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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

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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

¹ 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 | | A | <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.

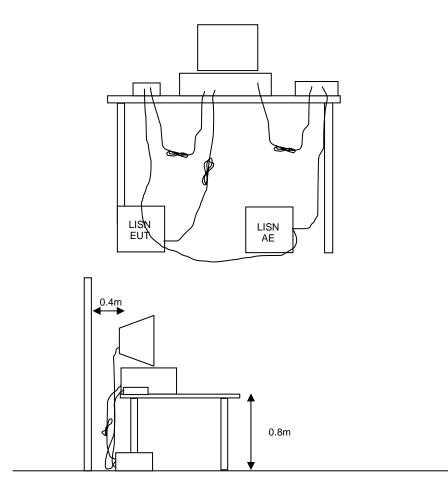


Figure 1 Typical Conducted Emissions Test Configuration

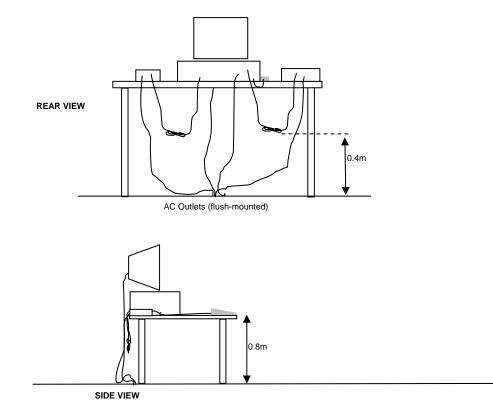
RADIATED EMISSIONS

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.

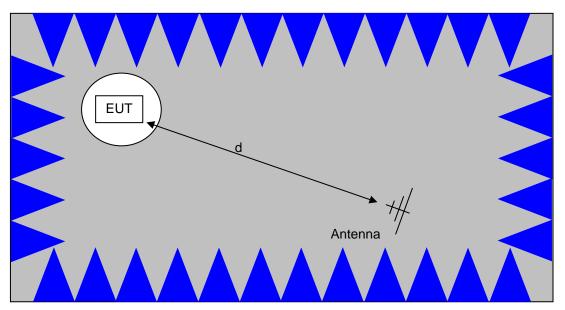
A speaker is provided in the receiver to aid in discriminating between EUT and ambient emissions. Other methods used during the preliminary scan for EUT emissions involve scanning with near field magnetic loops, monitoring I/O cables with RF current clamps, and cycling power to the EUT.

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.

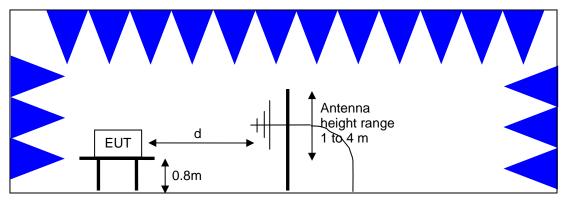


Typical Test Configuration for Radiated Field Strength Measurements



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.

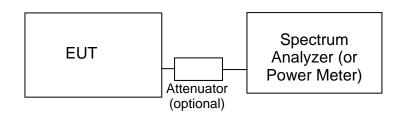
Floor-standing equipment is placed on the floor with insulating supports between the unit and the ground plane.



<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 bands³ (with the exception of transmitters operating under FCC Part 15 Subpart D and RSS 210 Annex 9), the limits for all emissions from a low power device operating under the general rules of RSS 310 (tables 3 and 4), RSS 210 (table 2) and FCC Part 15 Subpart C section 15.209.

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

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.

³ 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) ⁵ 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

⁴ If EIRP exceeds 500mW the device must employ TPC

⁵ 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 | 1,000 - 6,500 MHz, 30-Dec-13 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 | 1,000 - 40,000 MHz, 02-Jan-14 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 | BE, 1000 - 6,000 MHz, 07-Jan-14 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 | 07-Jan-14 to 12-Jan-1 4 U2001A E4446A | 4 2442 2796 | 12/19/2014 1/28/2014 |
| Radiated Emissions, Micro-Tronics | 1000 - 26,500 MHz, 07-Jan-14 Band Reject Filter, 2400-2500 | BRM50702-02 | 1683 | 8/2/2014 |
| Hewlett Packard | MHz Head (Inc W1-W4, 1946 , 1947) | 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

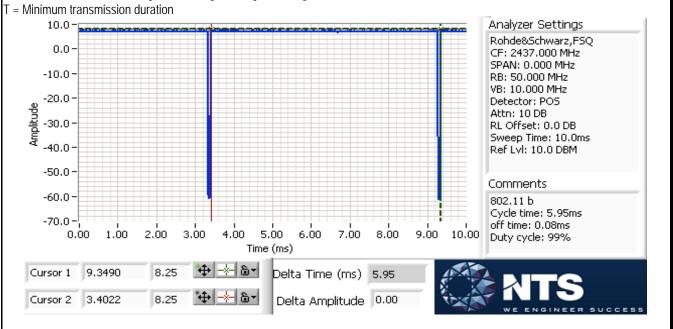
Duty cycle measurements performed on the worse case data rate for power.

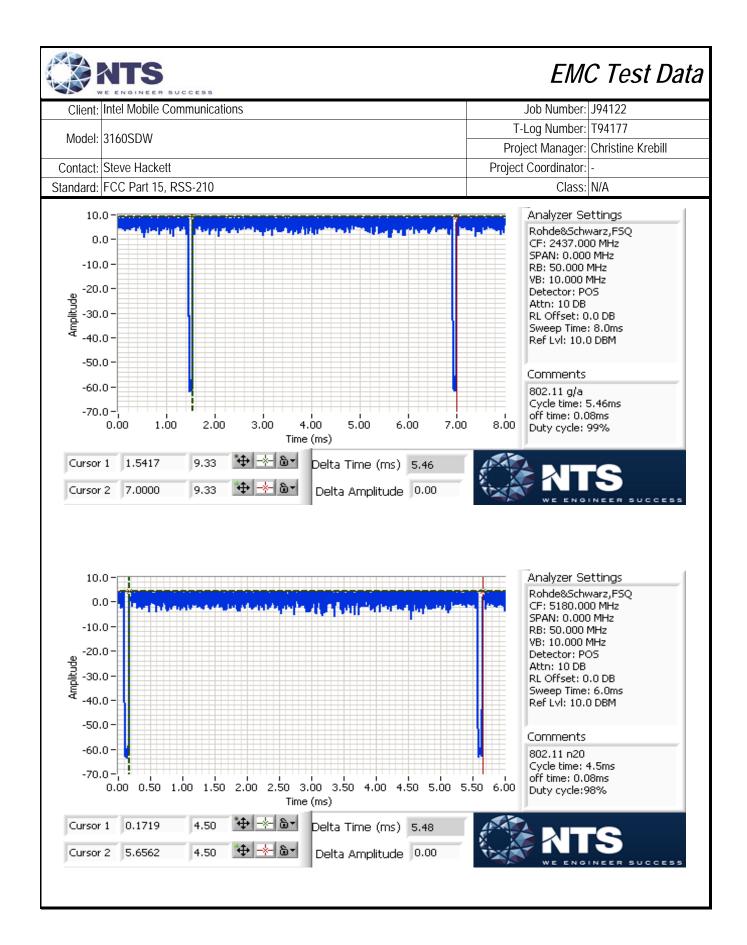
Notes: Measurements taken with maximum RBW/VBW settings allowed.

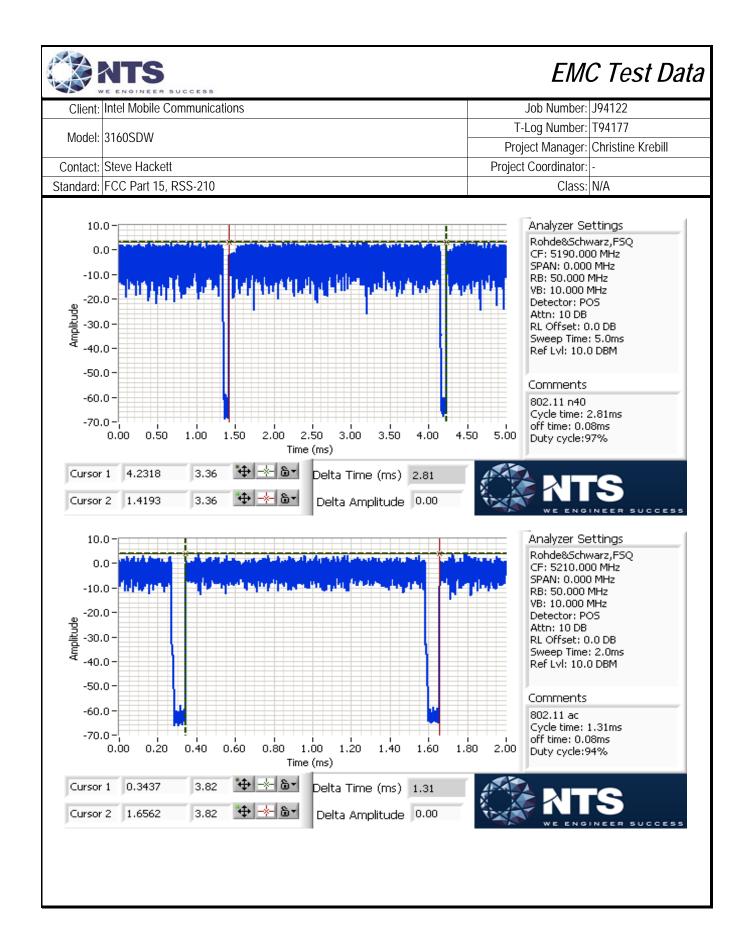
| Mode | Data Rate | Duty Cycle (x) | Constant DC? | T (ms) | Pwr Cor Factor* | Lin Volt Cor Factor** | Min VBW for FS (Hz) |
|------|-----------|-------------------|-----------------|--------|--------------------|-----------------------------|------------------------|
| 11b | 1Mb/s | 0.99 | Yes | 10 | 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 |

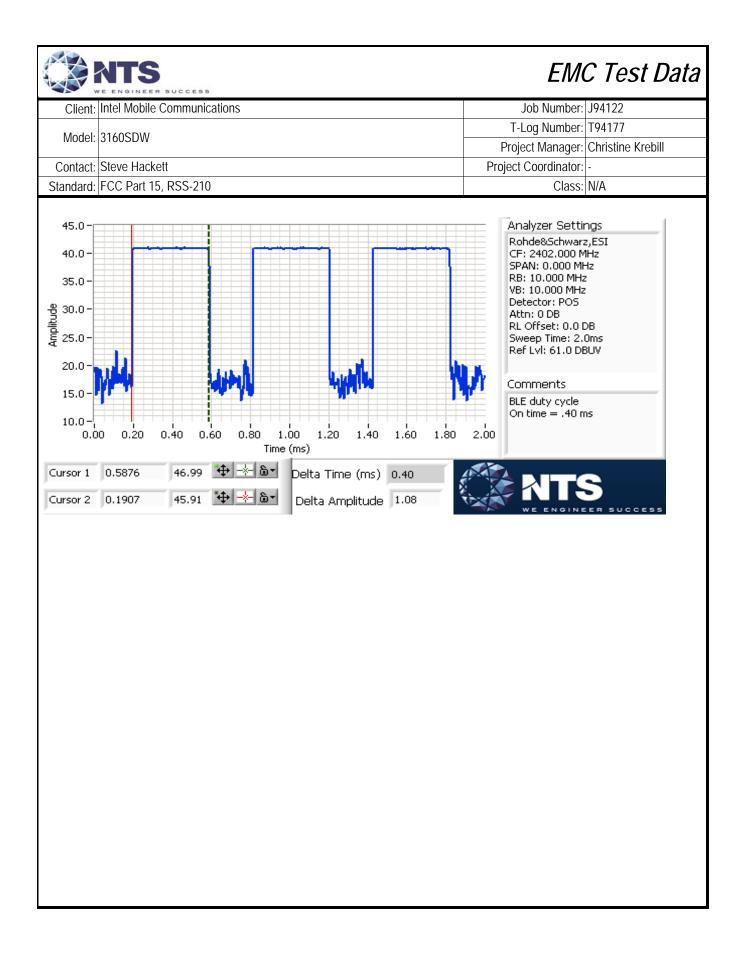
^c Correction factor when using RMS/Power averaging - 10*log(1/x)

* 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

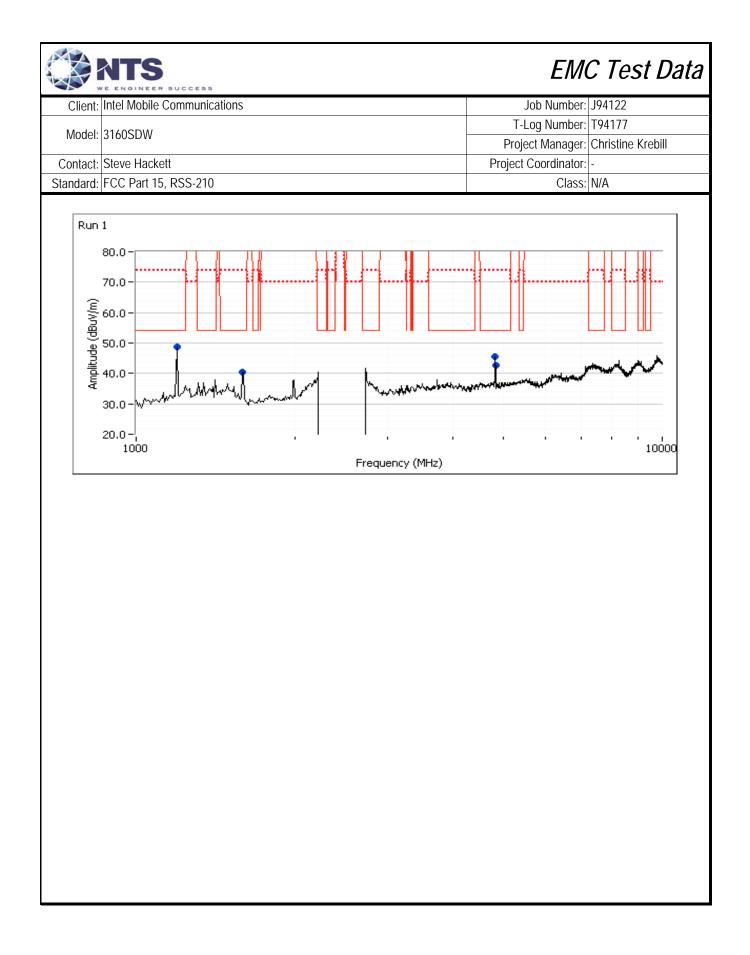
Deviations From The Standard

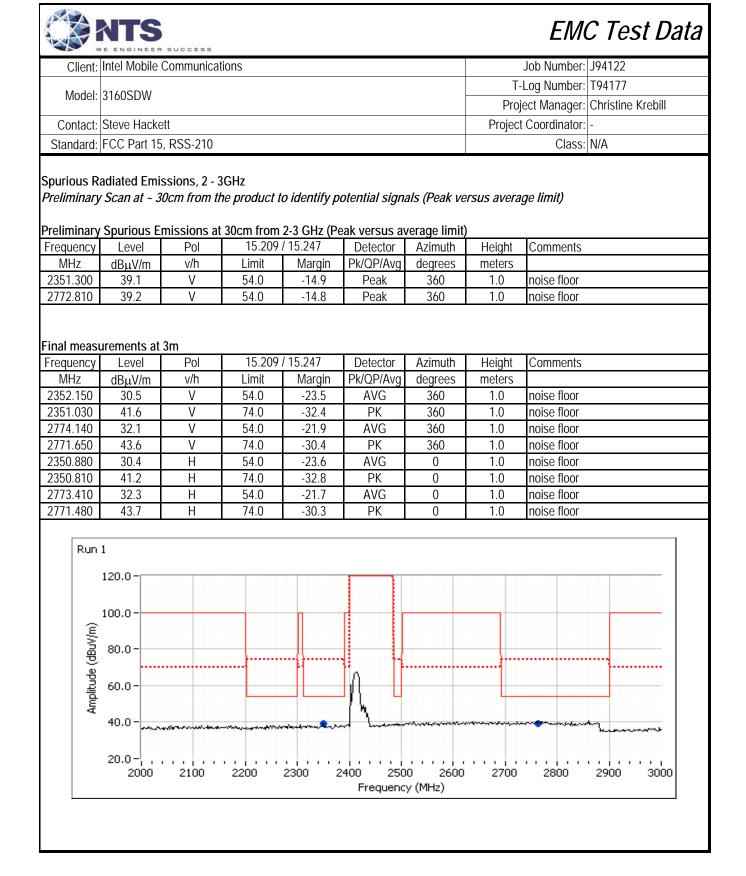
No deviations were made from the requirements of the standard.

Test Notes

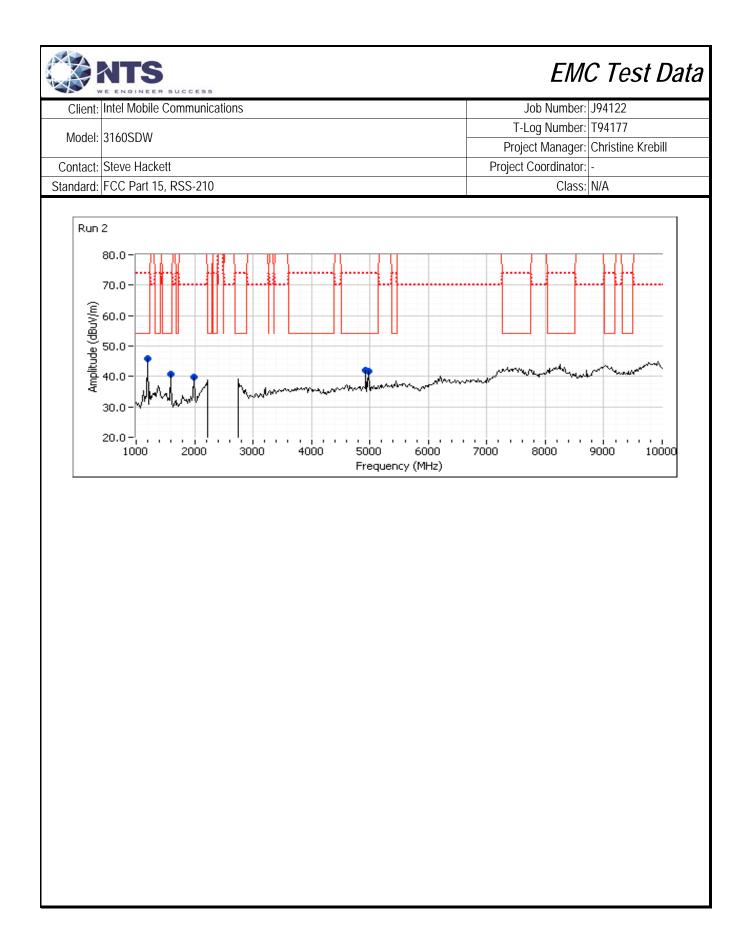
Scans in the near field performed without the external preamplifier and band reject filter

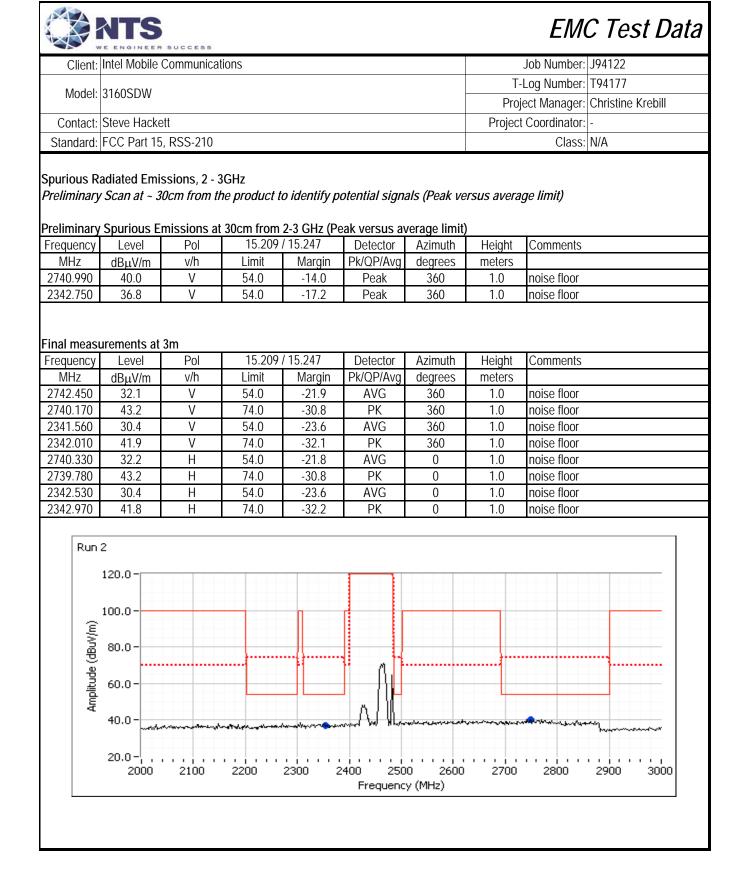
| Client: | Intel Mobile | Communicat | ions | | | | | Job Number: | J94122 |
|--|---|--|--|--|---|---|--|-------------------|-------------------|
| Madal | | | | | | | T- | Log Number: | T94177 |
| Model: | 3160SDW | | | | | | Proj | ect Manager: | Christine Krebill |
| Contact: | Steve Hacke | ett | | | | | 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 | mit) 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 | |



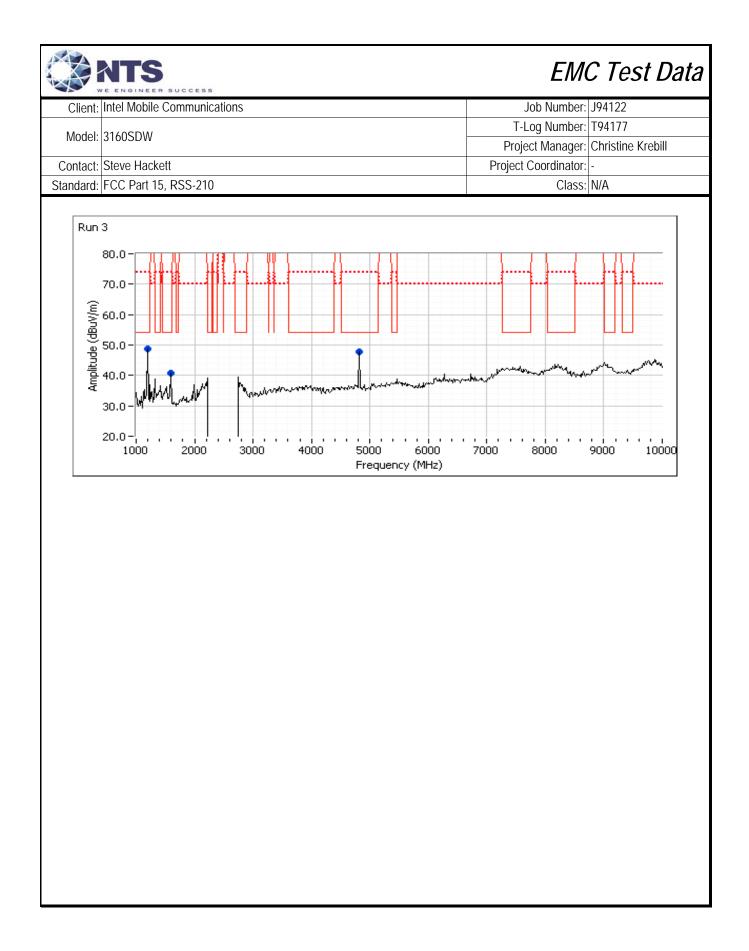


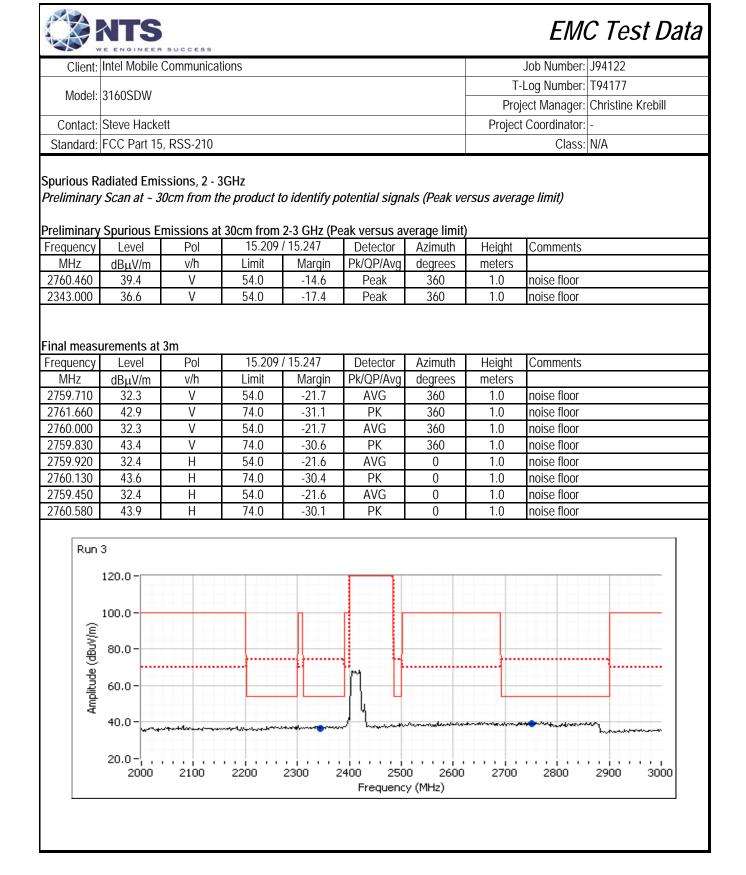
| Client: | Intel Mobile | Communicat | ions | | | | | Job Number: | J94122 |
|---|---|--|--|--|---|--|---|----------------------------|-------------------|
| Madal | | | | | | | T- | Log Number: | T94177 |
| Model: | 3160SDW | | | | | | Proj | ect Manager: | Christine Krebill |
| Contact: | Steve Hacke | 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 | |



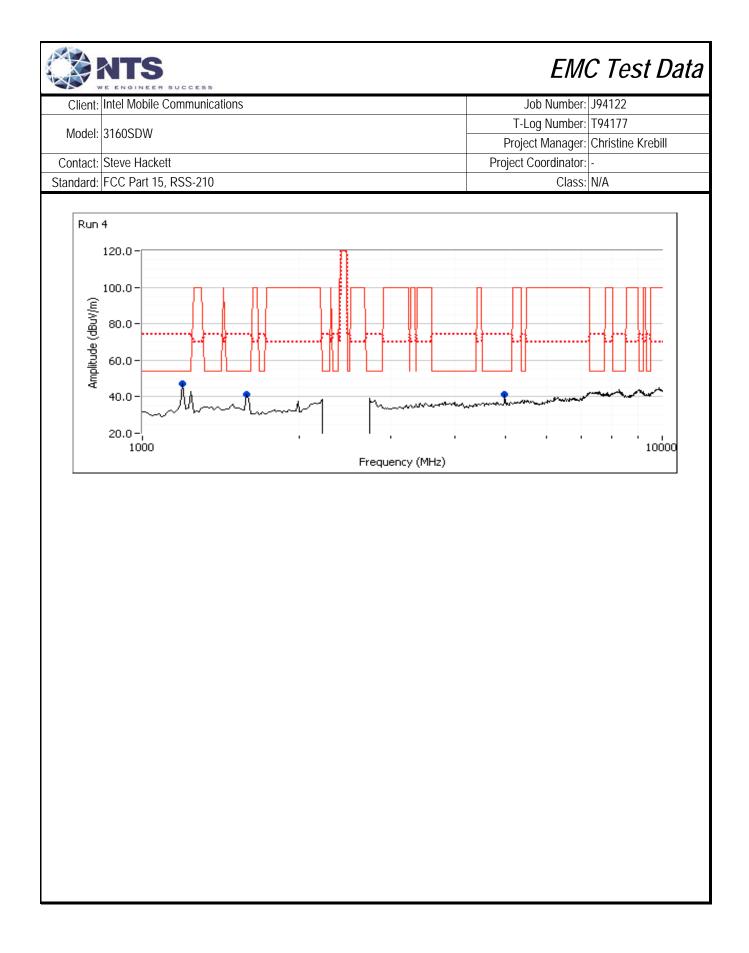


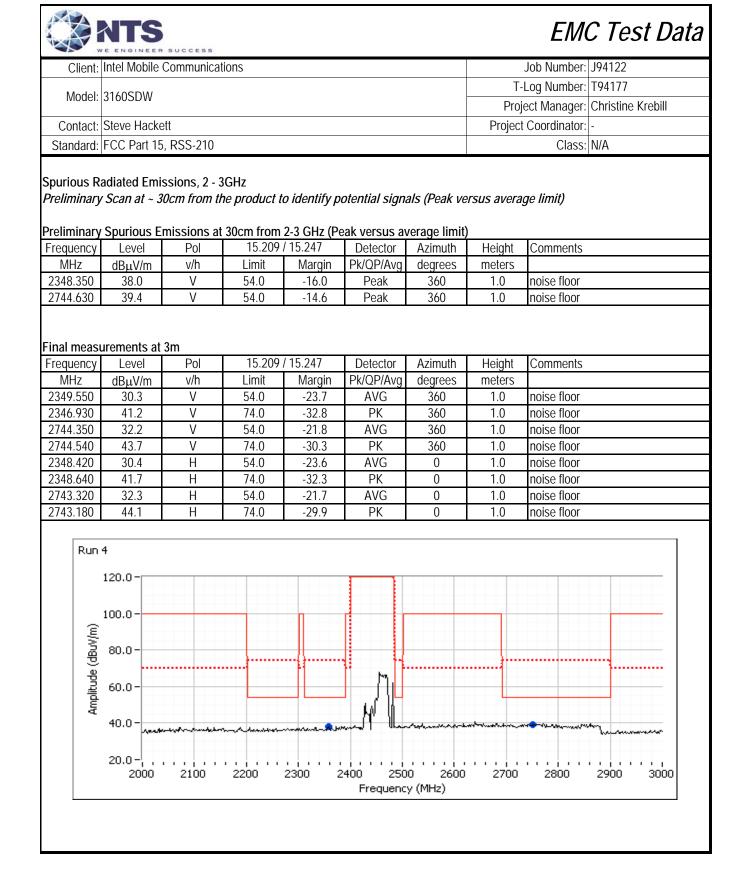
| Client | Intel Mobile | Communicat | ions | | | | | Job Number: | J94122 |
|--------------------|---------------|-------------|--------------|--------------|---------------|-------------------|-----------|--------------|-------------------|
| Oliciti. | | | | | | | | Log Number: | |
| Model: | 3160SDW | | | | | | | 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 | | | | | | | | |



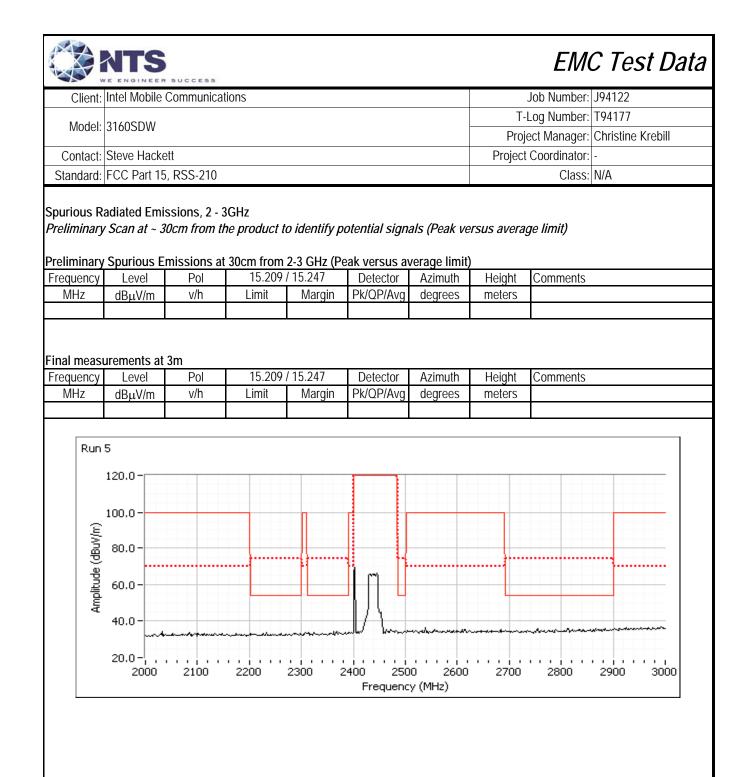


| | Intel Mobile (| Communical | lions | | | | | Job Number: | J94122 |
|--|--|------------------------|------------------------|-------------------------|---------------------------|-------------------------|-----------------------|----------------------|--------------------------------|
| Marial | 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 | mit) Height | Comments | |
| MHz | dBµV/m | v/h | Limit | Margin | Pk/QP/Avg | degrees | meters | | |
| 1194.700 | 47.2 | V | 54.0 | -6.8 | Peak | 44 | 1.0 | | |
| 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 42.9 | 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 | |

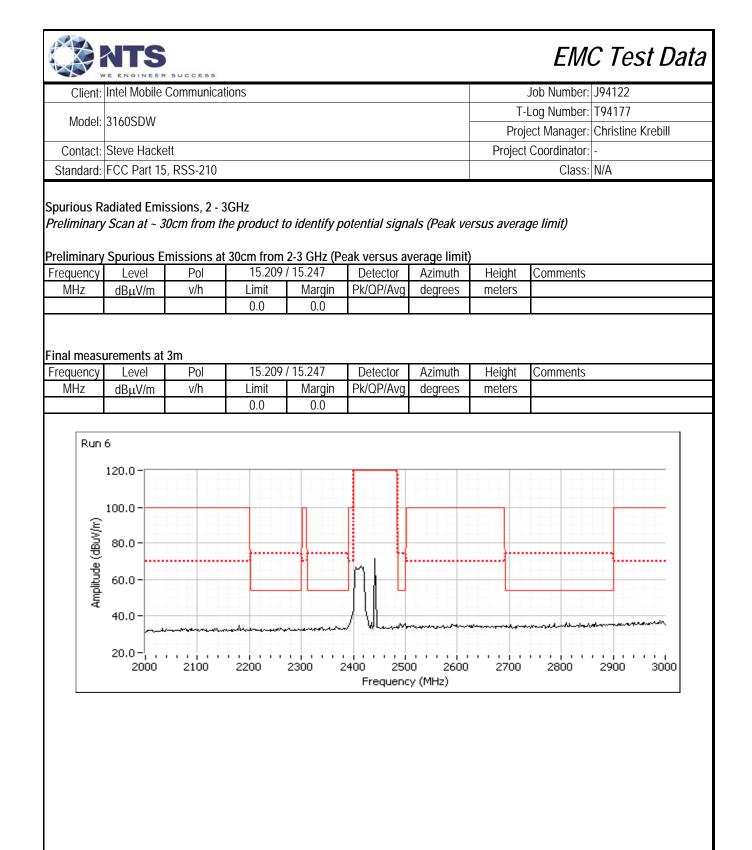




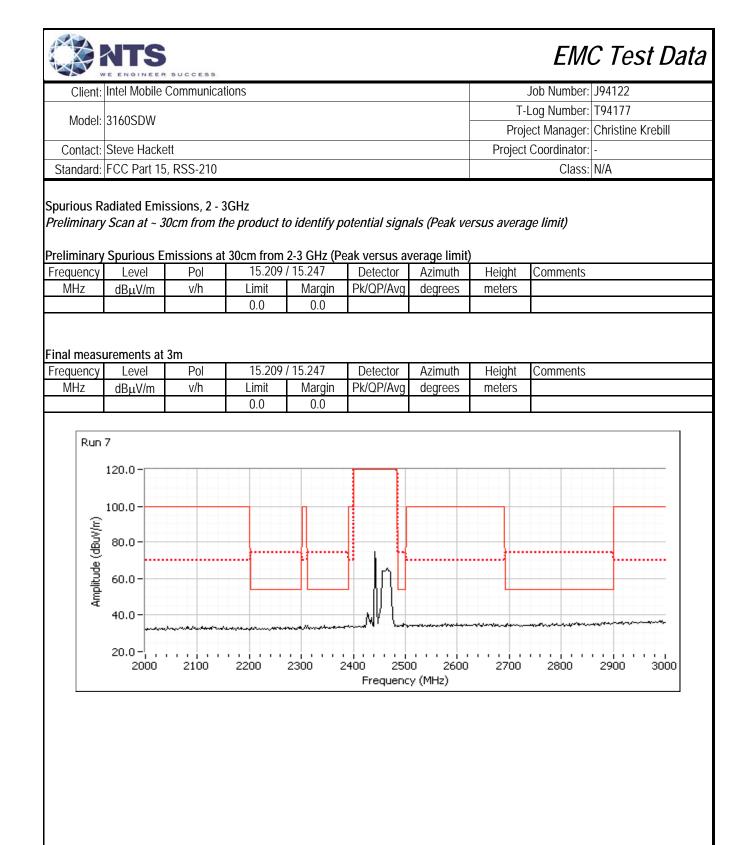
| | | SUCCESS | | | | | | | C Test Data |
|-------------|--|-------------------------|----------------|--|-------------------------|--------------|--|--------------|-------------------|
| Client: | Intel Mobile | Communicat | ions | | | | | Job Number: | |
| Model: | 3160SDW | | | | | | | Log Number: | |
| | | | | | | | 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 - 1000 | | ' 3000 ' | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | 5000 Frequency | 6000 | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | ` \$000``` | 9000 10000 |



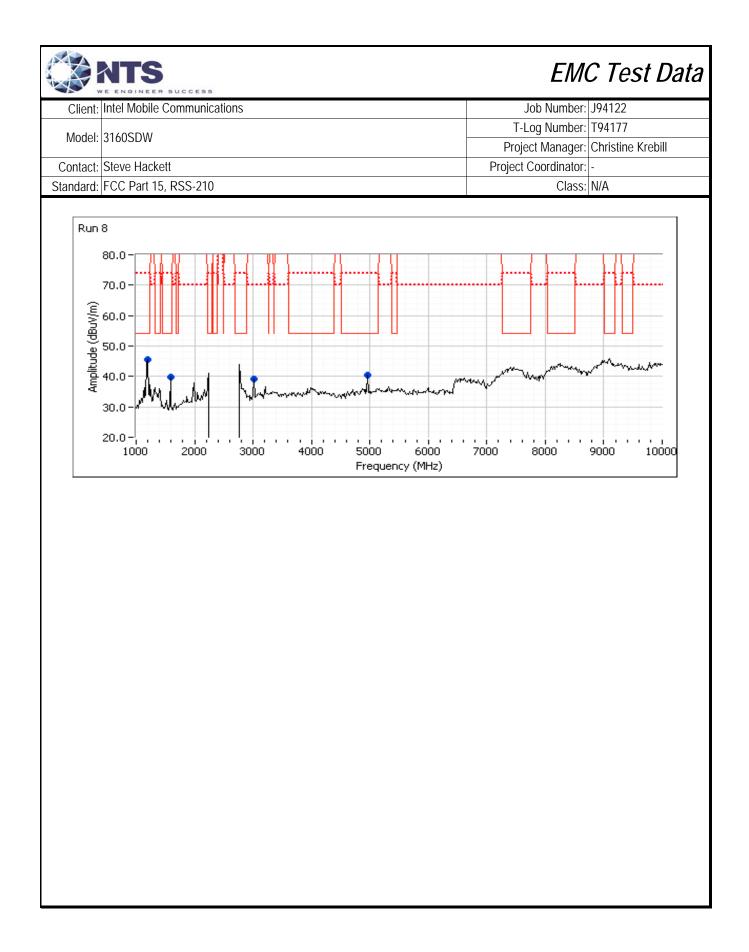
| | | SUCCESS | | | | | | EM | C Test Data |
|--|--|------------------------|--------------|----------------|-------------|--------------|--------------|--------------|--------------------------------|
| Client: | Intel Mobile | Communicat | ions | | | | | Job Number: | J94122 |
| Madal | | | | | | | 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 | | | | |

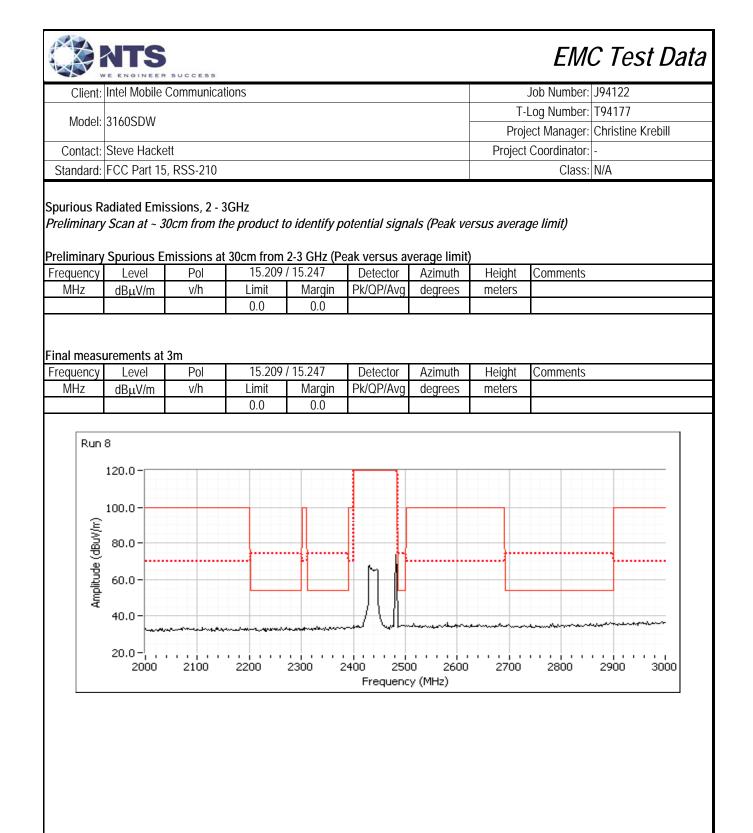


| | | SUCCESS | | | | | | | C Test Data |
|--------------------------|---|-------------------------|--------------|----------------|-----------|------------|----------------|--------------|--------------------------------|
| Client: | Intel Mobile | Communicat | ons | | | | | Job Number: | |
| Model: | 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 | | | 0 | |
| | 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 | O 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 | | F40 | -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-| |

2000

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2100

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2200

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2300

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2400

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2500

Frequency (MHz)

1.1.1

2600

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2700

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2900

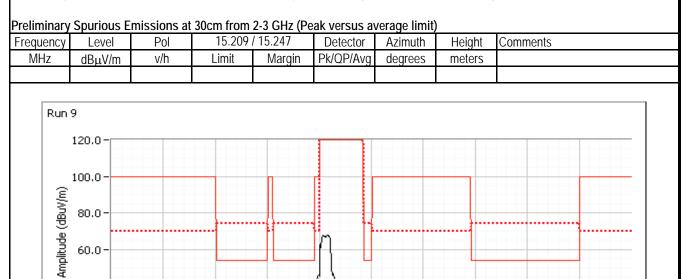
.

2800

- E - E

3000

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

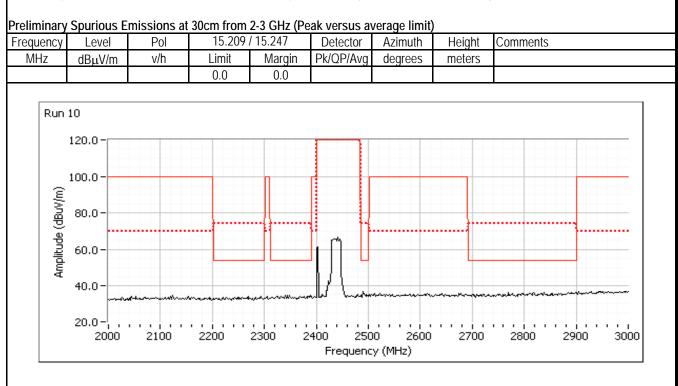


| | | SUCCESS | | | | | | | C Test Data |
|--------------------|--|---------------|---------------|-----------------|-------------------|----------------|--|-------------------|-------------------|
| Client: | Intel Mobile | Communicat | ions | | | | | Job Number: | J94122 |
| Madalı | 3160SDW | | | | | | 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 [°] | 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 | |



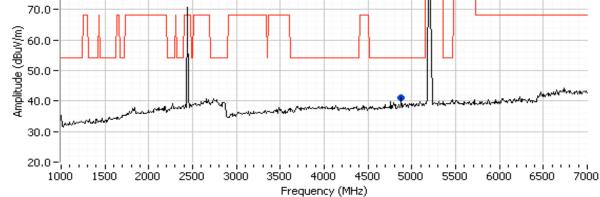
| | | SUCCESS | | | | | | LIVI | |
|--------------------|--|-------------|---------------------|-----------------|-------------------|--------------|---------------|--------------|-------------------|
| Client: | Intel Mobile | Communicat | ions | | | | | Job Number: | J94122 |
| Madal | | | | | | | 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 | 3m 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) | | |
| | | missions ex Pol | | ocated band / 15.247 | I (Peak versu Detector | is average li Azimuth | i mit) 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 |
| - | | | |

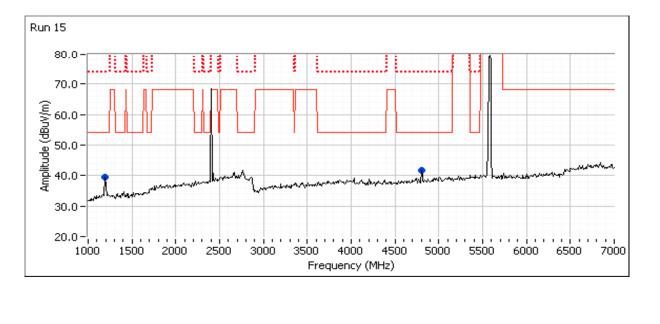
Spurious Radiated Emissions, 1 - 7GHz

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 | | | | | | - , | 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 & ² 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 & ⁻ 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 _µ 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 _µ 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 | | | | | | |

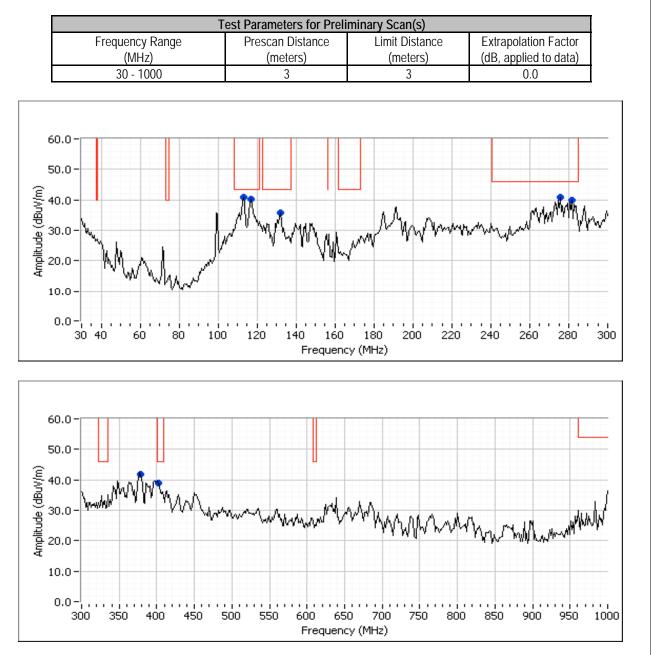
NTS

| | 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.

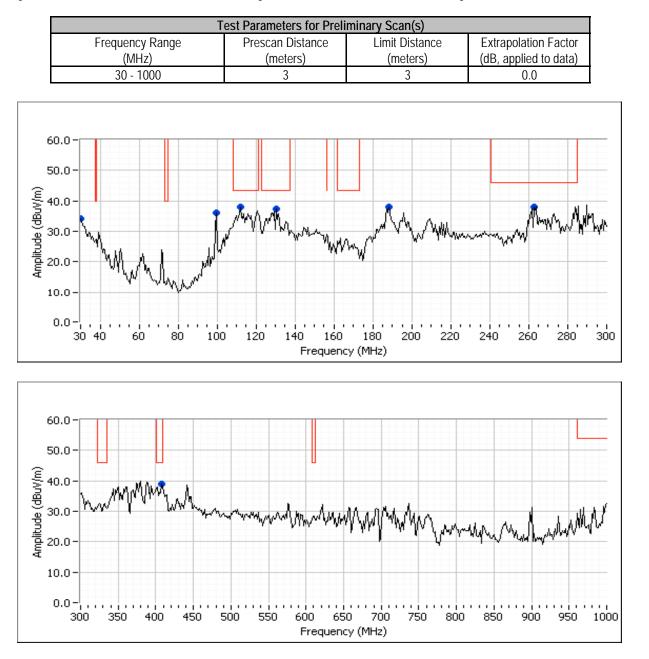


| | | SUCCESS | | | | | | ЕМ | C Test Dat |
|--|--|---|---|---|--|--|--|---|---|
| Client: | Intel Mobile | Communio | cations | | | | | Job Number: | J94122 |
| | | | | | | | T- | Log Number: | T94177 |
| Model: | 3160SDW | | | | | - | | 0 | Christine Krebill |
| Contact. | ct: Steve Hackett | | | | | | | 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 | |
| | quasi-peak 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) | | |
| Naximized | | (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 | quasi-peak 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.



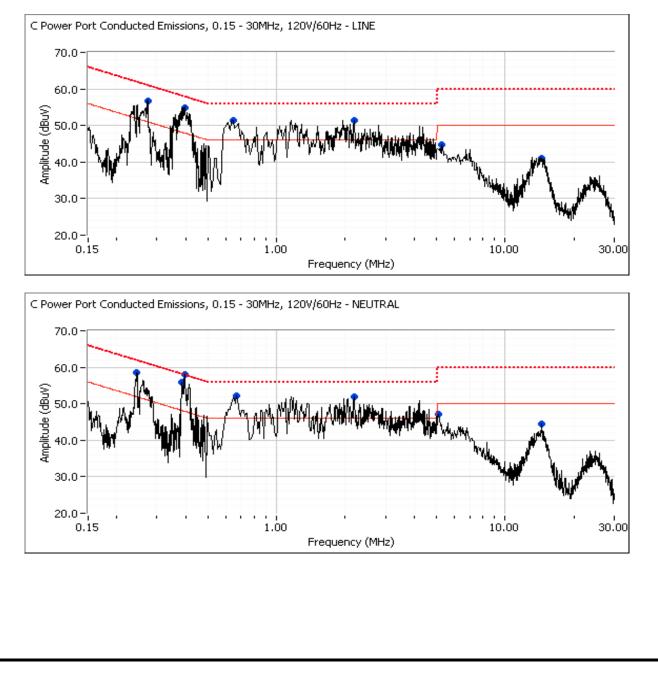
| Chern. | Intel Mobile | Communic | cations | | | | | Job Number: J94122 |
|--|---|---|---|---|---|--|--|--|
| Madal | | | | | | | T- | Log Number: T94177 |
| woder: | 3160SDW | | | | | | Proj | ject Manager: Christine Krebill |
| Contact: | Steve Hackett | | | | | | Project | t Coordinator: - |
| | 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 | |
| | | | , | | . | | | |
| | | <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 | 3 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

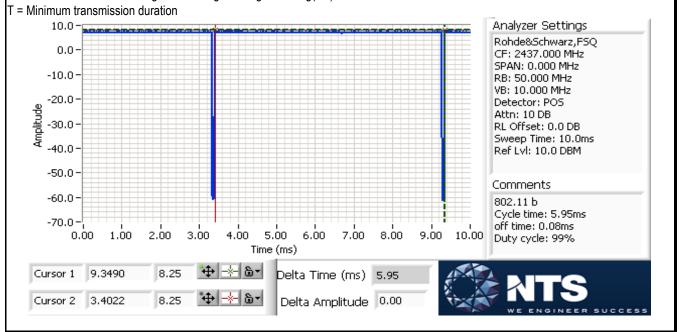
Date of Test: 12/30/2013 Test Engineer: Jack Liu Test Location: FT Lab6

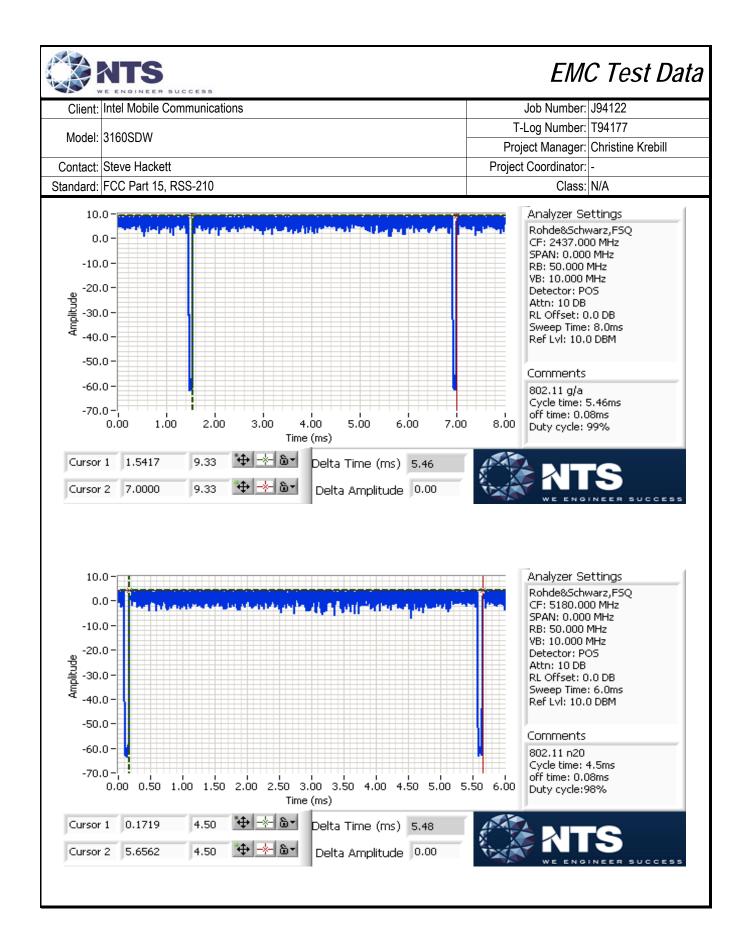
Duty cycle measurements performed on the worse case data rate for power. Notes: Measurements taken with maximum RBW/VBW settings allowed.

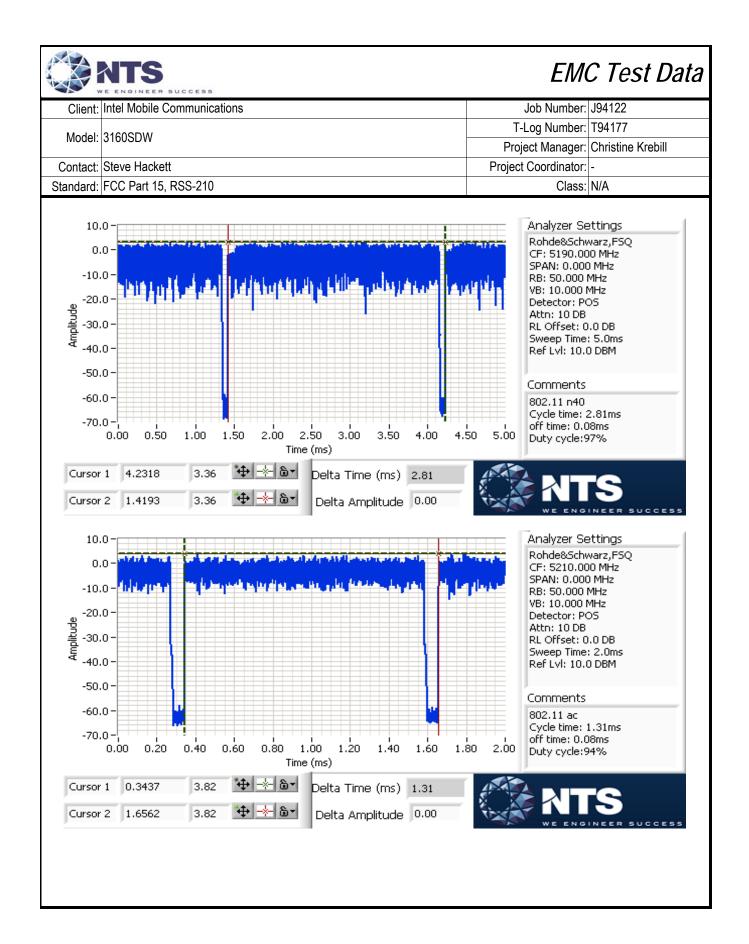
| Mode | Data Rate | Duty Cycle (x) | Constant DC? | T (ms) | Pwr Cor Factor* | Lin Volt Cor Factor** | Min VBW for FS (Hz) |
|------|-----------|-------------------|-----------------|--------|--------------------|-----------------------------|------------------------|
| 11b | 1Mb/s | 0.99 | Yes | 10 | 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

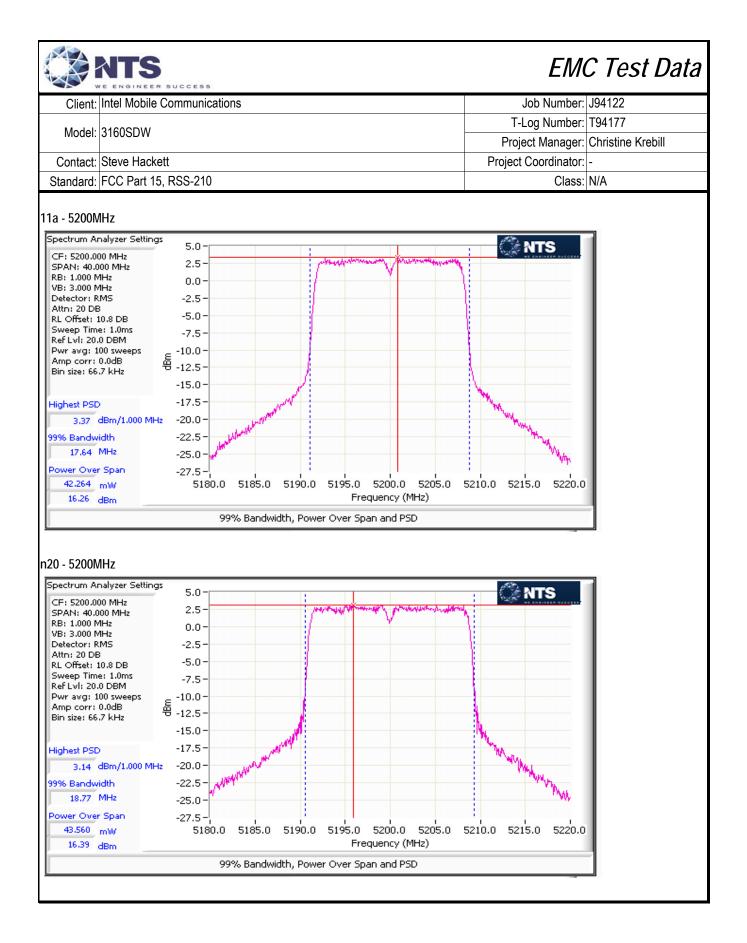
No modifications were made to the EUT during testing

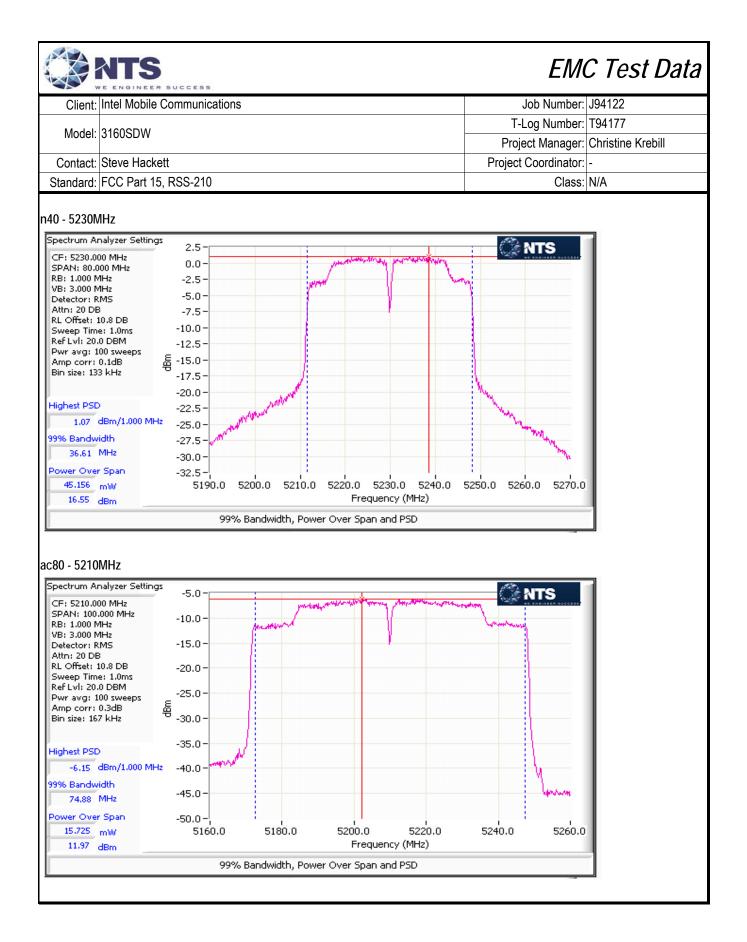
Deviations From The Standard

No deviations were made from the requirements of the standard.

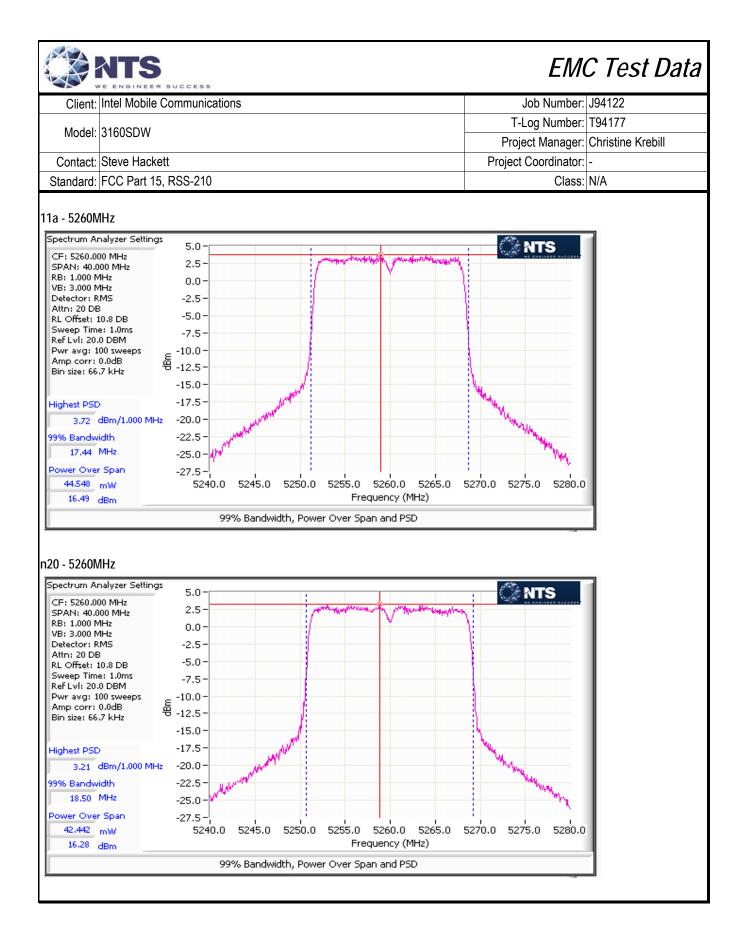
| Model: 3160SDW T-Log Number: Project Manager: Project Manager: Project Coordinator: Project Coordinator: Project Coordinator: Project Coordinator: Project Coordinator: Class: Class: Project Coordinator: | Christine Krebill |
|--|--|
| Model: 3160SDW Project Manager: Contact: Steve Hackett Project Coordinator: 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 |

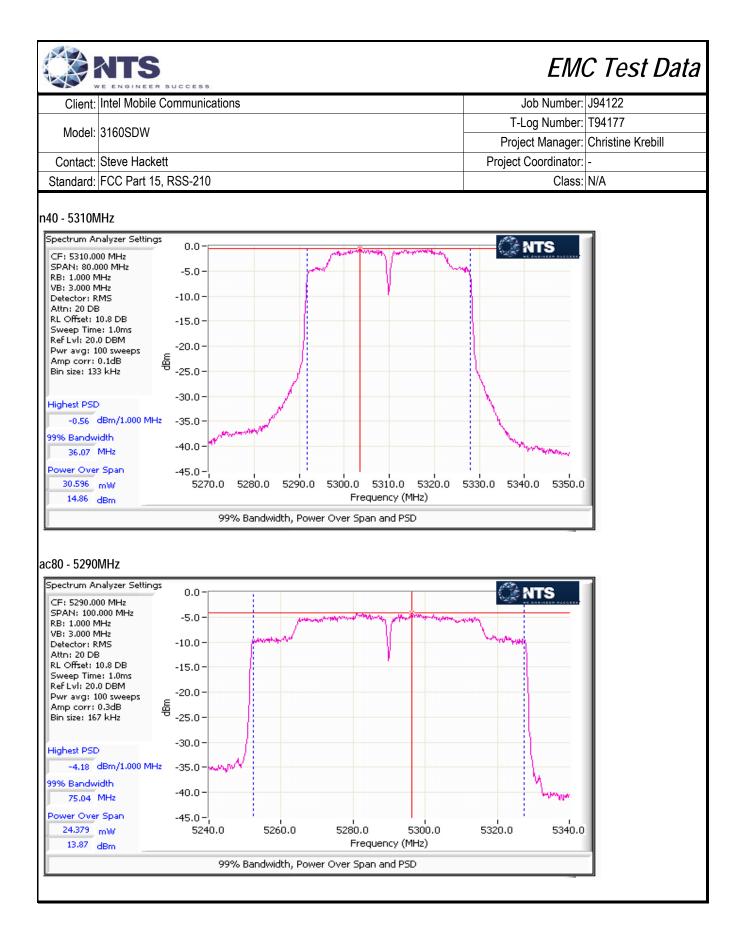
| | J94122 | ob Number: | | | | | tions | Communicat | Intel Mobile | Client: |
|--|--------------------|------------------------|-------------|-----------------------------|---------------------------|--------------|----------------|-----------------------------|--------------|--------------------|
| | | og Number: | | | | | | | | onont. |
| hill | Christine Kre | • | | | | | | | 3160SDW | Model: |
| 2011 | | Coordinator: | - | | | | | \ ## | 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 ² dBm/MH | | | put Power ¹ 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 ² dBm/MH | P | tput Power ¹ dBm | | Out | Duty Cycle | 99% BW | Software | Frequency |
| i vesui | Limit ³ | 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 |





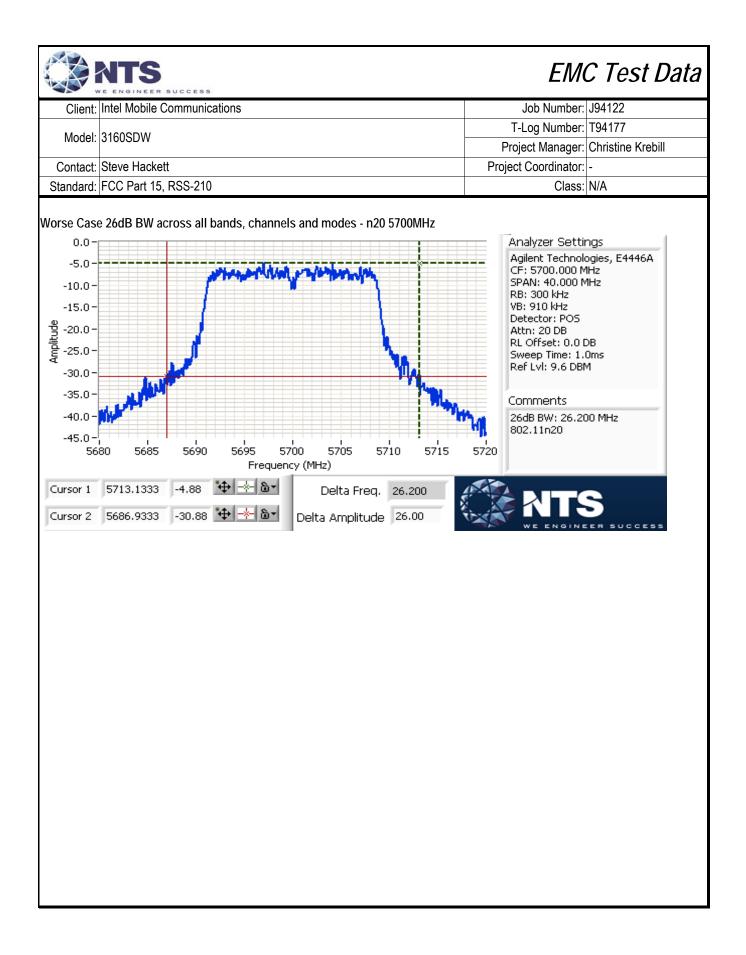
| onorita | | Communicat | tions | | | | | Job Number: | J94122 | |
|------------------|---------------|---------------|----------------|----------|----------------------------|-------|----------|------------------------|--------------------|----------|
| | | Communication | | | | | | og Number: | | |
| 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 ¹ d | | | SD ² 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 ¹ dE | 3m | Р | SD ² dBm/MF | łz | Dam |
| (MHz) | Setting | (MHz) | % | Measured | Calculated | Limit | Measured | Calculated | Limit ³ | 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 | | | | | | | | | |

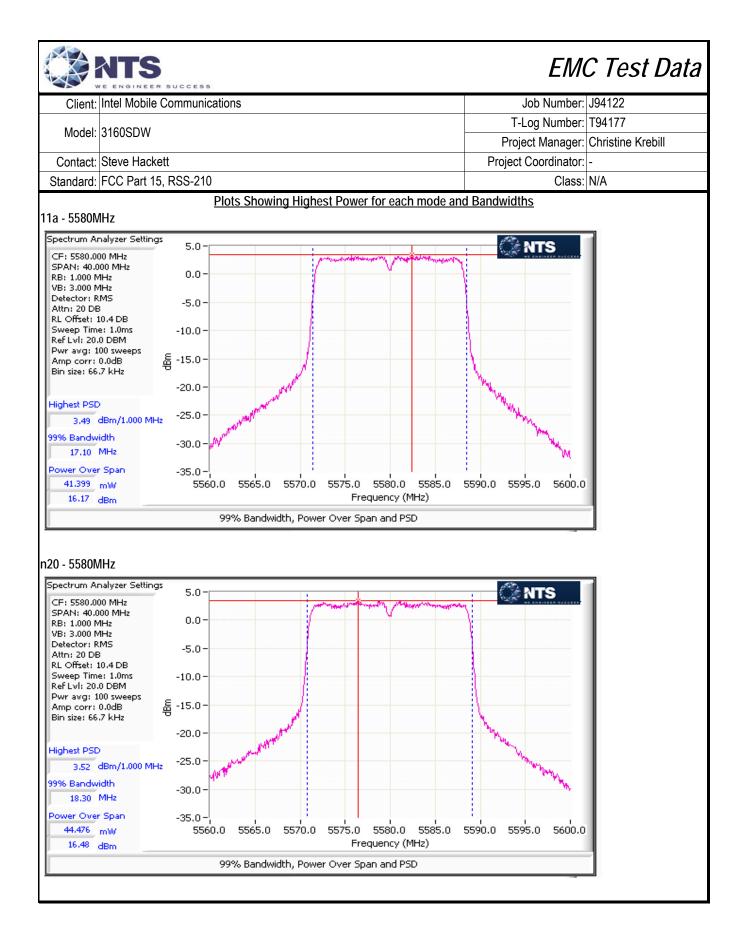


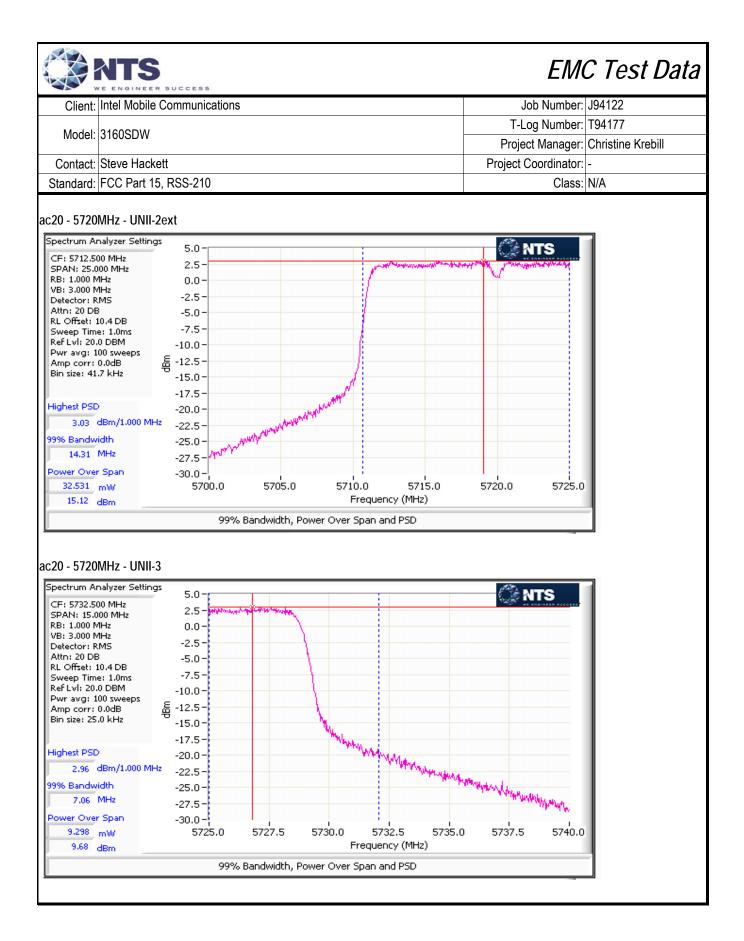


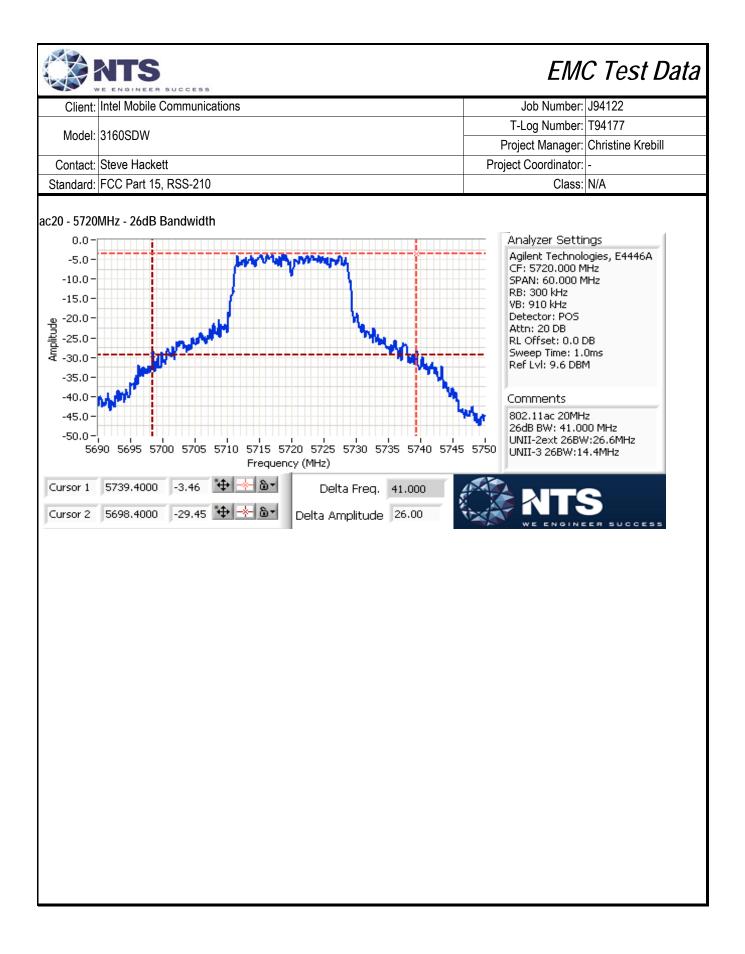
| | | SUCCESS | | | | | | EMO | C Test | t Data |
|--------------|--------------|---------------|----------------|--------------|----------------------------|--------------|------------|------------------------|---------------------|--------------|
| Client: | Intel Mobile | | tions | | | | | Job Number: | 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 ¹ dl | 3m | Р | SD ² 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 |

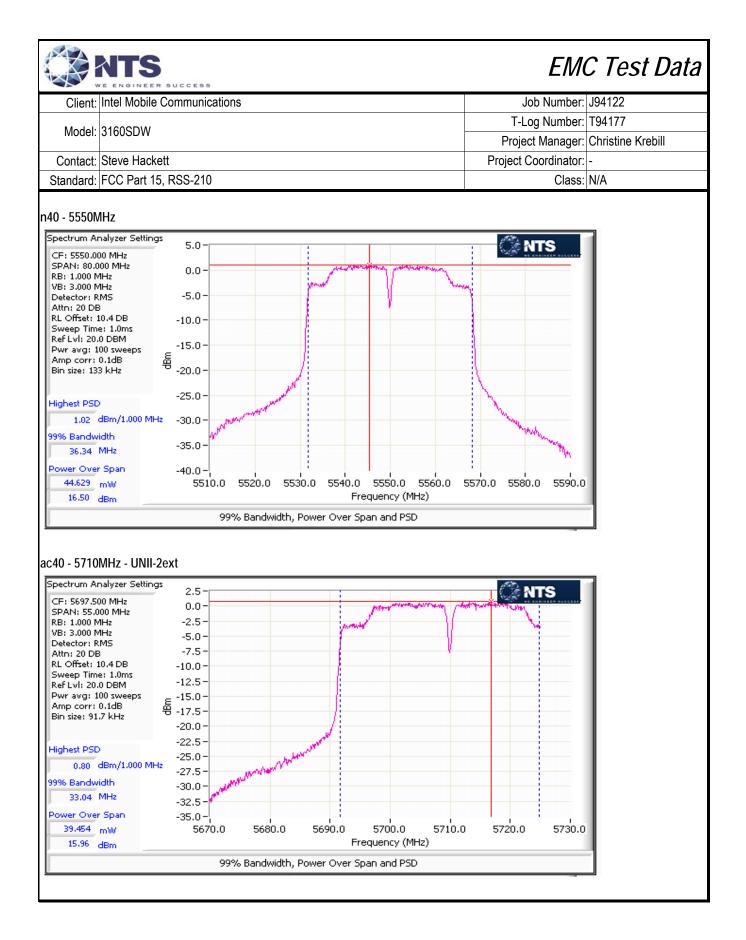
| SDW Hackett Part 15, RSS-210 70-5725 MHz Ban Antenna Gain (dBi ware 99% BW (MHz) 9.5 17.0 9.5 17.0 9.5 17.0 9.5 18.2 0.5 18.2 0.5 18.2 | nd - Industry (): 4.8 Duty Cycle % 100.0 100.0 100.0 | Ou | Max EIRP: tput Power ¹ dE Calculated 16.0 16.2 | 134.9 3m Limit 23.3 | Project Project | Log Number: ect Manager: Coordinator: Class: 21.3 2SD ² 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 ¹ dE Calculated 16.0 | 3m Limit | Project mW | Coordinator: Class: 21.3 SD ² 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 ¹ dE Calculated 16.0 | 3m Limit | Project mW | Coordinator: Class: 21.3 SD ² 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 ¹ dE Calculated 16.0 | 3m Limit |) mW | Class: 21.3 'SD ² 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 ¹ dE Calculated 16.0 | 3m Limit | P | 21.3 'SD ² 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 ¹ dE Calculated 16.0 | 3m Limit | P | SD ² 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 ¹ dE Calculated 16.0 | 3m Limit | P | SD ² 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 ¹ dE Calculated 16.0 | 3m Limit | P | SD ² 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 |

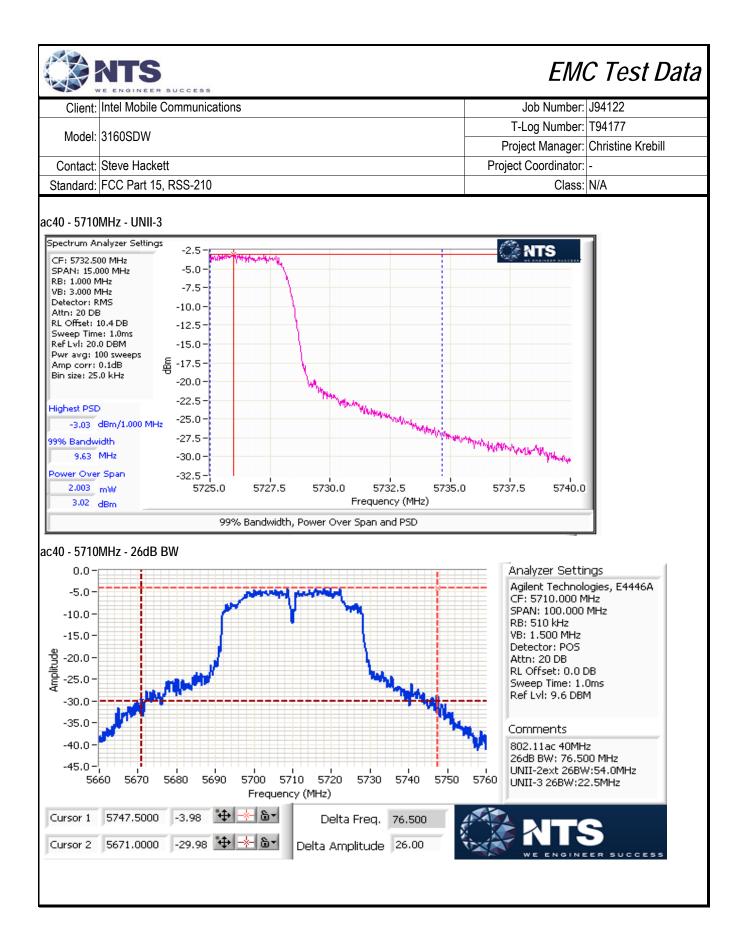


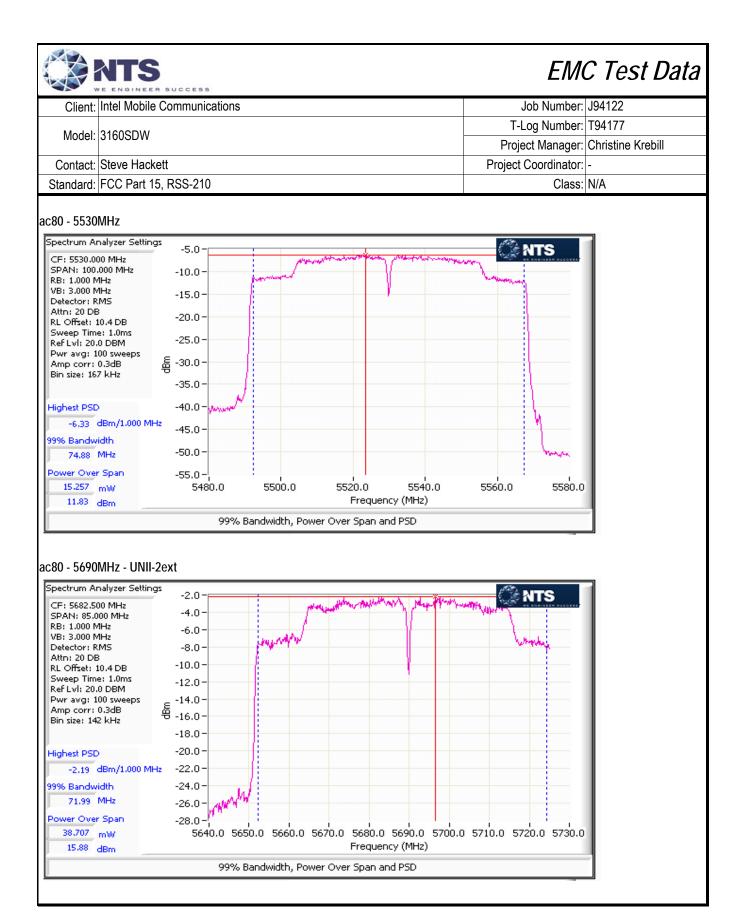


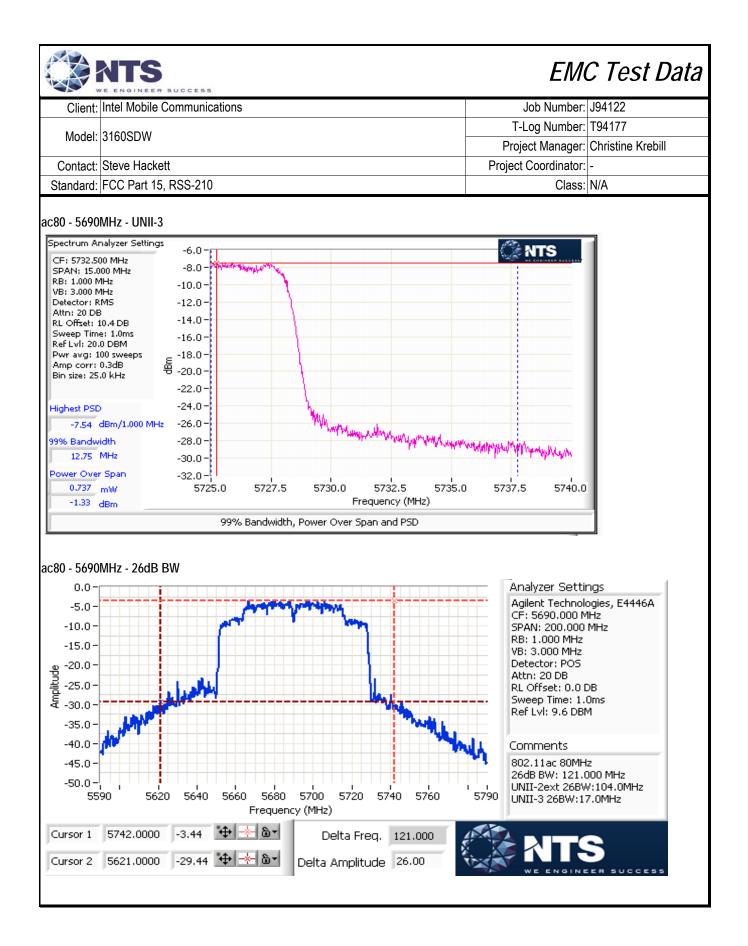


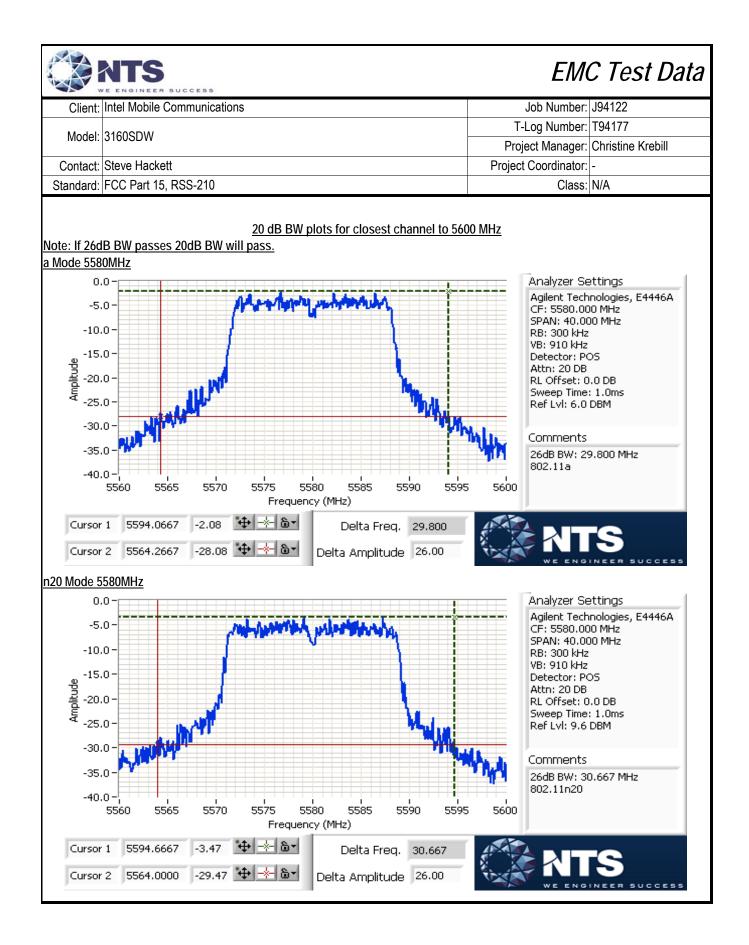


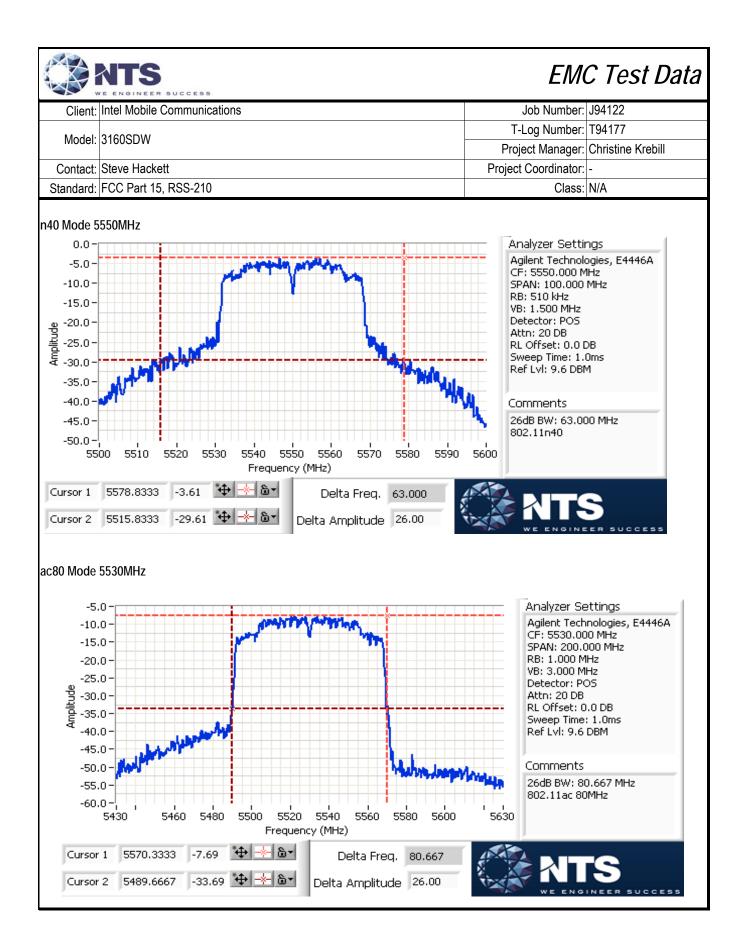


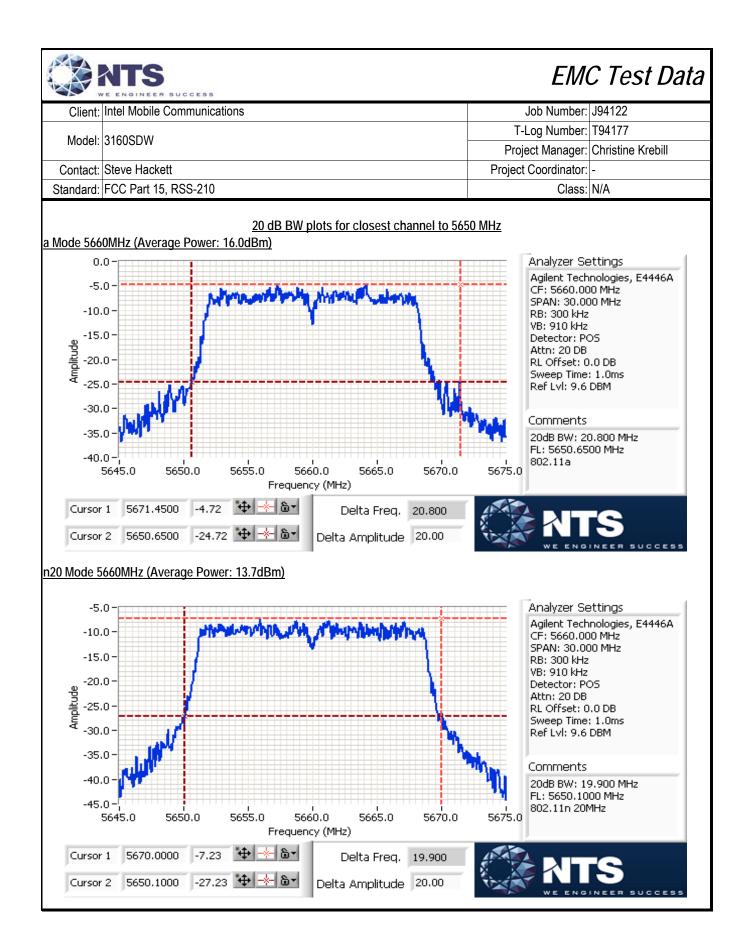


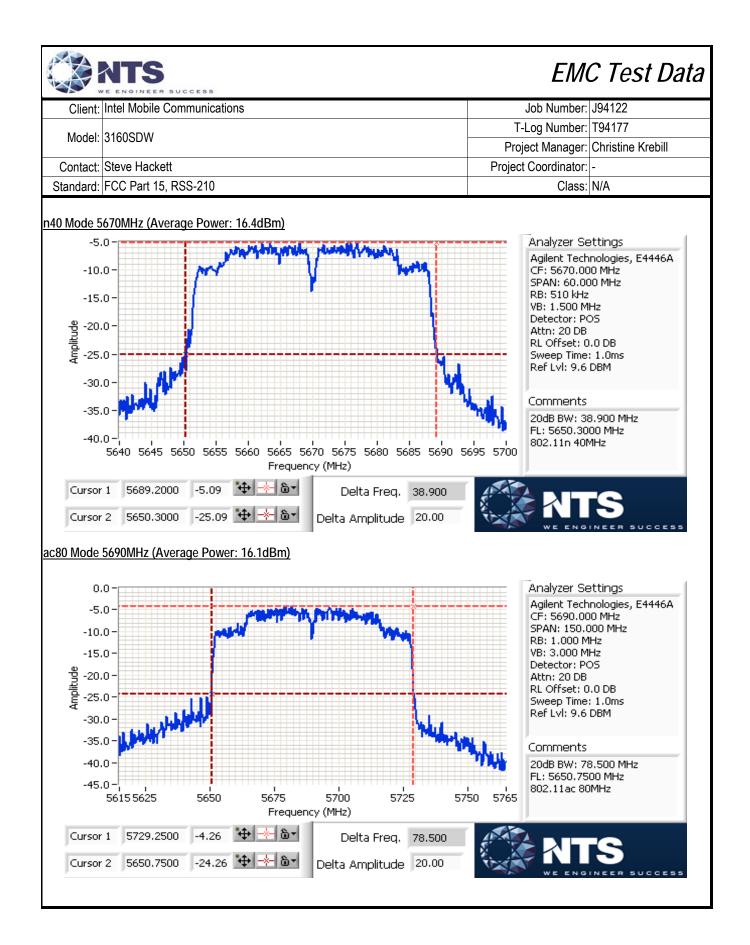




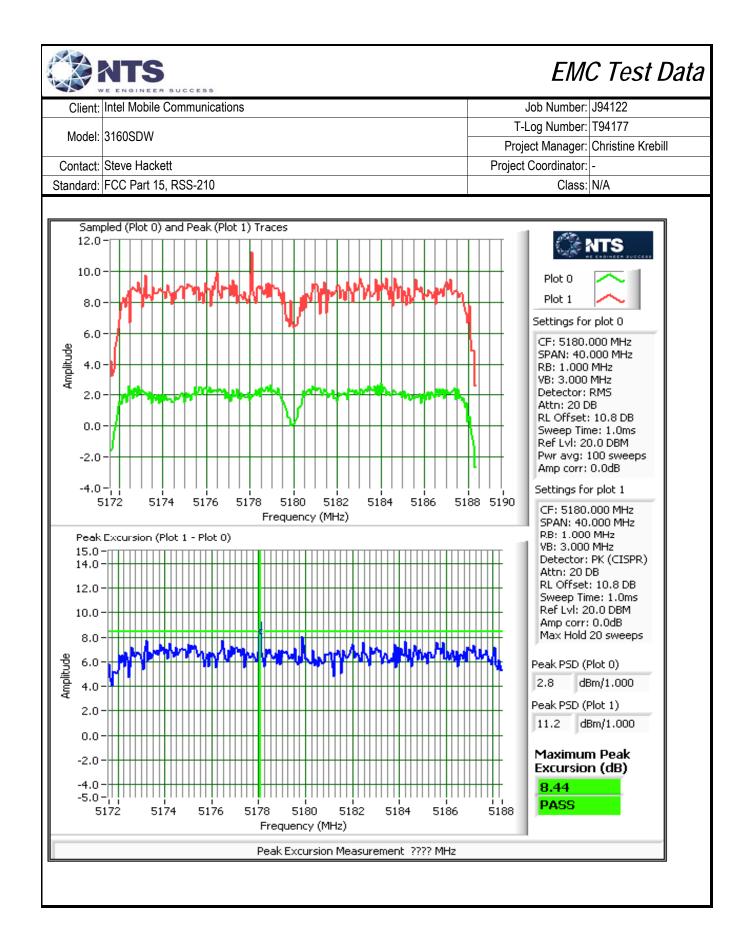








| Client: | Intel Mobile | Communicat | ions | | | | | Job Number: | J94122 | |
|-----------|---|---------------------------|----------------------------|---------------------|--------------|---|----------------------|--------------|-----------------|--|
| Madal | 3160SDW | | | | | | T-Log Number: T94177 | | | |
| 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 | Is 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 |
| | | | - | | 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

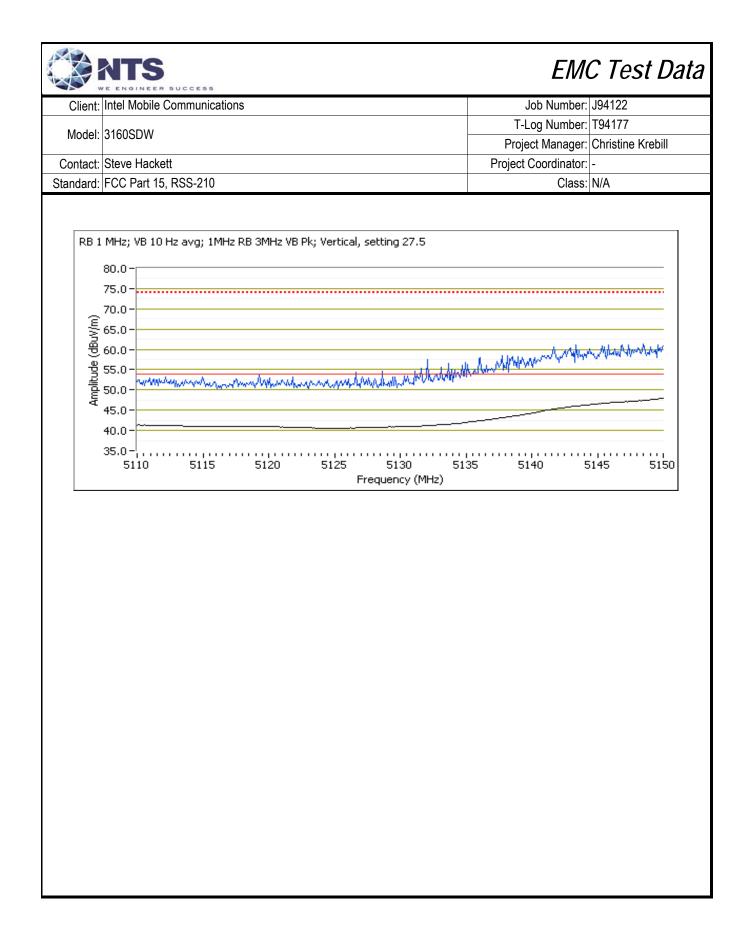
Unless otherwise stated/noted, emission has duty cycle ≥ 98% and was measured using RBW=1MHz, VBW=10Hz, peak detector, linear average mode, auto sweep time, max hold.

| 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 |

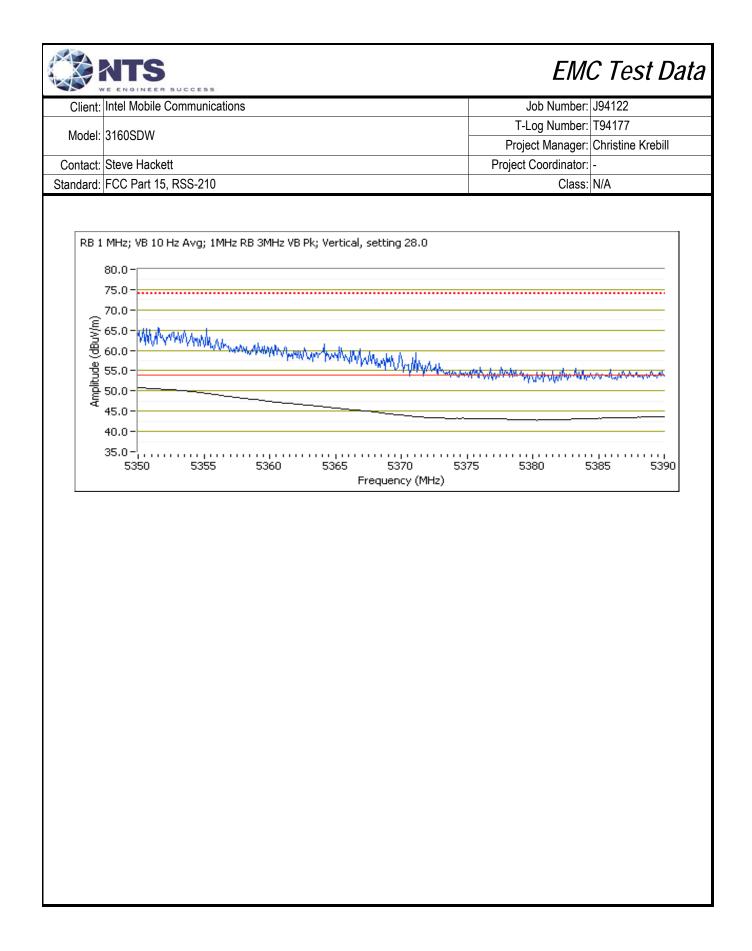
Measurement Specific Notes:

| 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: | |
| | | |
| | | |
| | | |
| | | |

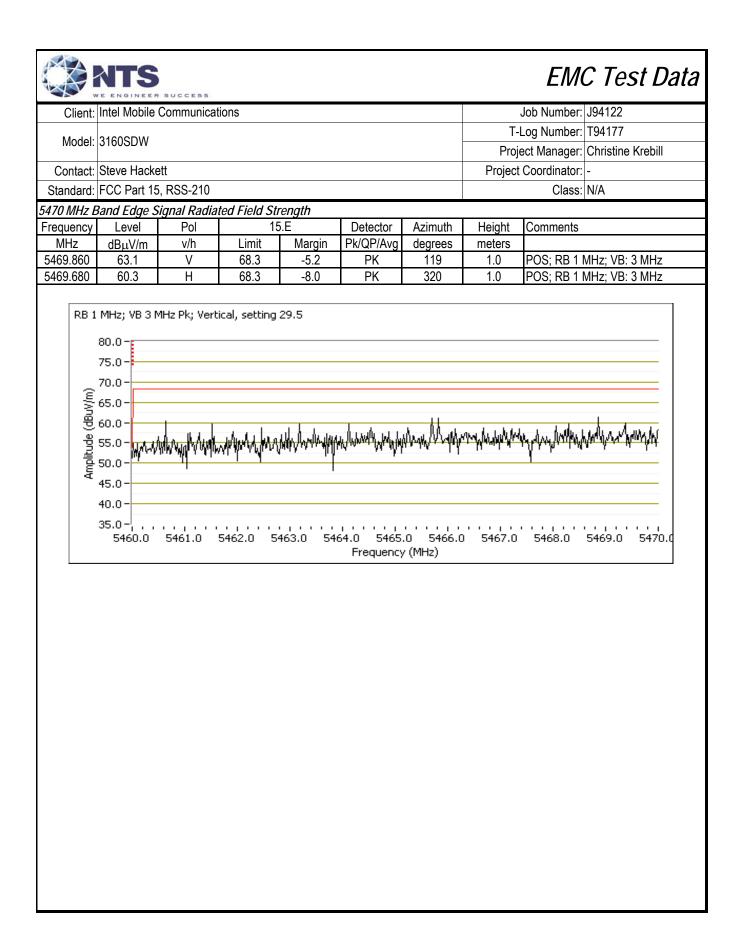
| Client: I Model: 3 | ntel Mobile (| Communicat | tions | | | | | | |
|---------------------------------------|--|--------------|---------------|---------------|------------------------|---------------------------------|------------|-----------------|-------------------|
| | | | | | | | | Job Number: | 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) [,] (MHz) | 0 4950 | 5000 505(| 0 5100 5150 |

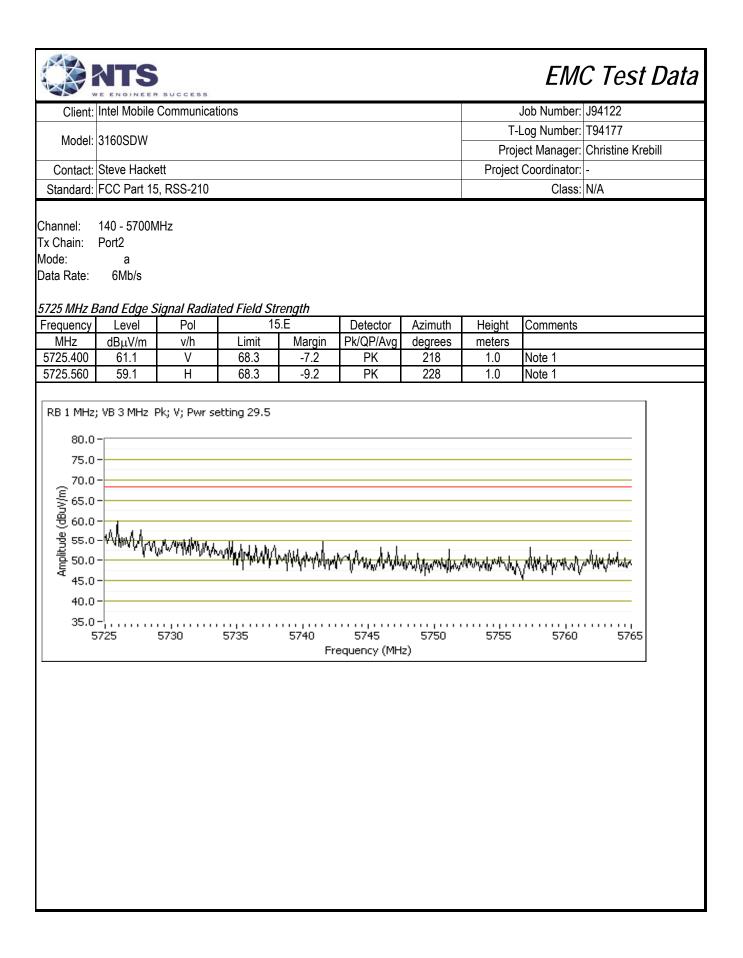


| Client: | VE ENGINEER | SUCCESS | | | | | | EMC Test Data |
|--------------------|-----------------|--------------|-------------|------------------|-----------------------|-------------------|------------------|--------------------------------|
| | Intel Mobile (| Communicat | ions | | | | | Job Number: J94122 |
| Model [.] | 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 |

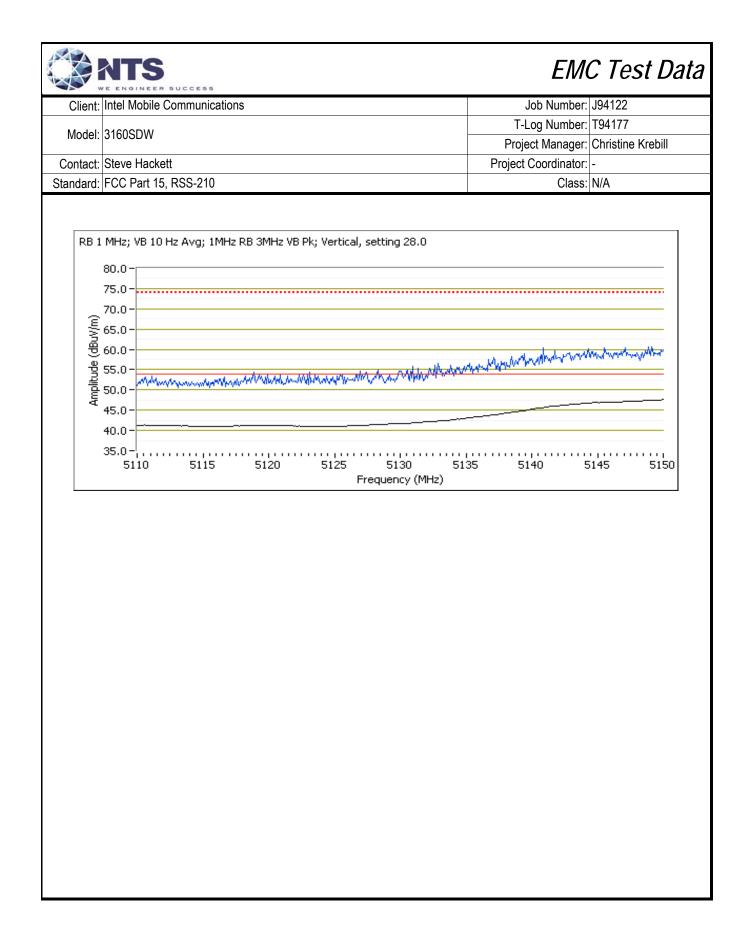


| Model: 3160SDW T-Log Number: T94177 Project Manager: Christine Kret Project Manager: Christine Kret Standard: FCC Part 15, RSS-210 Class: N/A Run #3: Radiated Bandedge Measurements, 5470-5725MHz Class: N/A Date of Test: 1/6/2013 0.00 Config. Used: - - Test Engineer: Rafael Varelas Config. Used: - - 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 |
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| 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 4 30 54 |
| | | | | | | ricquericy | (nu 2) | | | |

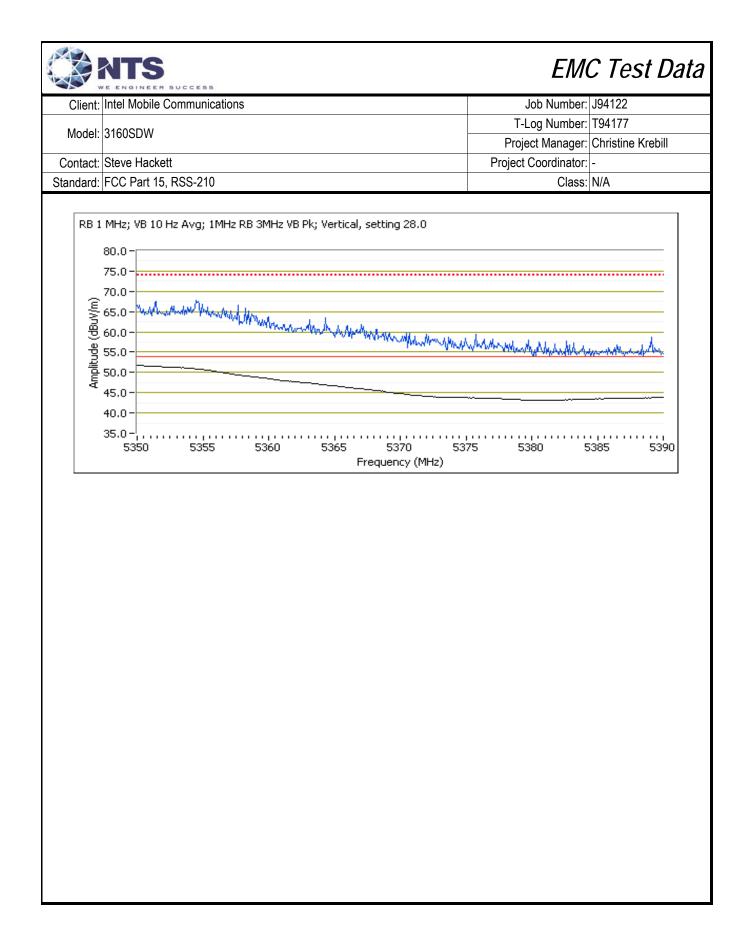




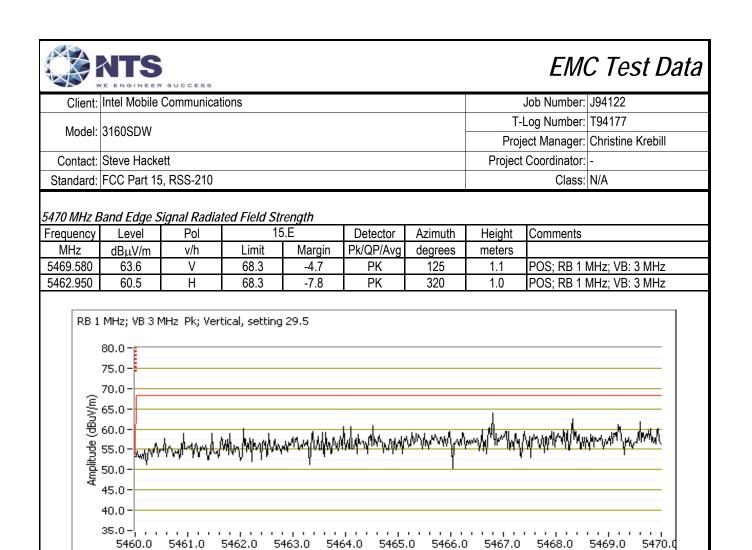
| | | SUCCESS | | | | | | EMC Test Da | | |
|----------------------|--|-------------|---------------|---------------|-----------------|--------------|------------------------------------|-----------------------------|--|--|
| Client: | Intel Mobile | Communicat | ions | | | | | Job Number: J94122 | | |
| 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 | | |



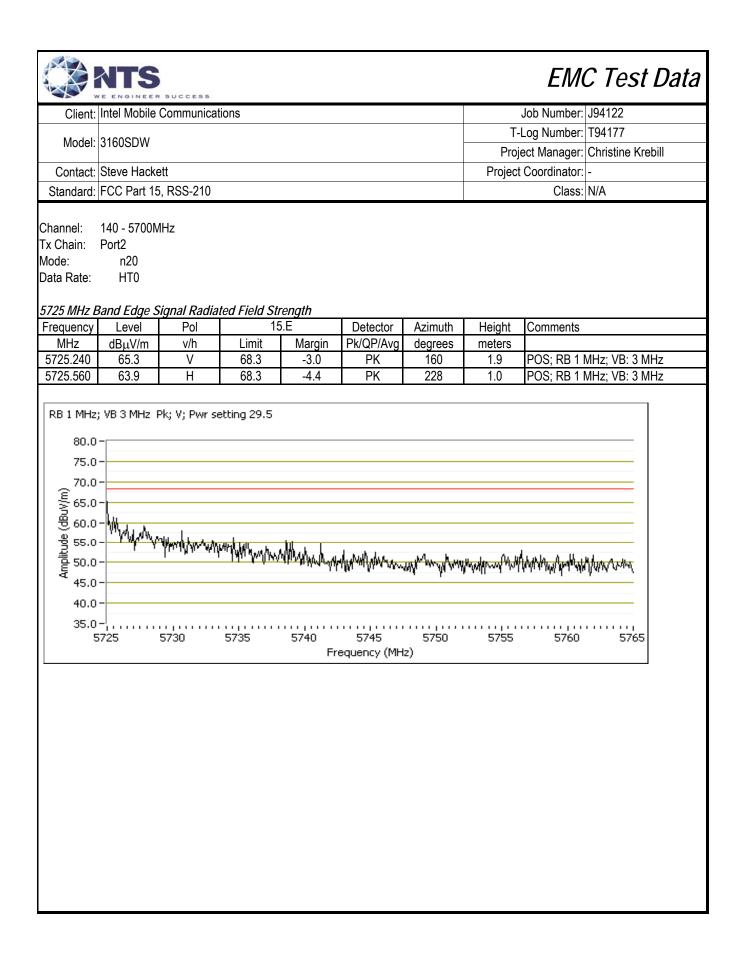
| | | SUCCESS | | | | | | EMC Test Data |
|------------|---|-------------|--------------|------------|---|--|------------------------|--------------------------------|
| Client: | Intel Mobile | Communicat | ions | | | | , | Job Number: J94122 |
| Madal | 24000014/ | | | | | | T-I | Log Number: T94177 |
| 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 |



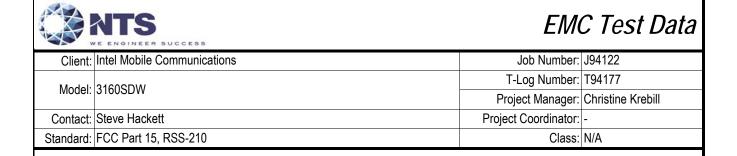
Frequency (MHz)



| 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 | | | | | |

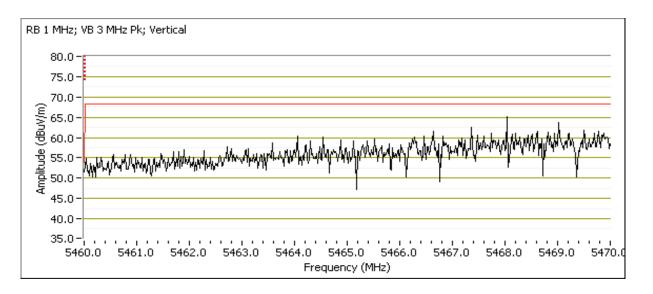
| | | SUCCESS | | | | | | EMO | C Test Dat |
|------------|--|-------------|---------------|---------------------------------|--------------|-------------------|------------|-----------------|-------------------------|
| Client: | Intel Mobile (| Communicat | tions | Job Number: J94122 | | | | | |
| 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 |

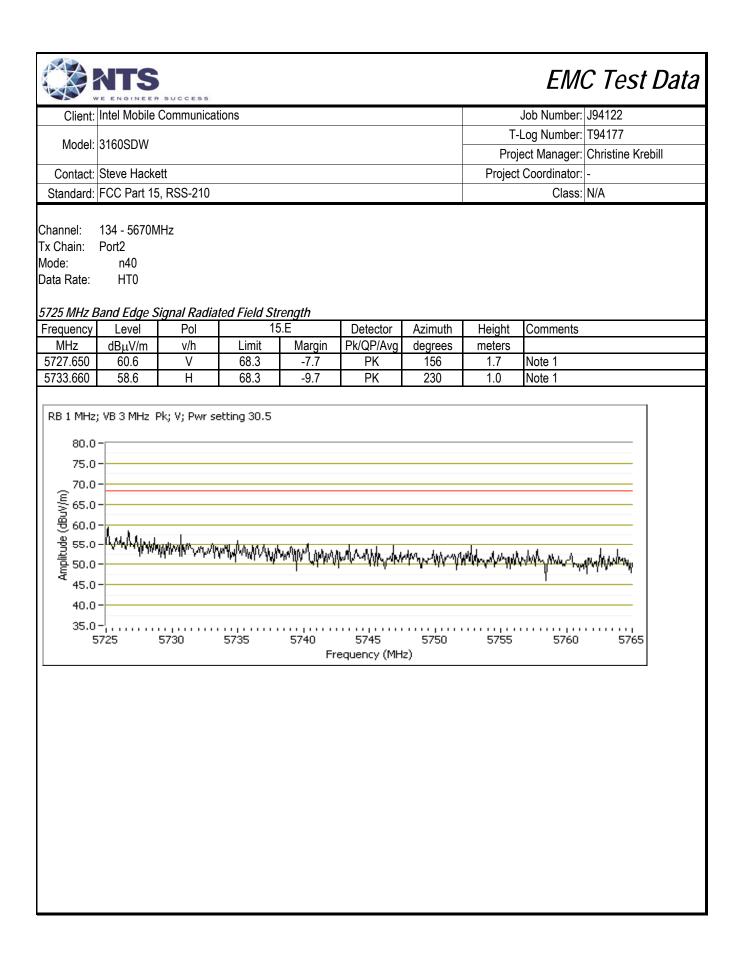
| | | SUCCESS | | | | | | EM | C Test Dat |
|----------------------|--------------------------------|-------------|---------------|---------------------------------|-----------------|-------------------|------------|-----------------|-----------------|
| Client: | Intel Mobile (| Communicat | ions | | 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 |

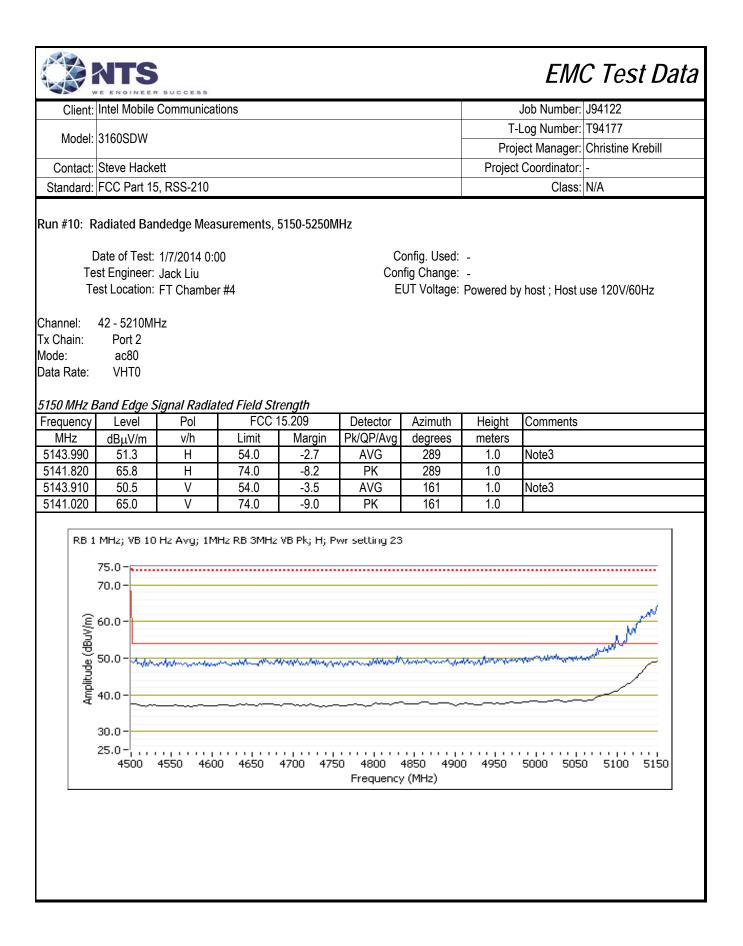


5470 MHz Band Edge Signal Radiated Field Strength

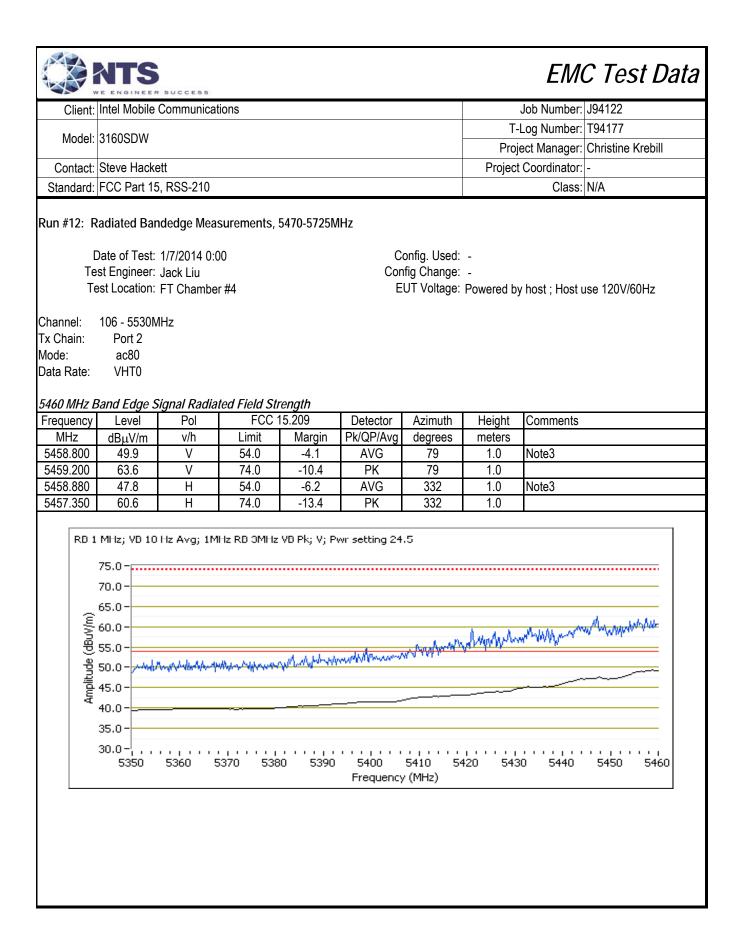
| Frequency | Level | Pol | 15 | i.E | Detector | Azimuth | Height | Comments |
|-----------|--------|-----|-------|--------|-----------|---------|--------|--------------------------|
| MHz | dBµV/m | v/h | Limit | Margin | Pk/QP/Avg | degrees | meters | |
| 5469.320 | 65.2 | V | 68.3 | -3.1 | PK | 126 | 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 |







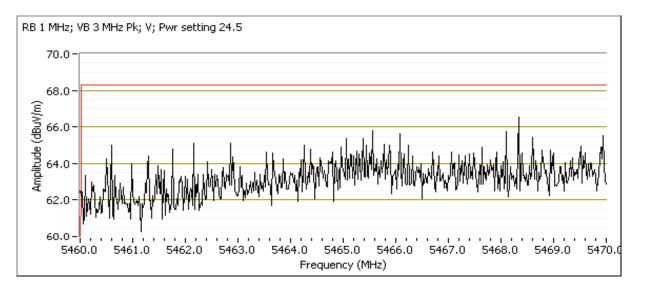
| | | SUCCESS | | | | | | EMC Test Dat |
|--|--|--------------------------|---------------|--------------|-------------------|------------------------------|--|---|
| Client: | Intel Mobile | Communicat | ions | | | | | Job Number: J94122 |
| NA . 1.1 | 240000144 | | | | | | T- | Log Number: T94177 |
| 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.

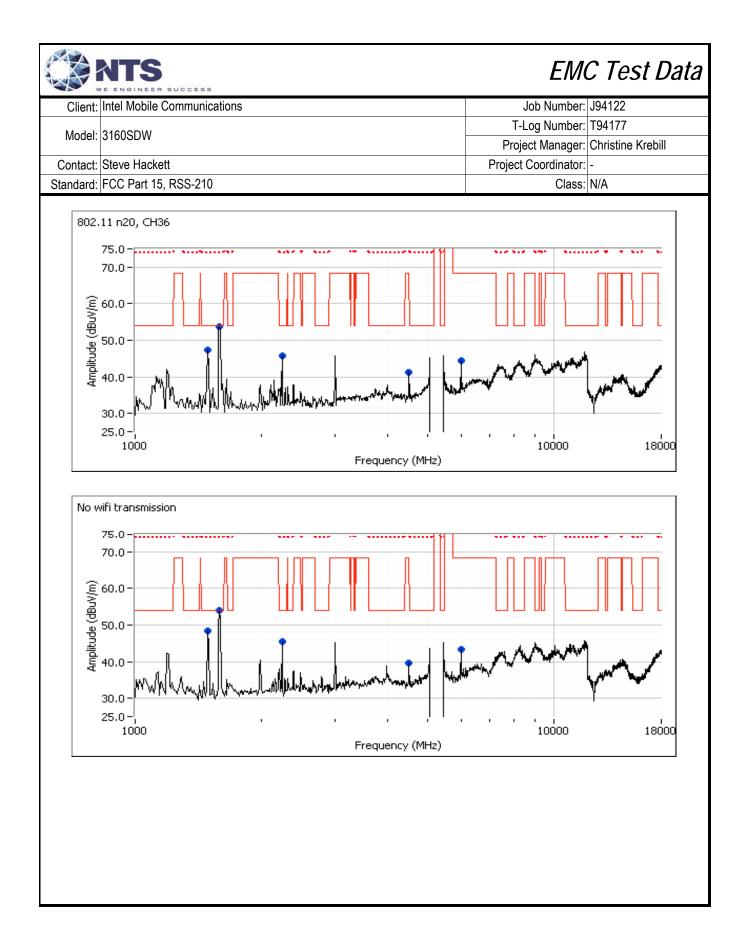
| Ullent: | Intel Mobile (| Communica | tions | | | | | Job Number: J94122 |
|---------------------------------------|--|------------------------|----------------|-----------------|----------------------------------|---|---------------|-----------------------------------|
| | | | | | | | T- | Log Number: 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 | / MH z) | | 10000 18000 | |

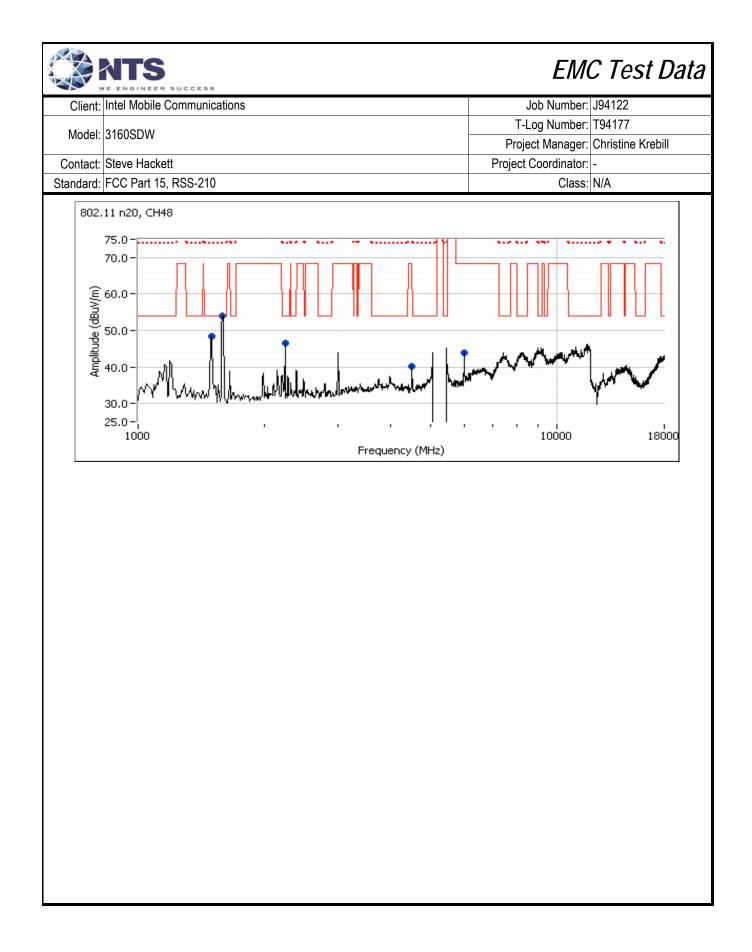
| | | SUCCESS | | | | | | EMC Test Data | | |
|----------------------|---------------|--|------------|------------|------------|-------------|------------|--------------------------------|--|--|
| Client: | Intel Mobile | Communicat | ions | | | | , | Job Number: J94122 | | |
| M. L.L | 040000144 | | | | | | T-L | _og Number: T94177 | | |
| Wodel: | 3160SDW | | | | | | Proje | ect Manager: Christine Krebill | | |
| Contact [.] | 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 |

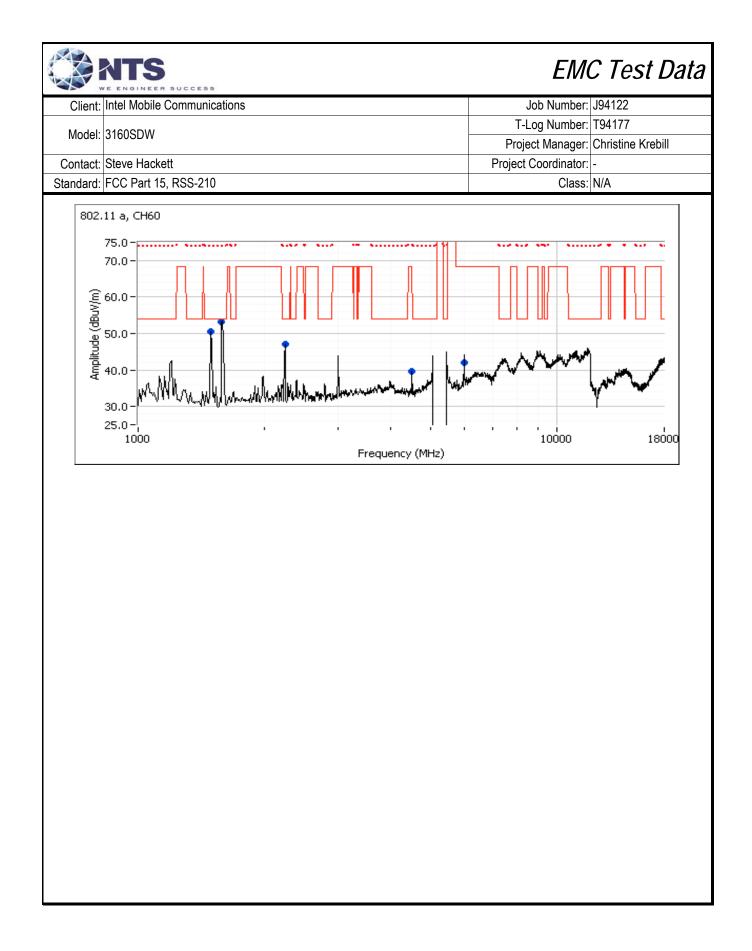
| | | SUCCESS | | | | | | | C Test Data | | |
|-------------------------------|---|---|--|--|---------------------------------|------------------------------|------------------------|--------------|--|--|--|
| Client: | Intel Mobile | Communica | tions | | | | | Job Number: | | | |
| Model | 3160SDW | | | | | | 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 [.] | | | | | | | | | | | |
| Note 8: | | | n, but the sig | | | , | | | | | |



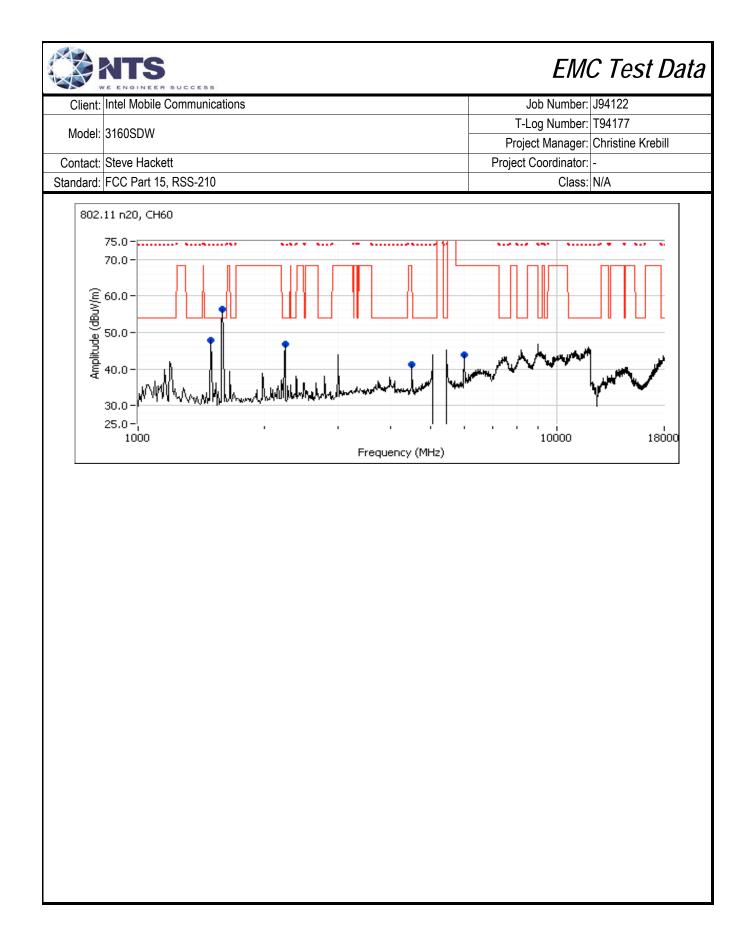
| | NTS VE ENGINEER | SUCCESS | | | | | | EMC Test Data | | |
|-----------------------|--------------------|-----------------|---------------------|----------------|----------------------------------|----------------------------|------------------------|-----------------------------------|--|--|
| Client: | 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 | | | | | , | | | | |
| | | | | | | | | | | |



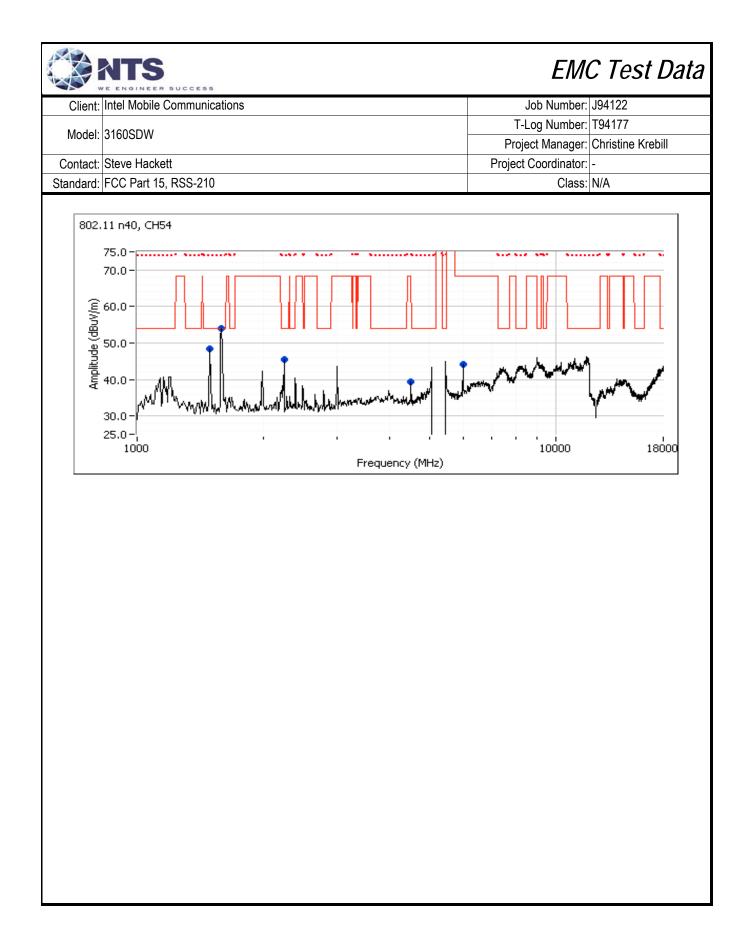
| | | SUCCESS | | | | | | EM | C Test Data |
|-------------------|---|--|----------------------------------|------------------------------------|--|------------------------------|-------------|--------------|-------------------------------------|
| Client: | Intel Mobile | Communica | tions | | | | | 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 | | | / | | | |
| | | | | | | | | | |



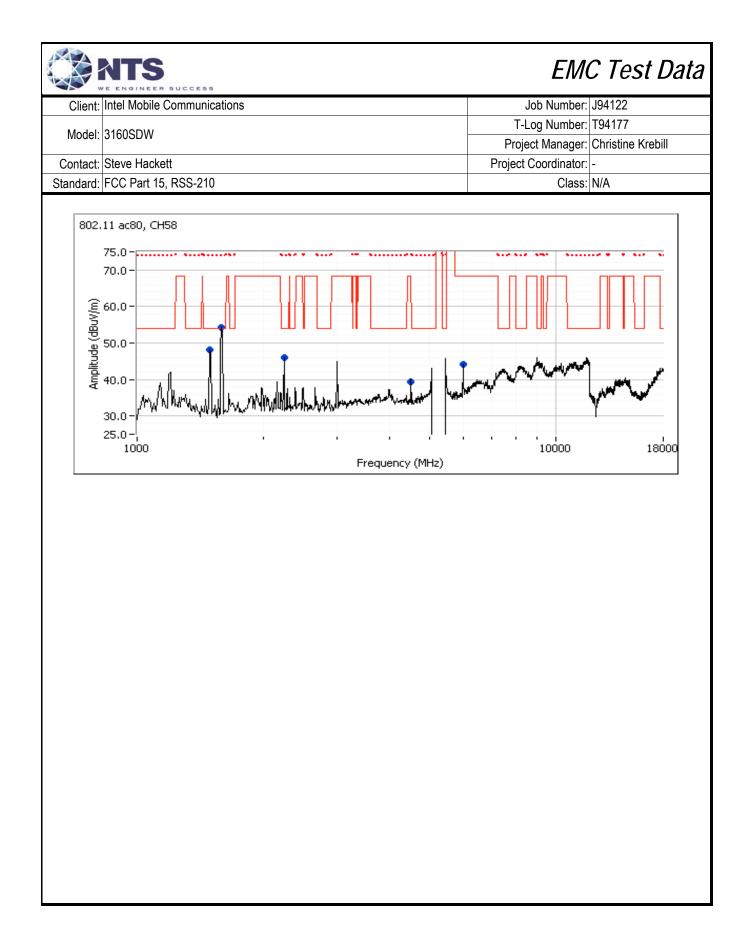
| 11n20 HT0 15E Margin -9.1 -20.3 -19.1 -27.8 -16.1 -13.5 -12.2 -22.3 -16.0 -29.1 | | Azimuth degrees 91 112 112 91 91 91 122 122 | T- Proj Project | Job Number: J94122 Log Number: T94177 ect Manager: Christine Krebill t Coordinator: - Class: N/A Power Setting: 28.5 Comments Note 8 Note 8 Note 7a, 8 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). |



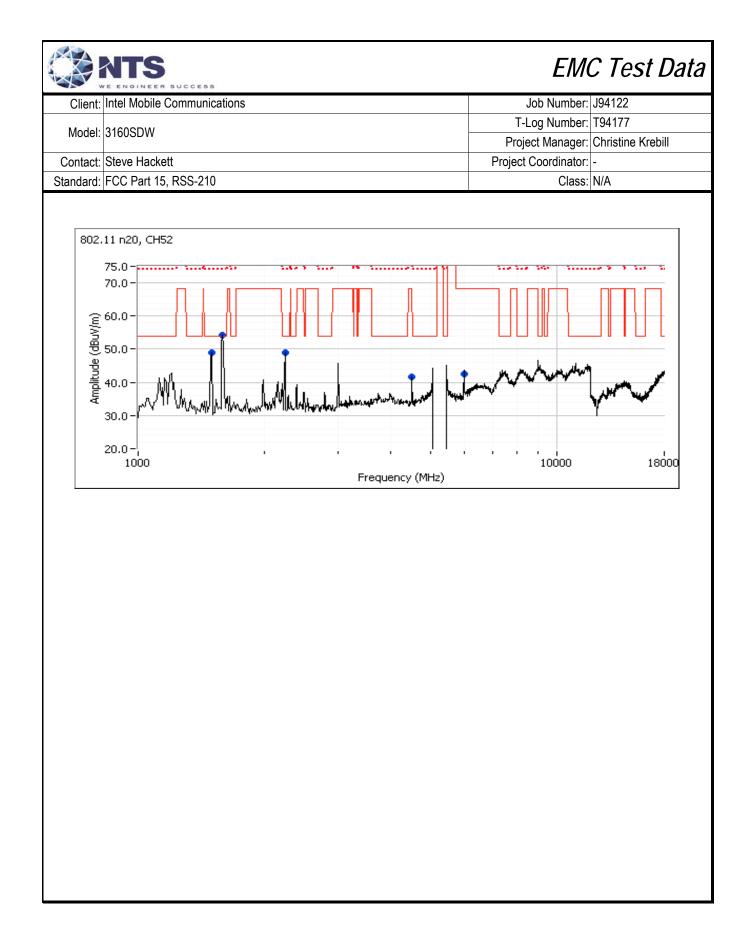
| | | SUCCESS | | | | | | EIVIC | C Test Data |
|----------------------|----------------|----------------|-----------------|----------------|----------------------------------|--------------|------------|------------------|---------------------|
| Client: | Intel Mobile (| Communicat | ions | | | | | 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. | | | | |
| | | | | | | | | | |



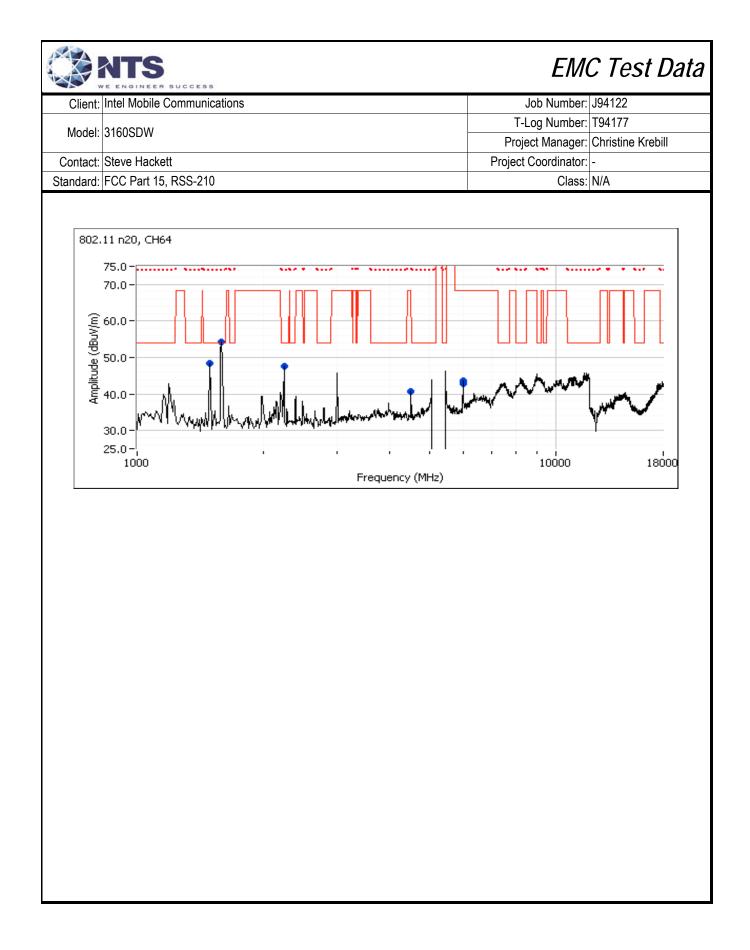
| | VE ENGINEER | SUCCESS | | | | | | |
|----------------------|---------------|-----------------|--------------|----------------|---------------------------------|--------------|-------------|-----------------------------------|
| Client: | Intel Mobile | Communica | tions | | | | | Job Number: J94122 |
| 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 |



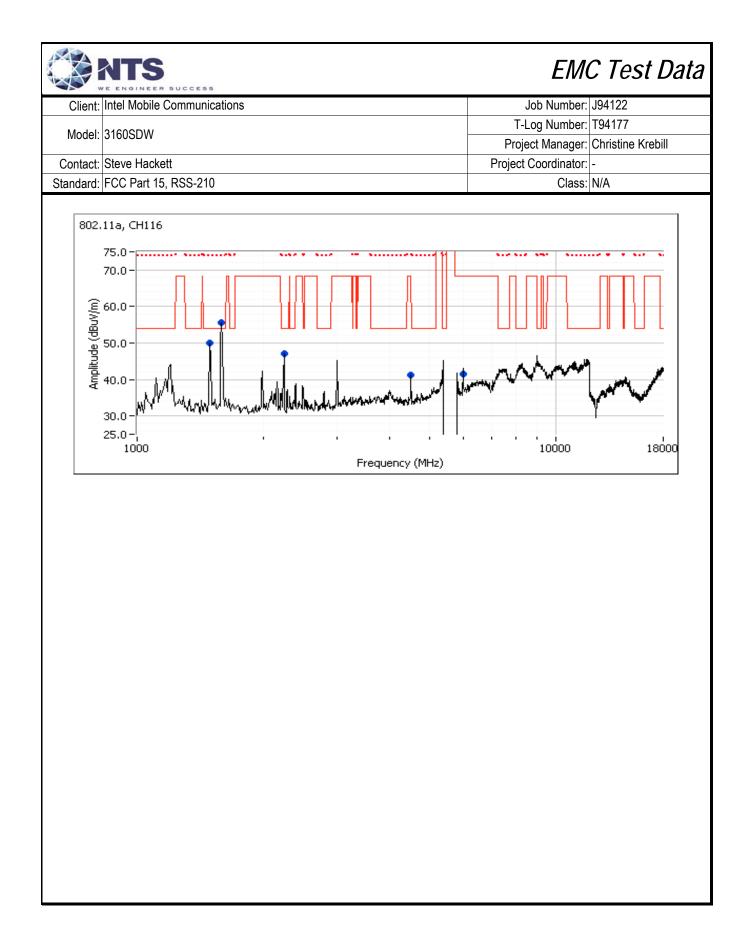
| Client: | Intel Mobile (| Communica | tions | | | | | Job Number: | J94122 |
|-------------------------------|---|--|---|--|---------------------------------|--|--------------------|--------------|--|
| | | | | | | | T- | Log Number: | T94177 |
| Model: | 3160SDW | | | | | | | - | Christine Krebill |
| 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 | | , | | | |



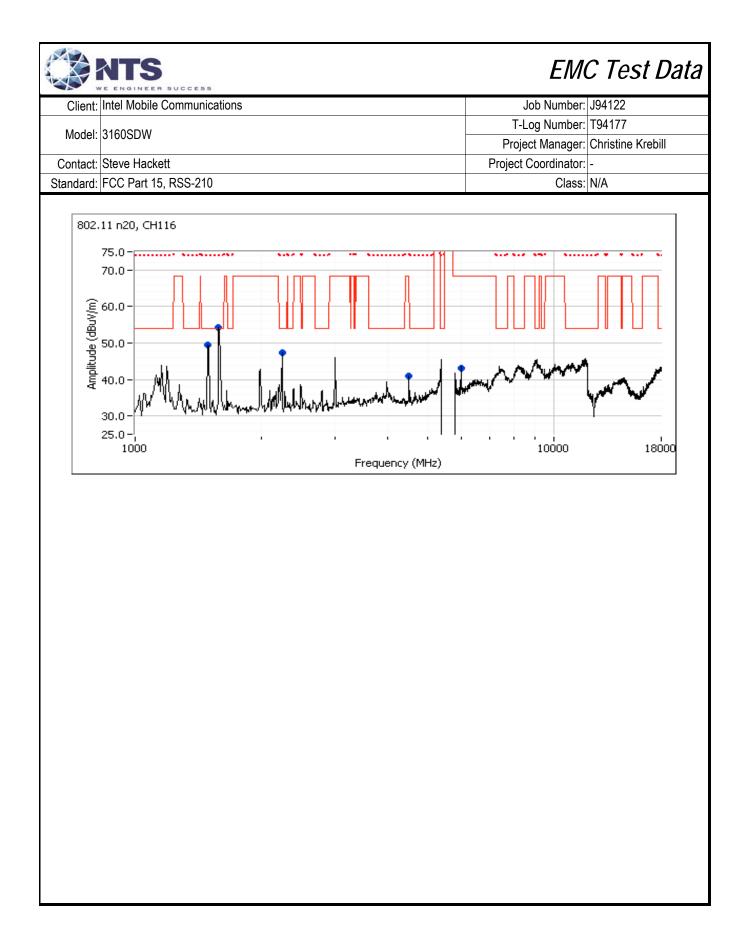
| Client [.] | Intel Mobile (| Communica | tions | | | | | Job Number: | J94122 |
|----------------------|----------------|-------------|--------------|---------------|----------------|-----------------|--------------|------------------|---------------------|
| Oliont. | | | | | | | | Log Number: | |
| 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: | | | j |
| | | | | | | | | | |
| 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 | | | | | | | |



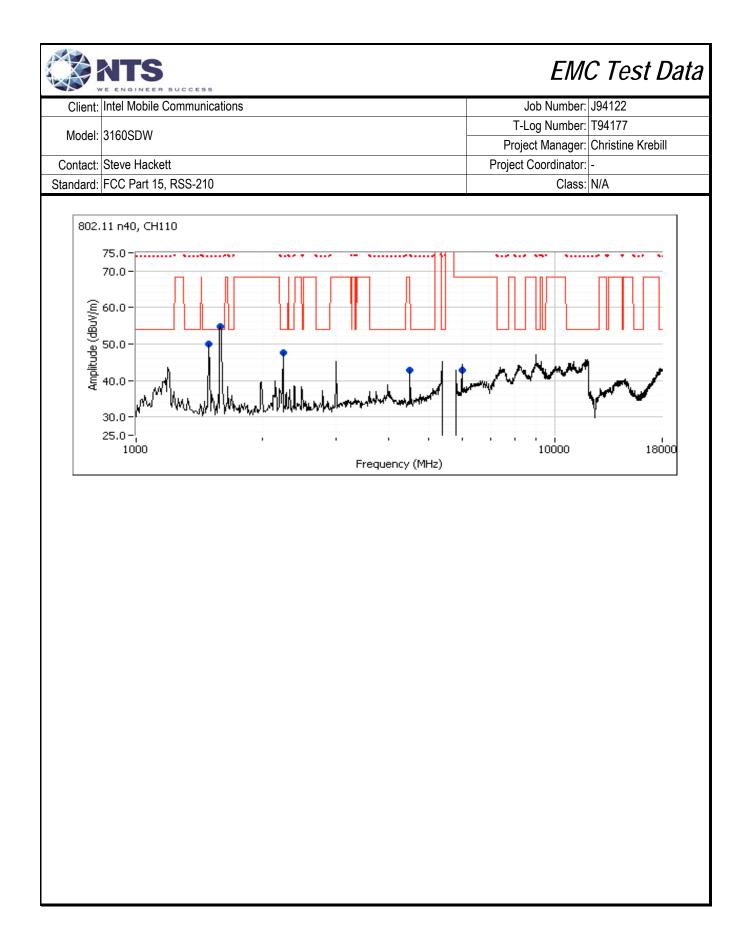
| | | SUCCESS | | | | | | EMC Test Data |
|-------------------|--|--|--|------------------------------------|---------------------------------|------------------------------|---------------------|---|
| Client: | Intel Mobile | Communica | tions | | | | | Job Number: J94122 |
| | | | | | | | T- | Log 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 | | | / | | |



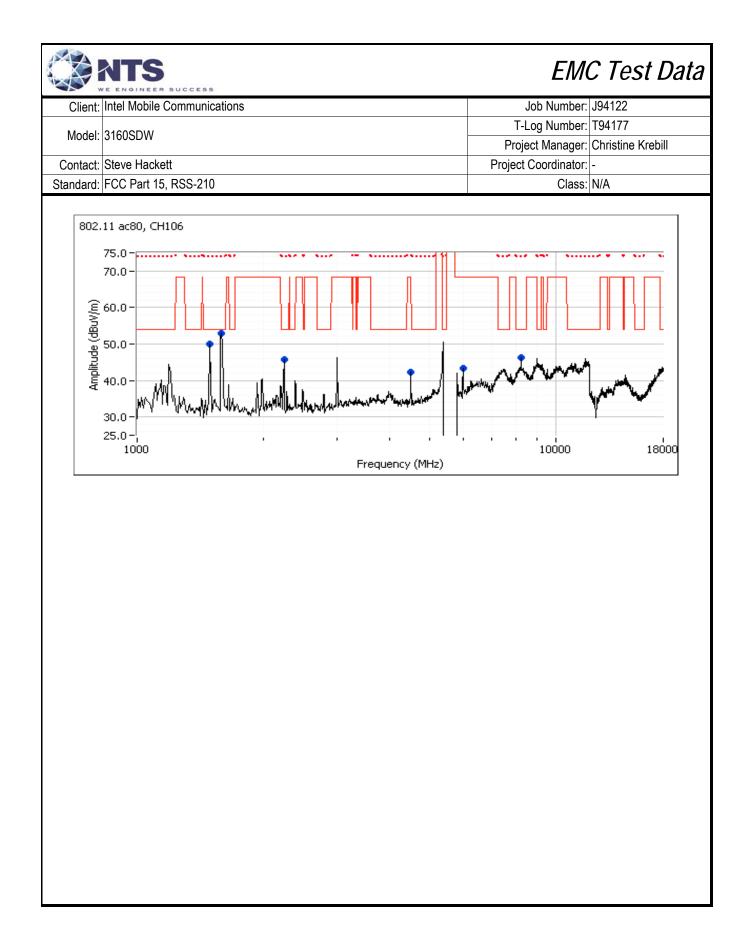
| Client | Intel Mobile | Communica | tions | | | | | Job Number: | J94122 |
|----------------------|--------------|-------------|---------------|---------------|----------------|---------------|--------------|------------------|---------------------|
| | | | | | | | T- | Log Number: | T94177 |
| Model | 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 | | | | | | | |



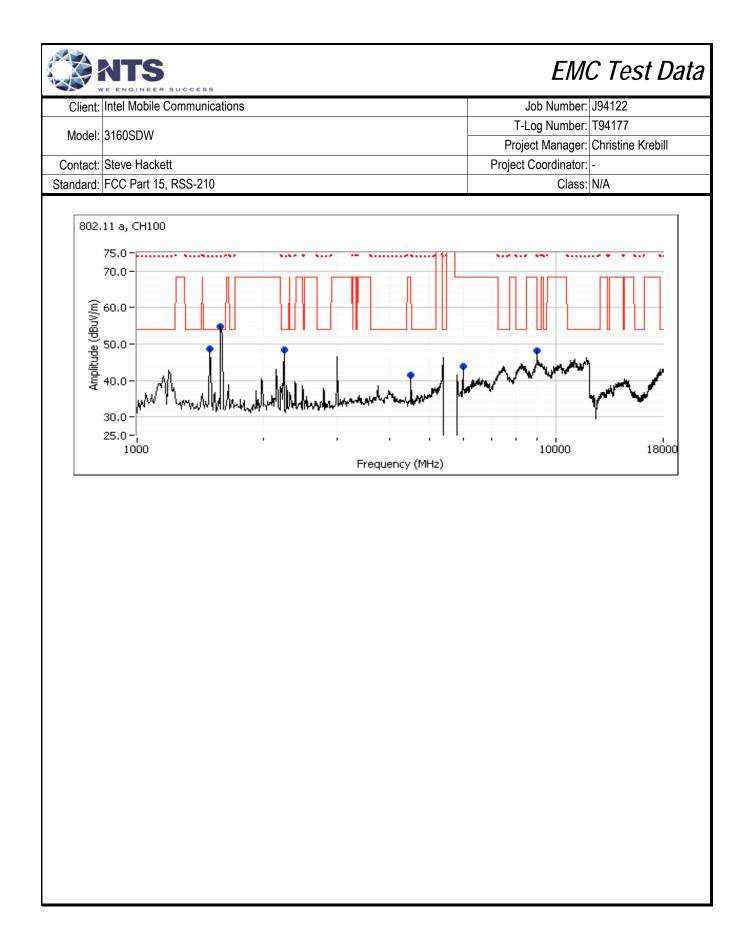
| Client: | Intel Mobile | Communica | tions | | | | | Job Number: | J94122 |
|----------------------|-----------------|---------------|---------------------------------|----------------|----------------|------------------|--------------|------------------|---------------------|
| | | | | | | | T- | 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: | O (1.11 | | | | not dron | | | | |



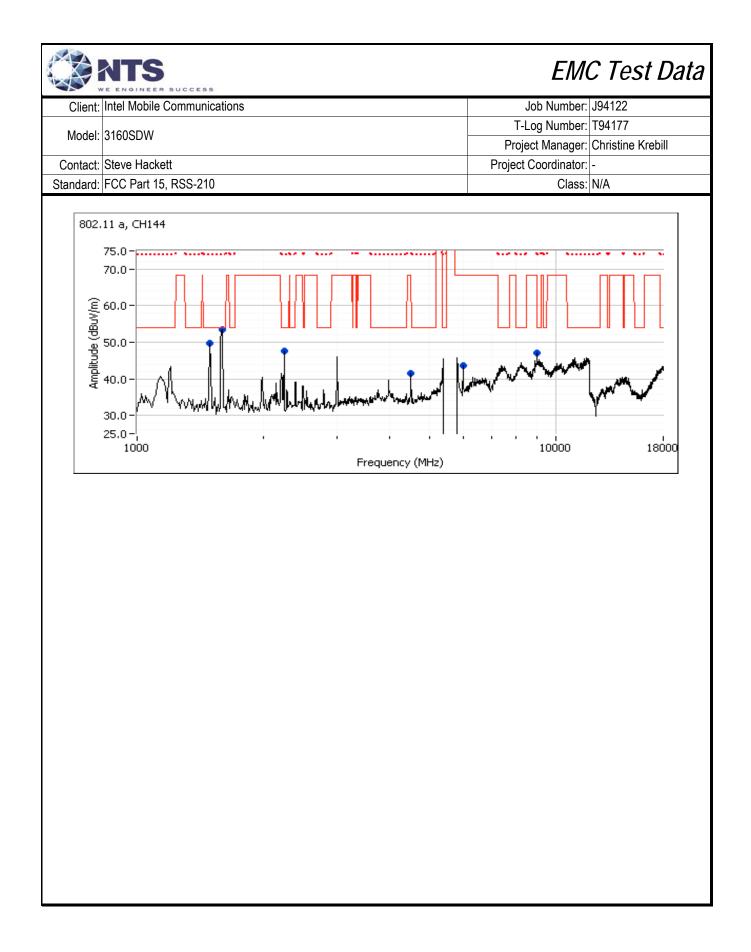
| Client | Intel Mobile | Communica | tions | | | | | Job Number: | J94122 |
|----------------------|---------------|---------------|-----------------|---------------|-----------------|--------------|--------------|------------------|---------------------------|
| | 040000144 | | | | | | T- | Log Number: | 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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