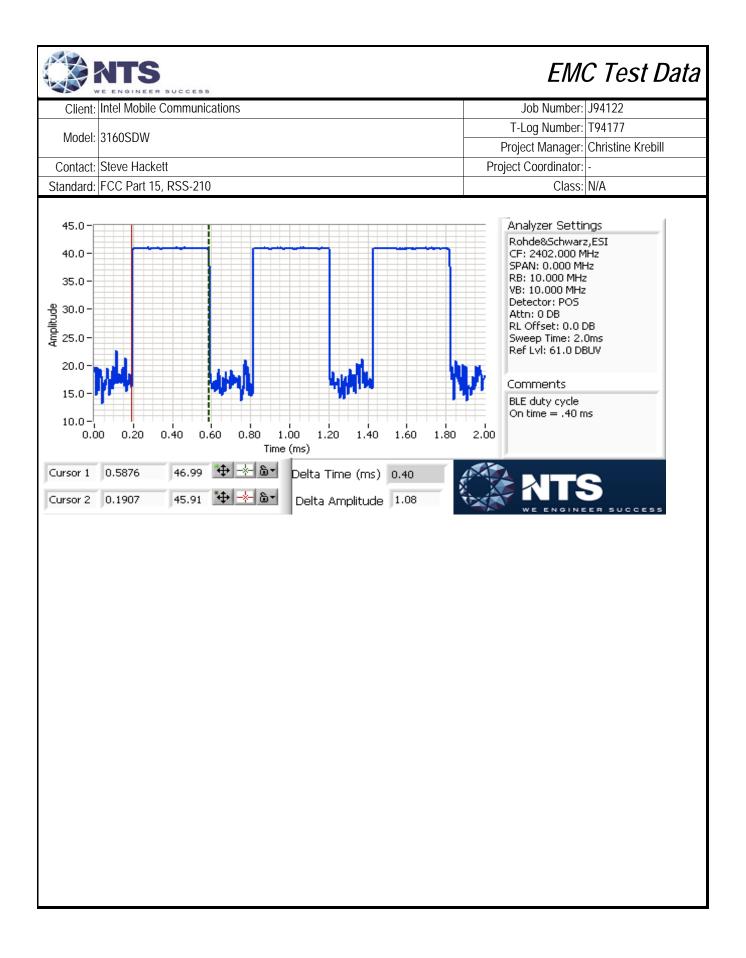
<sup>c</sup> Correction factor when using RMS/Power averaging - 10\*log(1/x)

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











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

### RSS 210 and FCC 15.407 (UNII) Radiated Spurious Emissions

### Test Specific Details

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

### General Test Configuration

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

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

Run #	Mode	Channel	Power Setting	Measured Power	Test Performed	Limit	Result / Margin
1	BT Basic	2402MHz	9				48.8 dBµV/m @ 4804.0
I	11b	2412MHz	21.0	-			MHz (-5.2 dB)
2	BT Basic	2480MHz	9				42.6 dBµV/m @ 4960.0
Z	11b	2462MHz	22.0	-	Radiated Emissions,	FCC Part 15.209 /	MHz (-11.4 dB)
3	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	rst 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
1		2462MHz	22	-			MHz (-12.3 dB)
8		2480MHz	9				40.6 dBµV/m @ 4960.0
0		2437MHz	22.5	-			MHz (-13.4 dB)

	ENGINEER	SUCCESS					C Test Data
Client: Ir	ntel Mobile	Communicati	ons			Job Number:	
Model: 3	1605DW					T-Log Number:	
wouer. 5	1003010					Project Manager:	Christine Krebill
Contact: S	Steve Hacke	ett				Project Coordinator:	-
Standard: F	CC Part 15	, RSS-210				Class:	N/A
Vi-Fi mode ar	nd channel			or the followin	g runs based on the wors	st case mode from runs 1	through 8
9		2402MHz	1	-			56.3 dBµV/m @ 1244
	BT EDR	2412MHz	22.5		Radiated Emissions, 1 - 10 GHz	FCC Part 15.209 /	MHz (-17.7 dB)
10	11g	2402MHz 2437MHz	1 22.5	-	1 - 10 GHZ	15.247( c)	56.2 dBµV/m @ 1245 MHz (-17.8 dB)
		2437101112	22.0				WITZ (-17.0 UD)
ach 5 GHz b		2402MHz	based on w	orst case mo	de from runs 1 through 10	J combined with n20 mod	48.5 dBµV/m @ 4804
11		5200MHz	29	-			MHz (-5.5 dB)
10		2441MHz	9				46.3 dBµV/m @ 4882
12		5200MHz	29	-			MHz (-7.7 dB)
13		2480MHz	9				43.9 dBµV/m @ 4960
15		5200MHz	29	-			MHz (-10.1 dB)
		2402MHz	9	-			49.3 dBµV/m @ 4804
14		5300MHz	28.5				MHz (-4.7 dB)
14					Radiated Emissions,	FCC Part 15.209 /	47.1 dBµV/m @ 4804
	BT Basic	2402MHz	9	-		15 0 47 ( ) / 15 407	
	BT Basic n20	5580MHz	30.5	-	1 - 15 GHz	15.247( c) / 15.407	MHz (-6.9 dB)
		5580MHz 2402MHz	<u>30.5</u> 9	-	1 - 15 GHz	15.247( c) / 15.407	MHz (-6.9 dB) 49.7 dBµV/m @ 4804
15 16		5580MHz 2402MHz 5785MHz	30.5 9 31.5	-	1 - 15 GHz	15.247( c) / 15.407	MHz (-6.9 dB) 49.7 dBµV/m @ 4804 MHz (-4.3 dB)
15		5580MHz 2402MHz 5785MHz 2480MHz	30.5 9 31.5 9	-	1 - 15 GHz	15.247( c) / 15.407	MHz (-6.9 dB) 49.7 dBµV/m @ 4804 MHz (-4.3 dB) 57.5 dBµV/m @ 1198
15 16 17		5580MHz 2402MHz 5785MHz 2480MHz 5300MHz	30.5 9 31.5 9 28.5	-	1 - 15 GHz	15.247( c) / 15.407	MHz (-6.9 dB) 49.7 dBµV/m @ 4804 MHz (-4.3 dB) 57.5 dBµV/m @ 1198 MHz (-16.5 dB)
15 16		5580MHz 2402MHz 5785MHz 2480MHz 5300MHz 2480MHz	30.5 9 31.5 9 28.5 9	-	1 - 15 GHz	15.247( c) / 15.407	MHz (-6.9 dB) 49.7 dBµV/m @ 4804 MHz (-4.3 dB) 57.5 dBµV/m @ 1198
15 16 17		5580MHz 2402MHz 5785MHz 2480MHz 5300MHz	30.5 9 31.5 9 28.5	-	1 - 15 GHz	15.247( c) / 15.407	MHz (-6.9 dB) 49.7 dBµV/m @ 4804 MHz (-4.3 dB) 57.5 dBµV/m @ 1198 MHz (-16.5 dB) No measurable

# Modifications Made During Testing No modifications were made to the EUT during testing

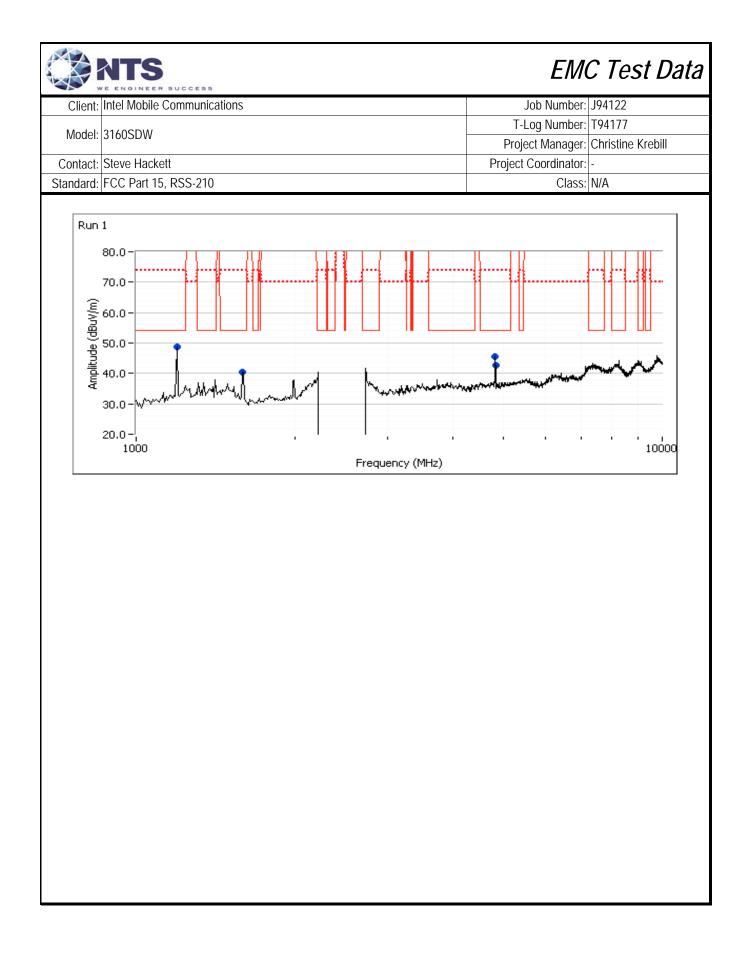
### Deviations From The Standard

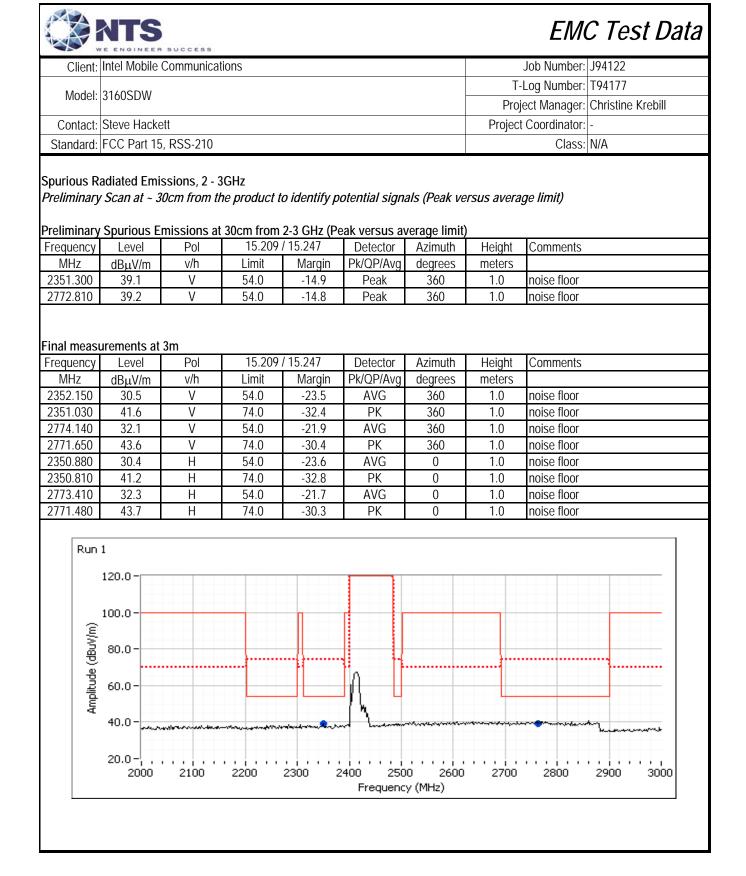
No deviations were made from the requirements of the standard.

### Test Notes

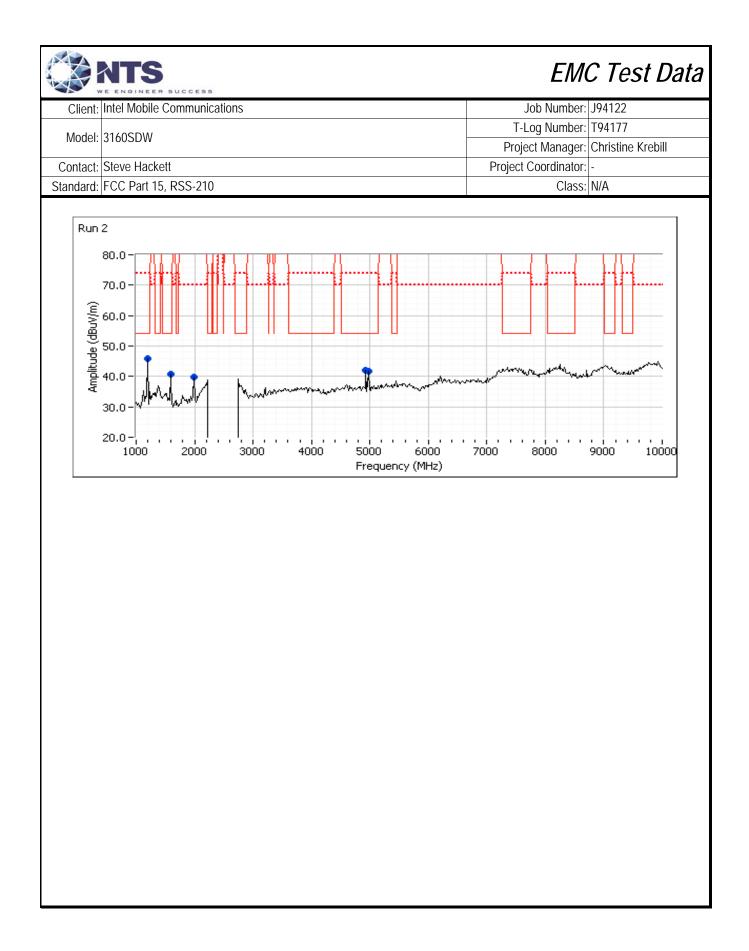
Scans in the near field performed without the external preamplifier and band reject filter

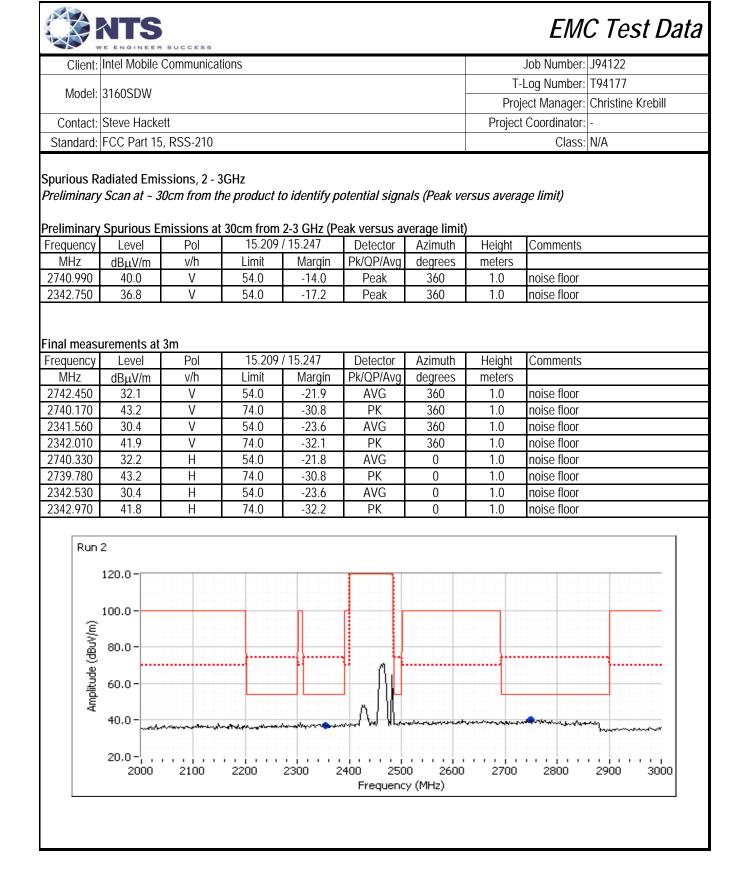
Client:	Intel Mobile	Communicat	ions					Job Number:	J94122
Madal							T-	Log Number:	T94177
Model:	3160SDW						Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	ett					Project	Coordinator:	-
Standard:	FCC Part 15	, RSS-210						Class:	N/A
Run #1: Ra	diated Spur	ious Emissi	ons, 1-10Gł	Iz. Operati	ng Mode: 11	b @ 2412, B	T Basic @	2402 MHz	
Г	Date of Test:	1/7/201/							
	st Engineer:								
	est Location:								
	r					2			I
			Tana		Power S		C - ft	co Cottine	
		WiFi	0	(dBm) 5.5	Measure	a (arm)		re Setting 1.0	
		BT		.0	1			1.0 9.0	
	l	DI	/	.0		-		7.0	
reliminary	Spurious E	missions ex	cluding allo	cated band	d (Peak versu	is average li	mit)		
	Spurious E	missions ex Pol		ocated band / 15.247	d (Peak versu Detector	is average li Azimuth	<b>mit)</b> Height	Comments	
								Comments	
requency MHz	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Note 1	
Frequency MHz 1195.000 1592.500	Level dBµV/m 48.6 40.4	Pol v/h V V	15.209 Limit 54.0 54.0	/ 15.247 Margin -5.4 -13.6	Detector Pk/QP/Avg Peak Peak	Azimuth degrees 178 2	Height meters 1.5 2.0		
requency MHz 1195.000 1592.500 4810.000	Level dBµV/m 48.6 40.4 45.5	Pol v/h V V V	15.209 Limit 54.0 54.0 54.0	/ 15.247 Margin -5.4 -13.6 -8.5	Detector Pk/QP/Avg Peak Peak Peak	Azimuth degrees 178 2 213	Height meters 1.5 2.0 1.0	Note 1	
Frequency	Level dBµV/m 48.6 40.4	Pol v/h V V	15.209 Limit 54.0 54.0	/ 15.247 Margin -5.4 -13.6	Detector Pk/QP/Avg Peak Peak	Azimuth degrees 178 2	Height meters 1.5 2.0	Note 1	
requency MHz 1195.000 1592.500 4810.000 4825.000	Level dBµV/m 48.6 40.4 45.5 42.8	Pol v/h V V V V	15.209 Limit 54.0 54.0 54.0	/ 15.247 Margin -5.4 -13.6 -8.5	Detector Pk/QP/Avg Peak Peak Peak	Azimuth degrees 178 2 213	Height meters 1.5 2.0 1.0	Note 1	
Frequency MHz 1195.000 1592.500 4810.000 4825.000 inal measu	Level dBµV/m 48.6 40.4 45.5 42.8 urements at	Pol v/h V V V V 3m	15.209 Limit 54.0 54.0 54.0 54.0	/ 15.247 Margin -5.4 -13.6 -8.5 -11.2	Detector Pk/QP/Avg Peak Peak Peak Peak	Azimuth degrees 178 2 213 173	Height meters 1.5 2.0 1.0 1.5	Note 1 Note 1	
requency MHz 1195.000 1592.500 4810.000 4825.000 inal measu requency	Level dBµV/m 48.6 40.4 45.5 42.8 urements at Level	Pol v/h V V V 3m Pol	15.209 Limit 54.0 54.0 54.0 54.0 15.209	/ 15.247 Margin -5.4 -13.6 -8.5 -11.2 / 15.247	Detector Pk/QP/Avg Peak Peak Peak Peak Detector	Azimuth degrees 178 2 213 173 Azimuth	Height meters 1.5 2.0 1.0 1.5 Height	Note 1	
Frequency           MHz           1195.000           1592.500           4810.000           4825.000           inal measu           Frequency           MHz	Level dBµV/m 48.6 40.4 45.5 42.8 urements at Level dBµV/m	Pol v/h V V V 3m Pol v/h	15.209 Limit 54.0 54.0 54.0 54.0 15.209 Limit	/ 15.247 Margin -5.4 -13.6 -8.5 -11.2 / 15.247 Margin	Detector Pk/QP/Avg Peak Peak Peak Peak Detector Pk/QP/Avg	Azimuth degrees 178 2 213 173 173 Azimuth degrees	Height meters 1.5 2.0 1.0 1.5 Height meters	Note 1 Note 1	
requency MHz 1195.000 1592.500 4810.000 4825.000 inal measu requency	Level dBµV/m 48.6 40.4 45.5 42.8 urements at Level	Pol v/h V V V 3m Pol	15.209 Limit 54.0 54.0 54.0 54.0 15.209	/ 15.247 Margin -5.4 -13.6 -8.5 -11.2 / 15.247	Detector Pk/QP/Avg Peak Peak Peak Peak Detector	Azimuth degrees 178 2 213 173 Azimuth	Height meters 1.5 2.0 1.0 1.5 Height	Note 1 Note 1	
requency MHz 1195.000 1592.500 4810.000 4825.000 inal measu requency MHz 4804.030	Level dBµV/m 48.6 40.4 45.5 42.8 urements at Level dBµV/m 48.8	Pol v/h V V V 3m Pol v/h V	15.209 Limit 54.0 54.0 54.0 54.0 15.209 Limit 54.0	/ 15.247 Margin -5.4 -13.6 -8.5 -11.2 / 15.247 Margin -5.2	Detector Pk/QP/Avg Peak Peak Peak Peak Detector Pk/QP/Avg AVG	Azimuth degrees 178 2 213 173 Azimuth degrees 209	Height meters 1.5 2.0 1.0 1.5 Height meters 1.26	Note 1 Note 1	



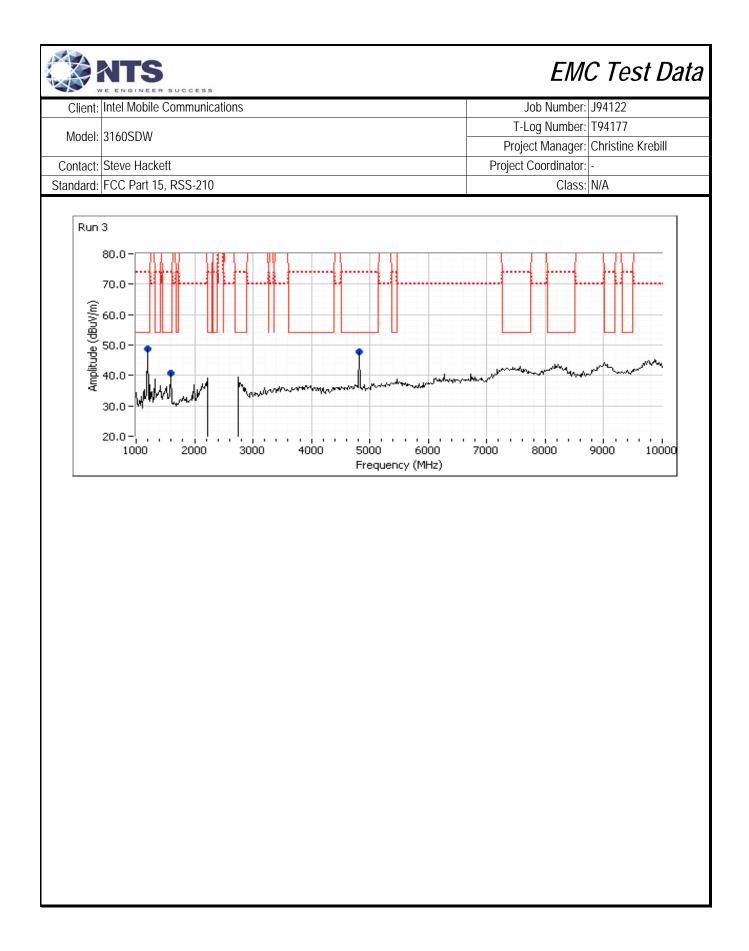


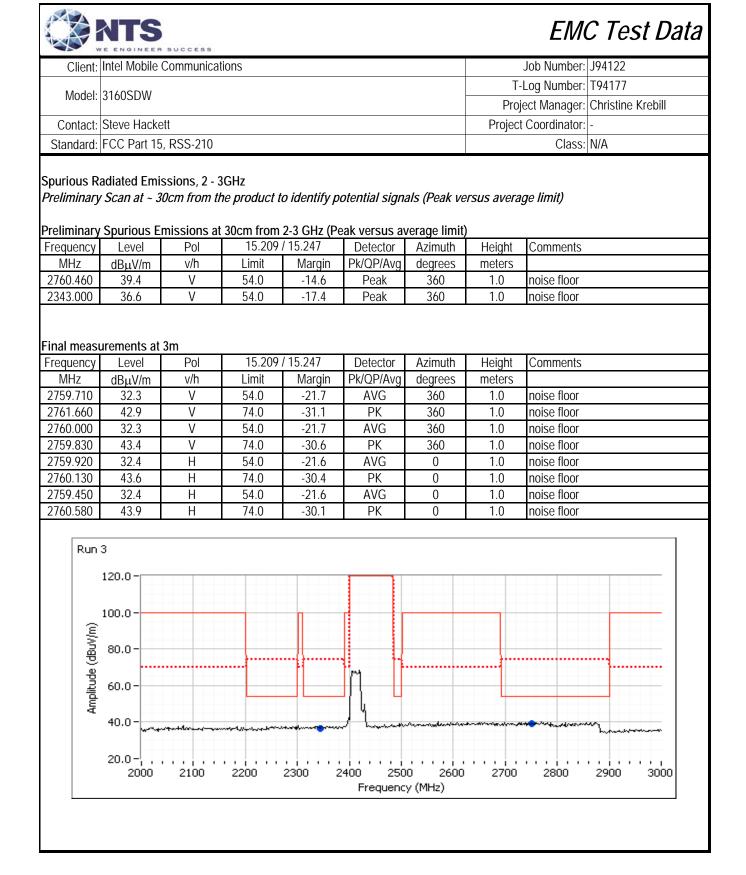
Client:	Intel Mobile	Communicat	ions					Job Number:	J94122
Madal							T-	Log Number:	T94177
Model:	3160SDW						Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	ett					Project	Coordinator:	-
Standard:	FCC Part 15	, RSS-210						Class:	N/A
C Te	diated Spur Date of Test: st Engineer: est Location:	1/7/2014 John Caizzi	ons, 1-10Gł	Hz. Operatir	ng Mode: 11b	@ 2462, BT	Basic @ 2	480 MHz	
	I				Power S	Settinas			
			Taraet	(dBm)	Measure		Softwa	re Setting	
		WiFi		6.5		<u> </u>		2.0	
		BT		.0		-		9.0	
Preliminary	Sourious Fi	missions ex	cluding allo	ncated hand	l (Peak versu	is averane li	mit)		
					l (Peak versu			Comments	
	Level	missions ex Pol v/h		/ 15.247	Detector	Azimuth	Height	Comments	
Frequency MHz		Pol	15.209					Comments Note 1	
Frequency MHz 1195.000	Level dBµV/m	Pol v/h	15.209 Limit	/ 15.247 Margin	Detector Pk/QP/Avg	Azimuth degrees	Height meters		
Frequency	Level dBµV/m 45.9	Pol v/h V V V	15.209 Limit 54.0	/ 15.247 Margin -8.1	Detector Pk/QP/Avg Peak	Azimuth degrees 30	Height meters 1.0	Note 1	
requency MHz 1195.000 1585.000 1990.000 4930.000	Level dBµV/m 45.9 40.8 39.9 42.1	Pol v/h V V V V	15.209 Limit 54.0 54.0 70.0 54.0	/ 15.247 Margin -8.1 -13.2 -30.1 -11.9	Detector Pk/QP/Avg Peak Peak	Azimuth degrees 30 250 360 210	Height meters 1.0 1.0 1.0 1.0	Note 1 Note 1	
Frequency MHz 1195.000 1585.000 1990.000	Level dBµV/m 45.9 40.8 39.9	Pol v/h V V V	15.209 Limit 54.0 54.0 70.0	/ 15.247 Margin -8.1 -13.2 -30.1	Detector Pk/QP/Avg Peak Peak Peak	Azimuth degrees 30 250 360	Height meters 1.0 1.0 1.0	Note 1 Note 1	
Frequency MHz 1195.000 1585.000 1990.000 4930.000 4975.000	Level dBµV/m 45.9 40.8 39.9 42.1 41.6	Pol V/h V V V V V V	15.209 Limit 54.0 54.0 70.0 54.0	/ 15.247 Margin -8.1 -13.2 -30.1 -11.9	Detector Pk/QP/Avg Peak Peak Peak Peak	Azimuth degrees 30 250 360 210	Height meters 1.0 1.0 1.0 1.0	Note 1 Note 1	
Frequency MHz 1195.000 1585.000 1990.000 4930.000 4975.000 inal measu	Level dBµV/m 45.9 40.8 39.9 42.1	Pol V/h V V V V V V	15.209 Limit 54.0 54.0 70.0 54.0 54.0 54.0	/ 15.247 Margin -8.1 -13.2 -30.1 -11.9	Detector Pk/QP/Avg Peak Peak Peak Peak	Azimuth degrees 30 250 360 210	Height meters 1.0 1.0 1.0 1.0 1.0	Note 1 Note 1	
Frequency MHz 1195.000 1585.000 1990.000 4930.000 4975.000	Level dBµV/m 45.9 40.8 39.9 42.1 41.6 urements at	Pol V/h V V V V V 3m	15.209 Limit 54.0 54.0 70.0 54.0 54.0 54.0	/ 15.247 Margin -8.1 -13.2 -30.1 -11.9 -12.4	Detector Pk/QP/Avg Peak Peak Peak Peak Peak	Azimuth degrees 30 250 360 210 210	Height meters 1.0 1.0 1.0 1.0	Note 1 Note 1 Note 1	
requency MHz 1195.000 1585.000 1990.000 4930.000 4930.000 4975.000 inal measu requency MHz	Level dBµV/m 45.9 40.8 39.9 42.1 41.6 urements at Level	Pol V/h V V V V V 3m Pol	15.209 Limit 54.0 54.0 70.0 54.0 54.0 54.0 15.209	/ 15.247 Margin -8.1 -13.2 -30.1 -11.9 -12.4 / 15.247	Detector Pk/QP/Avg Peak Peak Peak Peak Peak Detector	Azimuth degrees 30 250 360 210 210 210 Azimuth	Height meters 1.0 1.0 1.0 1.0 1.0 Height	Note 1 Note 1 Note 1	
Frequency           MHz           1195.000           1585.000           1990.000           4930.000           4935.000           inal measu           Frequency           MHz           4960.000           4923.980	Level dBµV/m 45.9 40.8 39.9 42.1 41.6 urements at Level dBµV/m 42.6 41.5	Pol V/h V V V V 3m Pol V/h V V	15.209 Limit 54.0 54.0 54.0 54.0 54.0 15.209 Limit 54.0 54.0	/ 15.247 Margin -8.1 -13.2 -30.1 -11.9 -12.4 / 15.247 Margin -11.4 -12.5	Detector Pk/QP/Avg Peak Peak Peak Peak Detector Pk/QP/Avg AVG AVG	Azimuth degrees 30 250 360 210 210 Azimuth degrees 214 214	Height meters 1.0 1.0 1.0 1.0 1.0 Height meters 1.40 1.00	Note 1 Note 1 Note 1	
requency MHz 1195.000 1585.000 1990.000 4930.000 4930.000 4975.000 inal measu requency MHz 4960.000	Level dBµV/m 45.9 40.8 39.9 42.1 41.6 urements at Level dBµV/m 42.6	Pol V/h V V V V 3m Pol V/h V	15.209 Limit 54.0 54.0 70.0 54.0 54.0 15.209 Limit 54.0	/ 15.247 Margin -8.1 -13.2 -30.1 -11.9 -12.4 / 15.247 Margin -11.4	Detector Pk/QP/Avg Peak Peak Peak Peak Peak Detector Pk/QP/Avg AVG	Azimuth degrees 30 250 360 210 210 Azimuth degrees 214	Height meters 1.0 1.0 1.0 1.0 1.0 Height meters 1.40	Note 1 Note 1 Note 1	



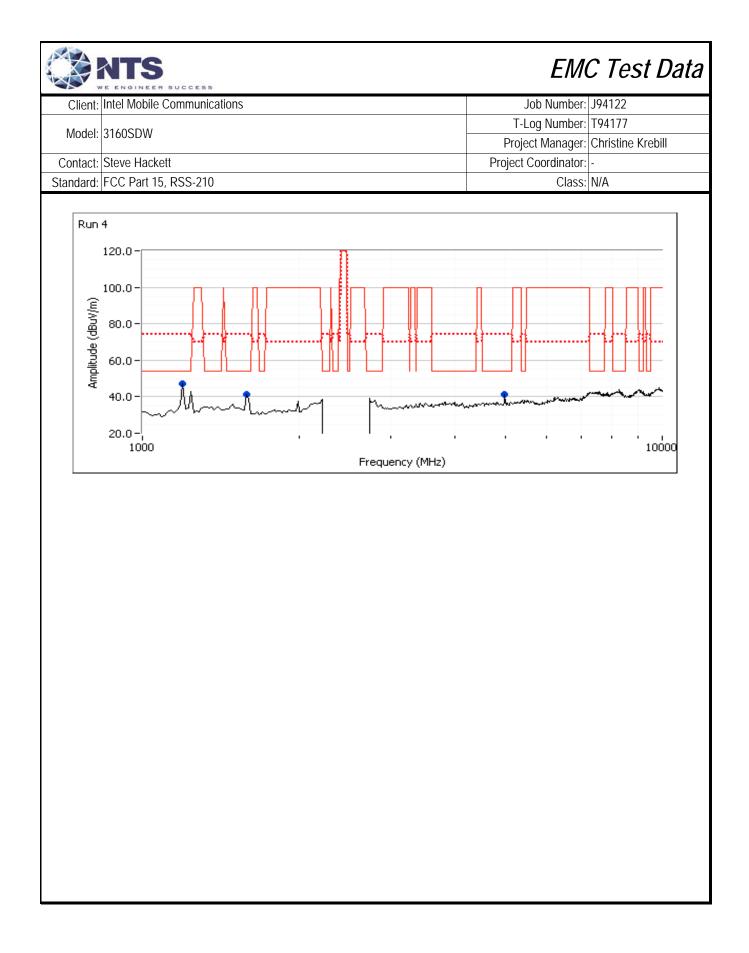


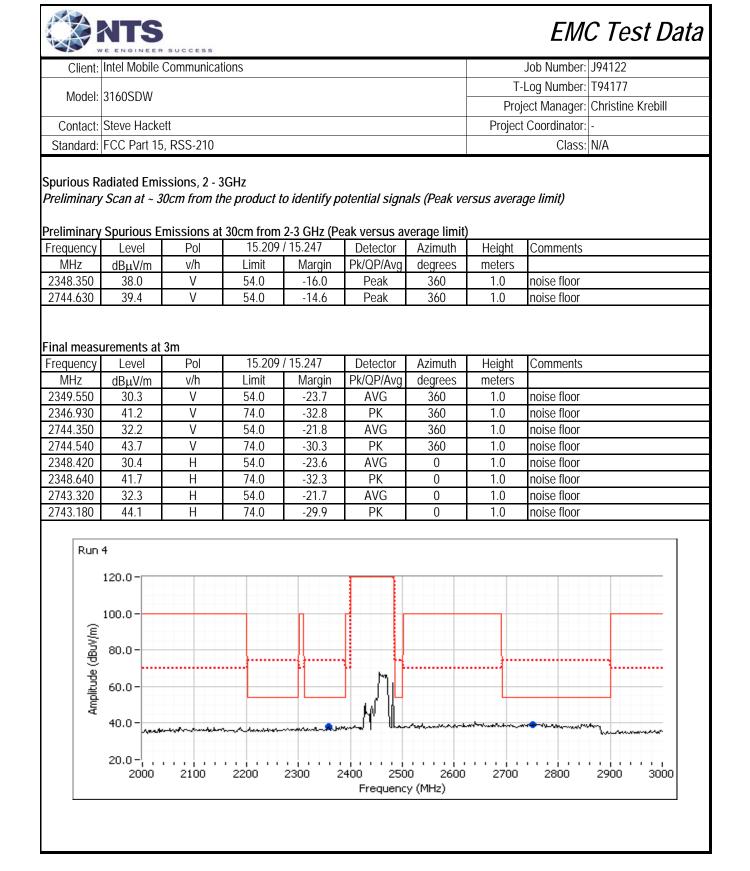
Client	Intel Mobile	Communicat	ions					Job Number:	J94122
Oliciti.								Log Number:	
Model:	3160SDW							5	Christine Krebill
Combook	Ctorio Llooko							•	
	Steve Hacke						Project	Coordinator:	
Standard:	FCC Part 15	, RSS-210						Class:	N/A
ın #3: Ra	diated Spur	ious Emissi	ons, 1-10GF	Iz. Operatir	ng Mode: 11g	@ 2412, BT	Basic @ 2	402 MHz	
Г	Date of Test:	1/7/2014							
	est Engineer:								
	est Location:								
	r				Daura	S - 111-1 - 1 - 1			1
			Torgat	(dDm)	Power S		Coffus	o Cottina	
		\\/:୮:	Target		Measure	u (uBM)		e Setting	
		WiFi BT		.5 .0		-		2.5 9.0	
		DI	Ι	.0		-		7.0	l
eliminary	Spurious E	missions ex	cluding allo	cated band	l (Peak versu	s average li	mit)		
equency	Level	Pol	15.209		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	201	1.5	Note 1	
585.000	40.8	V	54.0	-13.2	Peak	250	1.0	Note 1	
810.000	47.7	V	54.0	-6.3	Peak	206	1.0		
nal measi	urements at	٩m							
equency		Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	o o minorito	
804.050	49.0	V	54.0	-5.0	AVG	210	1.30		
823.930	33.2	V	54.0	-20.8	AVG	162	1.07		
	50.8	V	74.0	-23.2	PK	210	1.30		
803.800	45.5	V	74.0	-28.5	PK	162	1.07		
803.800 832.300	10.0								
832.300	Emission fro								



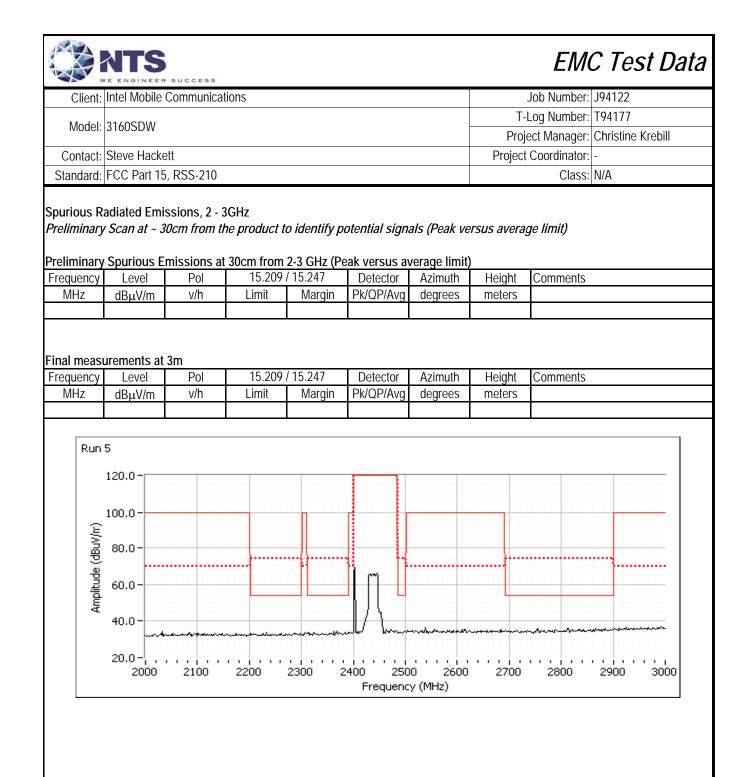


	Intel Mobile (	Communical	lions					Job Number:	J94122
Marial	21/00014						T-	Log Number:	T94177
Wodel:	3160SDW						Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	tt						Coordinator:	
Standard:	FCC Part 15	RSS-210					,	Class:	
l Te	adiated Spuri Date of Test: est Engineer: . est Location:	1/7/2014 Joseph Cad	igal	Iz. Operatir	ng Mode: 11g	@ 2462, BT	Basic @ 2	480 MHz	
	Г				Power S	Settings			
			Target	(dBm)	Measure		Softwar	re Setting	
	ľ	WiFi	16	o.5			2	2.5	
		BT	8	.0		-	(	9.0	
reliminary requency	/ Spurious Er	nissions ex Pol	cluding allo 15.209		l (Peak versu Detector	s average li Azimuth	<b>mit)</b> 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		
1598.030	41.3	V	54.0	-12.7	Peak	123	2.0		
4960.020	41.1	V	54.0	-12.9	Peak	214	1.0		
	urements at 3	3m							
nal meas		Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
nal meas requency	Level	FUI						1	
	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
requency MHz 960.040	dBµV/m <b>42.9</b>	v/h V	54.0	-11.1	AVG	214	1.0		'B 10 Hz;Peak
requency MHz 960.040 960.070	dBμV/m 42.9 47.1	v/h V V	54.0 74.0	-11.1 -26.9	AVG PK	214 214	1.0 1.0	RB 1 MHz;V	/B 10 Hz;Peak /B 3 MHz;Peak
requency MHz 960.040 960.070 196.200	dBµV/m 42.9 47.1 33.7	v/h V V V	54.0 74.0 54.0	-11.1 -26.9 -20.3	AVG PK AVG	214 214 44	1.0 1.0 1.0	RB 1 MHz;V note 1	
requency MHz 960.040 960.070	dBμV/m 42.9 47.1	v/h V V	54.0 74.0	-11.1 -26.9	AVG PK	214 214	1.0 1.0	RB 1 MHz;V	

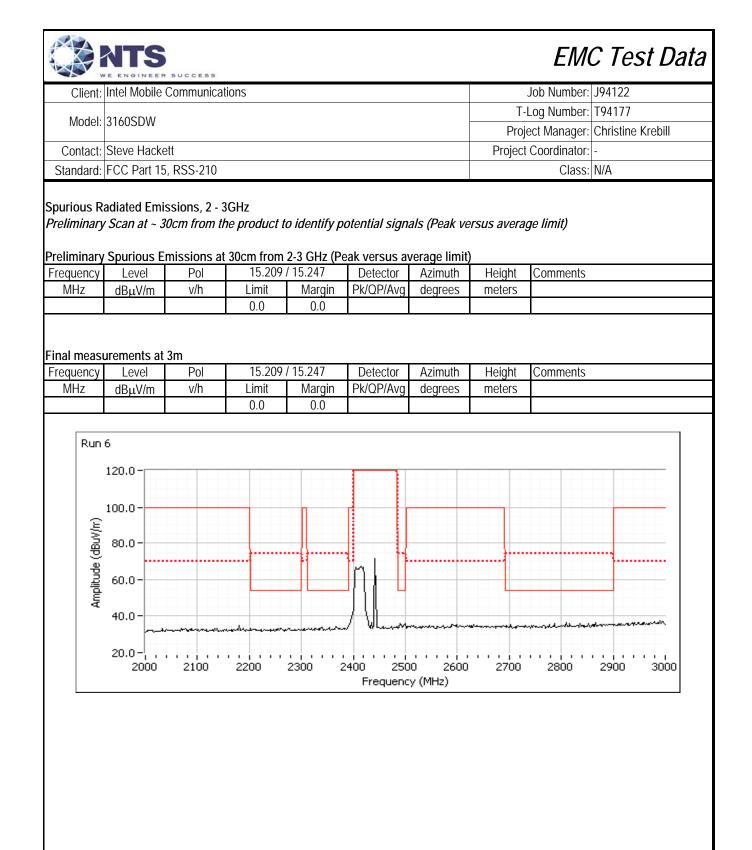




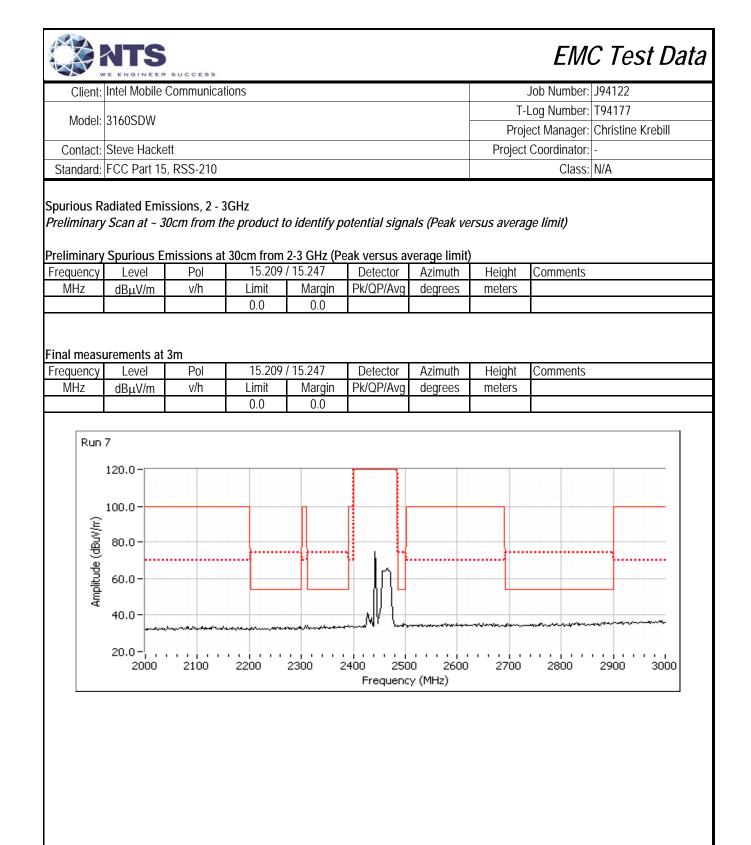
		SUCCESS							C Test Data
Client:	Intel Mobile	Communicat	ions					Job Number:	
Model:	3160SDW							Log Number:	
							2	5	Christine Krebill
	Steve Hacke						Project	Coordinator:	
	FCC Part 15							Class:	
L Te	Date of Test: st Engineer: est Location:	1/8/2014 John Caizzi	ons, 1-10GF	iz. Operatin	g Mode: Tig	@ 2437 MH	z, bi basi	c @ 2402 MH	Z
	ĺ				Power S	Settinas			
			Target	(dBm)	Measure		Softwar	re Setting	
		WiFi	16	.5	16	1 1	2	2.5	
		BT	7.	0		-	Ç	9.0	
Droliminory	Courious E	miccione av	بمانيطنهم مالم	ootod bond	(Dook vorou	o ovorogo li	mit)		
Frequency	Level	Pol	15.209		(Peak versu Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	Comments	
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		
inal moacu	urements at	2m							
Frequency	Level	Pol	15.209	15 247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	oonninonto	
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		
Run (W/Angp		m host lapto	D.						
	40.0 - <b>1000</b>		' 3000 '	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	5000 Frequency	6000	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	` \$000```	9000 10000



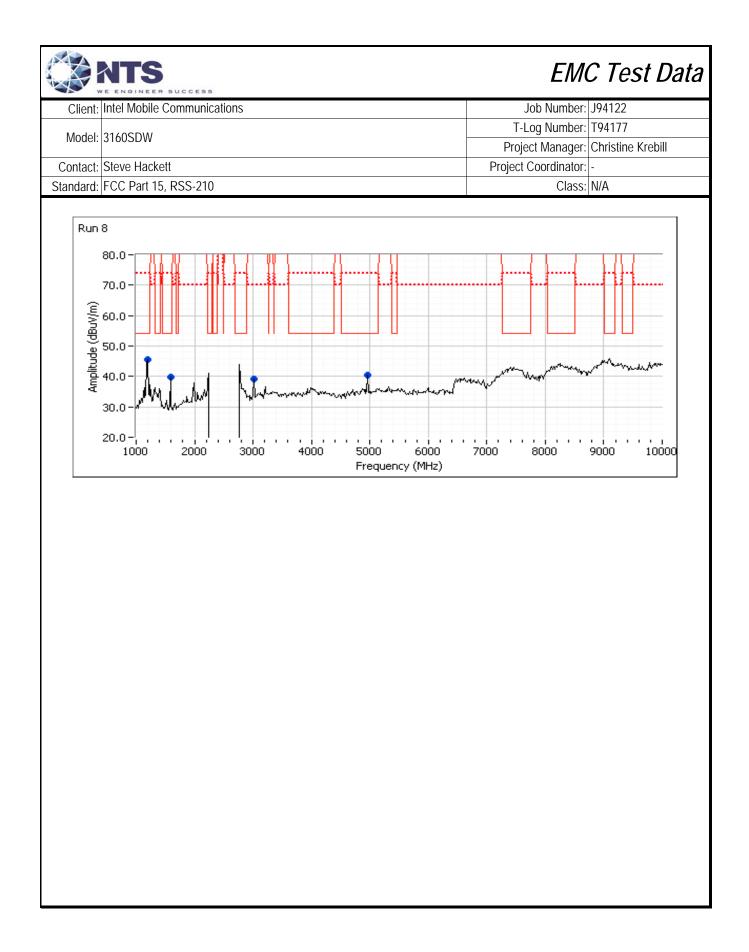
		SUCCESS						EM	C Test Data
Client:	Intel Mobile	Communicat	ions					Job Number:	J94122
Madal							T-	Log Number:	Т94177
would be a second secon	3160SDW						Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	ett					Project	Coordinator:	-
Standard:	FCC Part 15	, RSS-210						Class:	N/A
l Te	adiated Spur Date of Test: est Engineer: est Location:	1/7/2014 Joseph Cad	igal	Iz. Operatin	g Mode: 11g	@ 2412 MH	lz, BT Basio	c @ 2441 MH	Z
					Power S				
			Target		Measure	d (dBm)		re Setting	
		WiFi BT		5.5 .0				2.5 9.0	
Preliminary	l Spurious E				(Peak versu	s average li		7.0	
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		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 V	54.0	-24.0	AVG	137	2.5		B 10 Hz;Peak
1594.030 1194.800	45.6 33.5	V	74.0 54.0	-28.4 -20.5	PK AVG	137 199	2.5 1.5		'B 3 MHz;Peak 'B 10 Hz;Peak
1194.800	57.0	V	74.0	-20.3	PK	199	1.5		B 3 MHz;Peak
Run		V	74.0	-17.0	ΤΚ	177	1.5		
Amplitude (dBuV/m)	120.0 - 100.0 - 80.0 - 60.0 - 40.0 - 20.0 - 1000				Frequence				

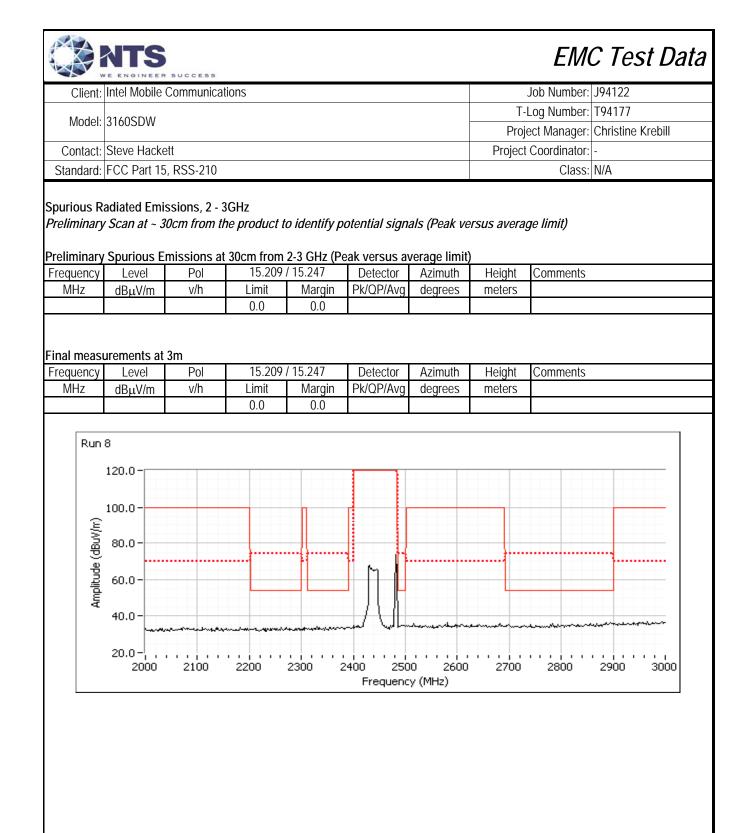


		SUCCESS							C Test Data
Client:	Intel Mobile	Communicat	ons					Job Number:	
Model:	3160SDW							Log Number:	
	<u></u>						-	÷	Christine Krebill
	Steve Hacke						Project	Coordinator:	
	FCC Part 15		4 4 9 9 1					Class:	
D Tes	ate of Test: st Engineer: st Location:	1/7/2014 Joseph Cadi	gal	iz. Operatii	-	-	nz, di das	ic @ 2440 MI	112
					Power S			<b>0</b>	
	ŀ	\\\!!!	Target		Measure	ed (dBm)		re Setting	
	ŀ	WiFi BT	16 8			-		2.0 9.0	
Dualinainana	L Caudiana Fr	•						7.0	
Preliminary Frequency	Level	Pol	15.209		Detector	Azimuth	mit) Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	Johnnonts	
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 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		
4882.040	41.7	V	54.0	-12.3	AVG	156	1.0		/B 10 Hz;Peak
4881.550	46.7	V	74.0	-27.3	PK	156	1.0		/B 3 MHz;Peak
1197.350	31.4	V	54.0	-22.6	AVG	181	1.0		/B 10 Hz;Peak
1199.760 1596.230	55.3 29.4	V V	74.0 54.0	-18.7 -24.6	PK AVG	181 360	1.0 2.0		/B 3 MHz;Peak /B 10 Hz;Peak
1596.460	42.5	V	74.0	-24.0	PK	360	2.0		/B 3 MHz;Peak
1370.400	72.5	v	74.0	-01.0	ΤΚ	300	2.0		D 5 WHZ, I Cak
	7 120.0 - 100.0 - 80.0 - 60.0 - 40.0 - 20.0 - 1000	- In		-41					
					Frequenc	y (MHz)			



Client:	Intel Mobile (	Communicat	ions					Job Number:	J94122
Madal	3160SDW						T-	Log Number:	T94177
WOUCH.	31002010						Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	ett					Project	Coordinator:	-
Standard:	FCC Part 15	, RSS-210						Class:	N/A
un #8: Ra	diated Spuri	ious Emissi	ons, 1-10GF	Iz. Operatii	ng Mode: 11	g @ 2437 M	Hz, BT Bas	ic @ 2480 MI	Hz
Г	Date of Test:	1/8/2014							
	st Engineer:								
	est Location:								
	r								1
			Target	(10)	Power S		Ceffuno	C - 11! m	
		WiFi	Target 16		Measure 16	( )		re Setting 2.5	
	ŀ	BT	7.		10	.4		2.5 9.0	1
	L			0	<u> </u>	I		7.0	1
reliminary	Spurious E	missions ex	cluding allo	cated band	l (Peak versu	s average li	mit)		
requency	Level	Pol	15.209/		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		
inal measu	urements at	۶m							
requency	Level	Pol	15.209/	15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	<b>O</b> OIIIIIOe	
	40.6	V	54.0	-13.4	AVG	292	1.64		
4960.000	45.4	V	74.0	-28.6	PK	292	1.64	İ	
4960.000 4960.380	43.4		<b>F40</b>	-25.8		172	1.00	Note 2	
	28.2 39.6	V V	54.0 74.0	-25.8	AVG PK	172	1.00	Note 2	





		SUCCESS						EMO	C Test Data
Client:	Intel Mobile	Communicat	ions					Job Number:	J94122
Marial	21/000						T-	Log Number:	Т94177
wodel:	3160SDW						Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	ett					,	Coordinator:	
	FCC Part 15						,	Class:	
			ons 1-10GE	lz Oneratir	ng Mode: 11g	n @ 2412 MI	17 BT FDR		
Те	Date of Test: st Engineer: est Location:	John Caizzi							
					Power S	Settinas			
			Target	(dBm)	Measure		Softwar	e Setting	
		WiFi	16			. /		2.5	
		BT	1.	0		-		1.0	
					(Peak versu				
Frequency	Level	Pol	15.209 /		Detector	Azimuth	Height	Comments	
MHz 1240.000	dBµV/m 46.6	v/h H	Limit 54.0	Margin -7.4	Pk/QP/Avg Peak	degrees 205	meters 1.0		
3745.000	40.0	V	54.0 54.0	-13.3	Peak	194	1.0		
3743.000	40.7	V	54.0	-13.3	Teak	174	1.0	I	
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		
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 roctricto	d band but li	mit of 1E 20	Queed				
NULE Z.	Emission in		u dahu, dul h	11111 01 13.20	9 useu.				
	80.0 - 70.0 - 60.0 -								
Å	50.0 - 40.0 - 30.0 - 20.0 - 1000	N	3000 ·		www.www.chw. 5000 Frequency	6000	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	8000	, , , , , , , , , , , , , , , , , , ,

	EMC Test			
Client:	Intel Mobile Communications	Job Number:	J94122	
Madalı	21405 DW	T-Log Number:	Т94177	
IVIOUEI	3160SDW	Project Manager:	Christine Krebill	
Contact:	Steve Hackett	Project Coordinator:	-	
Standard:	FCC Part 15, RSS-210	Class:	N/A	

Spurious Radiated Emissions, 2 - 3GHz

60.0

40.0

20.0-| |

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Frequency (MHz)

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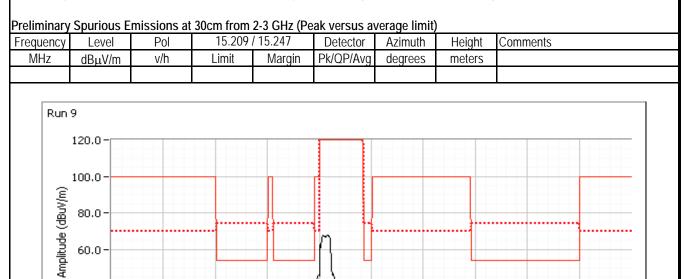
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2800

- E - E

3000

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

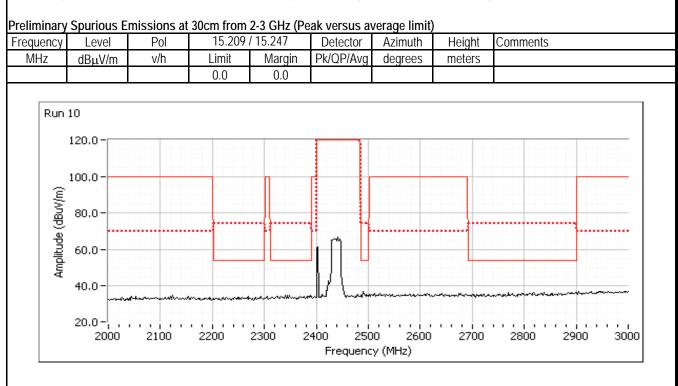


		SUCCESS							C Test Data
Client:	Intel Mobile	Communicat	ions					Job Number:	J94122
Madalı	3160SDW						T-	Log Number:	Т94177
woder:	31002010						Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	ett					Project	Coordinator:	-
Standard:	FCC Part 15	, RSS-210						Class:	N/A
Run #10: R	adiated Spu	rious Emiss	sions, 1-10G	Hz. Operat	ing Mode: 1	1g @ 2372 I	MHz, BT ED	R @ 2402 MI	Ηz
Те	Date of Test: st Engineer: est Location:	John Caizzi							
					Power S	Settings			
			Target	(dBm)	Measure		Softwar	e Setting	
		WiFi	16	1 /	16			2.5	
		BT	1	.0		-		1.0	
					l (Peak versu				
Frequency	Level	Pol	15.209		Detector	Azimuth	Height	Comments	
MHz 1240.000	dBµV/m 42.1	v/h H	Limit 54.0	Margin -11.9	Pk/QP/Avg Peak	degrees 238	meters 1.0		
3745.000	42.1	V	54.0 54.0	-11.9	Peak	160	1.0		
3743.000	40.1	v	54.0	-13.7	TCak	100	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		
1248.200	33.9	Н	54.0	-20.1	AVG	230	1.00	Note 2	
1245.930	56.2	H	74.0	-17.8	PK	230	1.00	Note 2	
3747.470	31.4	V V	54.0	-22.6	AVG PK	198	1.00		
3747.070	53.6	V	74.0	-20.4	PK	198	1.00		
Note 2:	Emission in	non-restricte	d band but li	imit of 15 20	9 used				
1010 2.	LIIISSIOITIII			11111 01 10.20	7 4364.				
Run									
Amplitude (dBuV/m)	80.0 - 70.0 - 60.0 - 50.0 - 40.0 - 30.0 - 20.0 - 1000			· 4000 '	5000 Frequency	6000	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	8000 <sup>°</sup>	9000 ' 10000

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

Spurious Radiated Emissions, 2 - 3GHz

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



R94333

		SUCCESS							
Client:	Intel Mobile	Communicat	ions					Job Number:	J94122
Model	3160SDW						T-	Log Number:	T94177
wouer.	31003DW						Proje	ect Manager:	Christine Krebill
Contact:	Steve Hacke	ett					Project	Coordinator:	-
Standard:	FCC Part 15	, RSS-210						Class:	N/A
[	Radiated Spu Date of Test: est Engineer:	1/8/2014 & 1	1/9/14	GHz. Operat	ting Mode: n2	20 @ 5200 N	IHz, BT Bas	sic @ 2402 M	Hz
	est Location:								
					Power S				
				(dBm)	Measure			e Setting	
		WiFi BT		5.5 .0	16	.0		9.0 9.0	
		DI	/	.0	1	-	5	7.0	l
					l (Peak versu				
	<mark>/ Spurious E</mark> Level dBμV/m	missions ex Pol v/h		ocated band / 15.247 Margin	I (Peak versu Detector Pk/QP/Avg	s average li Azimuth degrees	mit) Height meters	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		
requency MHz 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	
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		
Inal measu Trequency MHz MHz Run (ɯ//mɡp) əpnŋijdwy	Level dBµV/m urements at Level dBµV/m	Pol v/h 3m Pol v/h	15.209 Limit 15.209 Limit	/ 15.247 Margin / 15.247 Margin	Detector Pk/QP/Avg Detector	Azimuth degrees Azimuth degrees	Height meters Height	Comments	



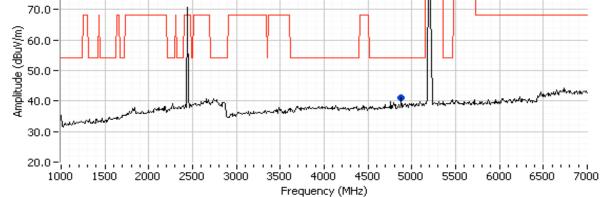
		SUCCESS						LIVI	
Client:	Intel Mobile	Communicat	ions					Job Number:	J94122
Madal							T-	Log Number:	T94177
Model:	3160SDW						Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	ett					Project	Coordinator:	-
Standard:	FCC Part 15	, RSS-210						Class:	N/A
Preliminary		Ocm from th	ne product to		otential signa			ge limit)	
			30cm from 15.209	1-7 GHz (Pe	eak versus av			0	
Frequency	Level	Pol			Detector	Azimuth	Height	Comments	
MHz 4800.000	dBµV/m 43.4	v/h V	Limit 54.0	Margin -10.6	Pk/QP/Avg Peak	degrees 0	meters 1.0		
4000.000	43.4	V	04.0	-10.0	FEAK	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		
4804.030	48.5	V	54.0	-5.5	AVG	203	1.75		
4804.180	50.8	V	74.0	-23.2	PK	203	1.75		
4803.970	46.8	Н	54.0	-7.2	AVG	158	1.63		
4804.280	49.5	Н	74.0	-24.5	PK	158	1.63		
Amplitude (dBuV/m)	80.0 - 70.0 - 60.0 - 50.0 - 40.0 -			rty bornoon					manunah
	30.0- 20.0-, , , , 1000	1500 20	00 2500	3000	3500 4000			500 6000	6500 7000

Frequency (MHz)

		SUCCESS						EM	C Test Da
Client:	Intel Mobile	Communicat	ions					Job Number:	J94122
Madal							T-	Log Number:	T94177
wodel:	3160SDW						Proje	ect Manager:	Christine Krebill
Contact:	Steve Hacke	ett					-	Coordinator:	
Standard:	FCC Part 15	5, RSS-210					,	Class:	
				GHz. Operat	ting Mode: n2	20 @ 5200 N	/Hz, BT Bas	sic @ 2441 M	IHz
Те	Date of Test: est Engineer: est Location:	J.Cadigal &	J.Caizzi						
					Power S	Settings			1
			Target	(dBm)	Measure		Softwar	e Setting	
		WiFi	16	5.5	16		2	9.0	]
		BT	7	.0		-	ç	0.0	]
oliminary			cluding allo	cated hand	l (Peak versu	s average li	imit)		
requency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
requency MHz								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		
equency MHz 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	
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 MHz MHz Run (Wi/mgp) apniliduw	Level dBµV/m urements at Level dBµV/m	Pol v/h 3m Pol v/h	15.209 Limit 15.209 Limit	/ 15.247 Margin / 15.247 Margin	Detector Pk/QP/Avg Detector	Azimuth degrees Azimuth degrees	Height meters Height	Comments	15000



	Intel Mobile	Communicat	tions					Job Number:	J94122
Madal							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
reliminary		Ocm from th	he product t		otential signa eak versus av	-		ge limit)	
requency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
1000 000	41.2	V	E1 O	10.0	Deals	0	1.0		
880.000	41.2	V	54.0	-12.8	Peak	0	1.0		
4880.000 inal meas requency	urements at			-12.8 / 15.247	Detector	0 Azimuth	Height	Comments	
nal meas requency MHz	urements at Level dBµV/m	3m Pol v/h	15.209 Limit		Detector Pk/QP/Avg	Azimuth degrees		Comments	
nal meas requency MHz 4882.000	urements at Level dBµV/m 46.3	3m Pol v/h V	15.209 Limit 54.0	/ 15.247 Margin -7.7	Detector Pk/QP/Avg AVG	Azimuth degrees 212	Height meters 1.07	Comments	
inal meas requency MHz 4882.000 4882.400	urements at Level dBµV/m 46.3 50.1	3m Pol v/h V V	15.209 Limit 54.0 74.0	/ 15.247 Margin -7.7 -23.9	Detector Pk/QP/Avg AVG PK	Azimuth degrees 212 212	Height meters 1.07 1.07	Comments	
nal meas requency MHz 1882.000	urements at Level dBµV/m 46.3	3m Pol v/h V	15.209 Limit 54.0	/ 15.247 Margin -7.7	Detector Pk/QP/Avg AVG	Azimuth degrees 212	Height meters 1.07	Comments	



		SUCCESS							C Test Da
Client:	Intel Mobile	Communicat	ions					Job Number:	J94122
Model	3160SDW						T-	Log Number:	T94177
wouer.	31003DW						Proje	ect Manager:	Christine Krebill
Contact:	Steve Hacke	ett					Project	Coordinator:	-
Standard:	FCC Part 15	, RSS-210						Class:	N/A
[	Radiated Spu Date of Test: est Engineer:	1/8/2014 & 1	1/9/14	GHz. Operat	ting Mode: n2	20 @ 5200 N	1Hz, BT Bas	sic @ 2480 M	IHz
	est Location:								_
					Power S			0	
		\\\!=		(dBm)	Measure			e Setting	{
		WiFi BT		5.5 .0	16	.0		9.0 9.0	1
	l	וט	1	.0	I		7	7.0	1
	/ Spurious E							Commonte	
	/ Spurious E Level dBµV/m	missions ex Pol v/h		ocated band / 15.247 Margin	Peak versu Detector Pk/QP/Avg	Azimuth degrees	mit) 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	Azimuth degrees	Height meters		
mal meas	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	
requency MHz nal meas	Level dBµV/m urements at	Pol v/h 3m	15.209 Limit	/ 15.247 Margin	Detector Pk/QP/Avg	Azimuth degrees	Height meters		
inal measi mequency mHz MHz Run (W\\ngp) aphilidwy	Level dBµV/m urements at Level dBµV/m	Pol v/h 3m Pol v/h	15.209 Limit 15.209 Limit	/ 15.247 Margin / 15.247 Margin	Detector Pk/QP/Avg Detector	Azimuth degrees Azimuth degrees	Height meters Height	Comments	15000



N N	E ENGINEER	SUCCESS							
Client:	Intel Mobile	Communica	ions					Job Number:	
Model	3160SDW						T-I	Log Number:	T94177
wouel:	31003DW						Proje	ect Manager:	Christine Krebill
Contact:	Steve Hacke	ett					Project	Coordinator:	-
Standard:	FCC Part 15	, RSS-210						Class:	N/A
	adiated Emi			- identife					
5				51	otential signa eak versus av	·		ge limit)	
requency	Level	Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
4960.000	41.1	V	54.0	-12.9	Peak	0	1.0		
inal measu requency	urements at Level	<b>3m</b> Pol	15 209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	Comments	
4960.000	43.9	H	54.0	-10.1	AVG	151	1.75		
4960.700	48.2	H	74.0	-25.8	PK	151	1.75		
4959.970	42.8	V	54.0	-11.2	AVG	204	1.48		
4959.850	47.9	V	74.0	-26.1	PK	204	1.48		
	80.0-								monunt
	40.0- 30.0-	way we want	and a second second	wer hunder	-an- Maria	mannan and	AL THUR HANN	~~~~~~	

Client	Intel Mobile	Communicat	ions					Job Number:	10/1122
Client:		Communical	10113					Log Number:	
Model:	3160SDW							0	Christine Krebill
Contact	Steve Hacke	stt					,	Coordinator:	
	FCC Part 15						Troject	Class:	
		,							
ın #14: R	Radiated Spu	rious Emiss	sions, 1-15 (	GHz. Operat	ting Mode: n	20 @ 5300 N	IHz, BT Bas	sic @ 2402 M	IHz
г	Data of Toot	1/0/2014 0 1	10/14						
	Date of Test: est Engineer:								
	est Location:								
	r								-
			Tana	t (dDm)	Power S		C-0	co Cottin r	
		WiFi		t (dBm) 6.5	Measure 16			re Setting 8.5	4
		BT		5.5 '.0		-		9.0	1
	L	ы	,						1
ourious R	adiated Emis	ssions, 7 - 1	5GHz						
	<u> </u>				. / .				
					I (Peak versu			Commonte	
requency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
reliminary requency MHz								Comments	
requency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	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		
equency MHz 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	
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		
mequency MHz 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		
requency MHz nal measu requency MHz	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		
equency MHz nal measu requency MHz Run	Level dBµV/m urements at Level dBµV/m 14	Pol v/h 3m Pol v/h	15.209 Limit 15.209	/ 15.247 Margin / 15.247	Detector Pk/QP/Avg Detector	Azimuth degrees Azimuth	Height meters Height		
equency MHz nal measu equency MHz Run	Level dBµV/m urements at Level dBµV/m	Pol v/h 3m Pol v/h	15.209 Limit 15.209 Limit	/ 15.247 Margin / 15.247 Margin	Detector Pk/QP/Avg Detector	Azimuth degrees Azimuth degrees	Height meters Height	Comments	
equency MHz nal measu equency MHz Run	Level dBµV/m urements at Level dBµV/m 14	Pol v/h 3m Pol v/h	15.209 Limit 15.209 Limit	/ 15.247 Margin / 15.247 Margin	Detector Pk/QP/Avg Detector Pk/QP/Avg	Azimuth degrees Azimuth degrees	Height meters Height	Comments	
equency MHz nal measu equency MHz Run	Level dBμV/m urements at Level dBμV/m 14 90.0 -	Pol v/h 3m Pol v/h	15.209 Limit 15.209 Limit	/ 15.247 Margin / 15.247 Margin	Detector Pk/QP/Avg Detector Pk/QP/Avg	Azimuth degrees Azimuth degrees	Height meters Height	Comments	
equency MHz nal measu equency MHz Run	Level dBμV/m urements at Level dBμV/m 14 90.0 -	Pol v/h 3m Pol v/h	15.209 Limit 15.209 Limit	/ 15.247 Margin / 15.247 Margin	Detector Pk/QP/Avg Detector Pk/QP/Avg	Azimuth degrees Azimuth degrees	Height meters Height	Comments	
equency MHz nal measu equency MHz Run	Level dBμV/m urements at Level dBμV/m 14 90.0 -	Pol v/h 3m Pol v/h	15.209 Limit 15.209 Limit	/ 15.247 Margin / 15.247 Margin	Detector Pk/QP/Avg Detector Pk/QP/Avg	Azimuth degrees Azimuth degrees	Height meters Height	Comments	
equency MHz nal measu equency MHz Run	Level dBμV/m urements at Level dBμV/m 14 90.0 -	Pol v/h 3m Pol v/h	15.209 Limit 15.209 Limit	/ 15.247 Margin / 15.247 Margin	Detector Pk/QP/Avg Detector Pk/QP/Avg	Azimuth degrees Azimuth degrees	Height meters Height	Comments	
equency MHz nal measu equency MHz Run	Level dBμV/m urements at Level dBμV/m 14 90.0 -	Pol v/h 3m Pol v/h	15.209 Limit 15.209 Limit	/ 15.247 Margin / 15.247 Margin	Detector Pk/QP/Avg Detector Pk/QP/Avg	Azimuth degrees Azimuth degrees	Height meters Height	Comments	
mal measu requency MHz MHz Run (wi/\ngp) apnilidwy	Level dBµV/m urements at Level dBµV/m 14 90.0 - 70.0 - 60.0 -	Pol v/h 3m Pol v/h	15.209 Limit 15.209 Limit	/ 15.247 Margin / 15.247 Margin	Detector Pk/QP/Avg Detector Pk/QP/Avg	Azimuth degrees Azimuth degrees	Height meters Height	Comments	
requency MHz requency MHz Run (ɯ//nɡp) əpnilidwy	Level dBµV/m Level dBµV/m 14 90.0 - 70.0 - 60.0 - 50.0 - 40.0 - 30.0 -	Pol v/h 3m Pol v/h	15.209 Limit 15.209 Limit	/ 15.247 Margin / 15.247 Margin	Detector Pk/QP/Avg Detector Pk/QP/Avg	Azimuth degrees Azimuth degrees	Height meters Height	Comments	
mal measu requency MHz MHz Run (ɯ//nɡp) əpnilidwy	Level dBµV/m urements at Level dBµV/m 14 90.0 - 70.0 - 60.0 - 50.0 - 40.0 - 70.0 -	Pol v/h 3m Pol v/h	15.209 Limit 15.209 Limit	/ 15.247 Margin / 15.247 Margin	Detector Pk/QP/Avg Detector Pk/QP/Avg	Azimuth degrees Azimuth degrees	Height meters Height	Comments	

Client:	Intel Mobile (	Communica	tions					Job Number:	J94122
							T-	Log Number:	T94177
Model:	3160SDW						Pro	ect Manager:	Christine Krebill
Contact:	Steve Hacke	tt						Coordinator:	
Standard:	FCC Part 15	RSS-210					,	Class:	
eliminary		Ocm from ti	he product t	2.1	<i>otential signa</i> 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	43.1	V	54.0	-10.9	Peak	0	1.0		
1200.000	39.4	V	54.0	-14.6	Peak	0	1.0	Nete 2	
2440.000	51.0	V	68.3	-17.3	Peak	0	1.0	Note 3	
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	o oninionito	
4803.980	49.3	V	54.0	-4.7	AVG	201	1.72		
4804.070	51.2	V	74.0	-22.8	PK	201	1.72		
4804.030	47.3	Н	54.0	-6.7	AVG	158	1.77		
4804.200	49.9	Н	74.0	-24.1	PK	158	1.77		
1197.930	31.9	V	54.0	-22.1	AVG	141	1.68		
1198.470	57.2	V	74.0	-16.8	PK	141	1.68		
1195.800	32.6	Н	54.0	-21.4	AVG	136	1.89		
1198.800	57.5	Н	74.0	-16.5	PK	136	1.89		
Run	NTS WiFi lea	ikage from (	opening char	nber door.					
	60.0 - 50.0 - 40.0 -								
Amplit	40.0- 30.0-	versen where and	mm	we looman	ametra and an and a second	degnegeden der	Juren &	Lands and faith of the start o	course of the second

Cliont	Intel Mobile	Communicat	ions					Job Number:	10/1102
Client:		Communicat	10115					Log Number:	
Model:	3160SDW							0	Christine Krebill
Contact	Steve Hacke	++						Coordinator:	
	FCC Part 15						TTOJECT	Class:	
Standard.	10010110	, 1100 210						01033.	
ın #15: R	Radiated Spu	rious Emiss	sions, 1-15 (	GHz. Operat	ting Mode: n2	20 @ 5580 N	/Hz, BT Bas	sic @ 2402 M	IHz
[	Date of Test:	1/8/2014 & 1	1/9/14						
	est Engineer:								
Te	est Location:	Chambers 7	& 4						
	ſ				Power S	Settings			1
			Targe	t (dBm)	Measure		Softwar	e Setting	
		WiFi	10	6.5	16		3	0.5	
	[	BT	7	.0		-	Ç	9.0	J
	adiated Frei	cione 7 1							
	adiated Emis	5510115, 7 - 1	JOHZ						
eliminary	/ Spurious E	missions ex	cluding all	ocated band	l (Peak versu	ıs average li	imit)		
		<b>missions ex</b> Pol		<b>ocated band</b> / 15.247	I (Peak versu Detector	is average li Azimuth	i <b>mit)</b> Height	Comments	
								Comments	
requency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
requency MHz	Level dBµV/m	Pol v/h	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
equency 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		
equency MHz nal measu	Level dBµV/m urements at	Pol v/h	15.209 Limit	/ 15.247	Detector	Azimuth	Height	Comments Comments	
equency MHz 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		
equency MHz nal measu equency MHz	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		
equency MHz 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		
equency MHz nal measu requency MHz Run	Level dBµV/m urements at Level dBµV/m 15	Pol v/h 3m Pol v/h	15.209 Limit 15.209 Limit	/ 15.247 Margin / 15.247 Margin	Detector Pk/QP/Avg Detector Pk/QP/Avg	Azimuth degrees Azimuth degrees	Height meters Height	Comments	
equency MHz nal measu equency MHz Run	Level dBµV/m urements at Level dBµV/m 15 90.0 -	Pol v/h 3m Pol	15.209 Limit 15.209 Limit	/ 15.247 Margin / 15.247 Margin	Detector Pk/QP/Avg Detector	Azimuth degrees Azimuth degrees	Height meters Height	Comments	
equency MHz nal measu equency MHz Run	Level dBµV/m urements at Level dBµV/m 15 90.0 - 80.0 -	Pol v/h 3m Pol v/h	15.209 Limit 15.209 Limit	/ 15.247 Margin / 15.247 Margin	Detector Pk/QP/Avg Detector Pk/QP/Avg	Azimuth degrees Azimuth degrees	Height meters Height	Comments	
equency MHz nal measu equency MHz Run	Level dBµV/m urements at Level dBµV/m 15 90.0 - 80.0 -	Pol v/h 3m Pol v/h	15.209 Limit 15.209 Limit	/ 15.247 Margin / 15.247 Margin	Detector Pk/QP/Avg Detector Pk/QP/Avg	Azimuth degrees Azimuth degrees	Height meters Height	Comments	
equency MHz nal measu equency MHz Run	Level dBµV/m urements at Level dBµV/m 15 90.0 - 80.0 -	Pol v/h 3m Pol v/h	15.209 Limit 15.209 Limit	/ 15.247 Margin / 15.247 Margin	Detector Pk/QP/Avg Detector Pk/QP/Avg	Azimuth degrees Azimuth degrees	Height meters Height	Comments	
equency MHz nal measu equency MHz Run	Level dBµV/m urements at Level dBµV/m 15 90.0 - 80.0 -	Pol v/h 3m Pol v/h	15.209 Limit 15.209 Limit	/ 15.247 Margin / 15.247 Margin	Detector Pk/QP/Avg Detector Pk/QP/Avg	Azimuth degrees Azimuth degrees	Height meters Height	Comments	
equency MHz nal measu equency MHz Run	Level dBµV/m urements at Level dBµV/m 15 90.0 - 80.0 -	Pol v/h 3m Pol v/h	15.209 Limit 15.209 Limit	/ 15.247 Margin / 15.247 Margin	Detector Pk/QP/Avg Detector Pk/QP/Avg	Azimuth degrees Azimuth degrees	Height meters Height	Comments	
equency MHz al measu equency MHz Run	Level dBµV/m urements at Level dBµV/m 15 90.0 - 70.0 - 60.0 -	Pol v/h 3m Pol v/h	15.209 Limit 15.209 Limit	/ 15.247 Margin / 15.247 Margin	Detector Pk/QP/Avg Detector Pk/QP/Avg	Azimuth degrees Azimuth degrees	Height meters Height	Comments	
equency MHz al measu equency MHz Run (///ngp) apnilidwy	Level dBµV/m urements at Level dBµV/m 15 90.0 - 80.0 -	Pol v/h 3m Pol v/h	15.209 Limit 15.209 Limit	/ 15.247 Margin / 15.247 Margin	Detector Pk/QP/Avg Detector Pk/QP/Avg	Azimuth degrees Azimuth degrees	Height meters Height	Comments	
equency MHz equency MHz Run (ɯ//nɡp) əpnŋijdwy	Level dBµV/m Level dBµV/m 15 90.0 - 80.0 - 70.0 - 60.0 - 50.0 - 40.0 - 30.0 -	Pol v/h 3m Pol v/h	15.209 Limit 15.209 Limit	/ 15.247 Margin / 15.247 Margin	Detector Pk/QP/Avg Detector Pk/QP/Avg	Azimuth degrees Azimuth degrees	Height meters Height	Comments	
requency MHz requency MHz Run (ɯ//nɡp) əpnţijdwy	Level dBµV/m urements at Level dBµV/m 15 90.0 - 70.0 - 60.0 - 50.0 - 40.0 -	Pol v/h 3m Pol v/h	15.209 Limit 15.209 Limit	/ 15.247 Margin / 15.247 Margin	Detector Pk/QP/Avg Detector Pk/QP/Avg	Azimuth degrees Azimuth degrees	Height meters Height	Comments	1500



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

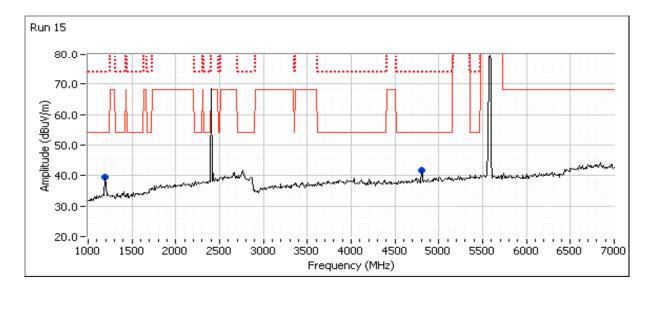
Spurious Radiated Emissions, 1 - 7GHz

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

Preliminary	Spurious E	missions at	30cm from	1-7 GHz (Pe	ak versus av	/erage limit)		
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1190.000	39.5	V	54.0	-14.5	Peak	0	1.0	Measured in run 14.
4800.000	41.6	V	54.0	-12.4	Peak	0	1.0	

#### Final measurements at 3m

. mai meae		•						
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	



Client.	Intel Mobile	Communicat	tions					Job Number:	194122
		Communication						Log Number:	
Model:	3160SDW							-	Christine Krebill
Contact:	Steve Hacke	ett					,	Coordinator:	
	FCC Part 15							Class:	
ın #16:  R	Radiated Spu	irious Emis	sions, 1-15 (	GHz. Operat	ting Mode: n2	20 @ 5785 N	1Hz, BT Bas	sic @ 2402 N	IHz
Те	Date of Test: est Engineer: est Location:	J.Cadigal &	J.Caizzi						
					Power S	Settings			]
			0	t (dBm)	Measure	ed (dBm)		re Setting	
		WiFi		6.5	16	0.6		1.5	1
		BT	7	.0		-	Ç	9.0	J
		Pol v/h	15.209 Limit		Detector Pk/OP/Avg	dearees	Height meters	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
MHz nal measu requency	dBµV/m urements at	v/h	Limit		Pk/QP/Avg Detector	degrees Azimuth		Comments	
MHz nal measu	dBµV/m urements at	v/h 3m	Limit	Margin	Pk/QP/Avg		meters		
inal measu Frequency MHz Run (W/\ngp) aphiliduw	dBµV/m urements at Level dBµV/m	v/h 3m Pol v/h	Limit 15.209 Limit	Margin / 15.247 Margin	Pk/QP/Avg Detector	Azimuth degrees	meters Height	Comments	



	E ENGINEER	SUCCESS							0 1001 20
Client:	Intel Mobile	Communicat	ions					Job Number:	J94122
Marshall							T-	Log Number:	T94177
Model:	3160SDW					·	Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	ett						Coordinator:	-
	FCC Part 15						- <b>,</b>	Class:	N/A
Preliminary		Ocm from th	e product to	5.	otential signa		rsus avera	ge limit)	
					eak versus av				
Frequency	Level	Pol		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		
inal measu Frequency	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		
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		
	47.3 49.9 16 80.0 - 70.0 -		54.0	-6.7	AVG	157	1.55		
Amplitude (dB	60.0 - 50.0 - 40.0 -			-no	hatron Morten		lunn	under and the second	man and and and

30.0

20.0 - <mark>|</mark> , 1000

. . 1500

2500

2000

3000

3500

4000

Frequency (MHz)

4500

5000

5500

6000

6500

7000

		SUCCESS						EM	
Client:	Intel Mobile	Communicat	ions					Job Number:	J94122
Madal							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
[ Te	Radiated Spu Date of Test: est Engineer: est Location:	1/8/2014 & 1 J.Cadigal &	1/9/14 J.Caizzi	GHz. Operat	ting Mode: n2	20 @ 5300 N	IHz, BT Bas	sic @ 2480 N	IHz
			4		Power S	Settinas			1
				t (dBm)	Measure	ed (dBm)		re Setting	J
		WiFi		6.5	16	.5		8.5	]
		BT	7	.0		-	ç	9.0	J
requency	Level	Pol	15.209	/ 15.247	I (Peak versu Detector	Azimuth	Height	Comments	
requency MHz	Level dBµV/m	Pol v/h						Comments	
requency MHz nal measu	Level dBµV/m urements at	Pol v/h	15.209 Limit	/ 15.247	Detector	Azimuth	Height	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		
requency MHz nal measu requency MHz Run (ɯ//mɡp) əpnŋijdww	Level dBµV/m urements at Level dBµV/m	Pol v/h 3m Pol v/h	15.209 Limit 15.209 Limit	/ 15.247 Margin / 15.247 Margin	Detector Pk/QP/Avg Detector	Azimuth degrees Azimuth degrees	Height meters Height	Comments	

Client:	Intel Mobile	Communicat	ions					Job Number:	J94122
Model	3160SDW							Log Number:	
model.	31003DW							•	Christine Krebill
Contact:	Steve Hacke	ett					Project	Coordinator:	-
Standard:	FCC Part 15	i, RSS-210						Class:	N/A
reliminary reliminary		Ocm from th	<i>ne product i</i> 30cm from		otential signa eak versus av Detector	-		<i>ge limit)</i> Comments	
Frequency MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	COMMENTS	
2420.000	47.1	V	68.3	-21.2	Peak	0	1.0	Note 3	
1200.000	38.1	V	54.0	-15.9	Peak	0	1.0	Measured in	run 14.
inal measu	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		
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.	
Run	17								
Amplitude (dBuV/m)	80.0 - 70.0 - 60.0 - 50.0 - 40.0 - 30.0 -	1500 20			3500 4000		5000 5		

01.001	Intol Mabile	Communication	long						C Test Da
Client:	Intel Mobile	Communicat	10115					Job Number:	
Model:	3160SDW							Log Number:	
Contact	Steve Hacke							Coordinator:	Christine Krebill
	FCC Part 15						Project	Coordinator. Class:	
Stanuaru.	I CC Fait 15	J, N33-210						Ciass.	IN/A
[ Te	Radiated Spu Date of Test: est Engineer: est Location:	1/8/2014 & <sup>2</sup> J.Cadigal &	1/9/14 J.Caizzi	GHz. Operat	ling Mode: n2	20 @ 5580 M	1Hz, BT Bas	sic @ 2480 N	lHz
					Dowor	Cottingo			1
			Tarnet	t (dBm)	Power S Measure		Softwar	re Setting	
		WiFi		6.5	16			0.5	1
		BT		.0				9.0	]
eiiminary	i spurious e	missions ex	colucing allo	scaled band	l (Peak versu				
		Pol v/h	15.209 Limit	/ 15.247 Margin	Detector Pk/QP/Avg	Azimuth degrees	Height meters	Comments	
requency MHz	Level	Pol v/h	Limit	Margin					
requency MHz nal measu requency	Level dBµV/m urements at Level	Pol v/h 3m Pol	Limit 15.209	Margin / 15.247	Pk/QP/Avg Detector	degrees Azimuth	meters Height	Comments	
requency MHz nal measu	Level dBµV/m urements at	Pol v/h 3m	Limit	Margin	Pk/QP/Avg	degrees	meters		
requency MHz nal measu requency MHz Run (ɯ//nɡp) əpnţijdwy	Level dBµV/m urements at Level dBµV/m 18	Pol v/h 3m Pol v/h	Limit 15.209 Limit	Margin / 15.247 Margin	Pk/QP/Avg Detector	degrees Azimuth degrees	meters Height	Comments	1500

	Intel Mobile	Communical	tions					Job Number:	J94122
	3160SDW						T-	Log Number:	T94177
							Proj	ect Manager:	Christine Krebill
	Steve Hacke						Project	Coordinator	
Standard:	FCC Part 15	, RSS-210						Class	N/A
reliminary reliminary	Spurious E	Ocm from the missions at	<i>he product t</i> 30cm from		eak versus a	verage limit)			
Frequency MHz	Level dBµV/m	Pol v/h	Limit	Margin	Detector Pk/QP/Avg	Azimuth degrees	Height meters	Comments	
1911 12	αυμν/Π	V/11	0.0	0.0		augrous	1101013		
	_								
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	
			0.0	0.0		9			
	20.0-	anderer and 1500 20			3500 4000 Frequency	) 4500	,	500 6000	

Client:	Intel Mobile	Communicat	tions					Job Number:	J94122
								Log Number:	
Model:	3160SDW								Christine Krebill
Contact:	Steve Hacke	ett						Coordinator:	
Standard:	FCC Part 15	5, RSS-210						Class:	N/A
[ Te	Date of Test: est Engineer:	urious Emise 1/8/2014 & <sup>-</sup> J.Cadigal & Chambers 7	1/9/14 J.Caizzi	GHz. Operat	ting Mode: n2	20 @ 5785 N	IHz, BT Bas	sic @ 2480 M	IHz
It	est location:	Champers /	& 4		Power S	Settings			1
			Ŭ	t (dBm)	Measure	ed (dBm)		e Setting	
		WiFi		6.5	16	0.6		1.5	Į
		BT	/	.0		-	,	9.0	J
requency MHz	Level dBµV/m	Pol v/h	15.209 Limit	Margin	Detector Pk/QP/Avg	Azimuth degrees	Height meters	Comments	
inal measu	dBµV/m urements at	v/h 3m	Limit	Margin	Pk/QP/Avg	degrees	meters		
MHz nal measu requency	dBµV/m urements at Level	v/h 3m Pol	Limit 15.209	Margin / 15.247	Pk/QP/Avg Detector	degrees Azimuth	meters Height	Comments	
MHz inal measu	dBµV/m urements at	v/h 3m	Limit	Margin	Pk/QP/Avg	degrees	meters		
MHz inal measu requency MHz Run	dBμV/m urements at Level dBμV/m	v/h 3m Pol v/h	Limit 15.209 Limit	Margin / 15.247 Margin	Pk/QP/Avg Detector Pk/QP/Avg	degrees Azimuth degrees	meters Height	Comments	
MHz nal measu requency MHz Run	dBµV/m urements at Level dBµV/m 19 90.0 -	v/h 3m Pol v/h	Limit 15.209 Limit	Margin / 15.247 Margin	Pk/QP/Avg Detector	degrees Azimuth degrees	meters Height	Comments	
MHz nal measu requency MHz Run	dBµV/m urements at Level dBµV/m 19	v/h 3m Pol v/h	Limit 15.209 Limit	Margin / 15.247 Margin	Pk/QP/Avg Detector Pk/QP/Avg	degrees Azimuth degrees	meters Height	Comments	
MHz nal measu requency MHz Run	dBμV/m urements at Level dBμV/m 90.0 - 80.0 - 70.0 -	v/h 3m Pol v/h	Limit 15.209 Limit	Margin / 15.247 Margin	Pk/QP/Avg Detector Pk/QP/Avg	degrees Azimuth degrees	meters Height	Comments	
MHz nal measu requency MHz Run	dBμV/m urements at Level dBμV/m 19 90.0 - 80.0 -	v/h 3m Pol v/h	Limit 15.209 Limit	Margin / 15.247 Margin	Pk/QP/Avg Detector Pk/QP/Avg	degrees Azimuth degrees	meters Height	Comments	
MHz nal measu requency MHz Run	dBμV/m urements at Level dBμV/m 90.0 - 80.0 - 70.0 -	v/h 3m Pol v/h	Limit 15.209 Limit	Margin / 15.247 Margin	Pk/QP/Avg Detector Pk/QP/Avg	degrees Azimuth degrees	meters Height	Comments	
MHz requency MHz Run (W/Mngp) aphntilduwy	dBμV/m urements at Level dBμV/m 90.0 - 80.0 - 70.0 - 60.0 -	v/h 3m Pol v/h	Limit 15.209 Limit	Margin / 15.247 Margin	Pk/QP/Avg Detector Pk/QP/Avg	degrees Azimuth degrees	meters Height	Comments	

Durious Radiated Emissions, 1 - 7GHz         reliminary Scan at ~ 30cm from the product to identify potential signals (Peak versus average limit)         reliminary Spurious Emissions at 30cm from 1-7 GHz (Peak versus average limit)         requency       Level         Pol       15.209 / 15.247         Detector       Azimuth         Hz       dBµV/m         0.0       0.0         nal measurements at 3m	Client:	Intel Mobile	Communicat	tions					Job Number:	
Project Manager:       Christine F         Contact:       Steve Hackett       Project Coordinator:       -         Standard:       FCC Part 15, RSS-210       Class:       N/A         purious Radiated Emissions, 1 - 7GHz       reliminary Scan at ~ 30cm from the product to identify potential signals (Peak versus average limit)       reliminary Spurious Emissions at 30cm from 1-7 GHz (Peak versus average limit)         reliminary Spurious Emissions at 30cm from 1-7 GHz (Peak versus average limit)       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         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         MHz       0.0       0.0       0.0       0.0       Image: Pk/QP/Avg	Model:	3160SDW							•	
Standard:       FCC Part 15, RSS-210       Class:       N/A         purious Radiated Emissions, 1 - 7GHz       reliminary Scan at ~ 30cm from the product to identify potential signals (Peak versus average limit)       reliminary Spurious Emissions at 30cm from 1-7 GHz (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         inal measurements at 3m								-		
purious Radiated Emissions, 1 - 7GHz reliminary Scan at ~ 30cm from the product to identify potential signals (Peak versus average limit) reliminary Spurious Emissions at 30cm from 1-7 GHz (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 inal 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 MHz dBµV/m V/h Limit Margin Pk/QP/Avg degre								Project		
reliminary Scan at ~ 30cm from the product to identify potential signals (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 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 MHz dBµV/m v/h Limit Margin Pk/QP/Avg degrees meters MHz dBµV/m v/h Limit Margin Pk/QP/Avg degrees meters NHz dBµV/m v/h V/m	Standard:	FCC Part 15	5, RSS-210						Class:	N/A
MHz       dBµV/m       v/h       Limit       Margin       Pk/QP/Avg       degrees       meters         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         MHz       dBµV/m       v/h       Limit       Margin       Pk/QP/Avg       degrees       meters         MHz       dBµV/m       v/h       Limit       Margin       Pk/QP/Avg       degrees       meters         MHz       o.0       0.0       0.0       0.0       0.0       0.0       0.0         Run 19       80.0       9       9       9       9       10       10       10       10         70.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0	reliminary	y Scan at ~ 3	Ocm from tl	<i>he product</i> 30cm from	n 1-7 GHz (Pe	eak versus av	verage limit)	)	-	
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       NHz     0.0     0.0     0.0     0.0     0.0     0.0					-				Comments	
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 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	MHz	dBµV/m	v/h			Pk/QP/Avg	degrees	meters		
requency Level 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 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		<u> </u>		0.0	0.0				1	
MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           Run 19         80.0 - 70.0 -		1								
Run 19 80.0 - 70					-				Comments	
Run 19 80.0 - 70.0 -	MHZ	dBµV/m	V/N		ě.	PK/QP/AVg	degrees	meters		
€ 40.0 - 30.0 - 20.0 - 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 6500 Frequency (MHz)	Amplitude (dBuV/n	30.0	·			3500 4000	0 4500		500 6000	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Contact: S	3160SDW Steve Hackett		Proj	Log Number: ect Manager:	T94177 Christine Krebill		
Contact: S				ect Manager:	Christine Krebill		
	Steve Hackett						
Standard: F			Project	Coordinator:	-		
	FCC Part 15, RSS-210			Class:	В		
	Radiated Emission (Elliott Laboratories Fren	•		•			
Test Speci	ific Details Objective: The objective of this test session is specification listed above.	to perform final qualification	on testing of	f the EUT with	n respect to the		
Tes	ate of Test: 1/10/2014 t Engineer: John Caizzi st Location: Chamber 4	Config. Used: Config Change: Host Voltage:	none	Z			
The EUT and The test dista Note, prelimir antenna. Max		detailed under each run de naximized by orientation of	escription. Tthe EUT ar	nd elevation o			
Summary ( MAC Addres	Rel. Humidity: 34	₩ ₩	0.3				
Run		Limit	Result	Margin			
1	Radiated Emissions 30 - 1000 MHz, Preliminary	FCC 15.209 / RSS 210	Eval		µV/m @ 112.19 MHz (-10.6 dB)		
2	Radiated Emissions 30 - 1000 MHz, Maximized	FCC 15.209 / RSS 210	Pass		µV/m @ 112.19 MHz (-10.6 dB)		
3	Radiated Emissions 30 - 1000 MHz, Preliminary	FCC 15.209 / RSS 210	Eval		uV/m @ 30.04 MHz (-11.4 dB)		
4	Radiated Emissions 30 - 1000 MHz, Maximized	FCC 15.209 / RSS 210	Pass	28.6 dB	uV/m @ 30.04 MHz (-11.4 dB)		
No modifica	ons Made During Testing ations were made to the EUT during testing From The Standard						

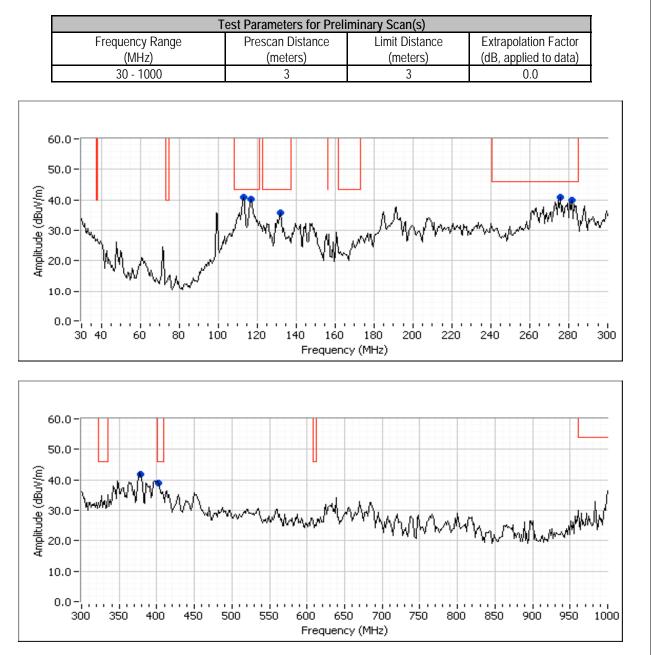
NTS

	NTS	EMC Test Data
Client:	Intel Mobile Communications	Job Number: J94122
Madalı	3160SDW	T-Log Number: T94177
wouer.	31003DW	Project Manager: Christine Krebill
Contact:	Steve Hackett	Project Coordinator: -
Standard:	FCC Part 15, RSS-210	Class: B

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

12

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

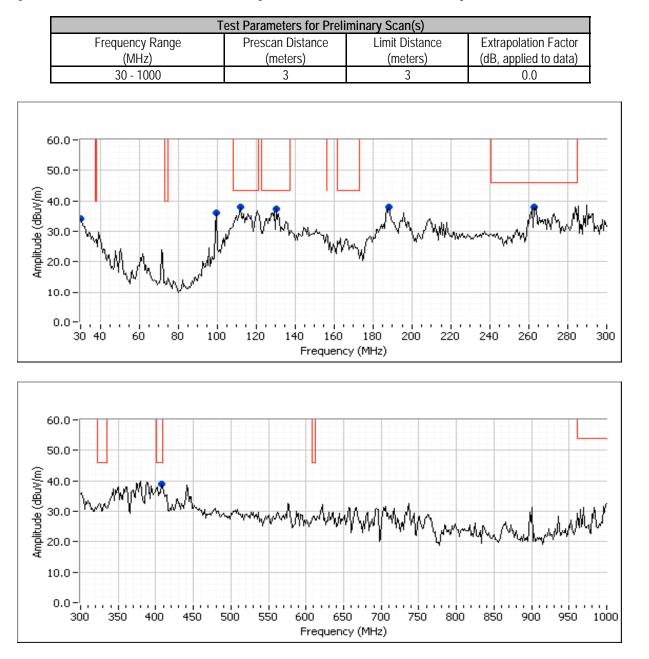


		SUCCESS						ЕМ	C Test Dat
Client:	Intel Mobile	Communio	cations					Job Number:	J94122
							T-	Log Number:	T94177
Model:	3160SDW					-		0	Christine Krebill
Contact.	ct: Steve Hackett							Coordinator:	-
	1: FCC Part 15, RSS-210							Class:	B
Stanuaru.		, KJJ-2 K	)					01033.	
reliminarv	peak readir	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	
	<b>quasi-peak</b> Level	readings Pol	(no manipul FCC 15.209				Height	Commonto	
Frequency MHz			Limit		Detector Pk/QP/Avg	Azimuth	5	Comments	
279.509	dBµV/m 28.7	v/h H	46.0	Margin -17.3	QP	degrees 345	meters 1.01	+	
112.185	32.9	н V	40.0	-17.3 -10.6	QP QP	345 171	1.00	-	
		V	43.5 43.5	-10.6 -15.2	QP QP	171	1.00	-	
116.275 375.754	28.3 33.3	H	43.5	-15.2 -12.7	QP QP	220	1.00	-	
403.050	33.3 32.2	H	46.0		QP QP	220	1.00	+	
276.109	32.2	H	46.0	-13.8 -15.7	QP QP	205	1.00	+	
	30.3 25.5	V	40.0	-13.7	QP QP	113		+	
133.439	20.0	V	43.3	-18.0	QP	113	1.01		
lote 1:	Emission in	non-rostric	ted band, bu	t limit of 15.2	hazu 00				
	aximized Rea		om Run #1						
						nized Readin		T	
	Frequency Range		Test Distance		Limit Distance		Extrapolat	ion Factor	
	Fre		inge						
	Fre	(MHz)	C C	(me	ters)	(met	ers)	(dB, applie	
	Fre		C C	(me			ers)		
<b>Naximized</b>		(MHz) 30 - 1000		(me	ters) 3	(met 3	ers)	(dB, applie	
	quasi-peak	(MHz) 30 - 1000 readings (	(includes ma	(me ; inipulation (	ters) 3 of EUT interf	(met 3 ace cables)	ers) 3	(dB, appli∈ 0	
requency	quasi-peak	(MHz) 30 - 1000 readings ( Pol	(includes ma	(me nipulation o	ters) 3 of EUT interf Detector	(met 3 ace cables) Azimuth	ers) 3 Height	(dB, applie	
requency MHz	quasi-peak Level dBµV/m	(MHz) 30 - 1000 readings ( Pol v/h	(includes ma FCC 15.209 Limit	(me mipulation o 7 / RSS 210 Margin	ters) 3 of EUT interf Detector Pk/QP/Avg	(met 3 ace cables) Azimuth degrees	ers) 3 Height meters	(dB, applie 0 Comments	0
Frequency MHz 279.509	quasi-peak Level dBµV/m 28.7	(MHz) 30 - 1000 readings ( Pol v/h H	(includes ma FCC 15.209 Limit 46.0	(me mipulation of 7 / RSS 210 Margin -17.3	ters) 3 of EUT interf Detector Pk/QP/Avg QP	(met 3 ace cables) Azimuth degrees 345	ers) 3 Height meters 1.01	(dB, applie 0 Comments Moving cabl	0 es lowered reading.
Frequency MHz 279.509 112.185	quasi-peak Level dBµV/m 28.7 32.9	(MHz) 30 - 1000 readings ( Pol v/h H V	(includes ma FCC 15.209 Limit 46.0 43.5	(me mipulation of 7 (RSS 210 Margin -17.3 -10.6	ters) 3 of EUT interf Detector Pk/QP/Avg QP QP	(met 3 ace cables) Azimuth degrees 345 171	Height Height Meters 1.01 1.00	(dB, applie 0 Comments Moving cabl Moving cabl	0 es lowered reading. es lowered reading.
Frequency MHz 279.509 112.185 116.275	quasi-peak Level dBµV/m 28.7 32.9 28.3	(MHz) 30 - 1000 readings ( Pol v/h H V V V	(includes ma FCC 15.209 Limit 46.0 43.5 43.5	(me mipulation of 2 / RSS 210 Margin -17.3 -10.6 -15.2	ters) 3 of EUT interf Detector Pk/QP/Avg QP QP QP	(met 3 ace cables) Azimuth degrees 345 171 149	ers) Height meters 1.01 1.00 1.00	(dB, applie 0 Comments Moving cabl Moving cabl Moving cabl	o es lowered reading. es lowered reading. es lowered reading.
Frequency MHz 279.509 112.185 116.275 375.754	<b>quasi-peak</b> Level dBμV/m 28.7 32.9 28.3 33.3	(MHz) 30 - 1000 readings ( Pol v/h H V V V H	(includes ma FCC 15.209 Limit 46.0 43.5 43.5 43.5 46.0	(me mipulation of 2 / RSS 210 Margin -17.3 -10.6 -15.2 -12.7	ters) 3 of EUT interf Detector Pk/QP/Avg QP QP QP QP QP	(met 3 ace cables) Azimuth degrees 345 171 149 220	ers) Height meters 1.01 1.00 1.00 1.01	(dB, applie 0 Comments Moving cabl Moving cabl Moving cabl Moving cabl	o es lowered reading. es lowered reading. es lowered reading. es lowered reading.
Frequency MHz 279.509 112.185 116.275	quasi-peak Level dBµV/m 28.7 32.9 28.3	(MHz) 30 - 1000 readings ( Pol v/h H V V V	(includes ma FCC 15.209 Limit 46.0 43.5 43.5	(me mipulation of 2 / RSS 210 Margin -17.3 -10.6 -15.2	ters) 3 of EUT interf Detector Pk/QP/Avg QP QP QP	(met 3 ace cables) Azimuth degrees 345 171 149	ers) Height meters 1.01 1.00 1.00	(dB, applie 0 Comments Moving cabl Moving cabl Moving cabl Moving cabl Moving cabl	o es lowered reading. es lowered reading. es lowered reading.

	NTS	NEER SUCCESS				
Client:	Intel Mobile Communications	Job Number:	J94122			
Madalı	21/00 01/	T-Log Number:	Т94177			
wouer.	3160SDW	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.



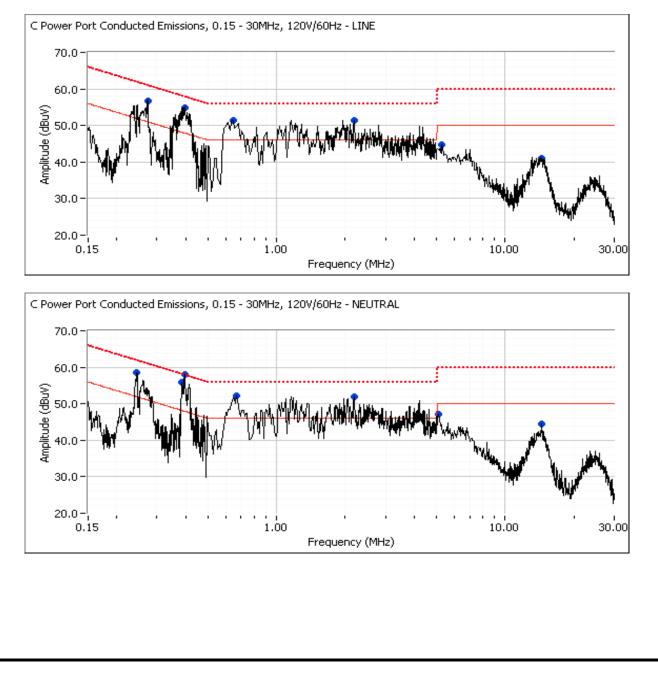
Chern.	Intel Mobile	Communic	cations					Job Number: J94122
Madal							T-	Log Number: T94177
woder:	3160SDW						Proj	ject Manager: Christine Krebill
Contact:	Steve Hackett						Project	t Coordinator: -
	FCC Part 15		)				,	Class: B
		,						
Preliminary	r peak readir	igs captu	red during p	re-scan (pea	ak readings	vs. average	limit)	
Frequency	Level	Pol	FCC 15.209	9 / RSS 210	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	
			,		<b>.</b>			
		<u> </u>	(no manipul					
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	adings Fro		st Paramete	rs for Maxim	nized Readir	ng(s)	
	Fre	quency Ra	ange	Test D	istance	Limit Di	istance	Extrapolation Factor
		(MHz)		(me	ters)	(mot	ters)	(dB, applied to data)
		. /						
		30 - 1000			3	(met 3		0.0
Anvimized		30 - 1000			3	3		
		30 - 1000 readings (	(includes ma	nipulation	3 of EUT interf	ace cables)	3	0.0
Frequency	Level	30 - 1000 readings ( Pol	(includes ma FCC 15.209	nipulation of / RSS 210	3 of EUT interf Detector	ace cables) Azimuth	B Height	
Frequency MHz	Level dBµV/m	30 - 1000 readings ( Pol v/h	(includes ma FCC 15.209 Limit	nipulation of the second se	3 of EUT interf Detector Pk/QP/Avg	ace cables) Azimuth degrees	Height meters	Comments
Frequency MHz 99.812	Level dBµV/m 25.8	30 - 1000 readings ( Pol v/h V	(includes ma FCC 15.209 Limit 43.5	nipulation of 7 / RSS 210 Margin -17.7	3 of EUT interf Detector Pk/QP/Avg QP	ace cables) Azimuth degrees 233	Height meters 1.68	0.0 Comments Moving cables lowered reading
Frequency MHz 99.812 403.794	Level dBµV/m 25.8 31.5	30 - 1000 readings ( Pol v/h V H	(includes ma FCC 15.209 Limit 43.5 46.0	nipulation of 7 / RSS 210 Margin -17.7 -14.5	of EUT interf Detector Pk/QP/Avg QP QP	ace cables) Azimuth degrees 233 208	Height meters 1.68 1.00	0.0 Comments Moving cables lowered reading Moving cables lowered reading
Frequency MHz 99.812 403.794 188.629	Level dBµV/m 25.8 31.5 26.2	30 - 1000 readings ( Pol v/h V H H H	(includes ma FCC 15.209 Limit 43.5 46.0 43.5	nipulation of 7 RSS 210 Margin -17.7 -14.5 -17.3	3 of EUT interf Detector Pk/QP/Avg QP QP QP	ace cables) Azimuth degrees 233 208 153	Height meters 1.68 1.00 1.64	0.0 Comments Moving cables lowered reading Moving cables lowered reading Moving cables lowered reading
Frequency MHz 99.812 403.794	Level dBµV/m 25.8 31.5	30 - 1000 readings ( Pol v/h V H	(includes ma FCC 15.209 Limit 43.5 46.0	nipulation of 7 / RSS 210 Margin -17.7 -14.5	of EUT interf Detector Pk/QP/Avg QP QP	ace cables) Azimuth degrees 233 208	Height meters 1.68 1.00	0.0 Comments Moving cables lowered reading Moving cables lowered reading

	R SUCCESS			EMO	C Test Data	
Client: Intel Mobile	Communications			Job Number:	J94122	
Model: 3160SDW				_og Number:		
Project Manager: Christine						
Contact: Steve Hacke			Project Coordinator: -			
Standard: FCC Part 15	o, RSS-210			Class:	В	
	(Elliott Laboratories Fremo	nissions (Transn ont Facility, Semi-Aneci	•	er)		
Test Specific Detail Objective:	The objective of this test session is to specification listed above.	perform final qualification	n testing of th	ne EUT with re	espect to the	
Date of Test: Test Engineer: Test Location:	M. Birgani	Config. Used: Config Change: EUT Voltage:	-	Z		
located outside of the	cm from the LISN. A second LISN was semi-anechoic chamber. Any cables re ssed through a ferrite clamp upon exitin s: Temperature: Rel. Humidity:	unning to remote support				
	5					
Summary of Result	S	5. Driver version 16.8.0	2			
	5	5 Driver version 16.8.0. Limit RSS 210 / 15.207	<b>3</b> Result Pass	Margin 45.7 dBµV @	₽ 0.398 MHz (-2.2 dB)	

EMC Test			
Client:	Intel Mobile Communications	Job Number:	J94122
Madal	3160SDW	T-Log Number:	Т94177
wouer.	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





Client:	Intel Mobile Communications	Job Number:	J94122
Model:	21405 DW	T-Log Number:	Т94177
	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)

		-ge earter		eean (Pean	n saainge r	
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	ions				Job Number:	J94122
							T-Log Number:	
Model:	3160SDW						Project Manager:	
Contact	Steve Hack	ett					Project Coordinator:	
	FCC Part 1						Class:	
Stanuara.	1001 dit is	J, 1100 210					01035.	D
inal quasi	-peak and a	verage read	ings					
Frequency		AC		) / 15.207	Detector	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	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)		

	E ENGINEER SUCCESS	EM	C Test Data
Client:	Intel Mobile Communications	Job Number:	J94122
Madal		T-Log Number:	T94177
Model.	3160SDW	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	
902.11a	18	15.1	20.0
802.11g	24	15.0	20.0
	36	14.9	1
	48	14.8	1
	54	14.8	1

	ns		т	Job Number: J94122 Log Number: T94177	
3160SDW				ect Manager: Christine Krebi	
Steve Hackett			-	t Coordinator: -	
FCC Part 15, RSS-210			i iojec	Class: N/A	
1 00 1 art 10, 100-210				Old35. N/A	
Mode	Data Rate	Power (dBm)	Power setting	]	
	6.5	11.6			
	13	11.2			
	19.5	11.0			
802.11n/ac	26	10.8			
20MHz -	39	10.6	20.0		
↓ ⊢	52	10.4	-		
-	<u>58.5</u> 65	10.4			
-	78	10.4 10.1	_	<<-11ac mode only	
	13.5	10.5			
-	27	10.4			
-	40.5	10.3			
-	54	10.2	_		
802.11n/ac	81	10.1			
40MHz	108	10.0	20.0		
	121.5	10.0			
	135	10.0		<11ac mode only	
	162	9.9			
	180	9.9		<<-11ac mode only	
_	29.3	10.1			
	58.5	10.0	_		
-	87.8	9.9			
F	117 175.5	9.8 9.7	-		
802.11ac 80MHz -	234	9.6	20.0		
	266.3	9.5	1		
			-		
	292.5	9.4			
F	292.5 351	9.4 9.4			

# Client: Intel Mobile Communications Job Number: J94122 Model: 3160SDW T-Log Number: T94177 Contact: Steve Hackett Project Manager: Christine Krebill Contact: Steve Hackett Project Coordinator: Standard: FCC Part 15, RSS-210 Class: N/A

## Duty Cycle

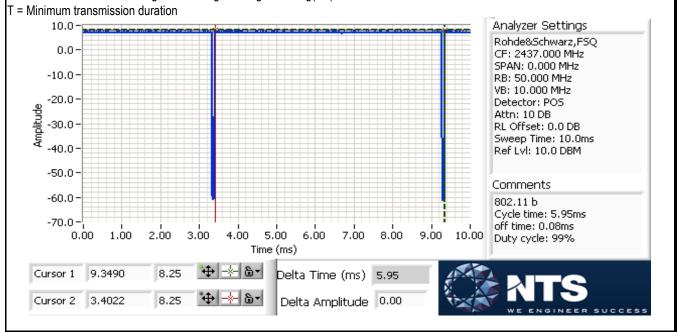
Date of Test: 12/30/2013 Test Engineer: Jack Liu Test Location: FT Lab6

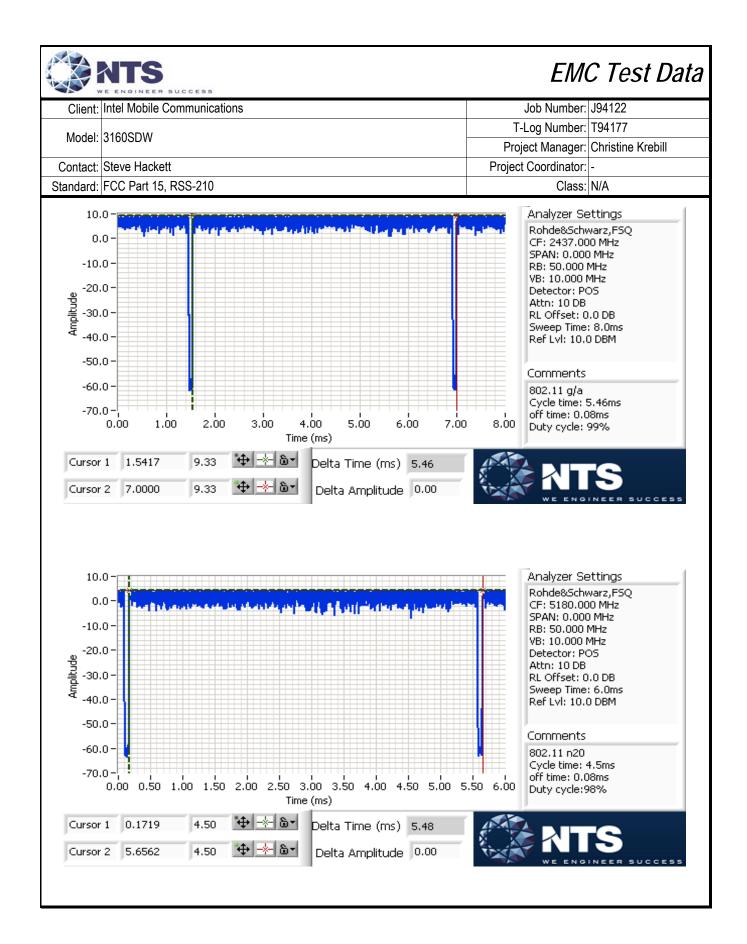
Duty cycle measurements performed on the worse case data rate for power. Notes: Measurements taken with maximum RBW/VBW settings allowed.

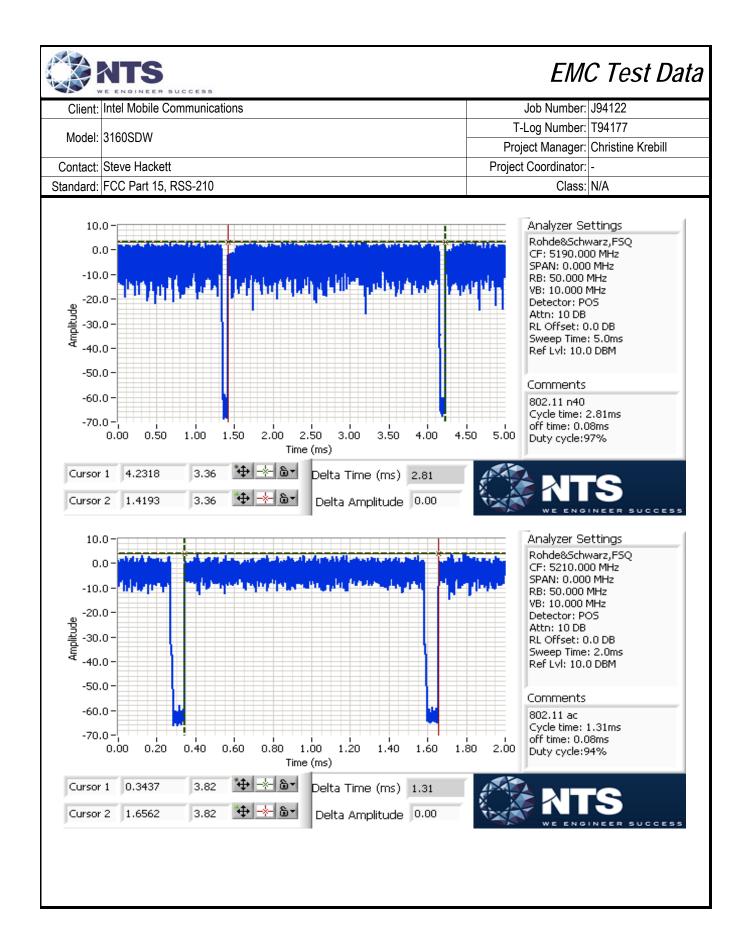
Mode	Data Rate	Duty Cycle (x)	Constant DC?	T (ms)	Pwr Cor Factor*	Lin Volt Cor Factor**	Min VBW for FS (Hz)
11b	1Mb/s	0.99	Yes	10	0	0	100
11g	6Mb/s	0.99	Yes	8	0	0	125
11a	6Mb/s	0.99	Yes	8	0	0	125
n20	HT0	0.98	Yes	6	0	0	166.7
n40	HT0	0.97	Yes	5	0.1	0.2	200
ac80	VHT0	0.94	Yes	2	0.3	0.5	500

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

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







		success			EM	C Test Da
Client:	Intel Mobile	Communications			Job Number:	J94122
M. J.I	24000014		Т	-Log Number:	T94177	
Model:	3160SDW		Pro	ject Manager:	Christine Krebill	
Contact:	Steve Hacke	ett	Projec	t Coordinator:	-	
Standard:	FCC Part 15	5, RSS-210			Class:	N/A
•	Objective.	Antenna Power, PSD, Peak Excurs S The objective of this test session is specification listed above.		ts ourious E	Emissions	espect to the
	of Result ess: 001500E	S 6085C DRTU Tool Version 1.7.4-	845 Driver version 16.8.0.3			
Ru	ın #	Test Performed	Limit	Pass / Fai	il Result / Mar	
1	1	Power, 5150 - 5250MHz	15.407(a) (1), (2)	Pass	n/ac20: 16.4 n/ac40: 16.6	m (42.7mW) dBm (44.7mW) dBm (45.2mW) Bm (15.7mW)
1	1	PSD, 5150 - 5250MHz	15.407(a) (1), (2)	Pass	11a: 3.4 dBr n/ac20: 3.3 n/ac40: 1.1 ac80: -6.2 d	n/MHz dBm/MHz dBm/MHz
1	1	Power, 5250 - 5350MHz	15.407(a) (1), (2)	Pass	11a: 16.5dB n/ac20: 16.3 n/ac40: 14.9	m (44.6mW) dBm (42.5mW) dBm (30.6mW) Bm (24.4mW)
1	1	PSD, 5250 - 5350MHz	15.407(a) (1), (2)	Pass	11a: 3.7dBn n/ac20: 3.2c n/ac40: -0.6 ac80: -4.2dF	n/MHz IBm/MHz dBm/MHz
1	1	Max EIRP 5250 - 5350MHz	TPC required if EIRP≥ 500mW (27dBm). EIRP ≥ 200mW (23dBm) DFS threshold = -64dBm.	-		dBm (104.5 mW)
1	1	Power, 5470 - 5725MHz	15.407(a) (1), (2)	Pass	n/ac20: 16.5 n/ac40: 16.5 ac80: 15.9d	m (41.4mW) idBm (44.5mW) idBm (44.7mW) Bm (38.7mW)
	1	PSD, 5470 - 5725MHz	15.407(a) (1), (2)	Pass	11a: 3.5dBn n/ac20: 3.5c n/ac40: 1.0c	n/MHz IBm/MHz

		SUCCESS			EMO	C Test Data
Client:	Intel Mobile	Communications		Job Number:	J94122	
Madalı	246000144		T-l	_og Number:	T94177	
woder:	3160SDW		Proje	ect Manager:	Christine Krebill	
Contact:	Steve Hacke	ett		Project	Coordinator:	-
Standard:	FCC Part 15	5, RSS-210			Class:	N/A
				L		
Ru	n #	Test Performed	Limit	Pass / Fail	Result / Mar	gin
1	l	Max EIRP 5470 - 5725MHz	TPC required if EIRP≥ 500mW (27dBm). EIRP ≥ 200mW (23dBm) DFS threshold	-	EIRP = 21.3	dBm (134.9mW)
1	I	26dB Bandwidth	15.407 (Information only)	-	> 20MHz for	all modes
1	1	99% Bandwidth	RSS 210 (Information only)	N/A	a: 17 MHz n20: 18.2 M n40: 36.1 M ac80: 74.9 N	Hz
1		20dB Bandwidth	15.215 (c)	Pass	20 dB Bandv	width not within 5600- and for all modes
2	2	Peak Excursion Envelope	15.407(a) (6) 13dB	Pass	8.4dB	
3	}	Antenna Conducted - Out of Band Spurious	15.407(b) -27dBm/MHz			ed conducted, Refer to urious Emissions data

#### General Test Configuration

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

Ambient Conditions:

Temperature:	20.8 °C
Rel. Humidity:	37 %

Modifications Made During Testing

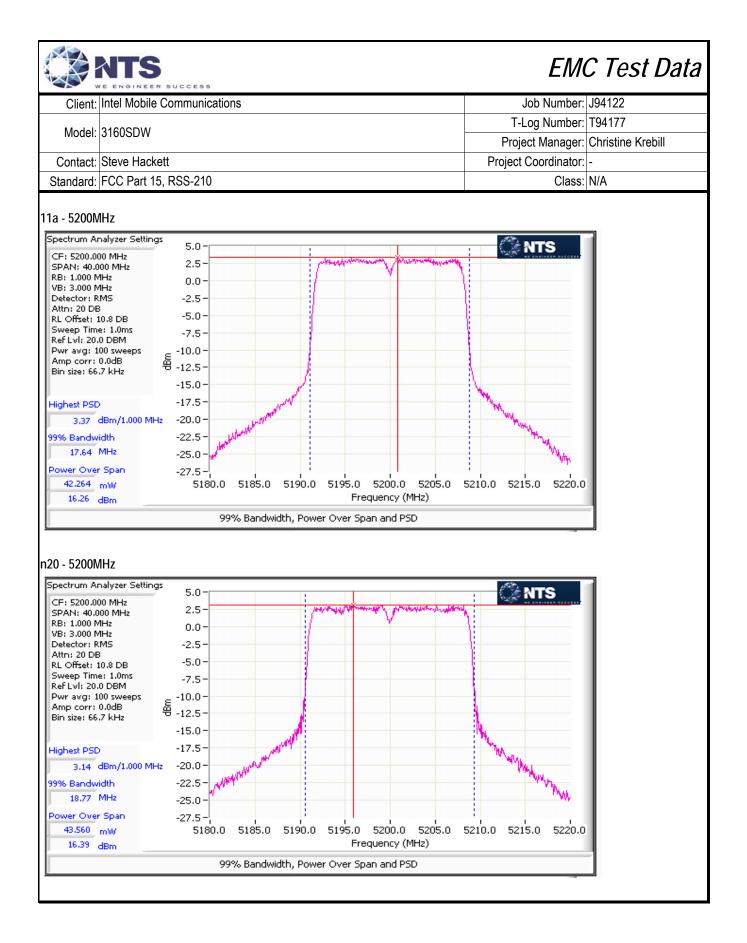
No modifications were made to the EUT during testing

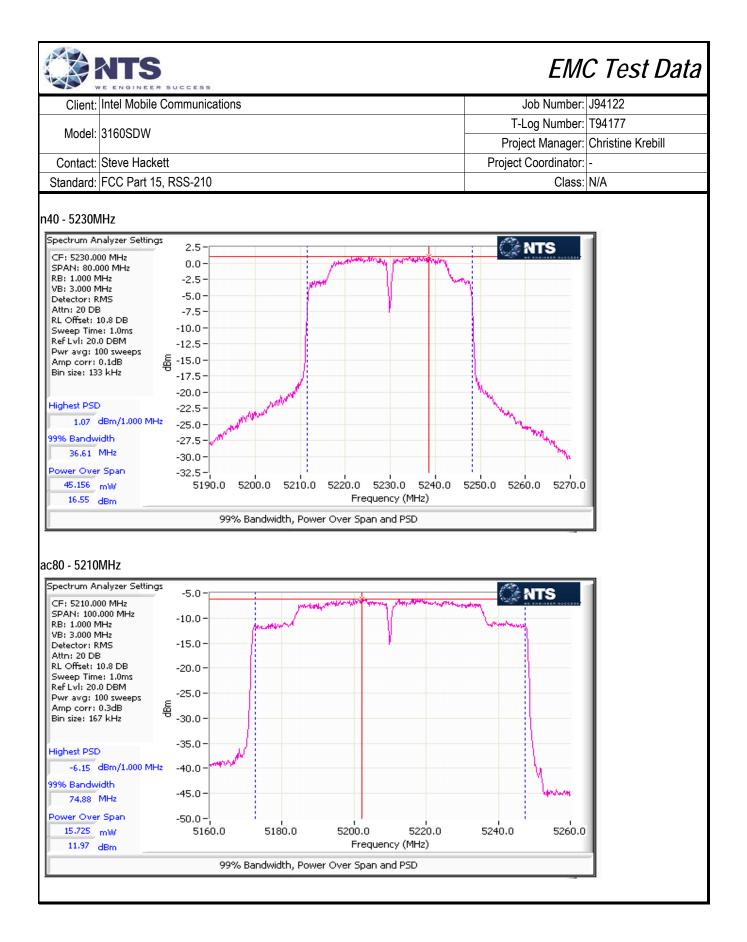
#### Deviations From The Standard

No deviations were made from the requirements of the standard.

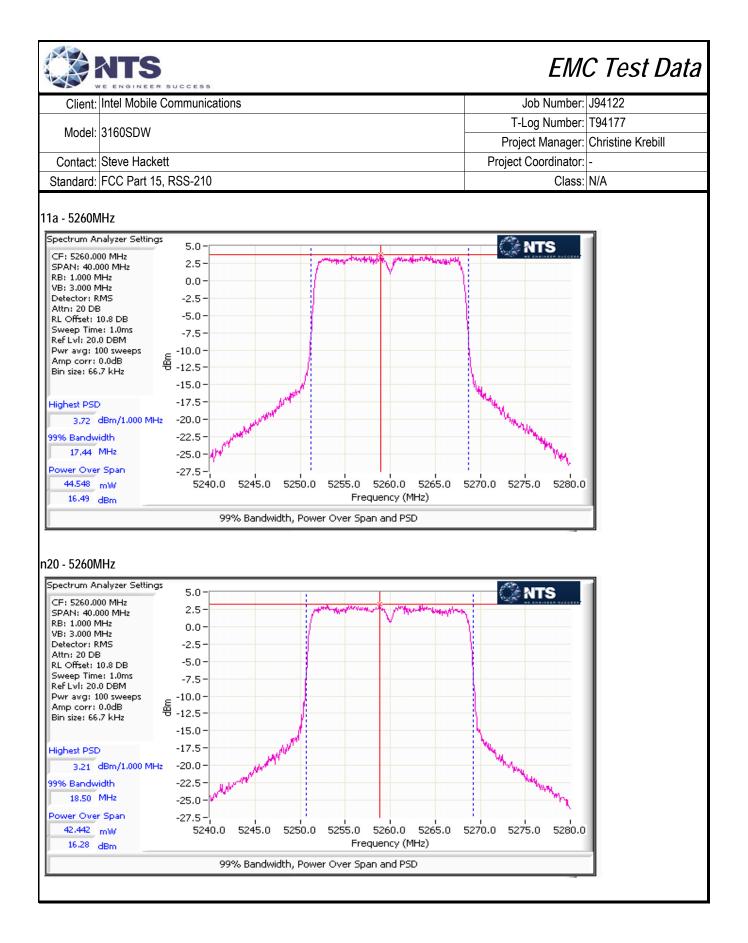
Model:         3160SDW         T-Log Number:         Project Manager:         Project Manager:         Project Coordinator:         Project Coordinator:         Project Coordinator:         Project Coordinator:         Project Coordinator:         Class:         Class:         Project Coordinator:	Christine Krebill
Model:         3160SDW         Project Manager:           Contact:         Steve Hackett         Project Coordinator:           Standard:         FCC Part 15, RSS-210         Class:           rocedure Comments:           easurements performed in accordance with FCC KDB 789033 D01 v01r03, dated April 8, 2013           Mode         Data Rate         Duty Cycle         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         166.66667           n40         HT0         0.97         Yes         5         0.1         0.2         200           ac80         VHT0         0.94         Yes         2         0.3         0.5         500   Note: Correction for duty cycle applied in the measurement system. un #1: Bandwidth, Output Power and Power Spectral Density - MIMO Systems Date of Test: 1/7/14 to 1/12/14         Config. Used: 1	Christine Krebill
Contact:       Steve Hackett       Project Coordinator:         Standard:       FCC Part 15, RSS-210       Class:         rocedure Comments:         easurements performed in accordance with FCC KDB 789033 D01 v01r03, dated April 8, 2013         Mode       Data Rate       Duty Cycle       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       166.66667         n40       HT0       0.97       Yes       5       0.1       0.2       200         ac80       VHT0       0.94       Yes       2       0.3       0.5       500         Note: Correction for duty cycle applied in the measurement system.         un #1: Bandwidth, Output Power and Power Spectral Density - MIMO Systems Date of Test: 1/7/14 to 1/12/14       Config. Used: 1	-
Standard:       FCC Part 15, RSS-210       Class:         crocedure Comments:       casurements performed in accordance with FCC KDB 789033 D01 v01r03, dated April 8, 2013         Mode       Data Rate       Duty Cycle       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       166.66667         n40       HT0       0.97       Yes       5       0.1       0.2       200         ac80       VHT0       0.94       Yes       2       0.3       0.5       500	N/A
rocedure Comments: easurements performed in accordance with FCC KDB 789033 D01 v01r03, dated April 8, 2013 $Mode$ Data RateDuty CycleConstant DC?T (ms)Pwr Cor Factor*Lin Volt Cor Factor**Min VBW for FS (Hz)11a6Mb/s0.99Yes80012511a6Mb/s0.99Yes600166.66667n20HT00.98Yes50.10.2200ac80VHT00.94Yes20.30.5500	
Mode         Data Rate         Duty Cycle         Constant DC?         T (ms)         PWr Cor Factor*         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         166.66667           n40         HT0         0.97         Yes         5         0.1         0.2         200           ac80         VHT0         0.94         Yes         2         0.3         0.5         500	
Image:	
n20         HT0         0.98         Yes         6         0         0         166.66667           n40         HT0         0.97         Yes         5         0.1         0.2         200           ac80         VHT0         0.94         Yes         2         0.3         0.5         500   Note: Correction for duty cycle applied in the measurement system. un #1: Bandwidth, Output Power and Power Spectral Density - MIMO Systems Date of Test: 1/7/14 to 1/12/14         Config. Used: 1	
n40       HT0       0.97       Yes       5       0.1       0.2       200         ac80       VHT0       0.94       Yes       2       0.3       0.5       500         Note: Correction for duty cycle applied in the measurement system.         In #1: Bandwidth, Output Power and Power Spectral Density - MIMO Systems Date of Test: 1/7/14 to 1/12/14	
ac80     VHT0     0.94     Yes     2     0.3     0.5     500       Note: Correction for duty cycle applied in the measurement system.       In #1: Bandwidth, Output Power and Power Spectral Density - MIMO Systems Date of Test: 1/7/14 to 1/12/14	
Note: Correction for duty cycle applied in the measurement system. In #1: Bandwidth, Output Power and Power Spectral Density - MIMO Systems Date of Test: 1/7/14 to 1/12/14 Config. Used: 1	
Output power measured using a spectrum analyzer (see plots below). RBW=1MHz, VB=3 MHz, # of p           Note 1:         2*span/RBW, RMS detector, power averaging on (transmitted signal was continuous) and power integ           (a) and (n20) modes 80 MHz for (n40) mode and 100 MHz for (ac80) mode. (method SA-1 of KDB 78           Note 2:         Measured using the same analyzer settings used for output power.	gration over 40 MHz
Note 3: For RSS-210 the limit for the 5150 - 5250 MHz band accounts for the antenna gain as the maximum et al. 10dBm/MHz. The limits are also corrected for instances where the highest measured value of the PSI PSD (calculated from the measured power divided by the measured 99% bandwidth) by more than 3d the measured value exceeds the average by more than 3dB.	D exceeds the avera
Note 4: 99% Bandwidth measured in accordance with RSS GEN - RB > 1% of span and VB >=3xRB         For MIMO systems the total output power and total PSD are calculated form the sum of the powers of (in linear terms). The antenna gain used to determine the EIRP and limits for PSD/Output power deperdence of the MIMO device. If the signals on the non-coherent between the transmit chains then the gain and the limits is the highest gain of the individual chains and the EIRP is the sum of the products of gain a chain. If the signals are coherent then the effective antenna gain is the sum (in linear terms) of the gain the EIRP is the product of the effective gain and total power.	ends on the operatin gain used to determir ind power on each

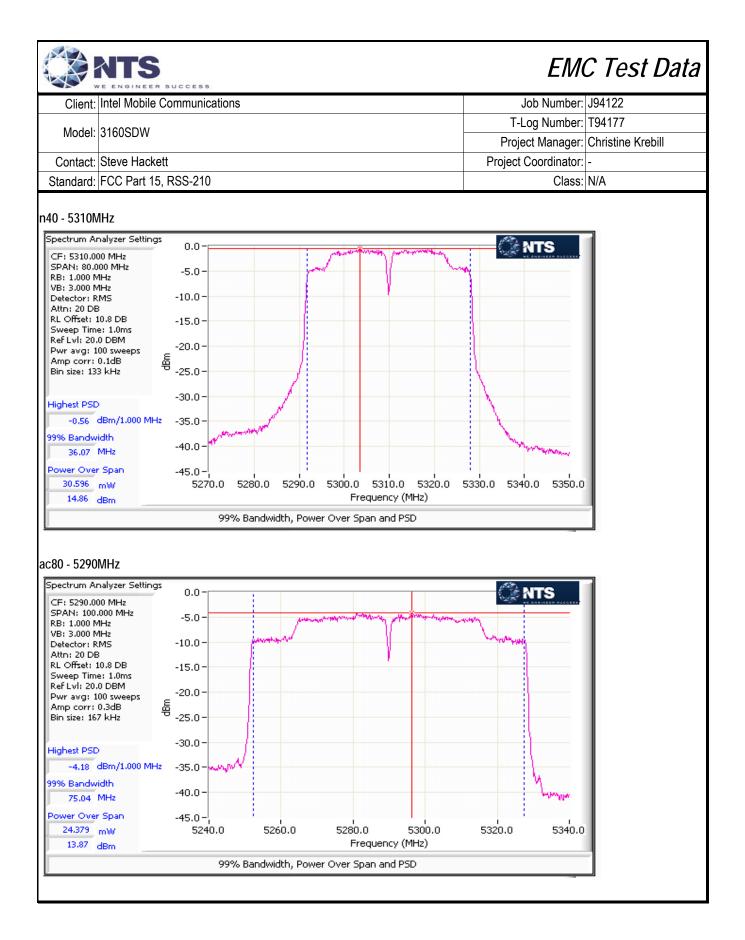
	J94122	ob Number:					tions	Communicat	Intel Mobile	Client:
		og Number:								onont.
hill	Christine Kre	•							3160SDW	Model:
2011		Coordinator:	-					<b>\</b> ##	Steve Hacke	Contact
	-		FIUJECU							
	N/A	Class:						), RSS-210	FCC Part 15	Standard:
								0 MUz Dond	e - 5150-525	
	dBm	20.2	m₩	103.5	Max EIRP:			a Gain (dBi):		Diso Devic
		SD <sup>2</sup> dBm/MH			put Power <sup>1</sup> dE	0	Duty Cycle	26dB BW	Software	Frequency
Result		_	-					(MHz)	Setting	
<u> </u>	Limit	Calculated	Measured	Limit	Calculated	Measured	%	(1011 12)	octung	(MHz) 02.11a
Pass	4.0	2.8	2.8	17.0	15.6	15.6	100.0	37.1	27.5	5180
Pass	4.0	2.8 3.4	3.4	17.0	15.6	15.6	100.0	37.1	27.5	5200
Pass	4.0	3.4	3.4	17.0	16.2	16.2	100.0	38.6	28.0	5200
1 035	ע.ד	0.7	J.T	17.0	10.2	10.2	100.0	00.0		02.11n 20N
Pass	4.0	2.3	2.3	17.0	15.6	15.6	100.0	36.6	28.0	5180
Pass	4.0	3.1	3.1	17.0	16.4	16.4	100.0	37.9	29.0	5200
Pass	4.0	3.3	3.3	17.0	16.3	16.3	100.0	39.2	28.5	5240
					. <u>I</u>		. U		MHz	02.11n 40N
Pass	4.0	-1.2	-1.2	17.0	14.2	14.2	100.0	42.3	25.5	5190
Pass	4.0	1.1	1.1	17.0	16.6	16.6	100.0	72.8	29.0	5230
		-							)MHz	02.11ac 80
Pass	4.0	-6.2	-6.2	17.0	12.0	12.0	100.0	80.4	23.0	5210
		20.2		103.5	Max EIRP:			0 MHz Band a Gain (dBi):	Antenna	ISO Devic
Result	lz	SD <sup>2</sup> dBm/MH	P	tput Power <sup>1</sup> dBm		Out	Duty Cycle	99% BW	Software	Frequency
i vesui	Limit <sup>3</sup>	Calculated	Measured	Limit	Calculated	Measured	%	(MHz)	Setting	(MHz)
					I					02.11a
Pass	6.4	2.8	2.8	16.3	15.6	15.6	100.0	17.0	27.5	5180
Pass	6.4	3.4	3.4	16.5	16.3	16.3	100.0	17.6	28.5	5200
Pass	6.4	3.4	3.4	16.4	16.2	16.2	100.0	17.4	28.0	5240
F a 55										02.11n 20N
	6.4	2.3	2.3	16.7	15.6	15.6	100.0	18.5	28.0	5180
Pass	C 1	3.1	3.1	16.7	16.4	16.4	100.0	18.8	29.0	5200
Pass Pass	6.4	22	3.3	16.7	16.3	16.3	100.0	18.6	28.5	5240
Pass Pass	6.4 6.4	3.3						00.1		02.11n 40N
Pass Pass Pass	6.4			1	44.0	44.2		11/1 A	25.5	5190
Pass Pass Pass Pass	6.4 6.4	-1.2	-1.2	17.0	14.2	14.2	100.0	36.1		
Pass Pass Pass Pass Pass Pass	6.4		-1.2 1.1	17.0 17.0	14.2 16.6	14.2 16.6	100.0 100.0	36.1 36.6	29.0	5230 02.11ac 80





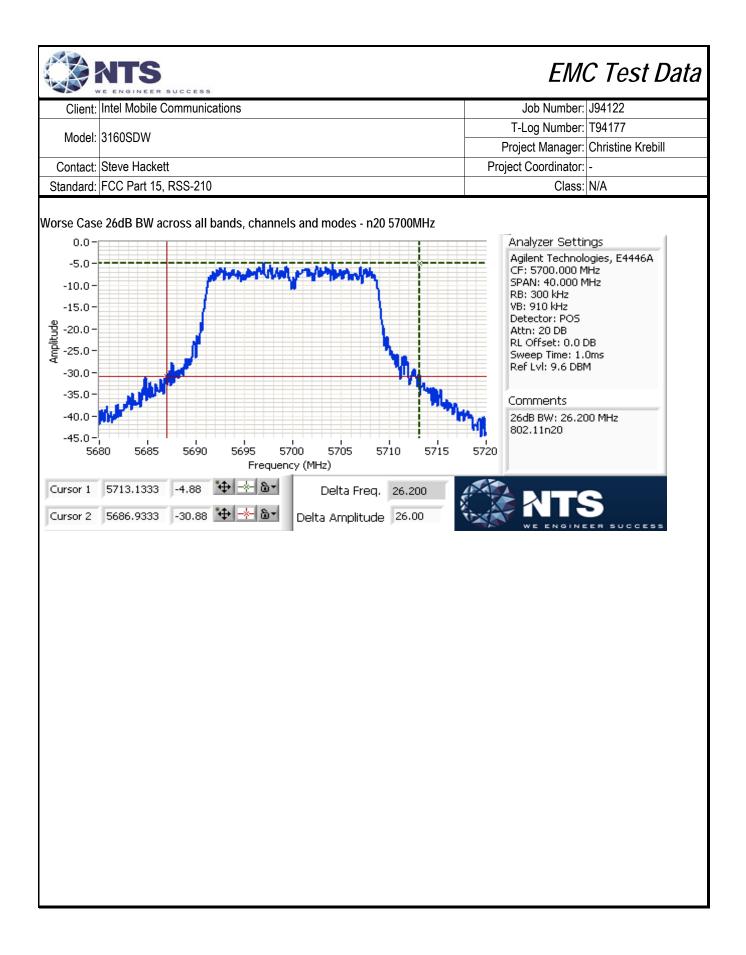
onorita		Communicat	tions					Job Number:	J94122	
		Communication						og Number:		
Model:	3160SDW							ect Manager:		ohill
Contact	Steve Hacke	ott					-	Coordinator:		CDIII
	FCC Part 15						FIOJECI	Class:		
Standard:	FUC Part 15	0, ROO-210						Class.	N/A	
	ce - 5250-535	0 MHz Band								
		a Gain (dBi):	3.7		Max EIRP:	104 5	5 mW	20.2	dBm	
Frequency	1	26dB BW	Duty Cycle	Out	tput Power <sup>1</sup> d			SD <sup>2</sup> dBm/MF		
	Setting	(MHz)							_	Resu
(MHz) 802.11a	ootting	(1112)	%	Measured	Calculated	Limit	Measured	Calculated	Limit	
5260	28.5	37.4	100.0	16.5	16.5	24.0	3.7	3.7	11.0	Pass
5300	28.5	38.5	100.0	16.3	16.3	24.0	3.4	3.4	11.0	Pass
5320	28.0	38.1	100.0	16.0	16.0	24.0	3.1	3.1	11.0	Pass
802.11n 20							•	•		1 0.00
5260	28.5	38.4	100.0	16.3	16.3	24.0	3.2	3.2	11.0	Pass
5300	28.5	38.5	100.0	16.2	16.2	24.0	3.1	3.1	11.0	Pass
5320	28.0	38.3	100.0	15.9	15.9	24.0	2.7	2.7	11.0	Pass
802.11n 40	MHz									
5270	25.5	73.2	100.0	14.1	14.1	24.0	-1.4	-1.4	11.0	Pass
5310	26.5	43.5	100.0	14.9	14.9	24.0	-0.6	-0.6	11.0	Pass
802.11ac 8	-						T			
5290	25.5	87.8	100.0	13.9	13.9	24.0	-4.2	-4.2	11.0	Pass
SISO Devid	e - 5250-535	0 MHz Band	l - Industry (	Canada						
	Antenna	a Gain (dBi):	3.7		Max EIRP:	104.5	5 mW	20.2	dBm	
Frequency	Software	99% BW	Duty Cycle	Out	tput Power <sup>1</sup> dE	3m	Р	SD <sup>2</sup> dBm/MF	łz	Dam
(MHz)	Setting	(MHz)	%	Measured	Calculated	Limit	Measured	Calculated	Limit <sup>3</sup>	Resu
802.11a	<u> </u>				•••••••				Linin	<u>I</u>
5260	28.5	17.4	100.0	16.5	16.5	23.4	3.7	3.7	11.0	Pass
5300	28.5	17.5	100.0	16.3	16.3	23.4	3.4	3.4	11.0	Pass
5320	28.0	17.4	100.0	16.0	16.0	23.4	3.1	3.1	11.0	Pass
802.11n 20	MHz									
5260	28.5	18.5	100.0	16.3	16.3	23.7	3.2	3.2	11.0	Pass
5300	28.5	18.6	100.0	16.2	16.2	23.7	3.1	3.1	11.0	Pass
5320	28.0	18.2	100.0	15.9	15.9	23.6	2.7	2.7	11.0	Pass
302.11n 40					•					1
5270	25.5	36.1	100.0	14.1	14.1	24.0	-1.4	-1.4	11.0	Pase
5310	26.5	36.1	100.0	14.9	14.9	24.0	-0.6	-0.6	11.0	Pass
	0MHz									

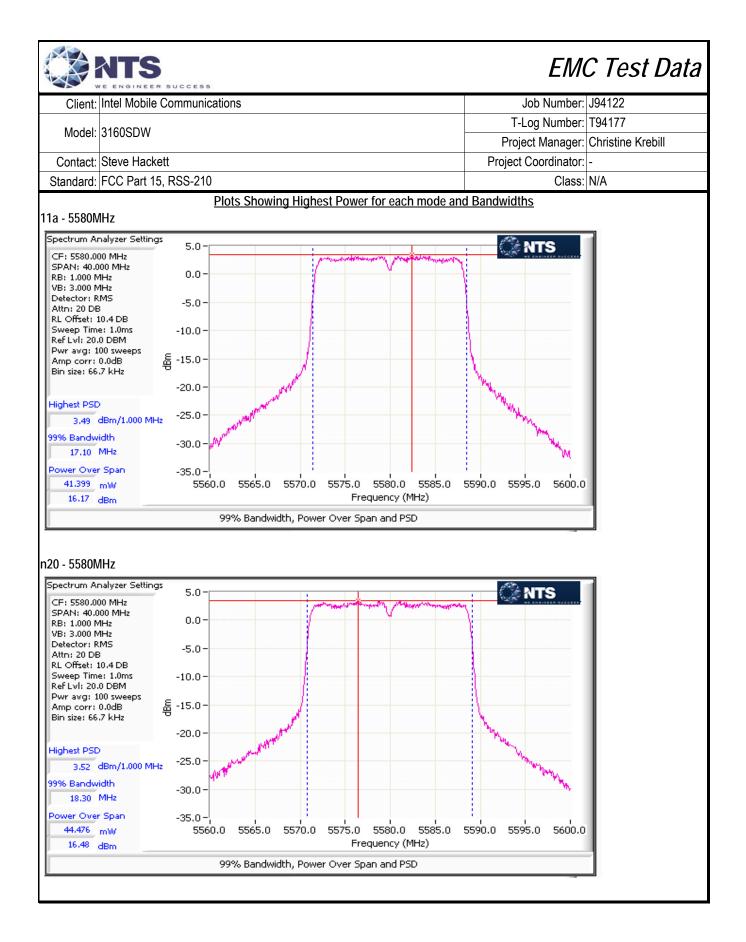


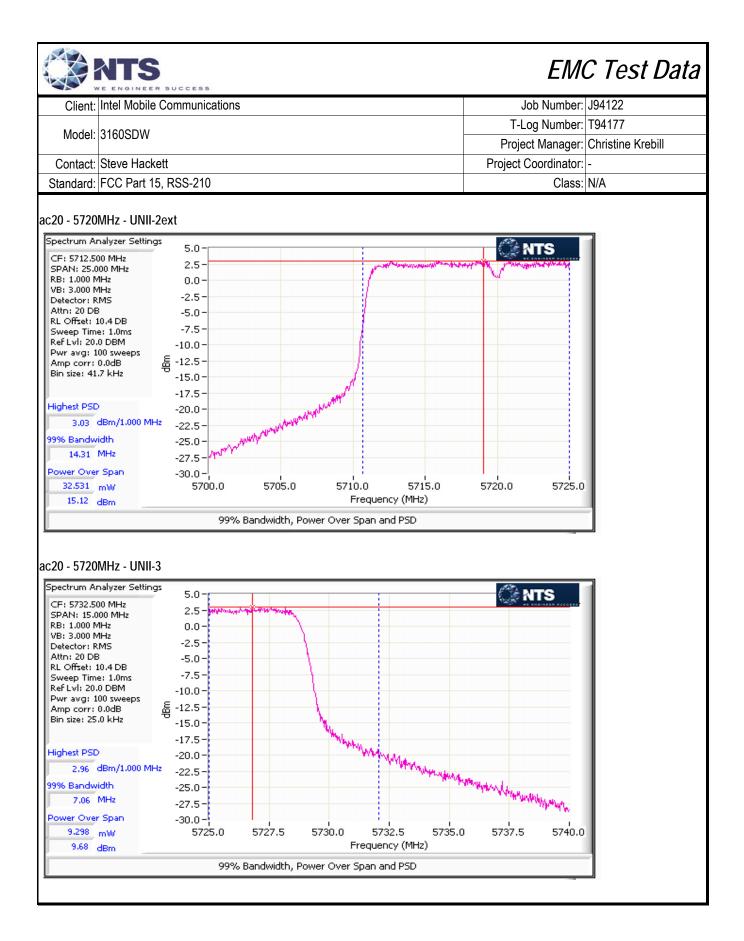


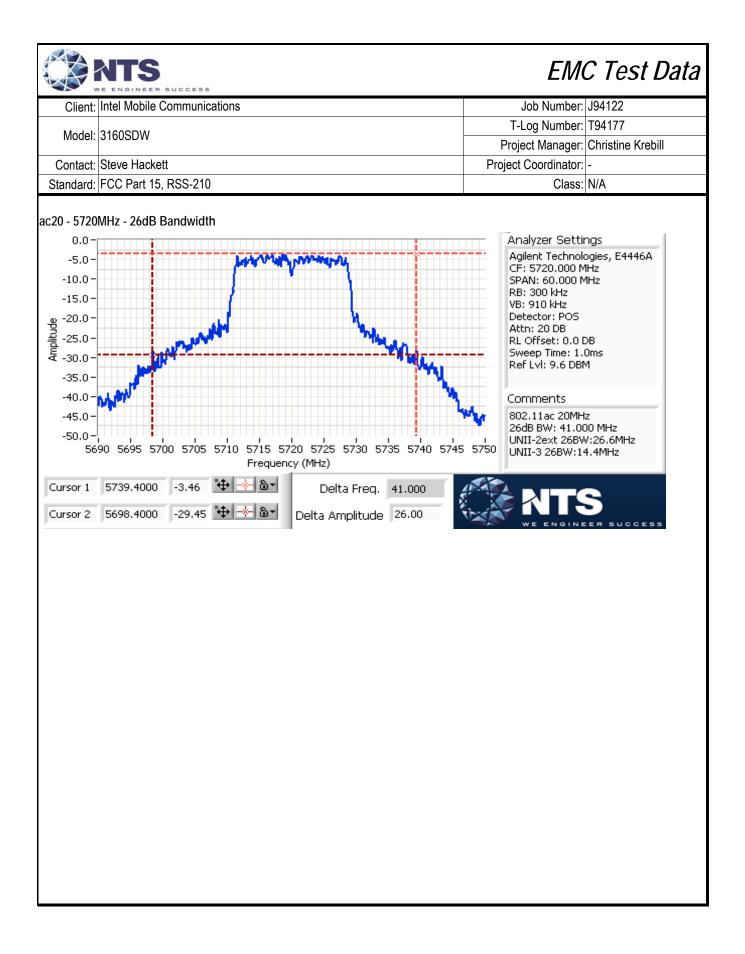
		SUCCESS						EMO	C Test	t Data
Client:	Intel Mobile		tions					Job Number:	J94122	
Martal	040000144						T-L	og Number:	T94177	
Model:	3160SDW						Proje	ect Manager:	Christine Kr	ebill
Contact:	Steve Hacke	ett						Coordinator:		
	FCC Part 15						.,	Class:		
		,								
SISO Devic	e - 5470-572	5 MHz Band	I - FCC							
	Antenna	a Gain (dBi):	4.8		Max EIRP:	134.9	mW	21.3	dBm	
Frequency	Software	26dB BW	Duty Cycle	Out	tput Power <sup>1</sup> dl	3m	Р	SD <sup>2</sup> dBm/MH	z	
(MHz)	Setting	(MHz)	%		Calculated	Limit		Calculated	Limit	Result
02.11a	Ű	( )	70	Medauleu	Calculated	LIIIII	Wedsuleu	Calculated	LIIIII	
5500	29.5	28.4	100.0	16.0	16.0	24.0	3.1	3.1	11.0	Pass
5580	30.5	29.8	100.0	16.2	16.2	24.0	3.5	3.5	11.0	Pass
5700	29.5	27.3	100.0	14.9	14.9	24.0	2.0	2.0	11.0	Pass
02.11n 20l	MHz									
5500	29.5	30.0	100.0	15.9	15.9	24.0	2.7	2.7	11.0	Pass
5580	30.5	30.7	100.0	16.5	16.5	24.0	3.5	3.5	11.0	Pass
5700	29.5	26.2	100.0	15.0	15.0	24.0	1.9	1.9	11.0	Pass
02.11ac 20	OMHz									
JNII-2ext	1		1				1			T
5720	32.0	26.6	100.0	15.1	15.1	24.0	3.0	3.0	11.0	Pass
JNII-3			(00.0	<u> </u>						
5720	32.0	14.4	100.0	9.7	9.7	22.6	3.0	3.0	11.0	Pass
02.11n 40		44.6	100.0	111	111	04.0	4.4	1 4	11.0	Dees
5510	26.5	41.6	100.0	14.1	14.1	24.0	-1.4	-1.4	11.0	Pass
5550 5670	30.5 30.5	63.0 51.7	100.0 100.0	16.5 16.2	16.5 16.2	24.0 24.0	1.0 0.7	1.0 0.7	<u>11.0</u> 11.0	Pass Pass
02.11ac 40		51.7	100.0	10.2	10.2	24.0	0.7	0.7	11.0	F855
JNII-2ext										
5710	32.0	54.0	100.0	16.0	16.0	24.0	0.8	0.8	11.0	Pass
JNII-3	02.0	0110	10010	10.0	10.0	21.0	0.0	0.0	11.0	1 400
5710	32.0	22.5	100.0	3.0	3.0	24.0	-3.0	-3.0	11.0	Pass
02.11ac 80										
5530	24.5	80.7	100.0	11.8	11.8	24.0	-6.3	-6.3	11.0	Pass
JNII-2ext										
5690	32.0	104.0	100.0	15.9	15.9	24.0	-2.2	-2.2	11.0	Pass
JNII-3										
5690	32.0	17.0	100.0	-1.3	-1.3	23.3	-7.5	-7.5	11.0	Pass

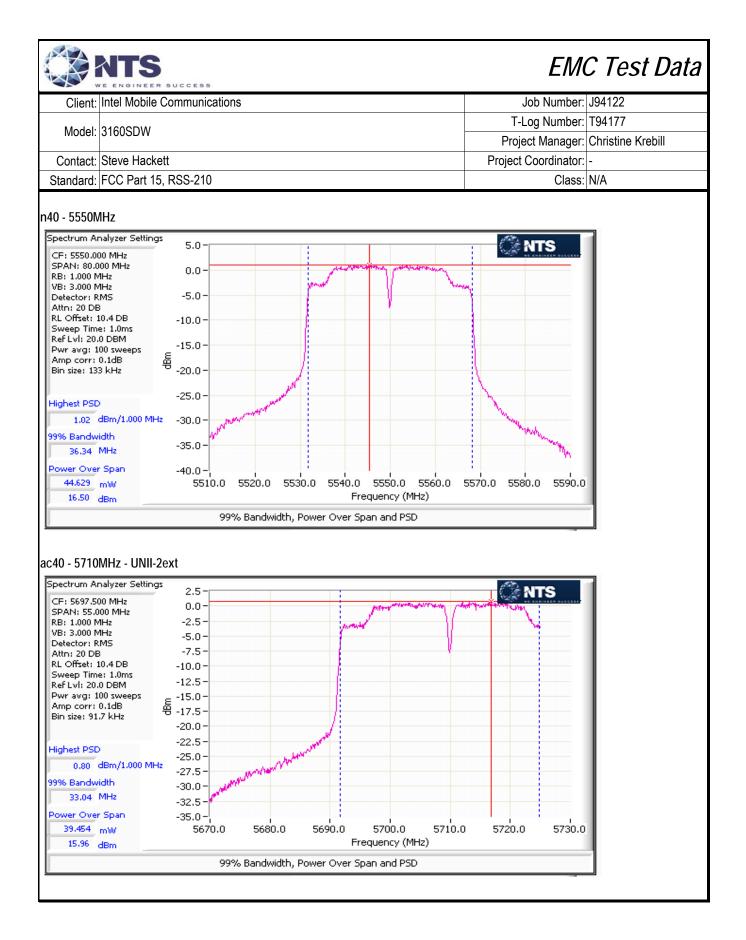
SDW Hackett Part 15, RSS-210 70-5725 MHz Ban Antenna Gain (dBi ware 99% BW (MHz) 9.5 17.0 9.5 17.0 9.5 17.0 9.5 18.2 0.5 18.2 0.5 18.2	nd - Industry ( ): 4.8 Duty Cycle % 100.0 100.0 100.0	Ou	Max EIRP: tput Power <sup>1</sup> dE Calculated 16.0 16.2	134.9 3m Limit 23.3	Project Project	Log Number: ect Manager: Coordinator: Class: 21.3 2SD <sup>2</sup> dBm/MH Calculated	Christine Kr - N/A dBm Iz	ebill Result
e Hackett Part 15, RSS-210 70-5725 MHz Bar Antenna Gain (dBi ware 99% BW (MHz) 9.5 17.0 9.5 17.1 9.5 17.0 9.5 17.0 9.5 18.2	nd - Industry ( ): 4.8 Duty Cycle % 100.0 100.0 100.0	Ou Measured 16.0 16.2	tput Power <sup>1</sup> dE Calculated 16.0	3m Limit	Project mW	Coordinator: Class: 21.3 SD <sup>2</sup> dBm/MH	- N/A dBm Iz	
Part 15, RSS-210           70-5725 MHz Bar           Antenna Gain (dBi           ware         99% BW           (MHz)           9.5         17.0           9.5         17.1           9.5         17.0           9.5         18.2           0.5         18.2	nd - Industry ( ): 4.8 Duty Cycle % 100.0 100.0 100.0	Ou Measured 16.0 16.2	tput Power <sup>1</sup> dE Calculated 16.0	3m Limit	Project mW	Coordinator: Class: 21.3 SD <sup>2</sup> dBm/MH	- N/A dBm Iz	
Part 15, RSS-210           70-5725 MHz Bar           Antenna Gain (dBi           ware         99% BW           (MHz)           9.5         17.0           9.5         17.1           9.5         17.0           9.5         18.2           0.5         18.2	nd - Industry ( ): 4.8 Duty Cycle % 100.0 100.0 100.0	Ou Measured 16.0 16.2	tput Power <sup>1</sup> dE Calculated 16.0	3m Limit	) mW	Class: 21.3 'SD <sup>2</sup> dBm/MH	N/A dBm lz	Resul
70-5725 MHz Bar           Antenna Gain (dBi           ware         99% BW           (MHz)           9.5         17.0           9.5         17.1           9.5         17.0           9.5         17.0           9.5         18.2           0.5         18.2	nd - Industry ( ): 4.8 Duty Cycle % 100.0 100.0 100.0	Ou Measured 16.0 16.2	tput Power <sup>1</sup> dE Calculated 16.0	3m Limit	P	21.3 'SD <sup>2</sup> dBm/MH	dBm Iz	Resul
Antenna Gain (dBi           ware         99% BW           (MHz)         99% BW           9.5         17.0           0.5         17.1           9.5         17.0           9.5         18.2           0.5         18.2	): 4.8 Duty Cycle % 100.0 100.0	Ou Measured 16.0 16.2	tput Power <sup>1</sup> dE Calculated 16.0	3m Limit	P	SD <sup>2</sup> dBm/MH	lz	Resul
Antenna Gain (dBi           ware         99% BW           (MHz)         99% BW           9.5         17.0           0.5         17.1           9.5         17.0           9.5         18.2           0.5         18.2	): 4.8 Duty Cycle % 100.0 100.0	Ou Measured 16.0 16.2	tput Power <sup>1</sup> dE Calculated 16.0	3m Limit	P	SD <sup>2</sup> dBm/MH	lz	Result
ware         99% BW (MHz)           9.5         17.0           0.5         17.1           9.5         17.0           9.5         18.2           0.5         18.2	Duty Cycle           %           100.0           100.0           100.0	Measured 16.0 16.2	tput Power <sup>1</sup> dE Calculated 16.0	3m Limit	P	SD <sup>2</sup> dBm/MH	lz	Resul
tting (MHz) 9.5 17.0 0.5 17.1 9.5 17.0 9.5 18.2 0.5 18.2	% 100.0 100.0 100.0	Measured 16.0 16.2	Calculated	Limit				Resul
9.5     17.0       0.5     17.1       9.5     17.0       9.5     18.2       0.5     18.2	100.0 100.0 100.0	16.0 16.2	16.0		Measured	Calculated	Limit	
0.5         17.1           9.5         17.0           9.5         18.2           0.5         18.2	100.0 100.0	16.2		23.3				4
0.5         17.1           9.5         17.0           9.5         18.2           0.5         18.2	100.0 100.0	16.2		23.3	0.4		44.0	
9.5         17.0           9.5         18.2           0.5         18.2	100.0		16.2		3.1	3.1	11.0	Pass
9.5 18.2 0.5 18.2		14.9		23.3	3.5	3.5	11.0	Pass
0.5 18.2	100.0		14.9	23.3	2.0	2.0	11.0	Pass
0.5 18.2		15.9	15.9	23.6	2.7	2.7	11.0	Pass
	100.0	16.5	16.5	23.6	3.5	3.5	11.0 11.0	Pass
9.5 18.2	100.0	15.0	15.0	23.6	1.9	1.9	11.0	Pass
0.0 10.2	100.0	10.0	15.0	20.0	1.5	1.5	11.0	1 833
2.0 14.3	100.0	15.1	15.1	22.6	3.0	3.0	11.0	Pass
	100.0	1011	10.1	22.0	0.0	0.0	1110	1 400
2.0 7.1	100.0	9.7	9.7	19.5	3.0	3.0	11.0	Pass
-								
6.5 36.1	100.0	14.1	14.1	24.0	-1.4	-1.4	11.0	Pass
0.5 36.3	100.0	16.5	16.5	24.0	1.0	1.0	11.0	Pass
0.5 36.6	100.0	16.2	16.2	24.0	0.7	0.7	11.0	Pass
2.0 33.0	100.0	16.0	16.0	24.0	0.8	0.8	11.0	Pass
		-	· · · · ·					1 .
2.0 9.6	100.0	3.0	3.0	20.8	-3.0	-3.0	10.2	Pass
4.5 74.9	100.0	11.8	11.8	24.0	-6.3	-6.3	11.0	Pass
0.0 70.0	400.0	45.0	45.0	04.0	0.0	0.0	44.0	
2.0 72.0	100.0	15.9	15.9	24.0	-2.2	-2.2	11.0	Pass
0.0 40.0	100.0	10	10	00.4	75	75	0.0	Pass
	3.5     36.1       0.5     36.3       0.5     36.6       2.0     33.0	3.5       36.1       100.0         0.5       36.3       100.0         0.5       36.6       100.0         2.0       33.0       100.0         2.0       9.6       100.0         3.5       74.9       100.0         2.0       72.0       100.0	6.5       36.1       100.0       14.1         0.5       36.3       100.0       16.5         0.5       36.6       100.0       16.2         2.0       33.0       100.0       16.0         2.0       9.6       100.0       3.0         4.5       74.9       100.0       11.8         2.0       72.0       100.0       15.9	6.5       36.1       100.0       14.1       14.1         0.5       36.3       100.0       16.5       16.5         0.5       36.6       100.0       16.2       16.2         2.0       33.0       100.0       16.0       16.0         2.0       9.6       100.0       3.0       3.0         4.5       74.9       100.0       11.8       11.8         2.0       72.0       100.0       15.9       15.9	3.5 $36.1$ $100.0$ $14.1$ $14.1$ $24.0$ $3.5$ $36.3$ $100.0$ $16.5$ $16.5$ $24.0$ $3.5$ $36.6$ $100.0$ $16.2$ $16.2$ $24.0$ $2.0$ $33.0$ $100.0$ $16.0$ $16.0$ $24.0$ $2.0$ $9.6$ $100.0$ $3.0$ $3.0$ $20.8$ $4.5$ $74.9$ $100.0$ $11.8$ $11.8$ $24.0$ $2.0$ $72.0$ $100.0$ $15.9$ $15.9$ $24.0$	3.5 $36.1$ $100.0$ $14.1$ $14.1$ $24.0$ $-1.4$ $0.5$ $36.3$ $100.0$ $16.5$ $16.5$ $24.0$ $1.0$ $0.5$ $36.6$ $100.0$ $16.2$ $16.2$ $24.0$ $0.7$ $2.0$ $33.0$ $100.0$ $16.0$ $16.0$ $24.0$ $0.8$ $2.0$ $9.6$ $100.0$ $3.0$ $3.0$ $20.8$ $-3.0$ $4.5$ $74.9$ $100.0$ $11.8$ $11.8$ $24.0$ $-6.3$ $2.0$ $72.0$ $100.0$ $15.9$ $15.9$ $24.0$ $-2.2$	3.5 $36.1$ $100.0$ $14.1$ $14.1$ $24.0$ $-1.4$ $-1.4$ $0.5$ $36.3$ $100.0$ $16.5$ $16.5$ $24.0$ $1.0$ $1.0$ $0.5$ $36.6$ $100.0$ $16.2$ $16.2$ $24.0$ $0.7$ $0.7$ $0.5$ $36.6$ $100.0$ $16.0$ $16.2$ $24.0$ $0.8$ $0.8$ $0.0$ $33.0$ $100.0$ $16.0$ $16.0$ $24.0$ $0.8$ $0.8$ $0.0$ $9.6$ $100.0$ $3.0$ $3.0$ $20.8$ $-3.0$ $-3.0$ $0.5$ $74.9$ $100.0$ $11.8$ $11.8$ $24.0$ $-6.3$ $-6.3$ $0.0$ $72.0$ $100.0$ $15.9$ $15.9$ $24.0$ $-2.2$ $-2.2$	3.5 $36.1$ $100.0$ $14.1$ $14.1$ $24.0$ $-1.4$ $-1.4$ $11.0$ $0.5$ $36.3$ $100.0$ $16.5$ $16.5$ $24.0$ $1.0$ $1.0$ $11.0$ $0.5$ $36.6$ $100.0$ $16.2$ $16.2$ $24.0$ $0.7$ $0.7$ $11.0$ $0.5$ $36.6$ $100.0$ $16.2$ $16.2$ $24.0$ $0.8$ $0.8$ $11.0$ $2.0$ $33.0$ $100.0$ $16.0$ $16.0$ $24.0$ $0.8$ $0.8$ $11.0$ $2.0$ $9.6$ $100.0$ $3.0$ $3.0$ $20.8$ $-3.0$ $-3.0$ $10.2$ $4.5$ $74.9$ $100.0$ $11.8$ $11.8$ $24.0$ $-6.3$ $-6.3$ $11.0$

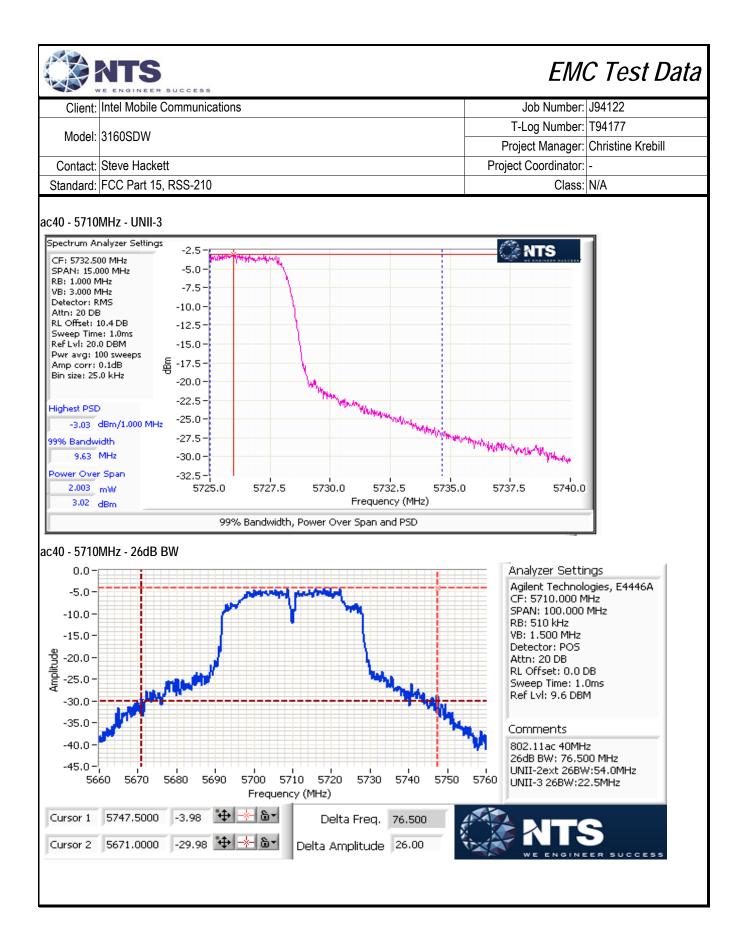


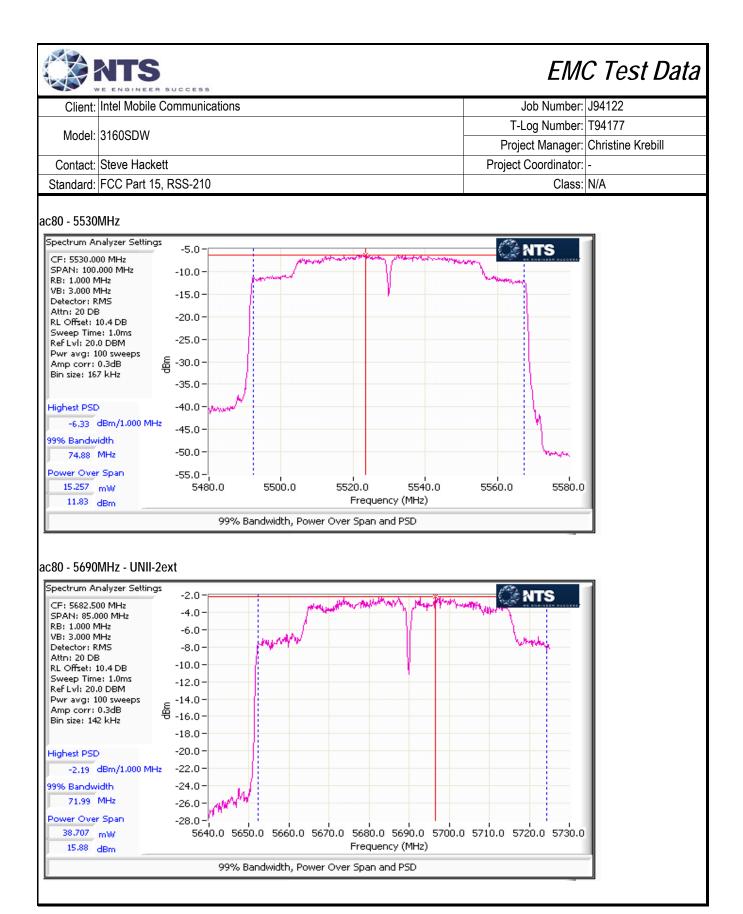


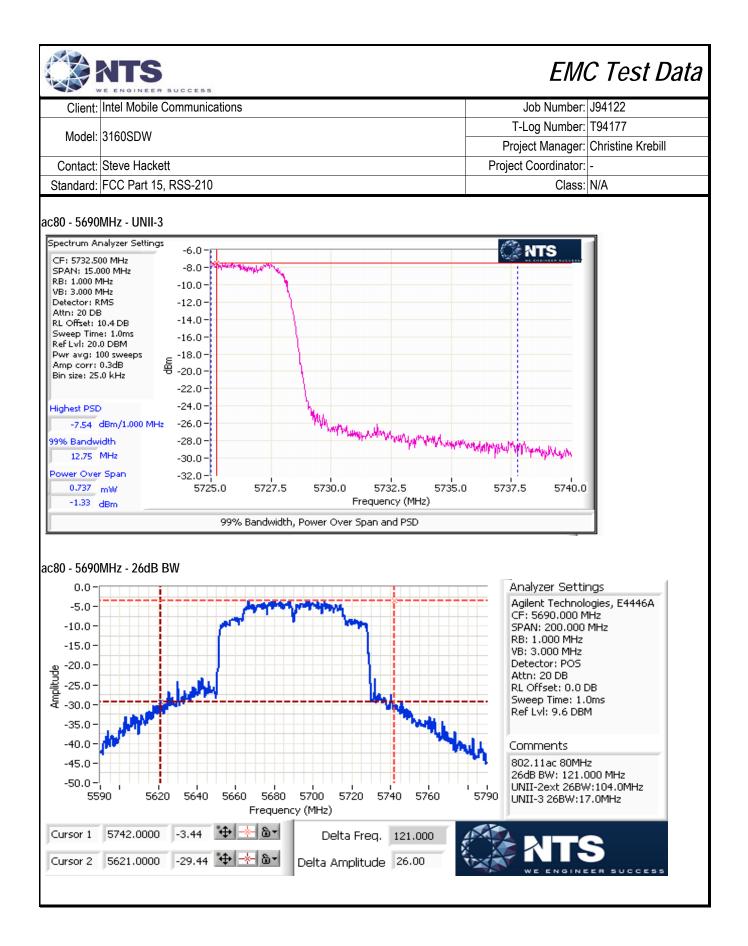


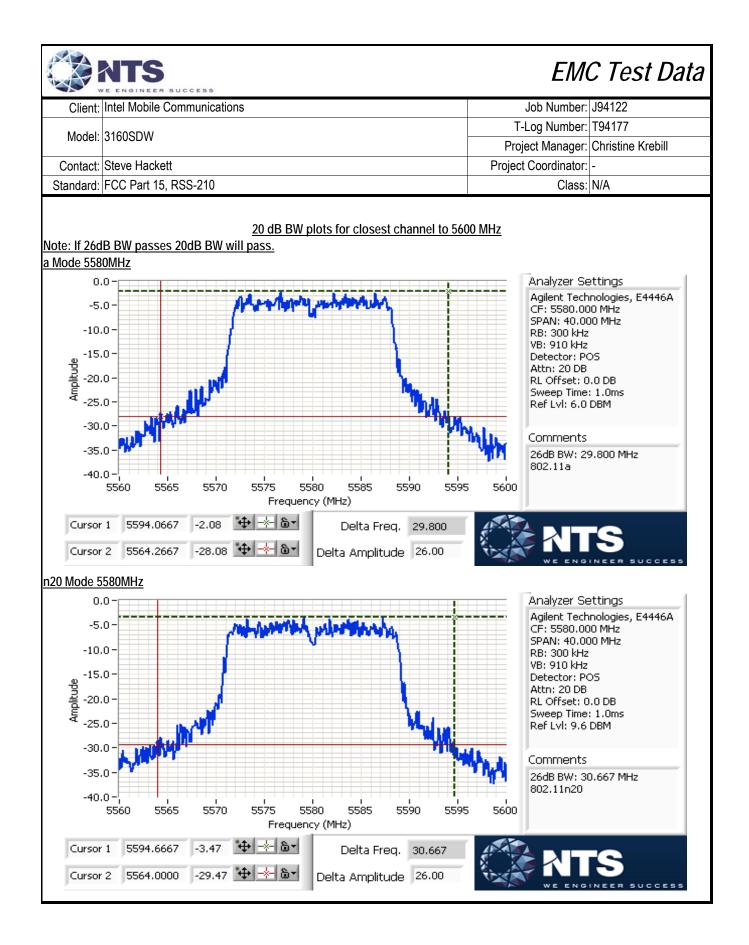


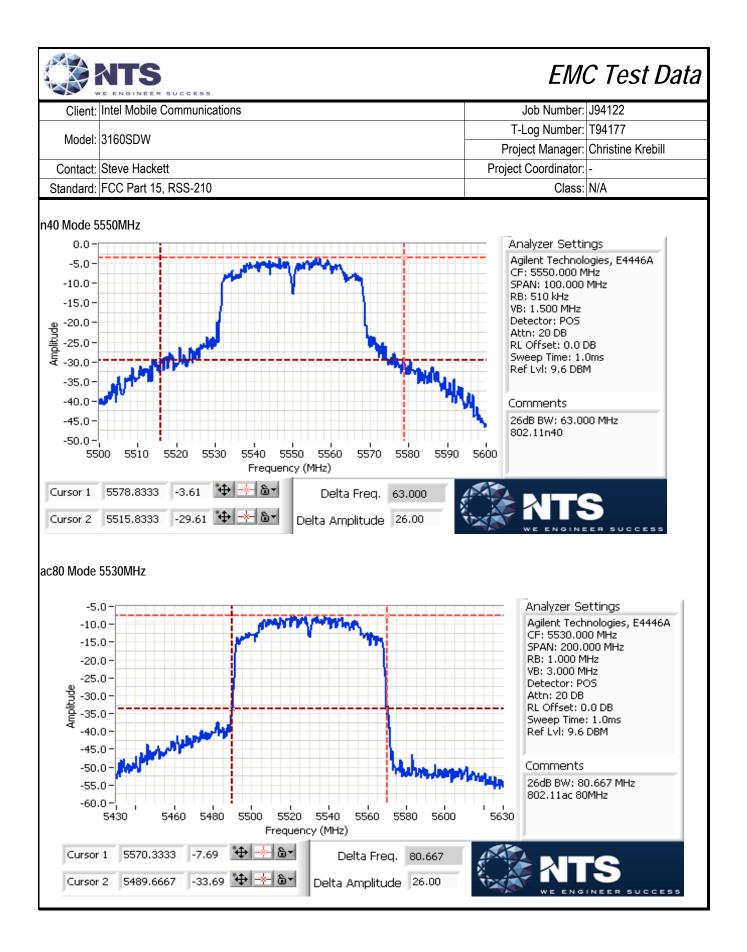


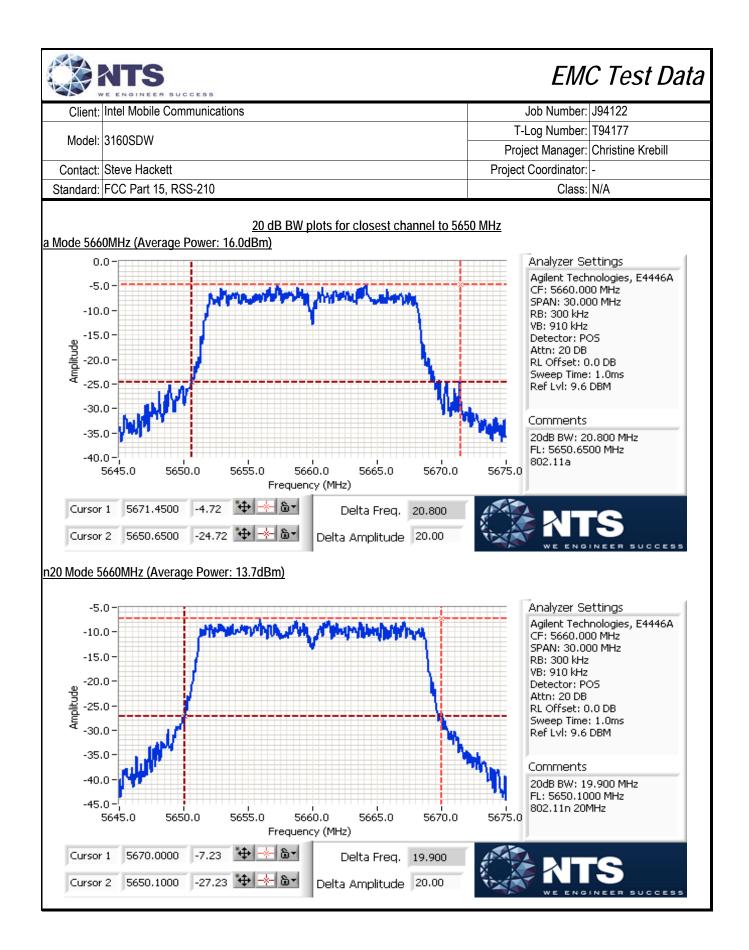


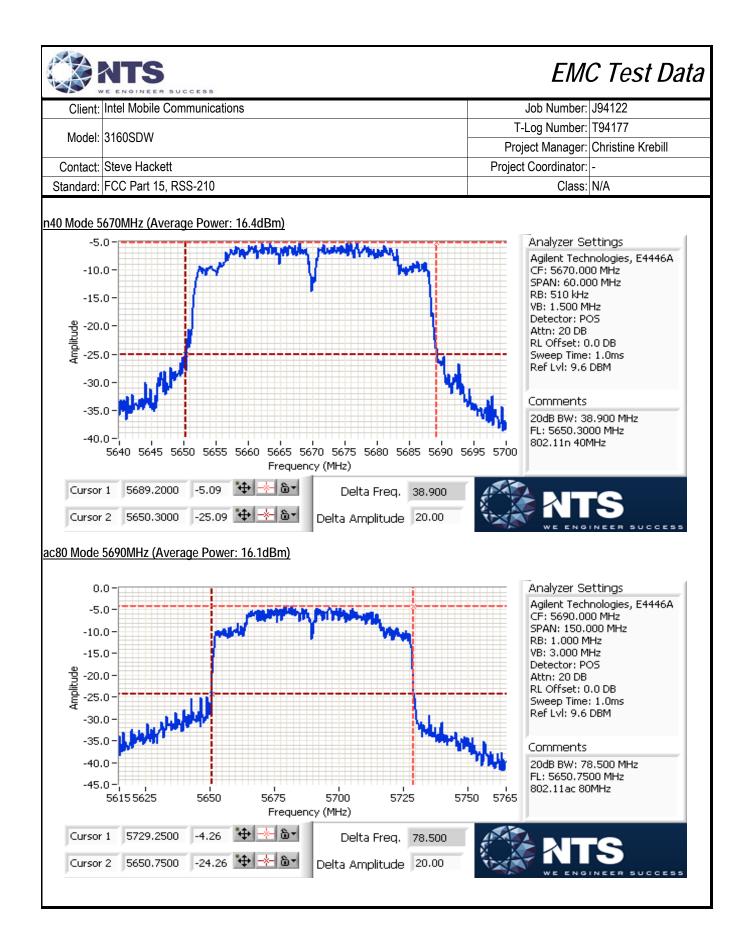




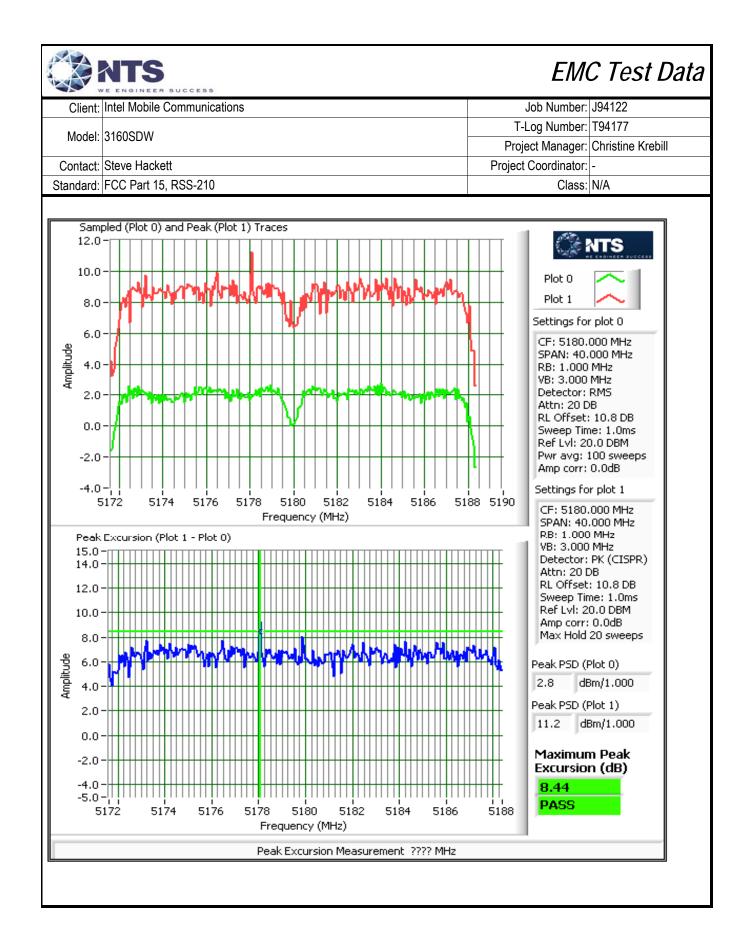








Client:	Intel Mobile	Communicat	ions					Job Number:	J94122	
Madal	3160SDW						T-Log Number: T94177			
woder:	31002010						Proje	ect Manager:	Christine Krebi	
Contact:	Steve Hacke	ett					Project	Coordinator:	-	
Standard:	FCC Part 15	5, RSS-210						Class:	N/A	
l Te	eak Excursic Date of Test: est Engineer: est Location:	1/7/14 to 1/1 Jack Liu			Cor	config. Used: nfig Change: EUT Voltage:	None			
a:	Device mee							r		
	Freq	Peak Exc	ursion(dB)	Freq	Peak Exc	ursion(dB)	Freq	Peak Exc	ursion(dB)	
	(MHz)	Value	Limit	(MHz)	Value	Limit	(MHz)	Value	Limit	
	5180 5200	8.4 7.7	13.0 13.0	5260 5300	6.9 7.2	13.0 13.0	5500 5580	7.3 7.1	13.0 13.0	
	5200	7.5	13.0	5320	7.7	13.0	5700	7.1	13.0	
					1					
n/ac20:	Device mee					(10)	_			
	Freq	Peak Exc	· · ·	Freq		ursion(dB)	Freq		ursion(dB)	
	(MHz) 5180	Value 7.0	Limit 13.0	(MHz) 5260	Value 7.2	Limit 13.0	(MHz) 5500	Value 7.2	Limit 13.0	
	5200	7.3	13.0	5300	7.1	13.0	5580	7.0	13.0	
	5240	7.6	13.0	5320	7.1	13.0	5700	7.3	13.0	
							5720	7.8	13.0	
	<u> </u>									
n/ac40:	Device mee		rement for t ursion(dB)		1	ursion(dB)	Frog	Dook Evo	ursion(dB)	
	Freq		( )	Freq		( )	Freq		, ,	
	(MHz) 5190	Value 7.1	Limit 13.0	(MHz) 5270	Value 7.2	Limit 13.0	(MHz) 5510	Value 7.5	Limit 13.0	
	5230	7.9	13.0	5310	8.1	13.0	5550	7.1	13.0	
							5670	7.2	13.0	
							5710	7.3	13.0	
				l						
c-00				ne реак ехс Freq	1	ursion(dB)	Freq	Dook Evo	ursion(dB)	
ac80:	Device mee	Dook Lyo	u sion(ud)	•		, ,			. ,	
ac80:	Freq	Peak Exc	Linelt		Value	Limit	(MHz)	Value	Limit	
ac80:		Peak Exc Value 7.5	Limit 13.0	(MHz) 5290	7.2	13.0	5530	7.5	13.0	



		EMC Test Data
Client:	Intel Mobile Communications	Job Number: J94122
Madalı	21600010	T-Log Number: T94177
woder.	3160SDW	Project Manager: Christine Krebill
Contact:	Steve Hackett	Project Coordinator: -
Standard:	FCC Part 15, RSS-210	Class: N/A

Run #3: Out Of Band Spurious Emissions - Antenna Conducted

Refer to UNII Radiated Emisisons test data

	NTS					EM	C Test Data
Client:	Intel Mobile	Communicat	ions			Job Number:	J94122
Model:	3160SDW					T-Log Number: Project Manager:	
Contact:	Steve Hack	ett				Project Coordinator:	-
Standard:	FCC Part 18	5, RSS-210				Class:	N/A
est Spec	cific Detai	<b>Is</b> The objectiv		session is to	UNII) Radiated Sp		
he EUT an or radiated		guration pport equipm esting the me S:	nent were loc	ated on the t	turntable for radiated spuri located 3 meters from the °C	-	noted.
o modifica eviation o deviatior cummary	tions were m IS From Th Is were made V of Result	ne Standar e from the re	UT during tes rd quirements o	f the standa	rd. 5 Driver version 16.8.0.3		
Run #	Mode	Channel	Target/	Power	Test Performed	Limit	Result / Margin
	dwith Modes		Measured	Setting		-	
1	a	36 - 5180MHz	16 / 15.7	27.5	Restricted Band Edge at 5150 MHz	15.209	47.6 dBµV/m @ 5150 MHz (-6.4 dB)
2	а	64 - 5320MHz	16 / 16.0	28.0	Restricted Band Edge at 5350 MHz	15.209	50.9 dBµV/m @ 5350 MHz (-3.1 dB)
		100 - 5500MHz	16 / 16.2	29.5	Restricted Band Edge at 5460 MHz	15.209	45.8 dBµV/m @ 5398 MHz (-8.2 dB)
3	а	100 - 5500MHz	16 / 16.2	29.5	Band Edge 5460 - 5470 MHz	15E	63.1 dBµV/m @ 5469 MHz (-5.2 dB)
		140 - 5700MHz	15.0 / 15.2	29.5	Band Edge 5725MHz	15E	61.1 dBµV/m @ 5725 MHz (-7.2 dB)

	NTS					EMO	C Test Data
Client:	Intel Mobile	Communicat	tions			Job Number:	J94122
						T-Log Number:	T94177
Model:	3160SDW				_	Project Manager:	
Contact:	Steve Hacke	ett				Project Coordinator:	-
	FCC Part 18					Class:	N/A
			<b>-</b>		T T		
Run #	Mode	Channel	Target/ Measured	Power Setting	Test Performed	Limit	Result / Margin
)MHz Ban	dwith Modes						
4	n20	36 - 5180MHz	16 / 15.9	28.0	Restricted Band Edge at 5150 MHz	15.209	47.8 dBµV/m @ 5150 MHz (-6.2 dB)
5	n20	64 - 5320MHz	16 / 15.9	28.0	Restricted Band Edge at 5350 MHz	15.209	51.7 dBµV/m @ 5350 MHz (-2.3 dB)
		100 - 5500MHz	16 / 16.1	29.5	Restricted Band Edge at 5460 MHz	15.209	46.1 dBµV/m @ 5459 MHz (-7.9 dB)
6	n20	100 - 5500MHz	16 / 16.1	29.5	Band Edge 5460 - 5470 MHz	15E	63.6 dBµV/m @ 5469 MHz (-4.7 dB)
		140 - 5700MHz	15.0 / 15.2	29.5	Band Edge 5725MHz	15E	65.3 dBµV/m @ 572 MHz (-3.0 dB)
0MHz Ban	dwith Modes		ļļ		· · ·		
7	n40	38 - 5190MHz	14 / 14.0	25.5	Restricted Band Edge at 5150 MHz	15.209	49.1 dBµV/m @ 5150 MHz (-4.9 dB)
8	n40	62 - 5310MHz	15 / 15.0	26.5	Restricted Band Edge at 5350 MHz	15.209	50.1 dBµV/m @ 5352 MHz (-3.9 dB)
		102 - 5510MHz	14 / 14.0	26.5	Restricted Band Edge at 5460 MHz	15.209	44.1 dBµV/m @ 541 MHz (-9.9 dB)
9	n40	102 - 5510MHz	14 / 14.0	26.5	Band Edge 5460 - 5470 MHz	15E	65.2 dBµV/m @ 546 MHz (-3.1 dB)
		134 - 5670MHz	16.5 / 16.4	30.5	Band Edge 5725MHz	15E	60.6 dBµV/m @ 572 MHz (-7.7 dB)
)MHz Ban	dwith Modes						
10	ac80	42 - 5210MHz	12.0 / 12.0	23.0	Restricted Band Edge at 5150 MHz	15.209	51.3 dBµV/m @ 514 MHz (-2.7 dB)
11	ac80	58 - 5290MHz	14.0 / 14.1	25.5	Restricted Band Edge at 5350 MHz	15.209	50.9 dBµV/m @ 536 MHz (-3.1 dB)
10	ac80	106 - 5530MHz	12.0 / 12.2	24.5	Restricted Band Edge at 5460 MHz	15.209	49.9 dBµV/m @ 5458 MHz (-4.1 dB)
12	ac80	106 - 5530MHz	12.0 / 12.2	24.5	Band Edge 5460 - 5470 MHz	15E	66.0 dBµV/m @ 546 MHz (-2.3 dB)



## EMC Test Data

A A	E ENGINEER SUCCESS		
Client:	Intel Mobile Communications	Job Number:	J94122
Model	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 789033

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

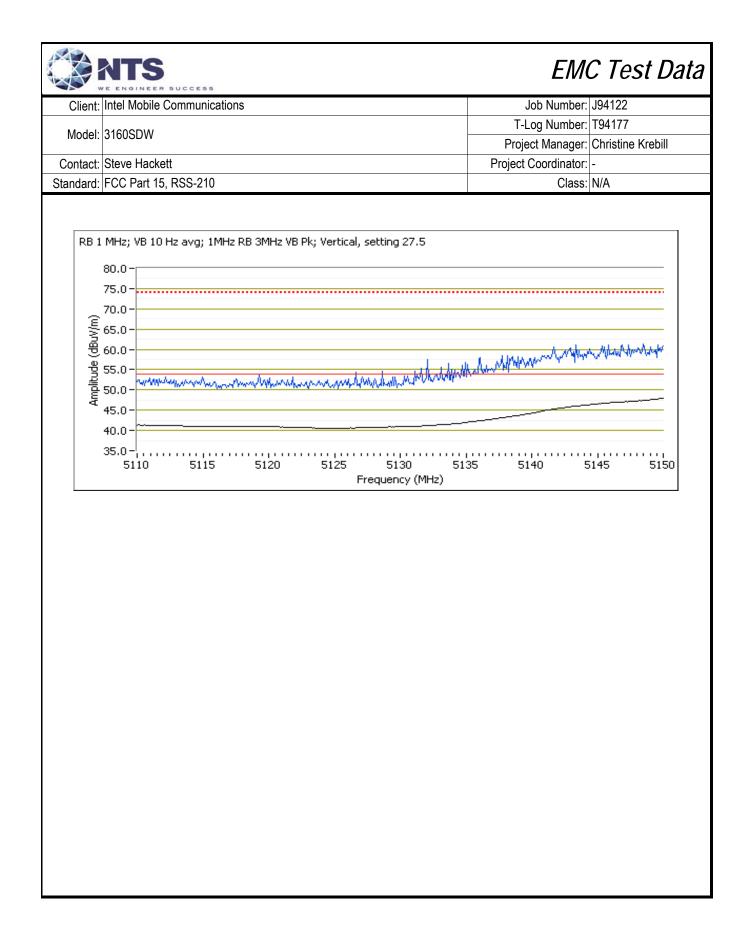
Unless otherwise stated/noted, emission has duty cycle ≥ 98% and was measured using RBW=1MHz, VBW=10Hz, peak detector, linear average mode, auto sweep time, max hold.

Mode	Data Rate	Duty Cycle (x)	Constant DC?	T (ms)	Pwr Cor Factor*	Lin Volt Cor Factor**	Min VBW for FS (Hz)
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	0.12	0.24	200
ac80	VHT0	0.94	Yes	2	0.26	0.51	500

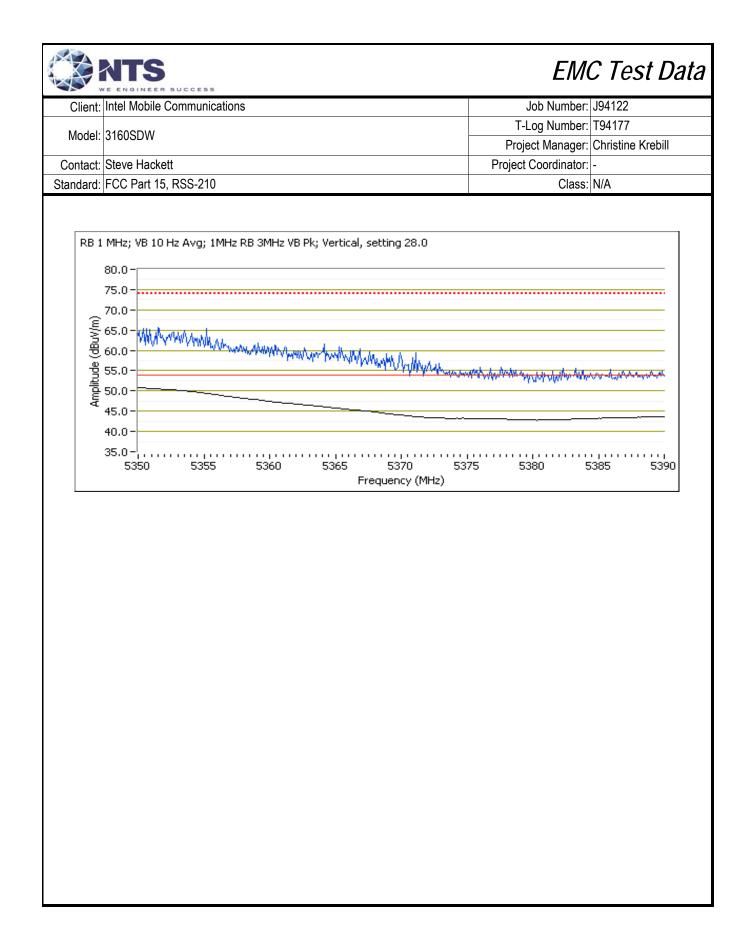
## Measurement Specific Notes:

demonstrated by meeing the average and peak limits of 15.209, as an alternative.         Note 2:       Emission has duty cycle ≥ 98%, average measurement performed: RBW=1MHz, VBW=3MHz, RMS, Power averaging, auto sweep, trace average 100 traces         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 * 1/DC traces, measurement corrected by Linear Voltage correction factor         Note 4:       Emission has duty cycle < 98% and is NOT constant, average measurement performed: RBW=1MHz, VBW>1/T, peak detector, linear average mode, sweep time auto, max hold. Max hold for 50*(1/DC) traces         Note 5:       Emission has duty cycle < 98%, but constant, average measurement performed: RBW=1MHz, VBW>3MHz, RMS, Power averaging, auto sweep, trace average 100 * 1/DC traces, measurement performed: RBW=1MHz, VBW>1/T, peak detector, linear average mode, sweep time auto, max hold. Max hold for 50*(1/DC) traces         Note 5:       Emission has duty cycle < 98%, but constant, average measurement performed: RBW=1MHz, VBW=3MHz, RMS, Power averaging, auto sweep, trace average 100 * 1/DC traces, measurement performed: RBW=1MHz, VBW=3MHz, RMS, Power averaging, auto sweep, trace average 100 * 1/DC traces, measurement corrected by Pwr correction factor         Note 6:       Plots of the average and peak bandedge do not account for any duty cycle correction. Refer to the tabluar results for final		
Note 2:       Emission has duty cycle ≥ 98%, average measurement performed: RBW=1MHz, VBW=3MHz, RMS, Power averaging, auto sweep, trace average 100 traces         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 * 1/DC traces, measurement corrected by Linear Voltage correction factor         Note 4:       Emission has duty cycle < 98% and is NOT constant, average measurement performed: RBW=1MHz, VBW> 1/T, peak detector, linear average mode, sweep time auto, max hold. Max hold for 50*(1/DC) traces         Note 5:       Emission has duty cycle < 98%, but constant, average measurement performed: RBW=1MHz, VBW=3MHz, RMS, Power averaging, auto sweep, trace average 100 * 1/DC traces, measurement performed: RBW=1MHz, VBW=3MHz, RMS, Power averaging, auto sweep, trace average 100 * 1/DC traces, measurement corrected by Pwr correction factor         Note 6:       Plots of the average and peak bandedge do not account for any duty cycle correction. Refer to the tabluar results for final	Note 1:	required is a peak measurement (RB=1MHz, VB≥3MHz, peak detector). Per KDB 789033 2) c) (i), compliance can be
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 * 1/DC traces, measurement corrected by Linear Voltage correction factor	Note 2:	Emission has duty cycle ≥ 98%, average measurement performed: RBW=1MHz, VBW=3MHz, RMS, Power averaging, auto
Note 4:       Emission has duty cycle < 98% and is NOT constant, average measurement performed: RBW=1MHz, VBW> 1/T, peak detector, linear average mode, sweep time auto, max hold. Max hold for 50*(1/DC) traces         Note 5:       Emission has duty cycle < 98%, but constant, average measurement performed: RBW=1MHz, VBW=3MHz, RMS, Power averaging, auto sweep, trace average 100 * 1/DC traces, measurement corrected by Pwr correction factor	Note 3:	Emission has duty cycle < 98%, but constant, average measurement performed: RBW=1MHz, VBW=10Hz, peak detector,
Note 5:       averaging, auto sweep, trace average 100 * 1/DC traces, measurement corrected by Pwr correction factor         Note 6:       Plots of the average and peak bandedge do not account for any duty cycle correction. Refer to the tabluar results for final	Note 4:	Emission has duty cycle < 98% and is NOT constant, average measurement performed: RBW=1MHz, VBW> 1/T, peak
Note 6: Plots of the average and peak bandedge do not account for any duty cycle correction. Refer to the tabluar results for final	Note 5:	
measurements.	Note 6:	

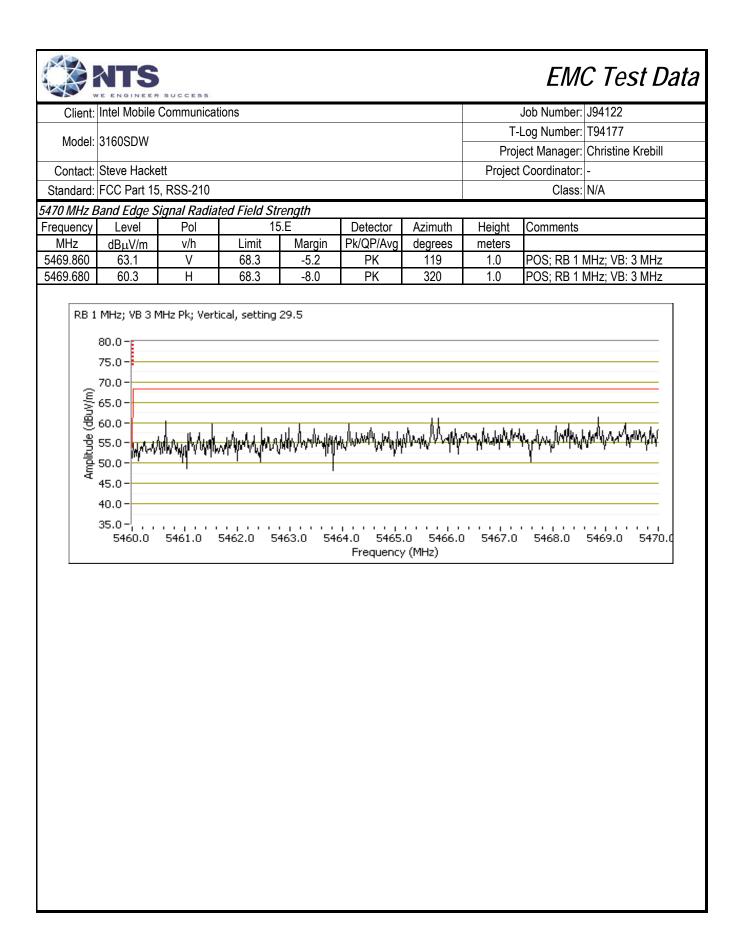
Client: I Model: 3	ntel Mobile (	Communicat	tions						
								Job Number:	J94122
Model: 3							T-	Log Number:	T94177
	3160SDW							-	Christine Krebill
Contact: S	Steve Hacke	tt					Project	Coordinator:	-
Standard: F	CC Part 15,	, RSS-210						Class:	N/A
un #1: Rad	liated Band	edge Meas	urements, 5	150-5250MH	lz				
Da	ate of Test:	1/6/2013 0:0	00		Co	onfig. Used:	-		
	t Engineer:					fig Change:			
Tes	st Location:	FT Chambe	r #4		E	UT Voltage:	Powered by	/ host ; Host ι	ise 120V/60Hz
hannel: 3	36 - 5180 MF	47							
x Chain: F		-							
lode:	а								
ata Rate:	6Mb/s								
150 MHz R:	and Edae Si	ianal Radia	ted Field Str	renath					
Frequency	Level	Pol	FCC 1		Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
5150.000	47.6	V	54.0	-6.4	AVG	160	1.1		
5144.870	59.6	V	74.0	-14.4	PK	160	1.1		
5150.000 5148.080	46.1 57.9	H	54.0 74.0	-7.9 -16.1	AVG PK	61 61	1.0 1.0		
5140.000	51.5	11	74.0	-10.1		01	1.0		
Amplitude (dBuv/m) A 5 5 5 9 9 2 2	30.0 - 75.0 - 55.0 -		drummer l	when hum		h	~~~~		
	4500 4	1550 460	0 4650	4700 475	60 4800 4 Frequency	1850 490) <sup>,</sup> (MHz)	0 4950	5000 505(	0 5100 5150

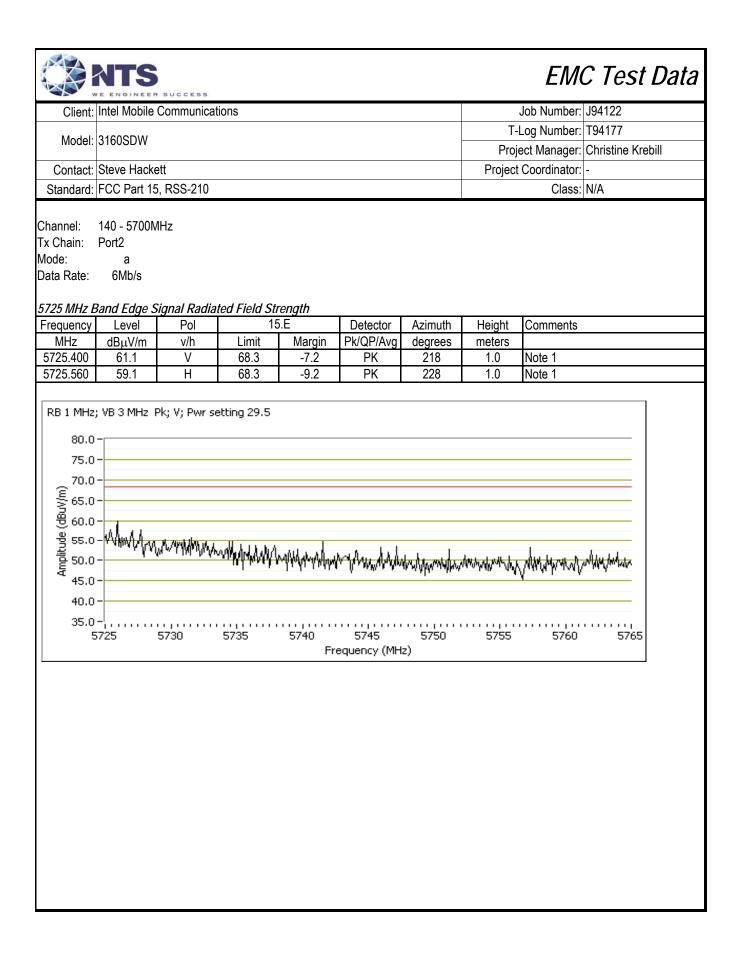


Client:	VE ENGINEER	SUCCESS						EMC Test Data
	Intel Mobile (	Communicat	ions					Job Number: J94122
Model <sup>.</sup>	3160SDW							Log Number: T94177
Model.	01000011							ect Manager: Christine Krebill
Contact:	Steve Hacke	tt					Project	Coordinator: -
Standard:	FCC Part 15	, RSS-210						Class: N/A
un #2: Ra	diated Band	edge Meas	urements, 5	250-5350MH	Ηz			
г	Date of Test:	1/6/2013 0.0	0		C	onfig. Used:		
	est Engineer:					fig Change:		
	est Location:							/ host ; Host use 120V/60Hz
	64 - 5320MH	Z						
x Chain: ode:	Port 2 a							
ata Rate:	6Mb/s							
	Band Edge Si	<u> </u>		rength 15.209	Detector	Azimuth	Hoight	Comments
requency MHz	Level dBµV/m	Pol v/h	Limit	Margin	Detector Pk/QP/Avg	Azimuth degrees	Height meters	Comments
5350.000	50.9	V	54.0	-3.1	AVG	100	1.0	
5350.000	63.2	V	74.0	-10.8	PK	100	1.0	
5350.080	48.8	Н	54.0	-5.2	AVG	224	1.0	
5350.000	62.7	Н	74.0	-11.3	PK	224	1.0	
(m//m)	80.0 -				ical, setting 2	apadanta seria se		Mar Mar Mar Mar Market

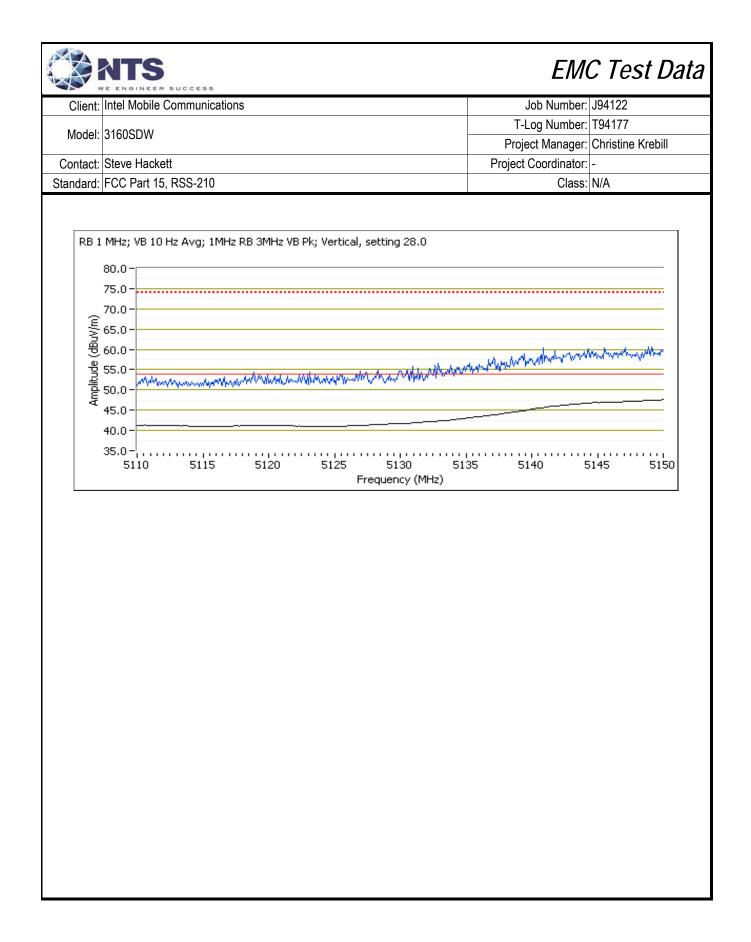


Model:         3160SDW         T-Log Number:         T94177           Project Manager:         Christine Kret         Project Manager:         Christine Kret           Standard:         FCC Part 15, RSS-210         Class:         N/A           Run #3:         Radiated Bandedge Measurements, 5470-5725MHz         Class:         N/A           Date of Test:         1/6/2013 0.00         Config. Used: -         -           Test Engineer:         Rafael Varelas         Config. Used: -         -           Test Location:         FT Chamber #4         EUT Voltage:         Powered by host; Host use 120V/60Hz           Channel:         100 - 5500MHz         Tr.Chain:         Port 2           Vode:         a         a         a           Stata Rate:         6Mo/s         5460 MHz         Station:           Frequency         Level         Pol         FCC 15.209         Detector         Azimuth         Height         Comments           MHz         dBgu//m         vh         Limit         Margin         PK/QP/Avg         degrees         meters           S398.740         58.2         V         74.0         -16.8         PK         119         1.0         POS; RB 1 MHz; VB; 3 Mt           5400.000	Client	Intel Mobile	Communica	tions					Job Number:	J94122
Model:         3180SDW         Project Manager         Christine Kret           Contact:         Steve Hackett         Project Coordinator:         Class:         N/A           Standard:         FCC Part 15, RSS-210         Class:         N/A           Run #3:         Radiated Bandedge Measurements, 5470-5725MHz         Class:         N/A           Date of Test:         1/6/2013 0:00         Config Change: -         Test Engineer:         Radiated Bandedge Measurements, 5470-5725MHz           Date of Test:         1/0 - 5500MHz         Config Change: -         EUT Voltage: Powered by host; Host use 120V/60Hz           Channel:         100 - 5500MHz         EUT Voltage: Powered by host; Host use 120V/60Hz           Chain:         Port 2         Adde:         a           Jode:         a         a         Date Atte:         6Mb/s           S460 MHz         Band Edge Signal Radiated Field Strength         Frequency         Level         PC 12           S398.580         45.8         V         54.0         8.2         AVG         119         1.0         POS; RB 1MHz; VB: 10 H           S460.000         45.4         V         54.0         8.6         AVG         119         1.0         POS; RB 1 MHz; VB: 3MH           S460.000         55.9								T-	Loa Number:	T94177
Contact:         Steve Hackett         Project Coordinator:           Standard:         FCC Part 15, RSS-210         Class: N/A           Up #3:         Radiated Bandedge Measurements, 5470-5725MHz         Config. Used: -           Date of Test:         1/6/2013 0:00         Config. Used: -           Test Engineer:         Rateal Varelas         Config. Config. Config. Config. Used: -           Test Location:         FT Control FT Chamber #4         EUT Voltage: Powered by host; Host use 120V/60Hz           Schamel:         100 - 5500MHz         x Chain:         Port 2           fode:         a         a         a           ata Rate:         6Mb/s         440 MHz         MHz         White:         White:           5398.580         45.8         V         54.0         -8.6         AVG         119         1.0         POS; RB 1 MHz; VB: 10 H           5398.580         45.8         V         54.0         -8.6         AVG         119         1.0         POS; RB 1 MHz; VB: 3 MH           5460.000         45.4         V         54.0         -10.2         AVG         119         1.0         POS; RB 1 MHz; VB: 3 MH           5460.000         45.9         H         74.0         -16.9         PK         119         1.	Model	3160SDW							•	
Standard:         FCC Part 15, RSS-210         Class:         N/A           Run #3:         Radiated Bandedge Measurements, 5470-5725MHz         Date of Test:         1/6/2013 0:00         Config. Used: -         -           Test Engineer:         Rafael Varelas         Config. Used: -         -         Class:         N/A           Channel:         100 - 5500MHz         FCC The Chamber #4         EUT Voltage: Powered by host ; Host use 120V/60Hz           Channel:         100 - 5500MHz         Kx Chain:         Port 2         Mode:         a           Jata Rate:         6Mb/s         Standard:         FCC T5.209         Detector         Azimuth         Height         Comments           MHz         dBju//m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           S398.740         58.2         V         74.0         -15.8         PK         119         1.0         POS; RB 1 MHz; VB: 3 Mt           5460.000         45.4         V         54.0         -8.6         AVG         119         1.0         POS; RB 1 MHz; VB: 3 Mt           5460.000         45.4         V         54.0         -10.2         AVG         320         1.0         POS; RB 1 MHz; VB: 3 Mt           5460.000	Contact	Steve Hacke	ett						-	
Radiated Bandedge Measurements, 5470-5725MHz         Date of Test: 1/6/2013 0:00       Config, Used: -         Test Engineer: Rafael Varelas       Config Change: -         Test Location: FT Chamber #4       EUT Voltage: Powered by host ; Host use 120V/60Hz         Channel:       100 - 5500MHz         'x Chain:       Port 2         Jode:       a         Data Rate:       6Mb/s         5460 MHz Band Edge Signal Radiated Field Strength         Frequency       Level         Pol       FCC 15/20         Detector       Azimuth         Height       Comments         MHz       BuyUm         v/h       Limit         Margin       Pk/QP/Avg         degrees       meters         5380.580       45.8         V       54.0         -8.2       AVG         119       1.0       POS; RB 1 MHz; VB: 10 H         5460.000       45.4       V         5460.000       43.8       H       54.0       -10.2         AVG       320       1.0       POS; RB 1 MHz; VB: 30 H         5460.000       55.7       H       74.0       -18.1         5400.000       55.7       H								1 10,000		
Date of Test: 1/6/2013 0:00       Config. Used: -         Test Location: FT Chamber #4       Config. Used: -         Shannel:       100 - 5500MHz         x Chain:       Port 2         tode:       a         abata Rate:       6Mb/s             #400 MHz Band Edge Signal Radiated Field Strength             Frequency       Level         Pol       FCC 15/209         Detector       Azimuth         Height       Comments         MHz       dBj.v/m         043, 45.8       V       54.0         5398,580       45.8       V         5460,000       45.4       V         5460,000       45.4       V         5460,000       45.8       H         5460,000       45.9       H         5460,000       55.9       H       74.0       -16.9       PK         5460,000       55.9       H       74.0       -18.1       PK 3220       1.0       POS; RB 1 MHz; VB: 10 H         5460,000       55.9       H       74.0       -18.1       PK 320       1.0       POS; RB 1 MHz; VB: 10 Hz Avg; 1MHz RB 3MHz VB Pk; Vertical, setting 29.5       1.0       POS; RB 1 MHz; VB: 30H <td></td> <td></td> <td></td> <td>uramants 5</td> <td>/70_5725MI</td> <td>-17</td> <td></td> <td></td> <td>01000.</td> <td></td>				uramants 5	/70_5725MI	-17			01000.	
Test Engineer:       Rafael Varelas       Config Change: -         Test Location:       FT Chamber #4       EUT Voltage: Powered by host ; Host use 120V/60H;         Schannel:       100 - 5500MHz       x         x Chain:       Port 2       Interview of the state of	un "J. K		icuye meas		470-3723ivii	12				
EUT Voltage: Powered by host ; Host use 120V/60Hz         Channel:       100 - 5500MHz         x Chain:       Port 2         Adde:       a         a Data Rate:       6Mb/s         Stdo       Poil       FCC 15.209       Detector       Azimuth       Height       Comments         MHz       dBµV/m       V/n       Limit       Margin       PK/QP/Avg       degrees       meters         5398.580       45.8       V       54.0       8-2       AVG       119       1.0       POS; RB 1 MHz; VB: 10 H         5398.580       45.8       V       54.0       -8.2       AVG       119       1.0       POS; RB 1 MHz; VB: 10 H         5400.000       45.4       V       54.0       -10.2       AVG       320       1.0       POS; RB 1 MHz; VB: 30 H         5460.000       43.8       H       54.0       -10.2       AVG       320       1.0       POS; RB 1 MHz; VB: 30 H         5460.000       55.9       H       74.0       -18.1       PK       320       1.0       POS; RB 1 MHz; VB: 30 H         5499.940       43.1       H       54.0       -10.9       AVG       320       1.0       POS; RB 1 MHz; VB: 30 H		Date of Test:	1/6/2013 0:0	00			-			
Zhannel:       100 - 5500MHz         x Chain:       Port 2         Odde:       a         bata Rate:       6Mb/s         2400       MHz       Band Edge Signal Radiated Field Strength         Frequency       Level       Pol       FCC 15.209       Detector       Azimuth       Height       Comments         MHz       dBµt/m       v/h       Limit       Margin       Pk/QP/Avg       degrees       meters         5398.580       45.8       V       54.0       -8.2       AVG       119       1.0       POS; RB 1 MHz; VB: 10 H         5398.740       58.2       V       74.0       -15.8       PK       119       1.0       POS; RB 1 MHz; VB: 30 H         5460.000       45.4       V       54.0       -8.6       AVG       119       1.0       POS; RB 1 MHz; VB: 30 H         5460.000       45.4       V       74.0       -16.9       PK       119       1.0       POS; RB 1 MHz; VB: 30 H         5460.000       45.1       H       54.0       -10.2       AVG       320       1.0       POS; RB 1 MHz; VB: 30 H         5460.000       55.7       H       74.0       -18.3       PK       320       1.0       POS; RB										
x Chain: Port 2 lode: a hata Rate: 6Mb/s	Т	est Location:	FT Chambe	r #4		E	UT Voltage:	Powered by	y host ; Host ı	use 120V/60Hz
x Chain: Port 2 lode: a hata Rate: 6Mb/s	honnol	100 55001	1⊔→							
Model:       a         ata Rate:       6Mb/s           4400 MHz Band Edge Signal Radiated Field Strength           Trequency     Level     Pol     FCC 15.209     Detector     Azimuth     Height     Comments   <			INZ							
ata Rate: 6Mb/s         460 MHz Band Edge Signal Radiated Field Strength requency       Level       Pol       FCC 15.209       Detector       Azimuth       Height       Comments         5398.580       45.8       V       54.0       -8.2       AVG       119       1.0       POS; RB 1 MHz; VB: 10 H         5398.580       45.8       V       54.0       -8.2       AVG       119       1.0       POS; RB 1 MHz; VB: 3 MH         5460.000       45.4       V       54.0       -8.6       AVG       119       1.0       POS; RB 1 MHz; VB: 3 MH         5460.000       43.8       H       54.0       -10.2       AVG       320       1.0       POS; RB 1 MHz; VB: 3 MH         5460.000       55.9       H       74.0       -18.1       PK       320       1.0       POS; RB 1 MHz; VB: 3 MH         5400.000       55.7       H       74.0       -18.3       PK       320       1.0       POS; RB 1 MHz; VB: 3 MH         5400.000       55.7       H       74.0       -18.3       PK       320       1.0       POS; RB 1 MHz; VB: 3 MH         5400.000       55.7       H       74.0       -18.3       PK       320       1.0       POS; RB 1 MHz; VB:										
Trequency         Level         Pol         FCC 15.209         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         PK/QP/Avg         degrees         meters           5398.580         45.8         V         54.0         -8.2         AVG         119         1.0         POS; RB 1 MHz; VB: 10 H           5398.740         58.2         V         74.0         -15.8         PK         119         1.0         POS; RB 1 MHz; VB: 3 MH           5460.000         45.4         V         54.0         -8.6         AVG         119         1.0         POS; RB 1 MHz; VB: 3 MH           5460.000         45.8         H         54.0         -10.2         AVG         320         1.0         POS; RB 1 MHz; VB: 3 MH           5460.000         55.9         H         74.0         -18.1         PK         320         1.0         POS; RB 1 MHz; VB: 3 MH           5399.940         43.1         H         54.0         -10.9         AVG         320         1.0         POS; RB 1 MHz; VB: 3 MH           5410.000         55.7         H         74.0         -18.3         PK         320         1.0         POS; RB 1 MHz; V		-								
Frequency         Level         Pol         FCC 15.209         Detector         Azimuth         Height         Comments           MHz         dBµV/m         v/h         Limit         Margin         PK/QP/Avg         degrees         meters           5398.580         45.8         V         54.0         -8.2         AVG         119         1.0         POS; RB 1 MHz; VB: 10 H           5398.740         58.2         V         74.0         -15.8         PK         119         1.0         POS; RB 1 MHz; VB: 3 MH           5460.000         45.4         V         54.0         -8.6         AVG         119         1.0         POS; RB 1 MHz; VB: 3 MH           5460.000         45.8         H         54.0         -10.2         AVG         320         1.0         POS; RB 1 MHz; VB: 3 MH           5460.000         55.9         H         74.0         -18.1         PK         320         1.0         POS; RB 1 MHz; VB: 3 MH           5399.940         43.1         H         54.0         -10.9         AVG         320         1.0         POS; RB 1 MHz; VB: 3 MH           5410.000         55.7         H         74.0         -18.3         PK         320         1.0         POS; RB 1 MHz; V										
MHz         dBµV/m         v/h         Limit         Margin         Pk/QP/Avg         degrees         meters           5398.580         45.8         V         54.0         -8.2         AVG         119         1.0         POS; RB 1 MHz; VB: 10 H           5398.740         58.2         V         74.0         -15.8         PK         119         1.0         POS; RB 1 MHz; VB: 3 MH           5460.000         45.4         V         54.0         -8.6         AVG         119         1.0         POS; RB 1 MHz; VB: 3 MH           5460.000         43.8         H         54.0         -16.9         PK         119         1.0         POS; RB 1 MHz; VB: 3 MH           5460.000         55.9         H         74.0         -18.1         PK         320         1.0         POS; RB 1 MHz; VB: 3 MH           5460.000         55.7         H         74.0         -18.3         PK         320         1.0         POS; RB 1 MHz; VB: 3 MH           5410.000         55.7         H         74.0         -18.3         PK         320         1.0         POS; RB 1 MHz; VB: 3 MH           50.0										
5398.580       45.8       V       54.0       -8.2       AVG       119       1.0       POS; RB 1 MHz; VB: 10 H         5398.740       58.2       V       74.0       -15.8       PK       119       1.0       POS; RB 1 MHz; VB: 3 MH         5460.000       45.4       V       54.0       -8.6       AVG       119       1.0       POS; RB 1 MHz; VB: 3 MH         5460.000       45.4       V       54.0       -8.6       AVG       119       1.0       POS; RB 1 MHz; VB: 3 MH         5460.000       43.8       H       54.0       -10.2       AVG       320       1.0       POS; RB 1 MHz; VB: 3 MH         5460.000       43.8       H       54.0       -10.2       AVG       320       1.0       POS; RB 1 MHz; VB: 3 MH         5460.000       55.9       H       74.0       -18.1       PK       320       1.0       POS; RB 1 MHz; VB: 3 MH         5399.940       43.1       H       54.0       -10.9       AVG       320       1.0       POS; RB 1 MHz; VB: 3 MH         5410.000       55.7       H       74.0       -18.3       PK       320       1.0       POS; RB 1 MHz; VB: 3 MH         60.0					-				Comments	
5398.740       58.2       V       74.0       -15.8       PK       119       1.0       POS; RB 1 MHz; VB 3 MH         5460.000       45.4       V       54.0       -8.6       AVG       119       1.0       POS; RB 1 MHz; VB 3 MH         5460.000       45.4       V       74.0       -16.9       PK       119       1.0       POS; RB 1 MHz; VB 3 MH         5460.000       43.8       H       54.0       -10.2       AVG       320       1.0       POS; RB 1 MHz; VB 3 MH         5460.000       55.9       H       74.0       -18.1       PK       320       1.0       POS; RB 1 MHz; VB 3 MH         5399.940       43.1       H       54.0       -10.9       AVG       320       1.0       POS; RB 1 MHz; VB 3 MH         5399.940       43.1       H       54.0       -10.9       AVG       320       1.0       POS; RB 1 MHz; VB 3 MH         5410.000       55.7       H       74.0       -18.3       PK       320       1.0       POS; RB 1 MHz; VB 3 MH         60.0										MU
5460.000         45.4         V         54.0         -8.6         AVG         119         1.0         POS; RB 1 MHz; VB 10 H           5457.760         57.1         V         74.0         -16.9         PK         119         1.0         POS; RB 1 MHz; VB 3 MH           5460.000         43.8         H         54.0         -10.2         AVG         320         1.0         POS; RB 1 MHz; VB 3 MH           5460.000         55.9         H         74.0         -18.1         PK         320         1.0         POS; RB 1 MHz; VB 3 MH           5399.940         43.1         H         54.0         -10.9         AVG         320         1.0         POS; RB 1 MHz; VB 3 MH           5399.940         43.1         H         54.0         -10.9         AVG         320         1.0         POS; RB 1 MHz; VB 3 MH           5410.000         55.7         H         74.0         -18.3         PK         320         1.0         POS; RB 1 MHz; VB 3 MH           66.0         -										
5457.760       57.1       V       74.0       -16.9       PK       119       1.0       POS; RB 1 MHz; VB: 3 MH         5460.000       43.8       H       54.0       -10.2       AVG       320       1.0       POS; RB 1 MHz; VB: 3 MH         5460.000       55.9       H       74.0       -18.1       PK       320       1.0       POS; RB 1 MHz; VB: 3 MH         5399.940       43.1       H       54.0       -10.9       AVG       320       1.0       POS; RB 1 MHz; VB: 3 MH         5399.940       43.1       H       54.0       -10.9       AVG       320       1.0       POS; RB 1 MHz; VB: 3 MH         5399.940       43.1       H       54.0       -10.9       AVG       320       1.0       POS; RB 1 MHz; VB: 10 Hz         5410.000       55.7       H       74.0       -18.3       PK       320       1.0       POS; RB 1 MHz; VB: 3 MH         66.0       -<										
ide0.000       43.8       H       54.0       -10.2       AVG       320       1.0       POS; RB 1 MHz; VB: 10 H         ide0.000       55.9       H       74.0       -18.1       PK       320       1.0       POS; RB 1 MHz; VB: 3 MH         i399.940       43.1       H       54.0       -10.9       AVG       320       1.0       POS; RB 1 MHz; VB: 3 MH         i399.940       43.1       H       54.0       -10.9       AVG       320       1.0       POS; RB 1 MHz; VB: 10 Hz         i410.000       55.7       H       74.0       -18.3       PK       320       1.0       POS; RB 1 MHz; VB: 3 MH         i410.000       55.7       H       74.0       -18.3       PK       320       1.0       POS; RB 1 MHz; VB: 3 MH         i410.000       55.7       H       74.0       -18.3       PK       320       1.0       POS; RB 1 MHz; VB: 3 MH         i410.00									-	
ide0.000       55.9       H       74.0       -18.1       PK       320       1.0       POS; RB 1 MHz; VB: 3 MH         i399.940       43.1       H       54.0       -10.9       AVG       320       1.0       POS; RB 1 MHz; VB: 3 MH         i410.000       55.7       H       74.0       -18.3       PK       320       1.0       POS; RB 1 MHz; VB: 3 MH         i410.000       55.7       H       74.0       -18.3       PK       320       1.0       POS; RB 1 MHz; VB: 3 MH         i410.000       55.7       H       74.0       -18.3       PK       320       1.0       POS; RB 1 MHz; VB: 3 MH         i410.000       55.7       H       74.0       -18.3       PK       320       1.0       POS; RB 1 MHz; VB: 3 MH         i410.000       55.7       H       74.0       -18.3       PK       320       1.0       POS; RB 1 MHz; VB: 3 MH         i410.000       -<										
3399.940       43.1       H       54.0       -10.9       AVG       320       1.0       POS; RB 1 MHz; VB 10 Hz         5410.000       55.7       H       74.0       -18.3       PK       320       1.0       POS; RB 1 MHz; VB: 3 MHz         RB 1 MHz; VB 10 Hz Avg; 1MHz RB 3MHz VB Pk; Vertical, setting 29.5       80.0       -										
5410.000         55.7         H         74.0         -18.3         PK         320         1.0         POS; RB 1 MHz; VB: 3 MHz           RB 1 MHz; VB 10 Hz Avg; 1MHz RB 3MHz VB Pk; Vertical, setting 29.5         80.0         -									-	
RB 1 MHz; VB 10 Hz Avg; 1MHz RB 3MHz VB Pk; Vertical, setting 29.5         80.0         75.0         70.0         65.0         60.0         90         55.0         45.0         45.0         45.0         5350         5350         5350         5350										
80.0 75.0 70.0 65.0 90 55.0 90 55.0 40.0 35.0 5350 5360 5370 5380 5390 5400 5410 5420 5430 5440 5450 54	5410.000	00. <i>1</i>	п	74.0	-10.3	Ph	320	1.0	PU5, KB 1	<u>VINZ, VB. 3 IVIN</u>
80.0- 75.0- 70.0- (U) 65.0- 99 55.0- 99 55.0- 45.0- 45.0- 40.0- 5350 5360 5370 5380 5390 5400 5410 5420 5430 5440 5450 54	DB					ical catting 2	0 5			
75.0 70.0 65.0 65.0 900 900 900 900 900 900 900 9		1 1 11 12, 90 10	112 MV9, 114		VDFN, VCIU	ical, securiy 2	2.5			
70.0-           65.0-           60.0-           99           55.0-           40.0-           35.0-           5350           5350           5350           5350		80.0-								
65.0 - 90 90 55.0 - 45.0 - 40.0 - 5350 5360 5370 5380 5390 5400 5410 5420 5430 5440 5450 54		75.0-								
40.0		70.0-								
40.0- 35.0- 5350 5360 5370 5380 5390 5400 5410 5420 5430 5440 5450 54	1 🤶	65.0-								
40.0	- Ang	00.0								
40.0- 35.0- 5350 5360 5370 5380 5390 5400 5410 5420 5430 5440 5450 54	Pe	, 60.0 -			1	. March March		D. a.d.		
40.0- 35.0- 5350 5360 5370 5380 5390 5400 5410 5420 5430 5440 5450 54	Ĩ	55.0-	. A. make	and Martin Ser	tothe and the second	and the state of the	and the state of the	AND AND AND	Maryanter	dith-guad and
40.0 35.0 5350 5360 5370 5380 5390 5400 5410 5420 5430 5440 5450 54	ja l	· 50.0 - MM	QWI WY I I I I	1.000						
35.0		45.0-						····		
35.0			~							
5350 5360 5370 5380 5390 5400 5410 5420 5430 5440 5450 54										
					1 1 1 1 1 1 20 5200	5400	5410 E4			
r redecire? (mine)		5000	3300 3	10/0 000	0 2090			720 043	0 3440	3 <del>4</del> 30 54
						ricquericy	(nu 2)			

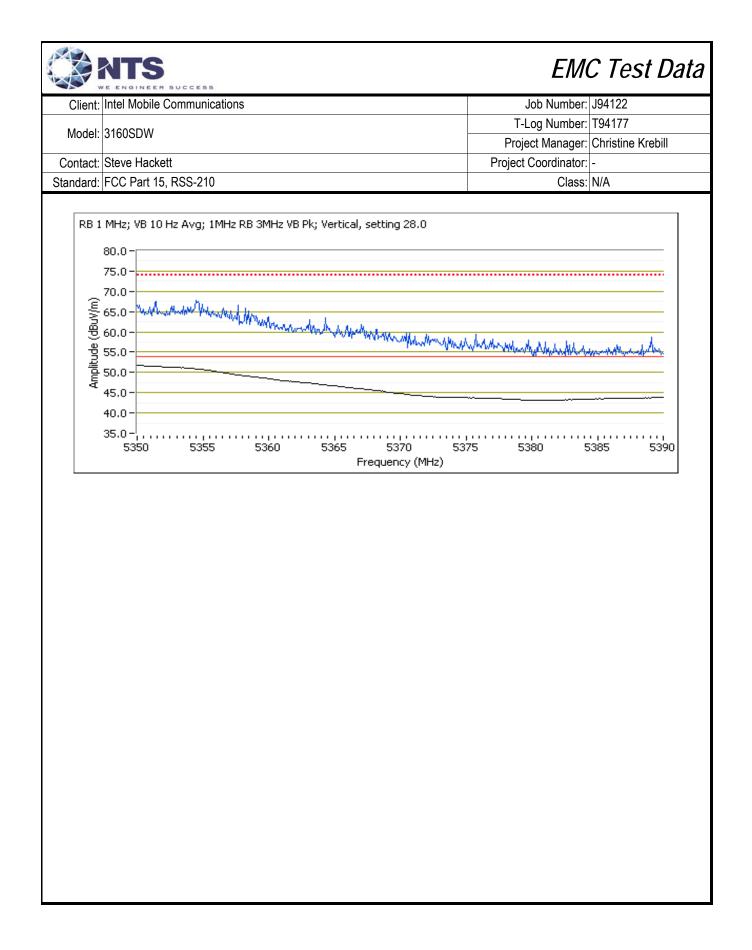




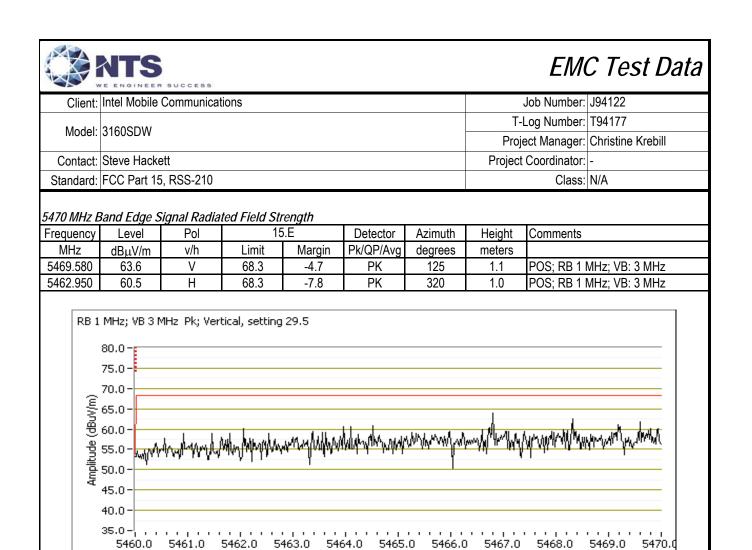
		SUCCESS						EMC Test Da		
Client:	Intel Mobile	Communicat	ions					Job Number: J94122		
Madal	3160SDW						T-I	Log Number: T94177		
woder.	31002010						Project Manager: Christine Krebill			
Contact:	Steve Hacke	ett					Project	Coordinator: -		
Standard:	FCC Part 15	, RSS-210						Class: N/A		
Run #4: Ra	adiated Band	ledge Meas	urements, 5	150-5250MH	łz					
	Date of Test:					onfig. Used:				
	est Engineer: est Location:					fig Change:		(heat - Heat use 190)//60U-		
10	est Location.		1 #4		E	or vollage.	rowered by	v host ; Host use 120V/60Hz		
Channel:	36 - 5180 M	Hz								
x Chain:	Port 2									
/lode:	n20									
Data Rate:	HT0									
5150 MHz E	Band Edge S	ignal Radia	ted Field Sti	rength						
Frequency	Level	Pol		15.209	Detector	Azimuth	Height	Comments		
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters			
5150.000	47.8	V V	54.0	-6.2	AVG	160	1.1			
5142.630 5150.000	60.1 47.0	V H	74.0 54.0	-13.9 -7.0	PK AVG	160 61	1.1 1.0			
5142.790	58.3	H	74.0	-15.7	PK	61	1.0			
(m/m)	80.0 - 75.0 - 70.0 - 65.0 - 60.0 - 55.0 -				ical, setting 2		Manadataka	WM MAN MANN MANNA		



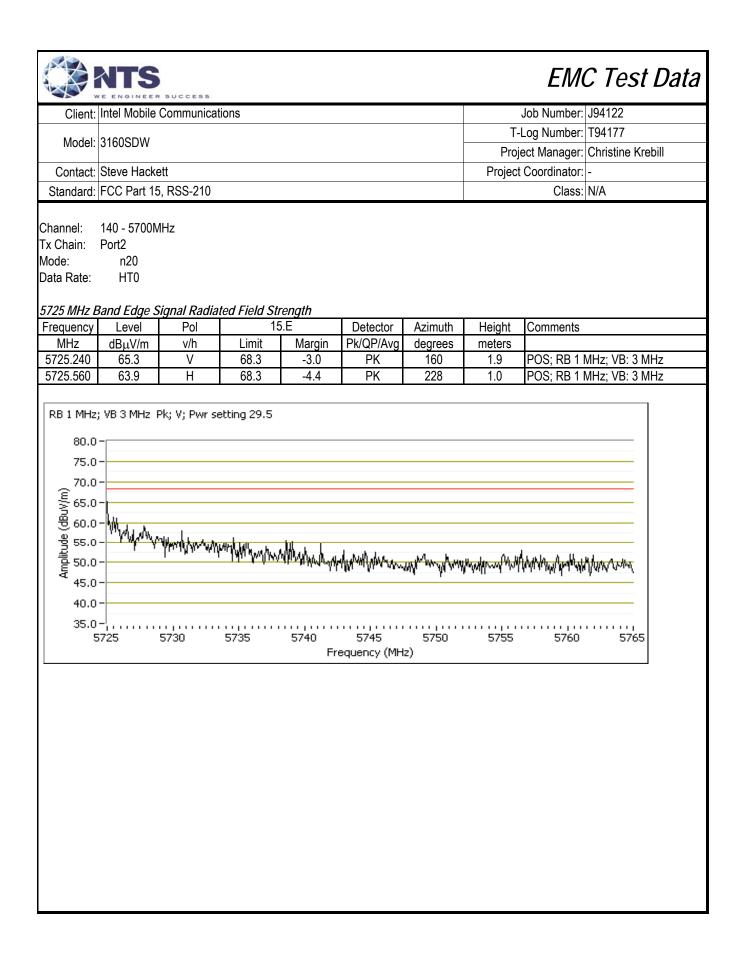
		SUCCESS						EMC Test Data
Client:	Intel Mobile	Communicat	ions				,	Job Number: J94122
Madal	24000014/						T-I	Log Number: T94177
Model:	3160SDW						Proje	ect Manager: Christine Krebill
Contact:	Steve Hacke	tt					Project	Coordinator: -
Standard:	FCC Part 15	, RSS-210						Class: N/A
2un #5: Ra	adiated Band	edge Meas	urements, 5	250-5350MH	Ηz			
Te	Date of Test: est Engineer: est Location:	Rafael Vare	las		Con	onfig. Used: fig Change: UT Voltage:	-	r host ; Host use 120V/60Hz
hannel:	64 - 5320MF	z						
x Chain:	Port 2							
lode:	n20							
ata Rate:	HT0							
250 MH7 I	Band Edge S	ianal Dadia	tod Fiold St	ronath				
-requency	Level	Pol		15.209	Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5350.000	51.7	V	54.0	-2.3	AVG	100	1.0	
5355.290	66.4	V	74.0	-7.6	PK	100	1.0	
5350.080	49.0	H	54.0	-5.0	AVG	224	1.0	
5353.770	64.0	Н	74.0	-10.0	PK	224	1.0	
(dBuV/m)	80.0 -				ical, setting 2 المرجع الإيراني المرجع	8.0 ,,,	When you have a second	



		SUCCESS						EMC Test Da
Client:	Intel Mobile (	Communicat	Job Number: J94122					
Model.	3160SDW		T-Log Number: T94177					
			Project Manager: Christine Krebill					
Contact:	Steve Hacke	tt	Project Coordinator: -					
Standard:	FCC Part 15	, RSS-210						Class: N/A
l Te	adiated Band Date of Test: est Engineer: est Location:	1/6/2013 0:0 Rafael Vare	0 as	470-5725MI	Con	onfig. Used: fig Change: UT Voltage:	-	y host ; Host use 120V/60Hz
Channel: Tx Chain: Mode: Data Rate: 5460 MHz I	100 - 5500M Port 2 n20 HT0 Band Edge Si		ted Field Sti	renath				
Frequency	· · · · ·	Pol		15.209	Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5459.920	46.1	V	54.0	-7.9	AVG	125	1.1	POS; RB 1 MHz; VB: 10 Hz
5457.520	57.7	V	74.0	-16.3	PK	125	1.1	POS; RB 1 MHz; VB: 3 MHz
5460.000 5459.520	44.2 56.8	H	54.0 74.0	-9.8 -17.2	AVG PK	320 320	1.0 1.0	POS; RB 1 MHz; VB: 10 Hz POS; RB 1 MHz; VB: 3 MHz
(dBuV/m)	80.0 - 75.0 - 70.0 - 65.0 - .60.0 -				ical, setting 2 بېښمېرېښې	9.5		mount of for the state of the



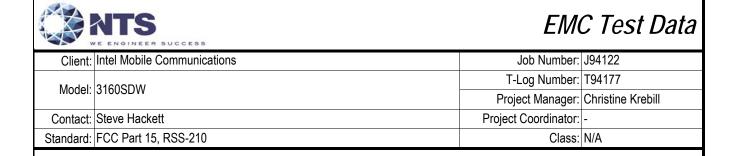
Frequency (MHz)



Client: Intel Mobile Communica Model: 3160SDW Contact: Steve Hackett Standard: FCC Part 15, RSS-210 Run #7: Radiated Bandedge Meas Date of Test: 1/6/2013 0: Test Engineer: Rafael Vare Test Location: FT Chambe				T-I Proje	Job Number: J94122 Log Number: T94177 ect Manager: Christine Krebill Coordinator: -					
Contact: Steve Hackett Standard: FCC Part 15, RSS-210 Run #7: Radiated Bandedge Meas Date of Test: 1/6/2013 0: Test Engineer: Rafael Vare	surements, 5150-5250Mł			Proje	ect Manager: Christine Krebill					
Contact: Steve Hackett Standard: FCC Part 15, RSS-210 Run #7: Radiated Bandedge Meas Date of Test: 1/6/2013 0: Test Engineer: Rafael Vare	surements, 5150-5250Mł				÷					
Standard: FCC Part 15, RSS-210 cun #7: Radiated Bandedge Meas Date of Test: 1/6/2013 0: Test Engineer: Rafael Vare	surements, 5150-5250Mł			Project	Coordinator: -					
un #7: Radiated Bandedge Meas Date of Test: 1/6/2013 0: Test Engineer: Rafael Vare	surements, 5150-5250Mł	-		Project Coordinator: -						
Date of Test: 1/6/2013 0: Test Engineer: Rafael Vare	surements, 5150-5250MF									
Test Engineer: Rafael Vare			<u> </u>							
	elas	Con	onfig. Used: hfig Change: UT Voltage:	-	v host ; Host use 120V/60Hz					
channel: 38 - 5190 MHz x Chain: Port 2 lode: n40 lata Rate: HT0 <i>150 MHz Band Edge Signal Radia</i>	ated Field Strenath									
Frequency Level Pol	FCC 15.209	Detector	Azimuth	Height	Comments					
MHz dBµV/m v/h	Limit Margin	Pk/QP/Avg	degrees	meters						
5150.000 49.1 V	54.0 -4.9	AVG	27	1.0	Note 3					
5150.000 60.2 V	74.0 -13.8	PK	27	1.0	POS; RB 1 MHz; VB: 3 MHz					
5150.000 49.0 H 5149.600 61.4 H	54.0 -5.0 74.0 -12.6	AVG PK	160 160	1.9 1.9	Note 3 POS; RB 1 MHz; VB: 3 MHz					
RB 1 MHz; VB 10 Hz Avg; 1M 80.0 - 75.0 - 70.0 - (E) 65.0 - 90 55.0 - 45.0 - 4	lunny many why why	Marr		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	5000 5050 5100 5150					

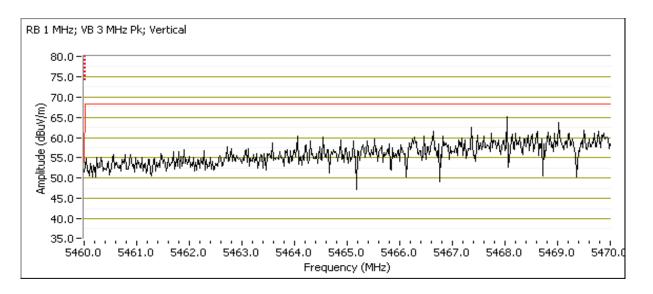
		SUCCESS						EMO	C Test Dat
Client:	Intel Mobile (	Communicat	tions	Job Number: J94122					
Madalı	246000W			T-Log Number: T9		T94177			
woder:	3160SDW			Project Manager: Christine Kreb		Christine Krebill			
Contact:	Steve Hacke	tt		Project	Coordinator:	-			
Standard:	FCC Part 15	, RSS-210					Class: N/A		
Run #8: Ra	idiated Band	edge Meas	urements, 5	250-5350MH	Ιz				
	Date of Test:					onfig. Used:			
	Test Engineer: Rafael Varelas Config Change: Test Location: FT Chamber #4 EUT Voltage:							(haat i Uaat i	
16	551 LUGalion.	FI Chambe	1 #4		Ľ	UT VUILAYE.	Powered by	/ nost , nost t	ise 120V/60Hz
hannel:	62 - 5310MH	z							
	Port 2								
lode:	n40								
oata Rate:	HT0								
350 MHz F	Band Edge Sl	ianal Radia	ted Field Sti	renath					
-requency	Level	Pol		15.209	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
5352.560	50.1	V	54.0	-3.9	AVG	92	1.0	Note 3	
5356.090	61.2	V	74.0	-12.8	PK	92	1.0		MHz; VB: 3 MHz
5352.730	47.1 59.0	H H	54.0 74.0	-6.9 -15.0	AVG PK	344 344	1.0	Note 3	
5364.270	59.0	П	74.0	-15.0	PN	344	1.0	PU3, KB I I	MHz; VB: 3 MHz
(m//m)	MHz; VB 10 80.0 - 75.0 - 65.0 - 65.0 - 60.0 - 55.0 - 50.0 - 45.0 -						rhutumu	halpharad Mar	with man and the second

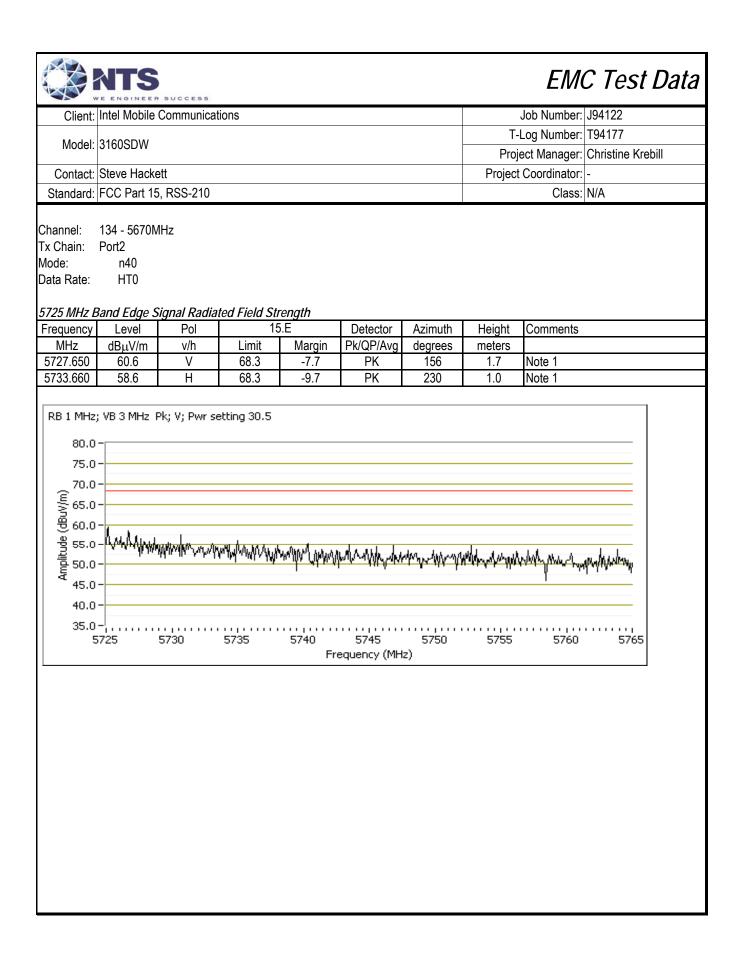
		SUCCESS						EM	C Test Dat
Client:	Intel Mobile (	Communicat	ions		Job Number:	J94122			
Madalı	24000014/			T-Log Number: T94177		T94177			
wodel:	3160SDW			Project Manager: Christine Kreb		Christine Krebill			
Contact:	Steve Hacke	tt		Project Coordinator: -		-			
Standard:	FCC Part 15	, RSS-210						Class:	N/A
Run #9: Ra	adiated Band	edge Meas	urements, 5	470-5725MH	łz				
	Date of Test:					onfig. Used:			
	est Engineer: est Location:					fig Change:		(haat : Haat )	
16	BSI LUCAIION.	FIChampe	#4		Ľ	or vollage.	Powered by	/ nost ; Host l	use 120V/60Hz
Channel:	102 - 5510M	Hz							
	Port 2								
Mode:	n40								
Data Rate:	HT0								
5460 MHz F	Band Edge Si	ianal Radia	ted Field Sti	renath					
Frequency	Level	Pol	FCC		Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
5410.220	44.1	V	54.0	-9.9	AVG	125	1.2	Note 3	
5420.920	55.5	V	74.0	-18.5	PK	125	1.2		MHz; VB: 3 MHz
5460.000 5459.280	43.5 53.8	H H	54.0 74.0	-10.5 -20.2	AVG PK	359 359	1.0 1.0	Note 3	MHz; VB: 3 MHz
0409.200	55.0	Π	74.0	-20.2	FN	309	1.0	FU3, KD I I	
(dBuV/m)	70.0 - 65.0 - 60.0 -				helple shows to				alain the stand

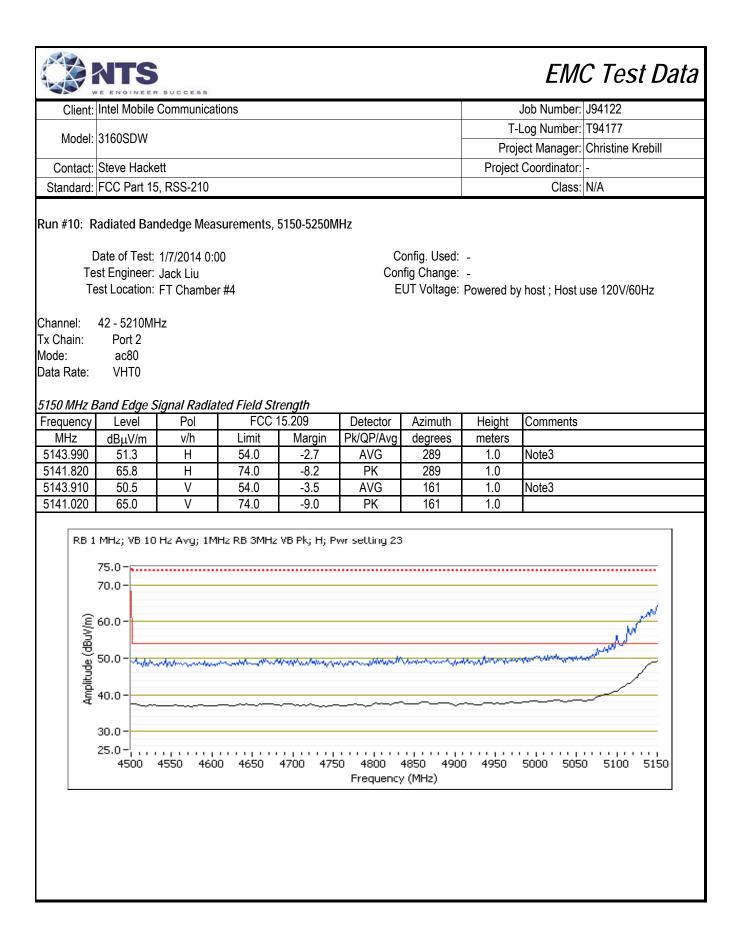


## 5470 MHz Band Edge Signal Radiated Field Strength

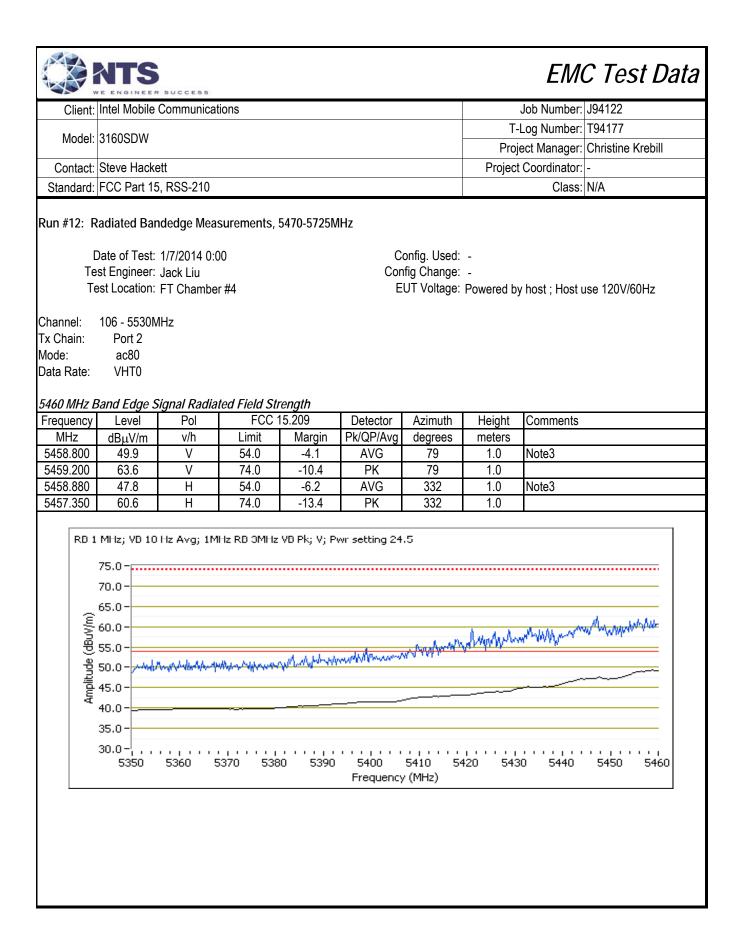
Frequency	Level	Pol	15	i.E	Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5469.320	65.2	V	68.3	-3.1	PK	126	1.1	POS; RB 1 MHz; VB: 3 MHz
5466.010	61.4	Н	68.3	-6.9	PK	342	1.0	POS; RB 1 MHz; VB: 3 MHz







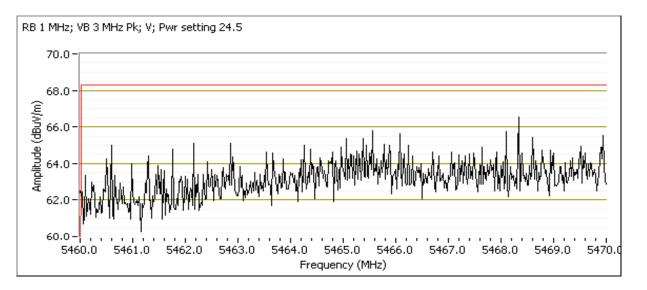
		SUCCESS						EMC Test Dat
Client:	Intel Mobile	Communicat	ions					Job Number: J94122
NA . 1.1	240000144						T-	Log Number: T94177
Model:	3160SDW						Proj	ect Manager: Christine Krebill
Contact:	Steve Hacke	ett					Project	: Coordinator: -
Standard:	FCC Part 15	, RSS-210						Class: N/A
[ Te	adiated Ban Date of Test: est Engineer:	1/7/2014 0:0 Jack Liu	00	5250-5350N	C Cor	onfig. Used: ifig Change:	-	
Te	est Location:	FT Chambe	r #4		E	UT Voltage:	Powered by	y host ; Host use 120V/60Hz
Channel: Tx Chain: Mode: Data Rate: 5 <i>350 MHz E</i>	58 - 5290MH Port 2 ac80 VHT0 Band Edge S		ted Field Sti	rength				
Frequency	Level	Pol		15.209	Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5366.430	50.9	Н	54.0	-3.1	AVG	346	1.0	Note3
5372.690	64.6	Н	74.0	-9.4	PK	346	1.0	
5366.270 5372.770	50.6 65.2	V V	54.0 74.0	-3.4 -8.8	AVG PK	216 216	1.1 1.1	Note3
(m)	74.0 - 70.0 - 65.0 - 60.0 - 55.0 - 50.0 - 45.0 - 40.0 - 35.0 -	4dm/mm	n.M.w.ndqqq				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	۳ <u>۳۵۸۹۸۸۸۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰۰</u>
	5350	5360 5	i370 538	0 5390	5400 Frequency	5410 54	420 543	5440 5450 5460



		EMO	C Test Data
Client:	Intel Mobile Communications	Job Number:	J94122
Madalı	21600014	T-Log Number:	T94177
woder.	3160SDW	Project Manager:	Christine Krebill
Contact:	Steve Hackett	Project Coordinator:	-
Standard:	FCC Part 15, RSS-210	Class:	N/A
Starluaru.	100 Fait 10, 100-210	Class.	

## 5470 MHz Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15	δ.Ε	Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5465.390	66.0	V	68.3	-2.3	PK	84	1.1	POS; RB 1 MHz; VB: 3 MHz
5468.940	63.5	Н	68.3	-4.8	PK	332	1.0	POS; RB 1 MHz; VB: 3 MHz



Client:	Intel Mobile	e Communicat	tions					Job Number:	J94122
							T-	Log Number:	T94177
Model:	3160SDW							-	Christine Krebill
Contact:	Steve Hack	ett					-	Coordinator:	
Standard:	FCC Part 1	5, RSS-210						Class:	N/A
	F	RSS 210 a	and FCC	15.407 (l	JNII) Ra	diated Sp	ourious	Emissior	IS
Tast Snar	cific Deta	ilc							
i cor oper		The shiest	e of this test	session is to	perform fina	al qualificatio	n testina of t	he EUT with r	respect to the
	Objective		listed above		P				
Conoral T	ost Conf	iguration							
	est Confi	upport equipm	ant were loo	ated on the t	urntable for	radiated sour	rique emissie	ons testing	
		testing the me				•		•	noted.
							,		
	Conditior	IS:	Т	emperature:	23-25	°C			
Ambient			R	emperature: el. Humidity:	23-25 30-40				
Ambient ( Modificat No modifi	ions Mad	e During T e made to the	Re esting EUT during f	el. Humidity:					
Ambient ( Modificat No modific Deviation	ions Mad cations were s From T	e During T e made to the he Standa	Ri esting EUT during f rd	el. Humidity:	30-40				
Ambient ( Modificat No modific Deviation	ions Mad cations were s From T	e During T e made to the	Ri esting EUT during f rd	el. Humidity:	30-40				
Ambient ( Modificat No modific Deviation	ions Mad cations were s From T ions were m	e During T e made to the he Standa hade from the	Ri esting EUT during f rd	el. Humidity:	30-40				
Ambient ( Modificat No modific Deviation No deviation Procedur Measureme	ions Mad cations were is From T fons were m e Comme nts performe	e During T e made to the he Standa ade from the ents: ed in accorda	Resting EUT during f rd requirements	el. Humidity: testing s of the stand KDB 78903	30-40 lard. 3	%			
Ambient of Modificat No modifion Deviation No deviati Procedur Measureme Peak measu	ions Mad cations were s From T ions were m e Comme nts performe irements pe	e During T e made to the he Standat lade from the ents: ed in accorda rformed with:	Resting EUT during f rd requirements nce with FCC RBW=1MH2	el. Humidity: resting s of the stand KDB 78903 z, VBW=3MH	30-40 lard. 3 lz, peak dete	ector, max hc		•	la posk detector
Ambient of Modificat No modific Deviation No deviation Procedur Measureme Peak measu Jnless othe	ions Mad cations were s From T ions were m e Comme nts performe irements pe rwise stated	e During T e made to the he Standal ade from the ents: ed in accorda rformed with: //noted, emiss	Resting EUT during to rd requirements nce with FCC RBW=1MHz ion has duty	el. Humidity: resting s of the stand KDB 78903 z, VBW=3MH	30-40 lard. 3 lz, peak dete	ector, max hc		•	lz, peak detector,
Ambient of Modificat No modific Deviation No deviation No deviation Procedur Measureme Peak measu Jnless othe	ions Mad cations were s From T ions were m e Comme nts performe irements pe rwise stated	e During T e made to the he Standat lade from the ents: ed in accorda rformed with:	Resting EUT during to rd requirements nce with FCC RBW=1MHz ion has duty	el. Humidity: resting s of the stand KDB 78903 z, VBW=3MH	30-40 lard. 3 lz, peak dete	ector, max hc		•	lz, peak detector,
Ambient of Modificat No modific Deviation No deviation No deviation Procedur Measureme Peak measu Jnless othe	ions Mad cations were tons were m e Comme nts performe rwise stated de, auto swe	e During T e made to the he Standar lade from the ents: ed in accorda rformed with: i/noted, emiss eep time, max	Resting EUT during to rd requirements nce with FCC RBW=1MHz ion has duty c hold.	el. Humidity: testing s of the stand KDB 78903 z, VBW=3MH cycle $\geq$ 98%	30-40 lard. 3 lz, peak dete and was me	ector, max ho easured using	g RBW=1MH	lz, VBW=10H	lz, peak detector,
Ambient of Modificat No modific Deviation No deviation No deviation Procedur Measureme Peak measu Jnless othe	ions Mad cations were s From T ions were m e Comme nts performe irements pe rwise stated	e During T e made to the he Standal ade from the ents: ed in accorda rformed with: //noted, emiss	Resting EUT during f rd requirements nce with FCC RBW=1MHz ion has duty c hold. Duty Cycle	el. Humidity: resting s of the stand KDB 78903 z, VBW=3MH	30-40 lard. 3 lz, peak dete	ector, max hc	g RBW=1MH Lin Volt Cor	Iz, VBW=10H	lz, peak detector,
Ambient of Modificat No modific Deviation No deviation No deviation Procedur Measureme Peak measu Jnless othe	ions Mad cations were s From T fons were m e Comme nts performe rwise stated de, auto swe Mode	e During T e made to the he Standar ade from the ents: ed in accorda rformed with: i/noted, emiss eep time, max Data Rate	Resting EUT during f rd requirements nce with FCC RBW=1MHz ion has duty c hold. Duty Cycle (x)	el. Humidity: testing s of the stand c KDB 78903 c, VBW=3MH cycle ≥ 98% Constant DC?	30-40 lard. 3 lz, peak dete and was me T (ms)	ector, max ho easured using Pwr Cor Factor*	g RBW=1MH Lin Volt Cor Factor**	Min VBW=10H	lz, peak detector,
Ambient of Nodificat No modific Deviation No deviation Procedur Measureme Peak measu Juless othe	ions Mad cations were s From T ions were m e Comme nus performe rwise stated de, auto swe Mode 11a	e During T e made to the he Standar ade from the ents: ed in accorda rformed with: /noted, emiss eep time, may Data Rate 6Mb/s	Resting EUT during f rd requirements nce with FCC RBW=1MHz ion has duty c hold. Duty Cycle (x) 0.99	el. Humidity: testing s of the stand c KDB 78903 z, VBW=3MH cycle ≥ 98% Constant DC? Yes	30-40 lard. 3 lz, peak dete and was me T (ms) 8	ector, max ho easured using Pwr Cor Factor* 0	g RBW=1M⊦ Lin Volt Cor Factor** 0	Min VBW for FS (Hz)	Iz, peak detector,
Ambient of Modificat No modific Deviation No deviation Procedur Measureme Peak measu Jnless othe	ions Mad cations were s From T fons were m e Comme nts performe rwise stated de, auto swe Mode	e During T e made to the he Standar ade from the ents: ed in accorda rformed with: i/noted, emiss eep time, max Data Rate	Resting EUT during f rd requirements nce with FCC RBW=1MHz ion has duty c hold. Duty Cycle (x)	el. Humidity: testing s of the stand c KDB 78903 c, VBW=3MH cycle ≥ 98% Constant DC?	30-40 lard. 3 lz, peak dete and was me T (ms)	ector, max ho easured using Pwr Cor Factor*	g RBW=1MH Lin Volt Cor Factor**	Min VBW=10H	Iz, peak detector,

Client	Intel Mobile	Communicat	ions			Job Number:	
Model	3160SDW					T-Log Number:	
						Project Manager:	Christine Krebill
Contact	Steve Hack	ett				Project Coordinator:	-
Standard	FCC Part 1	5, RSS-210				Class:	N/A
-	/ of Result ess: 0015006	E6085C DRT	U Tool Versi Target/	on 1.7.4-84 Power	5 Driver version 16.8.0.3		r
Run #	Mode	Channel	Measured	Setting	Test Performed	Limit	Result / Margin
Scans on "o	enter" chann	nel in all four (			e the worst case mode.		
	а	40 - 5200MHz	16.5/16.4	28.5	Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15 E	63.1 dBµV/m @ 1596.0 MHz (-10.9 dB)
1	n20	40 - 5200MHz	16.5/16.6	29.0	Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15 E	63.1 dBµV/m @ 1596.0 MHz (-10.9 dB)
	n40	38 - 5190MHz	16.5/16.4	28.5	Radiated Emissions, <u>1 - 40 GHz</u>	FCC 15.209 / 15 E	63.1 dBµV/m @ 1596.0 MHz (-10.9 dB)
	ac80	42 - 5210MHz	12.0/12.0	23.0	Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15 E	45.3 dBµV/m @ 1499.0 MHz (-8.7 dB)
vieasureme	nts on low al		iels in worst-	case OFDIM	mode. n20 selected as th	ere was no difference be	tween modes 44.9 dBµV/m @ 1499.
2	n20	36 - <u>5180MHz</u>	16.5 / 16.6	29.0	Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15 E	MHz (-9.1 dB)
	n20	48 - 5240MHz	16.5 / 16.5	28.5	Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15 E	44.9 dBµV/m @ 1499. MHz (-9.1 dB)
Scans on "o	enter" chann	7	OFDM modes	s to determin	e the worst case mode.		
	а	60 - 5300MHz	16.5 / 16.4	28.5	Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15 E	44.9 dBµV/m @ 1499. MHz (-9.1 dB)
3	n20	60 - 5300MHz	16.5 / 16.5	28.5	Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15 E	44.9 dBµV/m @ 1499. MHz (-9.1 dB)
0	n40	54 - 5270MHz	15.0 / 15.1	26.5	Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15 E	44.9 dBµV/m @ 1499. MHz (-9.1 dB)
	ac80	58 - 5290MHz	14.0 / 14.1	25.5	Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15 E	44.9 dBµV/m @ 1499. MHz (-9.1 dB)
Vleasureme	nts on low ar		nels in worst-	case OFDM	mode. n20 selected as th	ere was no difference be	
4	n20	52 - 5260MHz	16.5 / 16.5	28.5	Radiated Emissions, <u>1 - 40 GHz</u>	FCC 15.209 / 15 E	45.1 dBµV/m @ 1499. MHz (-8.9 dB)
	n20	64 - 5320MHz	16.5 / 16.4	28.5	Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15 E	45.1 dBµV/m @ 1499. MHz (-8.9 dB)

		RSUCCESS				EM	C Test Data		
Client:	Intel Mobile	Communicat	tions			Job Number:	J94122		
						T-Log Number:	T94177		
Model:	3160SDW					Project Manager:	Christine Krebill		
Contact:	Steve Hack	ett				Project Coordinator: -			
Standard:	FCC Part 1	5, RSS-210				Class:	N/A		
,		ts (Contini E6085C DRT	U Tool Versi		5 Driver version 16.8.0.3				
Run #	Mode	Channel	Target Power	Power Setting	Test Performed	Limit	Result / Margin		
cans on "c	enter" chanr	-	OFDM modes	s to determir	ne the worst case mode.				
	а	116 - 5580MHz	16.5 / 16.7	30.5	Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15 E	45.8 dBµV/m @ 1499 MHz (-8.2 dB)		
_	n20	116 - 5580MHz	16.5 / 16.6	30.5	Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15 E	45.7 dBµV/m @ 1498 MHz (-8.3 dB)		
5	n40	110 - 5550MHz	16.5 / 16.7	30.5	Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15 E	45.7 dBµV/m @ 1499 MHz (-8.3 dB)		
	ac80	106 - 5530MHz	16.0 / 16.2	30.5	Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15 E	45.6 dBµV/m @ 1499 MHz (-8.4 dB)		
leasureme	nts on low a		nels in worst-	case OFDM	mode. a selected as ther	e was no difference betw			
	а	100 - 5500MHz	16.5 / 16.7	30.0	Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15 E	45.6 dBµV/m @ 9000 MHz (-8.4 dB)		
6	а	144- 5720MHz	16.5 / 16.6	31.5	Radiated Emissions, 1 - 40 GHz	FCC 15.209 / 15 E	46.1 dBµV/m @ 9000 MHz (-7.9 dB)		
Neasurer	-	ific Notes		hands the l	imit is -27dBm/MHz eirp (	68 3dBuV/m) The mass			
Note 1:	required is a	a peak measi	urement (RB=	=1MHz, VB≥	3MHz, peak detector). Prints of 15.209, as an alter	er KDB 789033 2) c) (i), c			
Note 2:	Emission ha		≥ 98%, avera		ement performed: RBW=1		Power averaging, auto		
Note 3:	Emission ha	as duty cycle	< 98%, but c		rage measurement perfor 1/DC traces, measureme				
Note 4:	Emission ha	as duty cycle	< 98% and is	NOT consta	ant, average measuremer	nt performed: RBW=1MH	z, VBW> 1/T, peak		
Note 5:			< 98%, but c		nax hold. Max hold for 50 rage measurement perfor		=3MHz, RMS, Power		

 Note 5:
 averaging, auto sweep, trace average 100 \* 1/DC traces, measurement corrected by Pwr correction factor

 Note 6:
 Plots of the average and peak bandedge do not account for any duty cycle correction. Refer to the tabluar results for final measurements.

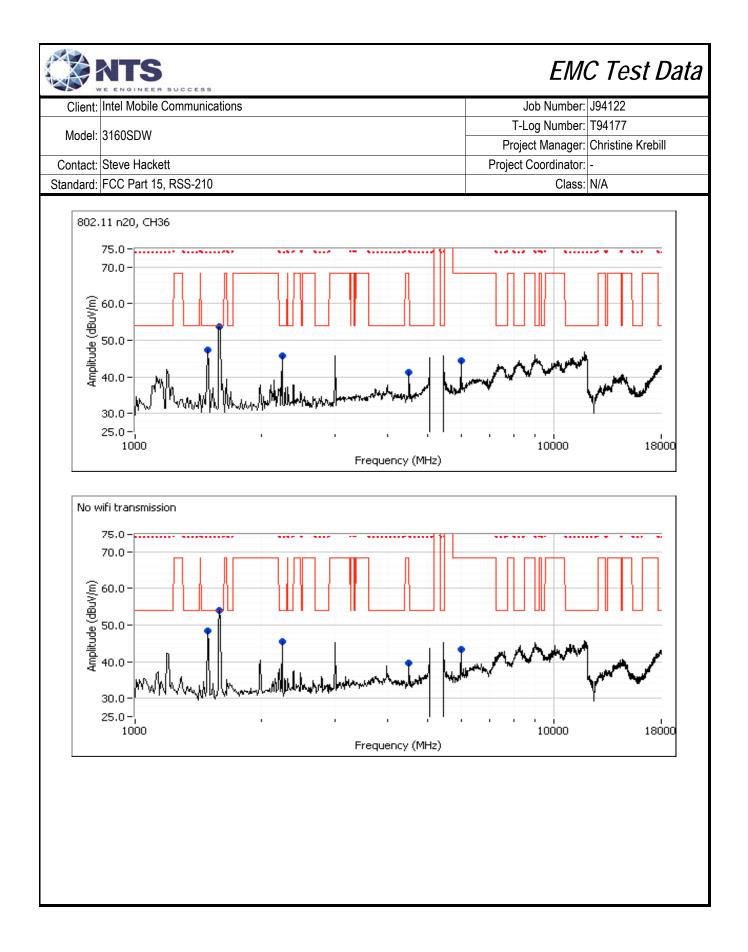
Ullent:	Intel Mobile (	Communica	tions					Job Number: J94122
							T-	Log Number: T94177
Model:	3160SDW						Proj	ject Manager: Christine Krebill
Contact:	Steve Hacke	tt						t Coordinator: -
Standard:	FCC Part 15	RSS-210						Class: N/A
[ Te	diated Spuric Date of Test: est Engineer: est Location:	1/2/2014 M. Birgani		40,000 MHz	Con	n the 5150-5 onfig. Used: ifig Change: UT Voltage:	-	
Run #1a: C	enter Channe	9						
Channel:	40		Mode:	11a		rget Power:		Power Setting: 28.5
Tx Chain:	Main		Data Rate:			ured Power:		
Frequency		Pol		9 / 15E	Detector	Azimuth	Height	Comments
MHz 1596.010	dBµV/m 63.1	v/h V	Limit 74.0	Margin -10.9	Pk/QP/Avg PK	degrees 9	meters 1.5	RB 1 MHz;VB 3 MHz;Peak, note
1593.410	42.7	V	54.0	-10.7	AVG	9	1.5	RB 1 MHz;VB 10 Hz;Peak, note 3
2211.220	35.1	V	54.0	-18.9	AVG	24	1.0	RB 1 MHz;VB 10 Hz;Peak, note 3
1151.770	32.3	Н	54.0	-21.7	AVG	159	2.3	RB 1 MHz;VB 10 Hz;Peak
1152.910	49.7	Н	74.0	-24.3	PK	159	2.3	RB 1 MHz;VB 3 MHz;Peak
2209.770	45.2	V	74.0	-28.8	PK	24	1.0	RB 1 MHz;VB 3 MHz;Peak, note
Note:					urement anter issions in this			ard and its antennas 20-50cm from
Note 1:								and peak measurements.
Note 2:							68.3dBuV/n	n). The measurement method
NULE Z.	required is a				<u>≥3MHz, peak o</u> not drop	detector).		
	Stopped the		n, but the sig		not urop.			
	Stopped the							
Note 3:	Stopped the							
Note 3:	11a, channe 90.0 - 80.0 - 70.0 -							
Note 3: 802.	11a, channe 90.0 - 80.0 - 70.0 - 60.0 - 50.0 -							
Note 3: 802. (ɯ//mgp) əpnţildwy	11a, channe 90.0 - 80.0 - 70.0 - 60.0 -							

		SUCCESS						EMC Test Data	
Client:	Intel Mobile	Communicat	tions					Job Number: J94122	
							T-L	_og Number: T94177	
Model:	3160SDW						Proje	ect Manager: Christine Krebill	
Contact:	Steve Hacke	ett					Project Coordinator: -		
	FCC Part 15						Class: N/A		
Stanuaru.		,1100-210						01033. 11/1	
Run #1b: C	Center Chani	nel							
Channel:	40		Mode:	11n20	Та	rget Power:	16.5dBm	Power Setting: 29.0	
x Chain:	Main		Data Rate:	HT0		ured Power:		6	
Frequency	Level	Pol		9 / 15E	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
1596.010	63.1	V	74.0	-10.9	PK	9	1.5	RB 1 MHz;VB 3 MHz;Peak, note 3	
1593.410	42.7	V	54.0	-11.3	AVG	9	1.5	RB 1 MHz;VB 10 Hz;Peak, note 3	
ide (dBuV/m)	For emissior	ns outside of peak measi transmission	the restricte urement (RB	d bands the =1MHz, VB≥	limit is -27dBr :3MHz, peak (	m/MHz eirp (		and peak measurements. ). The measurement method	
	40.0 - 30.0 - 25.0 - 1000	VI WW	uruntutututututututututututututututututu	Nel humanna	Frequency	/ <b>MH</b> z)		10000 18000	

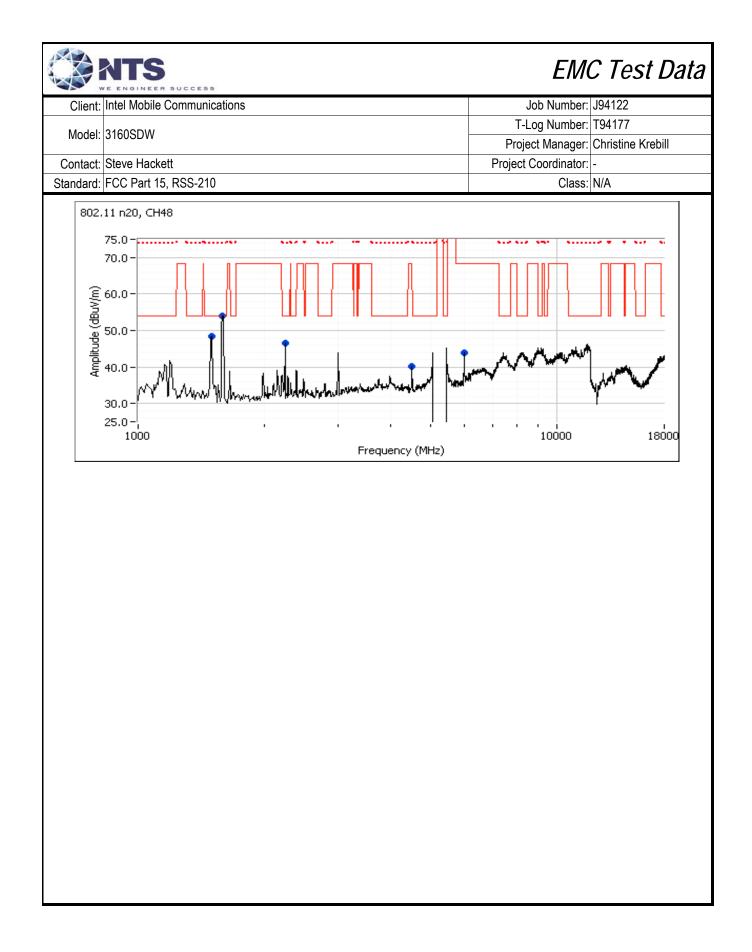
		SUCCESS						EMC Test Data		
Client:	Intel Mobile	Communicat	ions				,	Job Number: J94122		
M. L.L	040000144						T-L	_og Number: T94177		
Wodel:	3160SDW						Proje	ect Manager: Christine Krebill		
Contact <sup>.</sup>	Steve Hacke	ett					-	Coordinator: -		
	FCC Part 15						Class: N/A			
Stanuaru.	TOUTAILIS	, 1100-210						Class. N/A		
Run #1c: C	Center Chanı	nel								
Channel:	38		Mode:	11n40	Та	rget Power:	16.5dBm	Power Setting: 28.5		
Tx Chain:	Main		Data Rate:			ured Power:		i olioi oottaligi 2010		
Frequency	Level	Pol		9/15E	Detector	Azimuth	Height	Comments		
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters			
1596.010	63.1	V	74.0	-10.9	PK	9	1.5	RB 1 MHz;VB 3 MHz;Peak, note 3		
1593.410	42.7	V	54.0	-11.3	AVG	9	1.5	RB 1 MHz;VB 10 Hz;Peak, note 3		
	required is a	peak meası transmissior channel 38		=1MHz, VB≥	3MHz, peak			). The measurement method		

		SUCCESS						EMO	C Test Data
Client:	Intel Mobile	Communica	tions					Job Number:	J94122
Madal	246000W						T-	Log Number:	T94177
	3160SDW						Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	ett					Project	Coordinator:	-
Standard:	FCC Part 15	5, RSS-210						Class:	N/A
Run #1d:(	Center Chani	nel							
Channel:	42		Mode:	ac80	Та	rget Power:	12.0dBm	Po	wer Setting: 23.0
Tx Chain:	Main		Data Rate:	VHT0		ured Power:			0
Frequency	Level	Pol		9/15E	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
1498.950	45.3	V	54.0	-8.7	AVG	338	1.5	RB 1 MHz;V	'B 10 Hz;Peak, note 3
2248.530	45.1	V	54.0	-8.9	AVG	22	1.0		'B 10 Hz;Peak, note 3
1598.400	41.2	V	54.0	-12.8	AVG	0	1.5	RB 1 MHz;V	'B 10 Hz;Peak, note 3
1599.850	58.2	V	74.0	-15.8	PK	0	1.5	RB 1 MHz;V	'B 3 MHz;Peak, note 3
2249.280	53.0	V	74.0	-21.0	PK	22	1.0		'B 3 MHz;Peak, note 3
1496.680	52.5	V	74.0	-21.5	PK	338	1.5	RB 1 MHz;V	B 3 MHz;Peak, note 3
	the device in For emission For emission required is a	ndicated ther ns in restricter ns outside of peak meas transmissio	e were no sig ed bands, the the restricte urement (RB n, but the sig	gnificant emia e limit of 15.2 d bands the =1MHz, VB≥	ssions in this 209 was used limit is -27dBr 23MHz, peak o	frequency ra which requir n/MHz eirp ( detector).	inge es average	and peak mea	tennas 20-50cm from asurements. urement method

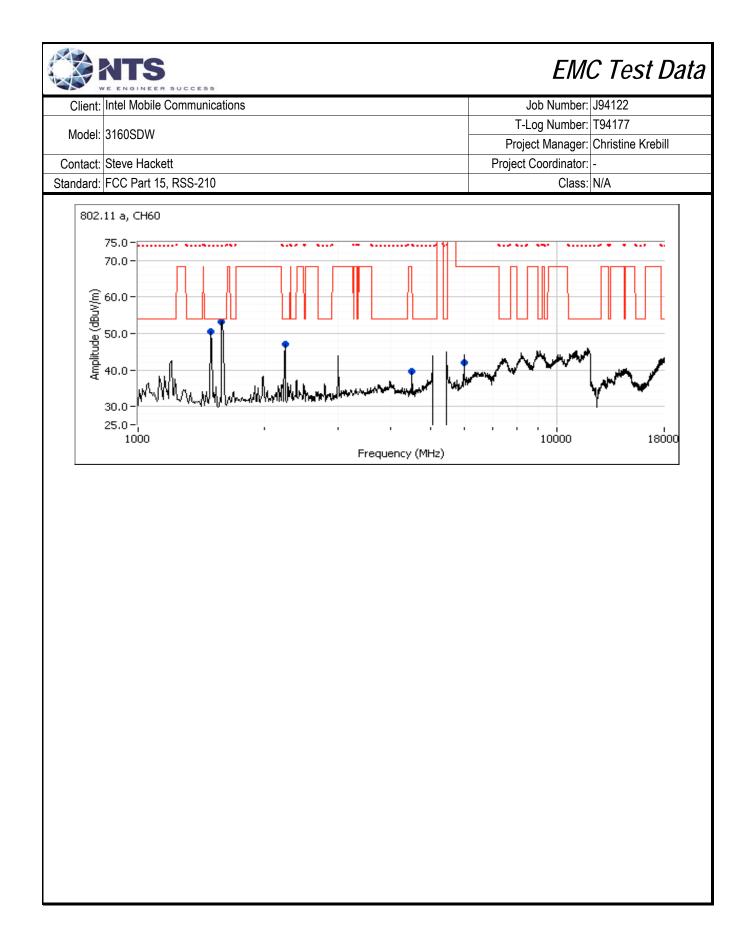
		SUCCESS							C Test Data		
Client:	Intel Mobile	Communica	tions					Job Number:			
Model	3160SDW						T-	Log Number:	T94177		
MOUEI.	31003010						Proj	ect Manager:	Christine Krebill		
Contact:	Steve Hacke	ett					Project Coordinator: -				
Standard:	FCC Part 15	, RSS-210					Class: N/A				
ם Te Te	idiated Spur Date of Test: est Engineer: est Location: ow Channel	1/3/2014 & Jack Liu	1/6/14	40000 MHz	Con	onfig. Used: fig Change:	-		use 120V/60Hz		
	36 Port 2		Mode: Data Rate:	n20 HT0		rget Power: ured Power:		Pc	ower Setting: 29.0		
Frequency	Level	Pol	15 209	/ 15.247	Detector	Azimuth	Height	Comments			
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	Commonito			
1499.090	44.9	V	54.0	-9.1	AVG	91	1.0	Note 8			
1499.300	53.7	V	74.0	-20.3	PK	91	1.0	Note 8			
4497.000	34.9	V	54.0	-19.1	AVG	112	1.3	Note 7a, 8			
4497.200	46.2	V	74.0	-27.8	PK	112	1.3	Note 7a, 8			
1598.670	37.9	V	54.0	-16.1	AVG	91	1.0	Note 8			
1599.070	60.5	V	74.0	-13.5	PK	91	1.0	Note 8			
2248.670	41.8	V	54.0	-12.2	AVG	122	1.0	Note 8			
2246.600	51.7	V	74.0	-22.3	PK	122	1.0	Note 8			
6000.470	38.0	V	54.0	-16.0	AVG	260	1.0	Note 7a, 8			
6000.370	44.9	V	74.0	-29.1	PK	260	1.0	Note 7a, 8			
Note: Note 7a: Note 7b:	the device in Refer to Mea For emission Refer to Mea	dicated ther asurement S as in restricte asurement S	e were no sig pecific Notes ed bands, the pecific Notes	gnificant emi 5 1: 9 limit of 15.2 5 1:	issions in this 209 was used	frequency ra which requir	inge es average	and peak me	tennas 20-50cm from asurements. urement method		
					≥3MHz, peak		00.00000/11	ny. The meas			
Note 8 <sup>.</sup>											
Note 8:			n, but the sig			,					



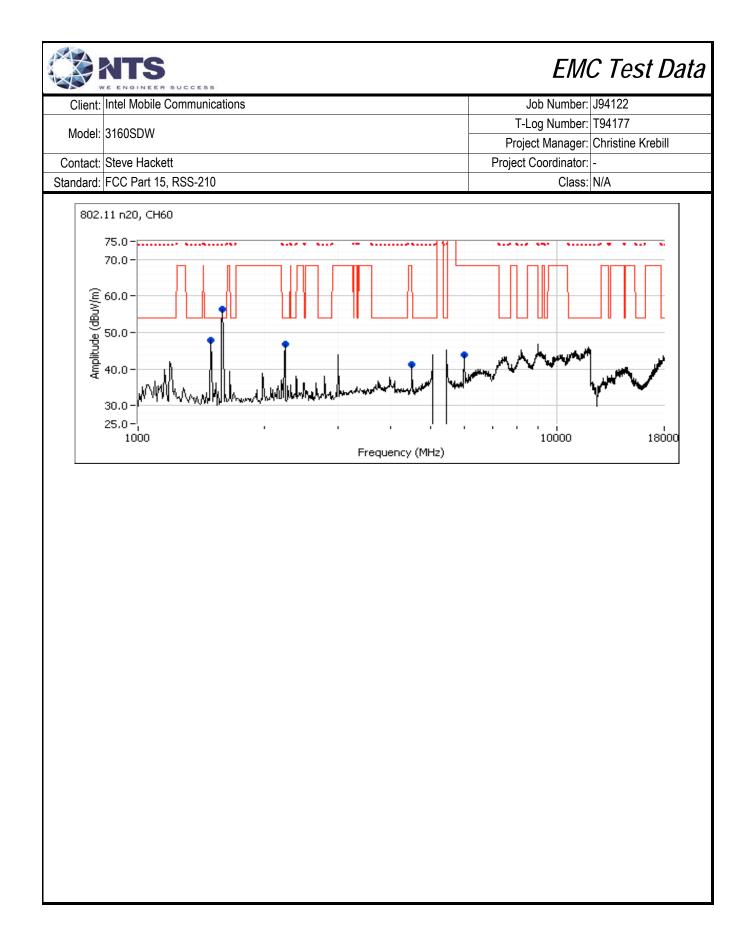
	NTS VE ENGINEER	SUCCESS						EMC Test Data		
Client:	Intel Mobile	Communicat	tions					Job Number: J94122		
Madal	240000						T-	Log Number: T94177		
wodel:	3160SDW						Proj	ect Manager: Christine Krebill		
Contact:	Steve Hacke	tt					Project Coordinator: -			
Standard:	FCC Part 15	, RSS-210						Class: N/A		
Run #2b: H	igh Channel									
Channel: Tx Chain:	48 Port 2		Mode: Data Rate:	n20 нто		rget Power: ured Power:		Power Setting: 28.5		
	10112		Data Nato.		10.50Dill					
Frequency	Level	Pol	15.209	15.247	Detector	Azimuth	Height	Comments		
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters			
1499.090	44.9	V	54.0	-9.1	AVG	91	1.0	Note 8		
1499.300	53.7	V	74.0	-20.3	PK	91	1.0	Note 8		
4497.000	34.9	V	54.0	-19.1	AVG	112	1.3	Note 7a, 8		
4497.200	46.2	V	74.0	-27.8	PK	112	1.3	Note 7a, 8		
1598.670	37.9	V V	54.0	-16.1	AVG	91	1.0	Note 8		
1599.070 2248.670	60.5 41.8	V V	74.0 54.0	-13.5 -12.2	PK AVG	91 122	1.0 1.0	Note 8 Note 8		
2246.600	51.7	V V	74.0	-12.2	PK	122	1.0	Note 8		
6000.470	38.0	V	54.0	-16.0	AVG	260	1.0	Note 7a, 8		
6000.370	44.9	V	74.0	-29.1	PK	260	1.0	Note 7a, 8		
Note:		dicated ther	e were no sig	nificant emi	urement anter issions in this			ard and its antennas 20-50cm from		
Note 7a:		is in restricte	ed bands, the	limit of 15.2	209 was used	which requir	es average	and peak measurements.		
Note 7b:	For emission	is outside of	the restricted	d bands the	limit is -27dBr ≥3MHz, peak (		68.3dBuV/n	n). The measurement method		
Note 8:	Stopped the					,				



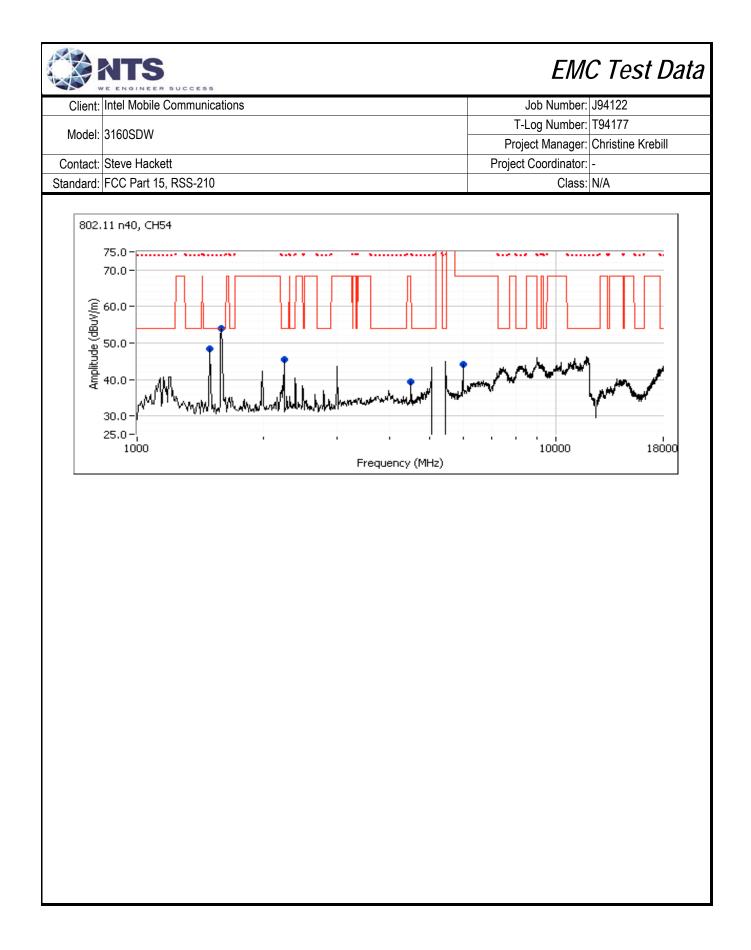
		SUCCESS						EM	C Test Data
Client:	Intel Mobile	Communica	tions					Job Number:	J94122
							T-	Log Number:	T94177
Model:	3160SDW						Proj	ect Manager:	Christine Krebill
Contact.	Steve Hacke	ett						Coordinator:	
	FCC Part 15							Class:	
Otaridara.	10010110	,1100 210						01000.	
Te Ti	diated Spurie Date of Test: est Engineer: est Location: enter Chann	1/3/2014 & Jack Liu Chamber #	1/6/14	40,000 MHz	Con	onfig. Used: ifig Change:	-		use 120V/60Hz
Channel:	60		Mode:	11a	Та	rget Power:	16.5dBm	Po	ower Setting: 28.5
Tx Chain:	Port 2		Data Rate:	6Mb/s	Meas	ured Power:	16.4dBm		
Frequency	Level	Pol	15.209	) / 15E	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
1499.090	44.9	V	54.0	-9.1	AVG	91	1.0	Note 8	
1499.300	53.7	V	74.0	-20.3	PK	91	1.0	Note 8	
4497.000	34.9	V	54.0	-19.1	AVG	112	1.3	Note 7a, 8	
4497.200	46.2	V	74.0	-27.8	PK	112	1.3	Note 7a, 8	
1598.670	37.9	V	54.0	-16.1	AVG	91	1.0	Note 8	
1599.070	60.5	V	74.0	-13.5	PK	91	1.0	Note 8	
2248.670	41.8	V	54.0	-12.2	AVG	122	1.0	Note 8	
2246.600	51.7	V	74.0	-22.3	PK	122	1.0	Note 8	
6000.470	38.0	V	54.0	-16.0	AVG	260	1.0	Note 7a, 8	
6000.370	44.9	V	74.0	-29.1	PK	260	1.0	Note 7a, 8	
Note: Note 7a:	the device in Refer to Mea For emission	dicated the asurement S as in restrict	re were no sig Specific Notes	nificant em 1: limit of 15.2	urement anter issions in this 209 was used	frequency ra	ange		itennas 20-50cm from asurements.
Note 7b:	For emission	is outside of	the restricted	l bands the	limit is -27dBr ≥3MHz, peak (		(68.3dBuV/m	n). The meas	urement method
Note 8:		•	n, but the sig			/			



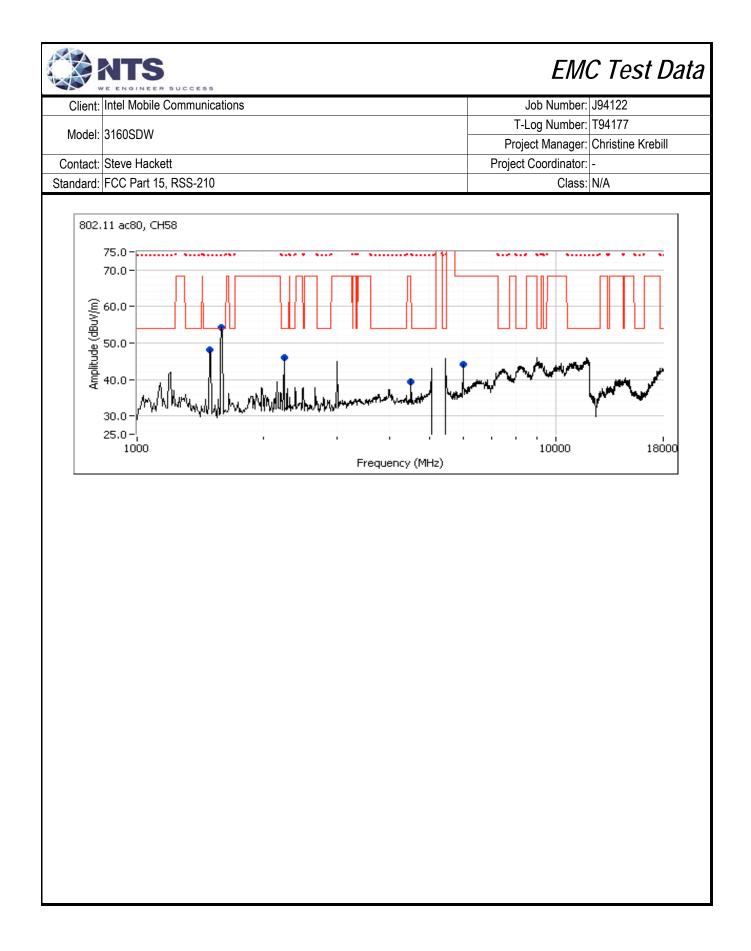
11n20 HT0 15E Margin -9.1 -20.3 -19.1 -27.8 -16.1 -13.5 -12.2 -22.3 -16.0 -29.1		Azimuth degrees 91 112 112 91 91 91 122 122	T- Proj Project	Job Number: J94122 Log Number: T94177 ect Manager: Christine Krebill t Coordinator: - Class: N/A Power Setting: 28.5 Comments Note 8 Note 8 Note 7a, 8 Note 7a, 8 Note 8 Note 8 Note 8
HT0 15E Margin -9.1 -20.3 -19.1 -27.8 -16.1 -13.5 -12.2 -22.3 -16.0	Mease Detector Pk/QP/Avg AVG PK AVG PK AVG PK AVG PK	Azimuth degrees 91 91 112 112 91 91 91 122	Project Project 16.5dBm 16.5dBm Height meters 1.0 1.0 1.3 1.3 1.0 1.0 1.0	ect Manager: Christine Krebill t Coordinator: - Class: N/A Power Setting: 28.5 Comments Note 8 Note 8 Note 7a, 8 Note 7a, 8 Note 8 Note 8 Note 8 Note 8 Note 8
HT0 15E Margin -9.1 -20.3 -19.1 -27.8 -16.1 -13.5 -12.2 -22.3 -16.0	Mease Detector Pk/QP/Avg AVG PK AVG PK AVG PK AVG PK	Azimuth degrees 91 91 112 112 91 91 91 122	Project 16.5dBm 16.5dBm Height meters 1.0 1.3 1.3 1.0 1.0 1.0	Coordinator: - Class: N/A Power Setting: 28.5 Comments Note 8 Note 8 Note 7a, 8 Note 7a, 8 Note 7a, 8 Note 8 Note 8 Note 8
HT0 15E Margin -9.1 -20.3 -19.1 -27.8 -16.1 -13.5 -12.2 -22.3 -16.0	Mease Detector Pk/QP/Avg AVG PK AVG PK AVG PK AVG PK	Azimuth degrees 91 91 112 112 91 91 91 122	16.5dBm 16.5dBm Height meters 1.0 1.0 1.3 1.3 1.0 1.0 1.0	Class: N/A Power Setting: 28.5 Comments Note 8 Note 8 Note 7a, 8 Note 7a, 8 Note 8 Note 8 Note 8 Note 8 Note 8 Note 8
HT0 15E Margin -9.1 -20.3 -19.1 -27.8 -16.1 -13.5 -12.2 -22.3 -16.0	Mease Detector Pk/QP/Avg AVG PK AVG PK AVG PK AVG PK	Azimuth degrees 91 91 112 112 91 91 91 122	16.5dBm Height neters 1.0 1.0 1.3 1.3 1.3 1.0 1.0	Power Setting: 28.5 Comments Note 8 Note 8 Note 7a, 8 Note 7a, 8 Note 7a, 8 Note 8 Note 8 Note 8
HT0 15E Margin -9.1 -20.3 -19.1 -27.8 -16.1 -13.5 -12.2 -22.3 -16.0	Mease Detector Pk/QP/Avg AVG PK AVG PK AVG PK AVG PK	Azimuth degrees 91 91 112 112 91 91 91 122	16.5dBm Height neters 1.0 1.0 1.3 1.3 1.3 1.0 1.0	Comments Note 8 Note 8 Note 7a, 8 Note 7a, 8 Note 7a, 8 Note 8 Note 8
HT0 15E Margin -9.1 -20.3 -19.1 -27.8 -16.1 -13.5 -12.2 -22.3 -16.0	Mease Detector Pk/QP/Avg AVG PK AVG PK AVG PK AVG PK	Azimuth degrees 91 91 112 112 91 91 91 122	16.5dBm Height neters 1.0 1.0 1.3 1.3 1.3 1.0 1.0	Comments Note 8 Note 8 Note 7a, 8 Note 7a, 8 Note 7a, 8 Note 8 Note 8
15E Margin -9.1 -20.3 -19.1 -27.8 -16.1 -13.5 -12.2 -22.3 -16.0	Mease Detector Pk/QP/Avg AVG PK AVG PK AVG PK AVG PK	Azimuth degrees 91 91 112 112 91 91 91 122	16.5dBm Height neters 1.0 1.0 1.3 1.3 1.3 1.0 1.0	Comments Note 8 Note 8 Note 7a, 8 Note 7a, 8 Note 7a, 8 Note 8 Note 8
Margin -9.1 -20.3 -19.1 -27.8 -16.1 -13.5 -12.2 -22.3 -16.0	Pk/QP/Avg AVG PK AVG PK AVG PK AVG PK	degrees           91           91           112           112           91           91           91           91           91           92	meters           1.0           1.3           1.3           1.0           1.0	Note 8           Note 8           Note 7a, 8           Note 7a, 8           Note 8           Note 8
-9.1 -20.3 -19.1 -27.8 -16.1 -13.5 -12.2 -22.3 -16.0	AVG PK AVG PK AVG PK AVG PK	91 91 112 112 91 91 122	1.0 1.0 1.3 1.3 1.0 1.0	Note 8           Note 7a, 8           Note 7a, 8           Note 8           Note 8
-20.3 -19.1 -27.8 -16.1 -13.5 -12.2 -22.3 -16.0	PK AVG PK AVG PK AVG PK	91 112 112 91 91 122	1.0 1.3 1.3 1.0 1.0	Note 8           Note 7a, 8           Note 7a, 8           Note 8           Note 8
-19.1 -27.8 -16.1 -13.5 -12.2 -22.3 -16.0	AVG PK AVG PK AVG PK	112 112 91 91 122	1.3 1.3 1.0 1.0	Note 7a, 8 Note 7a, 8 Note 8 Note 8
-27.8 -16.1 -13.5 -12.2 -22.3 -16.0	PK AVG PK AVG PK	112 91 91 122	1.3 1.0 1.0	Note 7a, 8 Note 8 Note 8
-16.1 -13.5 -12.2 -22.3 -16.0	AVG PK AVG PK	91 91 122	1.0 1.0	Note 8 Note 8
-13.5 -12.2 -22.3 -16.0	PK AVG PK	91 122	1.0	Note 8
-12.2 -22.3 -16.0	AVG PK	122		
-22.3 -16.0	PK		1.0	Note 8
-16.0			1.0	Note 8
	AVG	260	1.0	Note 7a, 8
-29.1	PK	260	1.0	Note 7a, 8
ficant emis				ard and its antennas 20-50cm from
nit of 15.2	09 was used	which requir	es average	and peak measurements.
ands the l		•	(68.3dBuV/n	n). The measurement method
		/		
f T N	icant emi nit of 15.2 ands the /IHz, VB≥	icant emissions in this hit of 15.209 was used ands the limit is -27dBr	icant emissions in this frequency ra nit of 15.209 was used which requir ands the limit is -27dBm/MHz eirp ( /IHz, VB≥3MHz, peak detector).	icant emissions in this frequency range hit of 15.209 was used which requires average ands the limit is -27dBm/MHz eirp (68.3dBuV/n /IHz, VB≥3MHz, peak detector).



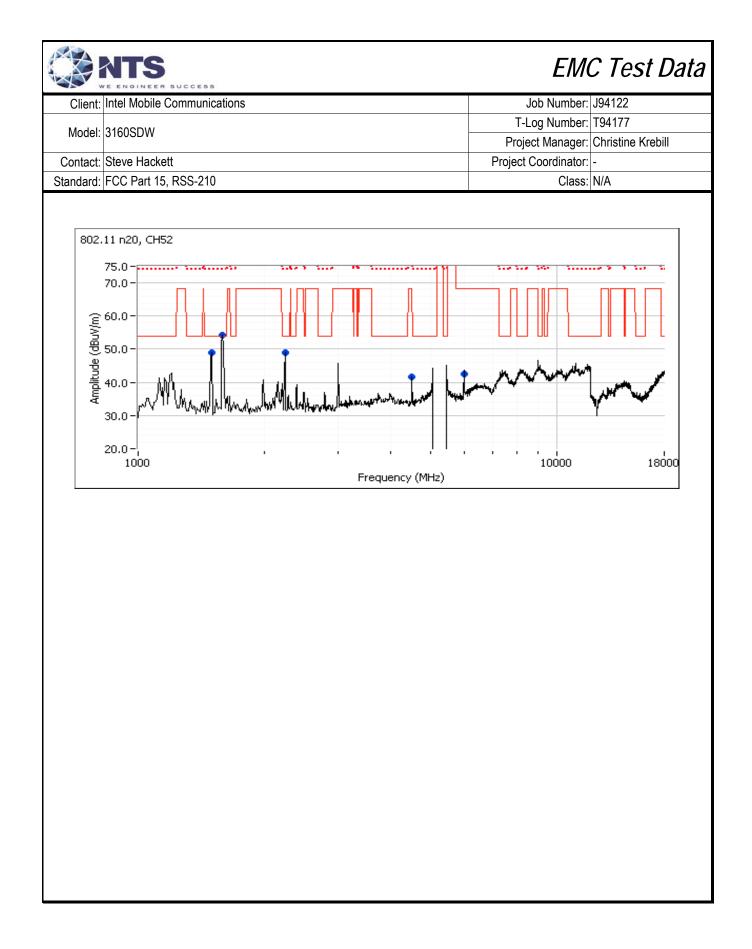
		SUCCESS						EIVIC	C Test Data
Client:	Intel Mobile (	Communicat	ions					Job Number:	J94122
	04000014						T-	Log Number:	T94177
Model:	3160SDW						Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	tt					-	Coordinator:	
	FCC Part 15							Class:	
	I							0.000	
Run #3C: C	enter Chann	iei							
Channel:	54		Mode:	11n40		rget Power:		Po	wer Setting: 26.5
Tx Chain:	Port 2		Data Rate:	HT0	Measu	ured Power:	15.1dBm		
Frequency	Level	Pol	15.209	/ 15E	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
1499.090	44.9	V	54.0	-9.1	AVG	91	1.0	Note 8	
1499.300	53.7	V	74.0	-20.3	PK	91	1.0	Note 8	
4497.000	34.9	V	54.0	-19.1	AVG	112	1.3	Note 7a, 8	
4497.200	46.2	V V	74.0	-27.8 -16.1	PK	112	1.3	Note 7a, 8	
1598.670 1599.070	37.9 60.5	V V	54.0 74.0	-16.1	AVG PK	91 91	1.0 1.0	Note 8 Note 8	
2248.670	41.8	V	54.0	-13.3	AVG	122	1.0	Note 8	
2246.600	51.7	V	74.0	-12.2	PK	122	1.0	Note 8	
6000.470	38.0	V	54.0	-16.0	AVG	260	1.0	Note 7a, 8	
6000.370	44.9	V	74.0	-29.1	PK	260	1.0	Note 7a, 8	
Note:	the device in	dicated ther	e were no sig	nificant emi	urement anter issions in this			ard and its an	tennas 20-50cm from
Note 7a:	For emission	s in restricte		limit of 15.2	209 was used	which requir	es average	and peak mea	asurements.
Note 7b:	For emission	s outside of		I bands the	limit is -27dBr ≥3MHz, peak (		68.3dBuV/m	n). The meas	urement method
Note 8:	Stopped the	transmissio	n, but the sigr	nal level did	not drop.				



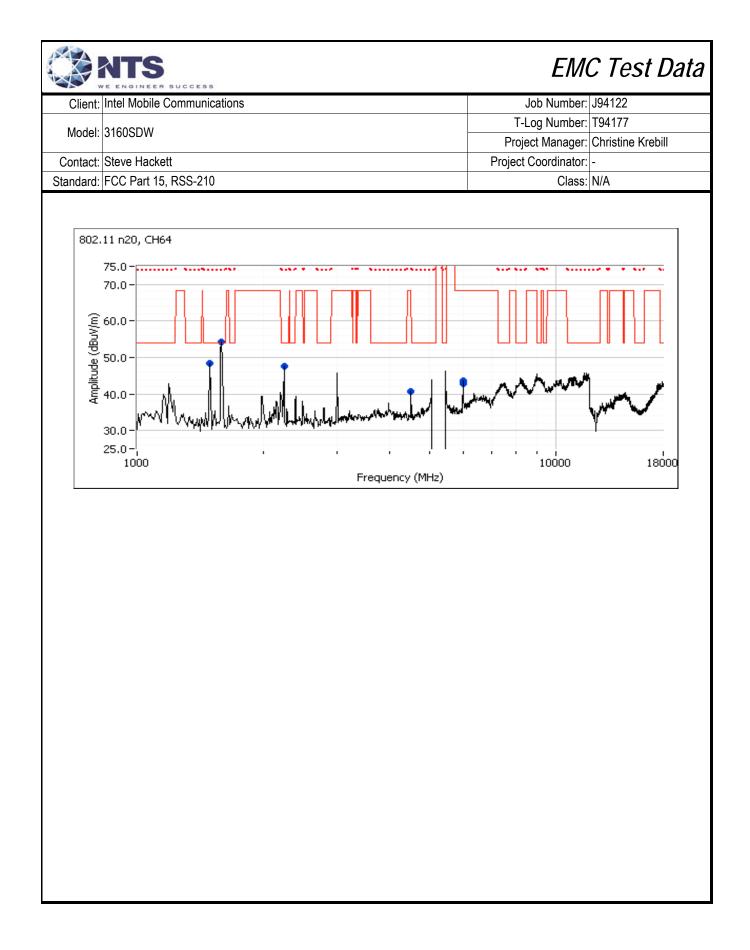
	VE ENGINEER	SUCCESS						
Client:	Intel Mobile	Communica	tions					Job Number: J94122
Model:	3160SDW							Log Number: T94177
							,	ect Manager: Christine Krebill
Contact:	Steve Hacke	ett					Project	Coordinator: -
Standard:	FCC Part 15	, RSS-210						Class: N/A
Run #3d:(	Center Chanr	nel						
Channel:	58		Mode:	ac80	Та	rget Power:	14 0dBm	Power Setting: 25.5
x Chain:	Port 2		Data Rate:	VHT0		ured Power:		Tonor Colling. 20.0
Frequency	Level	Pol	15.209	/ 15E	Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1499.090	44.9	V	54.0	-9.1	AVG	91	1.0	Note 8
1499.300	53.7	V	74.0	-20.3	PK	91	1.0	Note 8
4497.000	34.9	V	54.0	-19.1	AVG	112	1.3	Note 7a, 8
4497.200	46.2	V	74.0	-27.8	PK	112	1.3	Note 7a, 8
1598.670	37.9	V	54.0	-16.1	AVG	91	1.0	Note 8
1599.070	60.5	V	74.0	-13.5	PK	91	1.0	Note 8
2248.670	41.8	V	54.0	-12.2	AVG	122	1.0	Note 8
2246.600	51.7	V V	74.0	-22.3	PK	122	1.0	Note 8
6000.470 6000.370	38.0 44.9	V	54.0 74.0	-16.0 -29.1	AVG PK	260 260	1.0 1.0	Note 7a, 8 Note 7a, 8
0000.370	44.9	V	74.0	-29.1	FN	200	1.0	Note 7a, o
Note:					urement anter ssions in this			ard and its antennas 20-50cm from
Note 7a:	For emissior	ns in restricte		limit of 15.2	209 was used	which requir	res average	and peak measurements.
Note 7b:	For emissior	ns outside of		I bands the		•	(68.3dBuV/n	n). The measurement method
Note 8:						, , , ,		
Note 7b:	required is a	peak meas		=1MHz, VB≥	≥3MHz, peak o	•	(68.3dBuV/n	n). The measurement meth



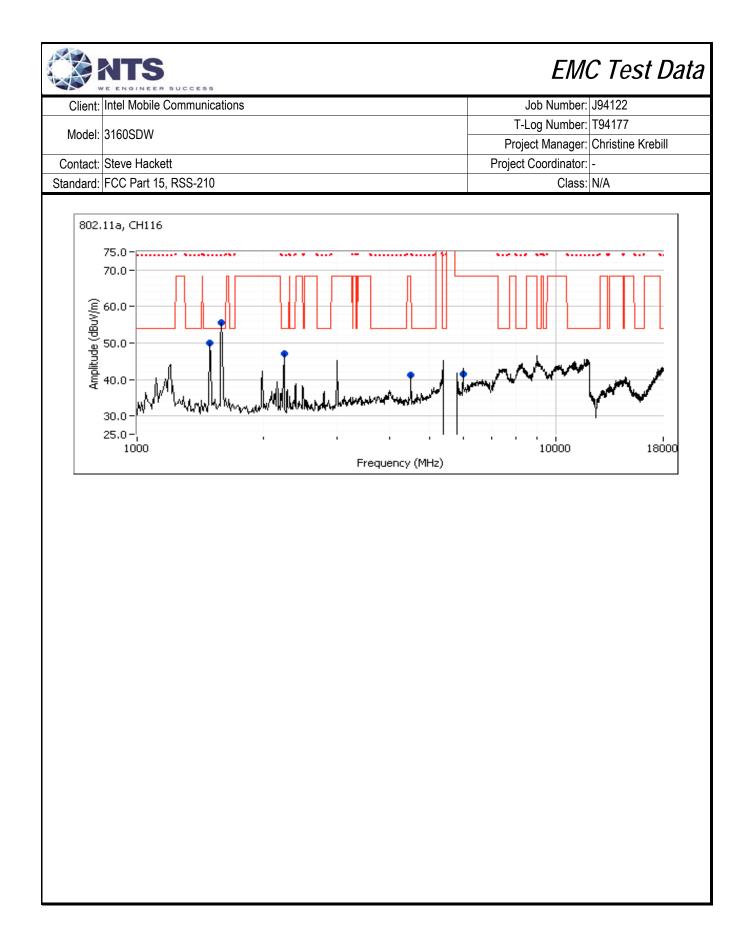
Client:	Intel Mobile (	Communica	tions					Job Number:	J94122
							T-	Log Number:	T94177
Model:	3160SDW							-	Christine Krebill
Contact:	Steve Hacke	tt					-	Coordinator:	
	FCC Part 15							Class:	
	adiated Spuri		ions 1000-	40000 MH-	Operating N	Inde: Wors	se case from		
Te T	Date of Test: est Engineer: est Location:	1/3/2014 &1 Rafael Vare	l/6/14 elas / Jack Liu		C Cor	onfig. Used: Ifig Change:	-		use 120V/60Hz
0.	50		Mada	11-00	т.			D.	
Channel:	52 Dort 2		Mode: Data Rate:	11n20 HT0		arget Power: ured Power:		Po	wer Setting: 28.5
Tx Chain:	Port 2		Dala Rale:	ΠIV	weas	ureu Power:	10.30BIII		
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
1499.090	45.1	V	54.0	-8.9	AVG	85	1.0	Note 8	
1499.440	53.0	V	74.0	-21.0	PK	85	1.0	Note 8	
2248.690	44.7	V	54.0	-9.3	AVG	125	1.0	Note 8	
2248.640	52.6	V	74.0	-21.4	PK	125	1.0	Note 8	
4497.090	35.6	V	54.0	-18.4	AVG	107	1.0	Note 7a, 8	
4496.020	47.1	V	74.0	-26.9	PK	107	1.0	Note 7a, 8	
1592.900	44.6	V	54.0	-9.4	AVG	101	1.0	Note 8	
1593.230	59.2	V	74.0	-14.8	PK	101	1.0	Note 8	
6000.420	38.4	Н	54.0	-15.6	AVG	98	1.1	Note 7a, 8	
6000.370	46.4	Н	74.0	-27.6	PK	98	1.1	Note 7a, 8	
Note: Note 7a: Note 7b:	the device in Refer to Mea For emission Refer to Mea For emission	dicated then surement S s in restricto surement S s outside of	re were no sig pecific Notes ed bands, the pecific Notes f the restricted	gnificant em 5 1: 9 limit of 15.2 5 1: d bands the	issions in this 209 was used	frequency ra which requir n/MHz eirp (	ange es average	and peak me	tennas 20-50cm from asurements. urement method
				nal level did		,			



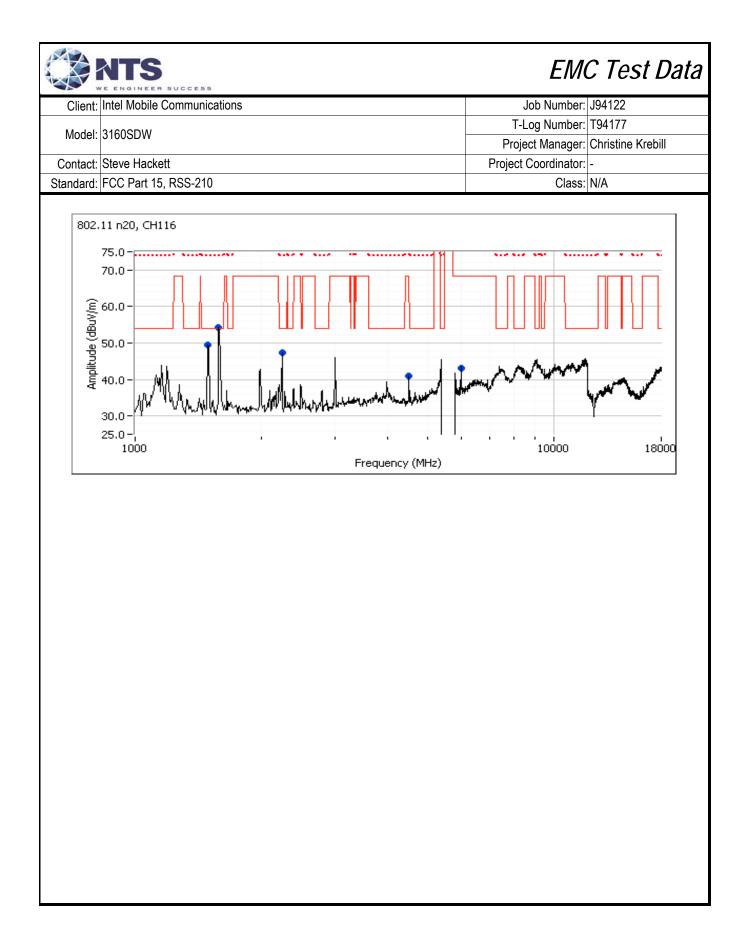
Client <sup>.</sup>	Intel Mobile (	Communica	tions					Job Number:	J94122
Oliont.								Log Number:	
Model:	3160SDW							0	Christine Krebill
Contact	Steve Hacke	++					-	Coordinator:	
	FCC Part 15,						Појесі	Class:	- Ν/Λ
		, 1100-210						01855.	
(UN #4D) H	ligh Channel								
Channel:	64		Mode:	11n20	Та	rget Power:	16.5dBm	Po	wer Setting: 28.5
x Chain:	Port 2		Data Rate:	HT0		ured Power:			<b>j</b>
requency	Level	Pol		15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
1499.090	45.1	V	54.0	-8.9	AVG	85	1.0	Note 8	
1499.440 2248.690	53.0 44.7	V	74.0 54.0	-21.0 -9.3	PK AVG	85 125	1.0 1.0	Note 8 Note 8	
2248.690	52.6	 V	54.0 74.0	-9.5	PK	125	1.0	Note 8	
4497.090	35.6	V	54.0	-18.4	AVG	123	1.0	Note 7a, 8	
4496.020	47.1	V	74.0	-26.9	PK	107	1.0	Note 7a, 8	
1592.900	44.6	V	54.0	-9.4	AVG	101	1.0	Note 8	
1593.230	59.2	V	74.0	-14.8	PK	101	1.0	Note 8	
6000.420	38.4	Н	54.0	-15.6	AVG	98	1.1	Note 7a, 8	
6000.370	46.4	Н	74.0	-27.6	PK	98	1.1	Note 7a, 8	
lote:								ard and its an	tennas 20-50cm from
					ssions in this	frequency ra	inge		
lote 7a:	Refer to Mea		•		00				
					209 was used	which requir	es average	and peak mea	asurements.
lata 7h	Refer to Mea		•			n /MII – sime /	CO 24D. 1//-	-) The mean	
lote 7b:					:3MHz, peak		00.30BUV/II	n). The meas	urement method
	required is a					Jelecior).			
ote 8:	Stopped the	tranamiania							



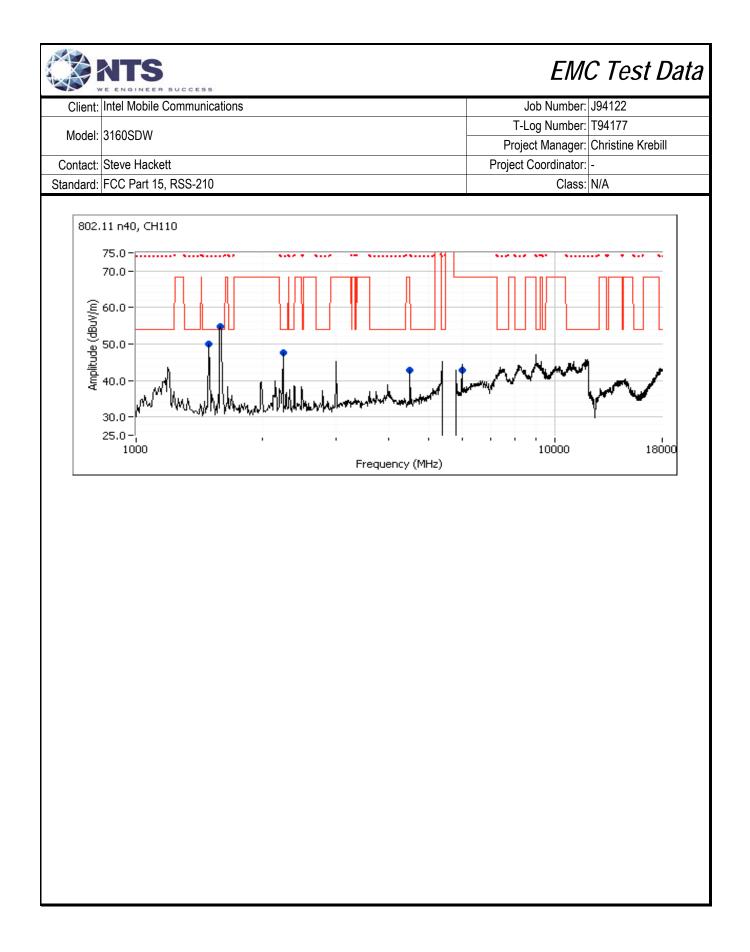
		SUCCESS						EMC Test Data
Client:	Intel Mobile	Communica	tions					Job Number: J94122
							T-	Log Number: T94177
Model:	3160SDW							ect Manager: Christine Krebill
Contact.	Steve Hacke	tt						t Coordinator: -
	FCC Part 15							Class: N/A
olanuaru.	1001 att 10	,1100-210						
D Tes Te	diated Spurie Date of Test: st Engineer: est Location: enter Chann	1/3/2014 & Rafael Vare Chamber #4	1/6/13 las / Jack Liu		Con	onfig. Used: fig Change:	-	and y host ; Host use 120V/60Hz
Channel:	116		Mode:	а	Та	rget Power:	16 5dBm	Power Setting: 30.5
	Port 2		Data Rate:	6Mb/s		ured Power:		Tower obtaing. 00.0
Frequency	Level	Pol	15.209	) / 15E	Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
1499.110	45.8	V	54.0	-8.2	AVG	82	1.0	Note 8
1498.770	53.6	V	74.0	-20.4	PK	82	1.0	Note 8
4496.900	36.0	V	54.0	-18.0	AVG	107	1.0	Note 7a, 8
4497.400	46.6	V	74.0	-27.4	PK	107	1.0	Note 7a, 8
1592.990	41.9	V	54.0	-12.1	AVG	119	1.0	Note 8
1593.330	62.1	V	74.0	-11.9	PK	119	1.0	Note 8
2248.480	44.5	V	54.0	-9.5	AVG	121	1.0	Note 8
2248.660	54.1	V	74.0	-19.9	PK	121	1.0	Note 8
6000.440	36.4	V	54.0	-17.6	AVG	315	1.0	Note 7a, 8
6000.550	44.0	V	74.0	-30.0	PK	315	1.0	Note 7a, 8
Note: Note 7a:	the device in Refer to Mea For emission Refer to Mea	dicated ther asurement S as in restricter asurement S	e were no sig pecific Notes ed bands, the pecific Notes	nificant em 1: limit of 15.2	issions in this 209 was used	frequency ra which requir	ange res average	ard and its antennas 20-50cm from and peak measurements. n). The measurement method
					≥3MHz, peak	•	00.3000 0/11	
	•	•	n, but the sig			/		



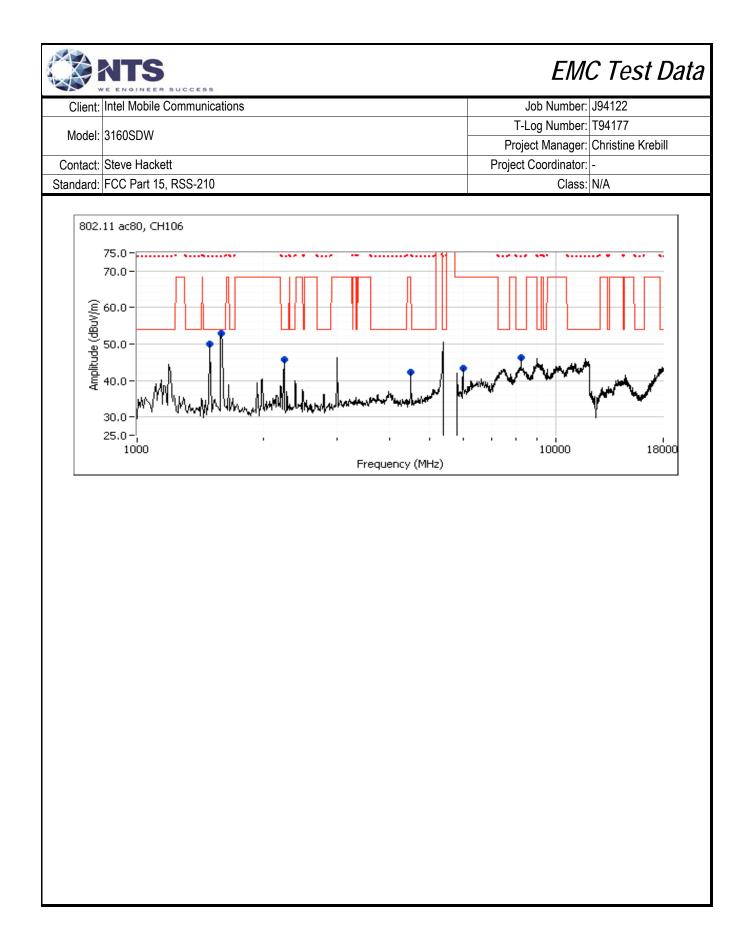
Client	Intel Mobile	Communica	tions					Job Number:	J94122
							T-	Log Number:	T94177
Model	3160SDW						Proj	ect Manager:	Christine Krebill
Contact	Steve Hacke	ett						Coordinator:	
Standard:	FCC Part 15	, RSS-210					,	Class:	
		, 							
Run #5b: (	Center Chanr	nel							
Channel:	116		Mode:	11n20	Та	rget Power:	16.5dBm	Po	ower Setting: 30.5
Tx Chain:			Data Rate:	HT0		ured Power:			iner county. colo
Frequency		Pol	15.209		Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
1498.940	45.7	<u>V</u>	54.0	-8.3	AVG	84	1.0	Note 8	
1498.000	53.4	V	74.0	-20.6	PK	84	1.0	Note 8	
2248.890 2248.250	44.8 52.7	V V	54.0 74.0	-9.2 -21.3	AVG PK	125 125	1.0 1.0	Note 8 Note 8	
4496.690	36.8	V	54.0	-21.3	AVG	125	1.0	Note 7a, 8	
4493.260	47.4	V	74.0	-17.2	PK	113	1.0	Note 7a, 8	
1598.960	42.8	V	54.0	-11.2	AVG	105	1.0	Note 8	
1599.420	63.1	V	74.0	-10.9	PK	105	1.0	Note 8	
6000.400	38.9	Н	54.0	-15.1	AVG	109	1.1	Note 7a, 8	
6000.440	46.5	Н	74.0	-27.5	PK	109	1.1	Note 7a, 8	
	•								
Note:								ard and its an	tennas 20-50cm from
					ssions in this	frequency ra	ange		
Note 7a:			pecific Notes		00				
					209 was used	which requi	res average	and peak me	asurements.
Noto 7h			pecific Notes		limitic 07dDr	m/MLI= oirm /	(CO 24Du)//m	a) The mean	urament mathed
Note 7b:					≥3MHz, peak		00.3000//1	n). The meas	urement method
				nal level did					
Note 8:	Stonned the	tranemiceio							



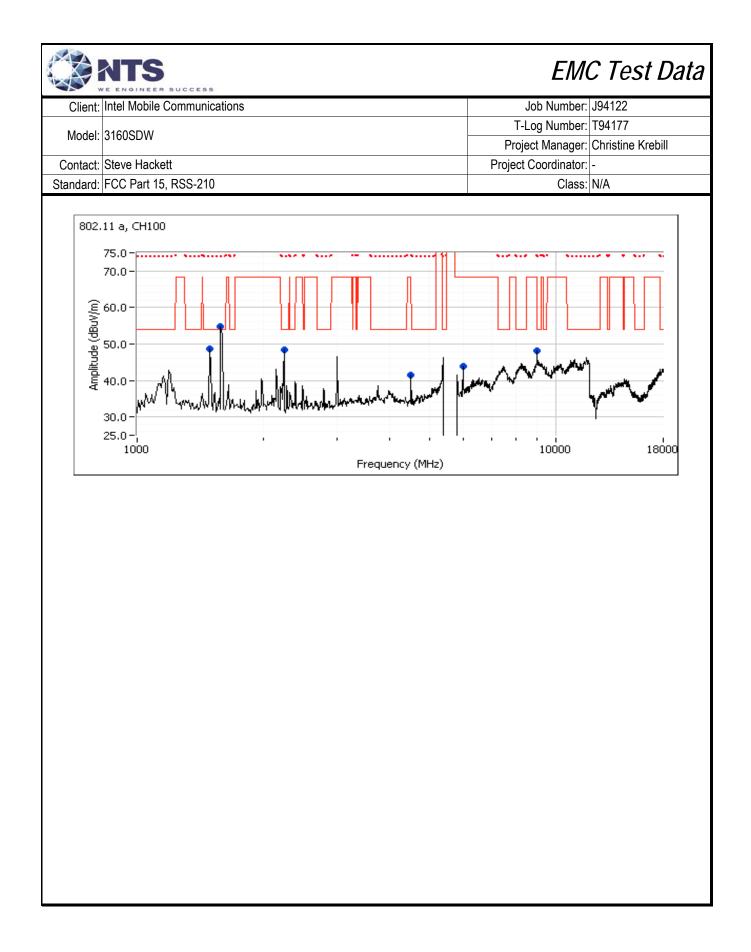
Client:	Intel Mobile	Communica	tions					Job Number:	J94122
							T-	Log Number:	T94177
Model:	3160SDW						Proj	ect Manager:	Christine Krebill
Contact:	Steve Hacke	ett					Project	Coordinator:	-
Standard:	FCC Part 15	, RSS-210					,	Class:	
		,							
Run #5c: (	Center Chanr	nel							
Channel:	110		Mode:	11n40	Та	rget Power:	16 5dBm	Pr	wer Setting: 30.5
			Data Rate:	HT0		ured Power:		1.0	Wor County. Co.C
			2010.10101						
Frequency	Level	Pol	15.209	/ 15E	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
1499.140	45.7	V	54.0	-8.3	AVG	88	1.0	Note 8	
1499.370	53.0	V	74.0	-21.0	PK	88	1.0	Note 8	
6000.380	38.7	<u> </u>	54.0	-15.3	AVG	97	1.1	Note 7a, 8	
6000.480	45.5	<u>Н</u> V	74.0	-28.5	PK	97	1.1	Note 7a, 8	
1592.910 1593.700	40.4 60.5	V	54.0 74.0	-13.6 -13.5	AVG PK	94 94	1.0 1.0	Note 8 Note 8	
4496.890	36.7	V	54.0	-13.5	AVG	<u>94</u> 110	1.0	Note 7a, 8	
4498.190	48.1	V	74.0	-17.3	PK	110	1.0	Note 7a, 8	
2248.690	44.4	V	54.0	-9.6	AVG	124	1.0	Note 8	
2247.530	52.4	V	74.0	-21.6	PK	124	1.0	Note 8	
			1		1				
Note:	Scans made	between 18	3 - 40 GHz wit	h the meas	urement anter	nna moved a	around the c	ard and its an	tennas 20-50cm from
NULE.					ssions in this	frequency ra	ange		
Note 7a:			pecific Notes						
1010 7 0.					209 was used	which requi	res average	and peak me	asurements.
			pecific Notes						
Note 7b:							(68.3dBuV/n	n). The meas	urement method
			urement (RB= n, but the sigr		≥3MHz, peak (	detector).			
Note 8:	<b>O</b> ( 1.11				not dron				



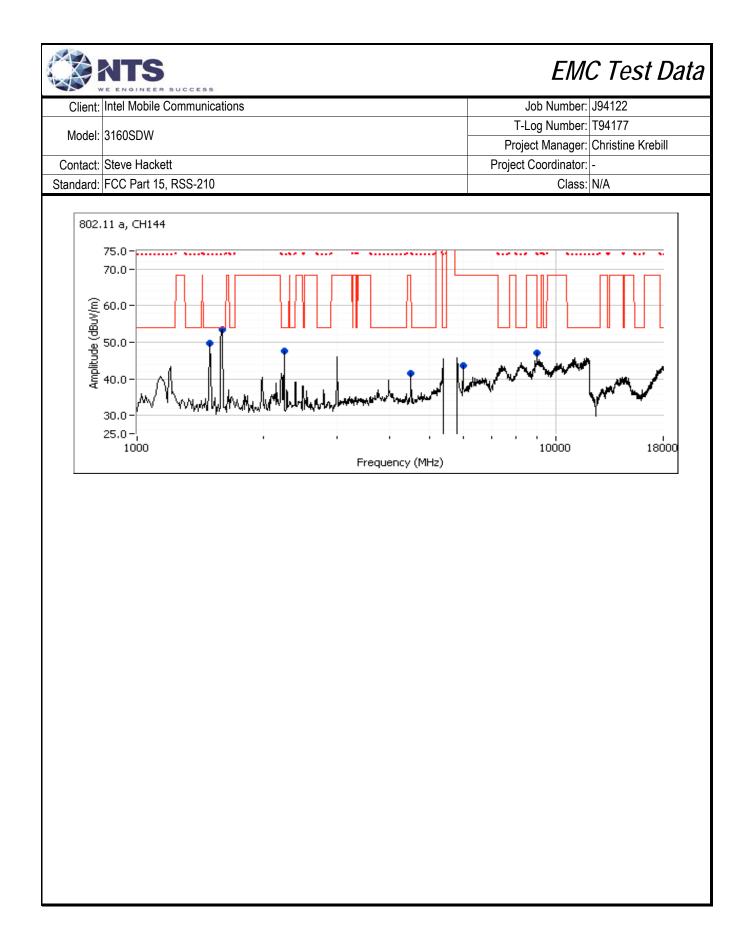
Client	Intel Mobile	Communica	tions					Job Number:	J94122
	040000144						T-	Log Number:	T94177
Model	3160SDW						Proj	ect Manager:	Christine Krebill
Contact	Steve Hacke	ett					Project	Coordinator:	-
Standard:	FCC Part 15	, RSS-210						Class:	
		,							
Run #5d: (	Center Chani	nel							
Channel:	106		Mode:	ac80	Та	rget Power:	16.0dBm	Po	ower Setting: 30.5
Tx Chain:	Port 2		Data Rate:	VHT0		ured Power:			generation and the second
Frequency	Level	Pol	15.209	) / 15E	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
1499.070	45.6	V	54.0	-8.4	AVG	83	1.0	Note 8	
1499.060	53.5	V	74.0	-20.5	PK	83	1.0	Note 8	
1592.810	40.6	V	54.0	-13.4	AVG	113	1.0	Note 8	
1593.110	58.5	V	74.0	-15.5	PK	113	1.0	Note 8	
6000.420	38.5	H	54.0	-15.5	AVG	101	1.1	Note 7a, 8	
6000.180	45.0	H	74.0	-29.0	PK	101	1.1	Note 7a, 8	
4496.970	37.0	V	54.0	-17.0	AVG	111	1.0	Note 7a, 8	
4496.770	48.5	V V	74.0	-25.5	PK AVG	111 123	1.0 1.0	Note 7a, 8	
2248.610 2248.610	44.5 53.4	V	54.0 74.0	-9.5 -20.6	PK	123	1.0	Note 8 Note 8	
8257.910	40.3	V	54.0	-20.0	AVG	231	1.0	Note 8	
8262.380	52.3	V	74.0	-21.7	PK	231	1.6	Note 8	
0202.300	52.5	v	74.0	-21.7		201	1.0		
	Scans made	between 18	3 - 40 GHz wit	th the meas	urement anter	na moved a	around the c	ard and its ar	tennas 20-50cm fror
Note:					ssions in this				
			pecific Notes			- 1 7	<u> </u>		
Note 7a:			•		209 was used	which requi	res average	and peak me	asurements.
			pecific Notes			,	v		
Note 7b:	For emissior	ns outside of	the restricted	bands the	limit is -27dBr	n/MHz eirp (	(68.3dBuV/n	n). The meas	urement method
	required is a	peak meas	urement (RB=	=1MHz, VB≥	≥3MHz, peak o	detector).			
			n, but the sigr						



Client:	Intel Mobile	Communica	itions					Job Number:	J94122
							T-	Log Number:	T94177
Model:	3160SDW							-	Christine Krebill
Contact:	Steve Hacke	ett					-	Coordinator:	
	FCC Part 15						110,000	Class:	
			iono 1.000	40000 MUI-	. Onorating N	Inda, Mar	a again from		
	Date of Test:		sions, 1,000 -	40000 MHZ	2. Operating N	node: wors		n Run #5	
	est Engineer:					ifig Change:			
	est Location:		4					/ host · Host i	use 120V/60Hz
					_	e i renagei	i onoida bj	, 1001 , 11001 (	
Run #6a: L	ow Channel								
Channel:	100		Mode:	а	Та	rget Power:	16.5dBm	Po	ower Setting: 30.0
	Port2		Data Rate:			ured Power:			
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
9000.630	45.6	V	54.0	-8.4	AVG	122	1.0		
9000.430	54.7	V	74.0	-19.3	PK	122	1.0		
1499.090	44.3	V	54.0	-9.7	AVG	90	1.0	Note 8	
1498.200	53.8	V	74.0	-20.2	PK	90	1.0	Note 8	
1598.760	37.5	V	54.0	-16.5	AVG	105	1.0	Note 8	
1594.460	59.8	V	74.0	-14.2	PK	105	1.0	Note 8	
4496.530	36.3	V	54.0	-17.7	AVG	110	1.0	Note 7a, 8	
4498.230	49.1	V V	74.0	-24.9	PK	110	1.0	Note 7a, 8	
2248.670 2249.170	43.8	V	54.0 74.0	-10.2 -21.0	AVG	125 125	1.0 1.0	Note 8 Note 8	
6000.430	53.0 37.8	V	54.0	-21.0	PK AVG	253	1.0	-	
6000.430	46.6	V	74.0	-10.2	PK	253	1.0	Note 7a, 8 Note 7a, 8	
0000.000	40.0	V	74.0	-27.4	ΓN	200	1.0		
	Scans made	between 18	8 - 40 GHz wi	th the meas	urement anter	na moved a	around the c	ard and its an	tennas 20-50cm from
Note:					issions in this				
			Specific Notes						
Note 7a:			•		209 was used	which requir	res averade	and peak me	asurements.
			Specific Notes			- 12.1		· · · · · · ·	
Note 7b:					limit is -27dBr	n/MHz eirp (	(68.3dBuV/m	n). The meas	urement method
					≥3MHz, peak			,	
					not drop.	/			



Client:	Intel Mobile	Communicat	tions					Job Number:	J94122
Madalı	240000						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
Run #6b: Hi	igh Channel								
Channel: Tx Chain:	144 Port2		Mode: Data Rate:	a 6MB/s		rget Power: ured Power:		Pc	ower Setting: 31.5
Frequency	Level	Pol	15.209	/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
9000.620	46.1	V	54.0	-7.9	AVG	120	1.1		
9000.630	54.9	V	74.0	-19.1	PK	120	1.1		
1499.120	44.8	V	54.0	-9.2	AVG	85	1.0	Note 8	
1499.200	52.6	V	74.0	-21.4	PK	85	1.0	Note 8	
1598.930	38.8	V	54.0	-15.2	AVG	86	1.0	Note 8	
1599.630	57.9 30.0	V	74.0	-16.1	PK	86 98	1.0	Note 8	
6000.400 6000.500	39.0 46.9	<u>н</u> Н	54.0 74.0	-15.0 -27.1	AVG PK	98 98	1.1 1.1	Note 7a, 8 Note 7a, 8	
4496.840	36.6	V	54.0	-27.1	AVG	111	1.1	Note 7a, 8	
4497.200	49.2	V	74.0	-24.8	PK	111	1.0	Note 7a, 8	
2248.640	42.7	V	54.0	-11.3	AVG	127	1.0	Note 8	
2246.600	51.9	V	74.0	-22.1	PK	127	1.4	Note 8	
Note: Note 7a:	the device in Refer to Mea For emissior	idicated ther asurement S ns in restricte	e were no sig pecific Notes	gnificant emi s 1: e limit of 15.2	urement anter ssions in this 209 was used	frequency ra	ange		tennas 20-50cm fror asurements.
Note 7b:	For emissior	ns outside of	the restricte	d bands the	limit is -27dBr ≥3MHz, peak o	• •	(68.3dBuV/n	n). The meas	urement method
Note 8:	Stopped the	transmission	n but the dia	امنام امترا ام					



## End of Report

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