

Electromagnetic Emissions Test Report Application for Class II Permissive Change pursuant to FCC Part 15, Subpart C (15.247) DTS Specifications, FCC Part 15, Subpart E (UNII Devices) and Industry Canada RSS 210 Issue 5 (LELEAN Devices) on the Intel Corporation Model: WM3B2915ABG

> FCC ID: PD9FJ3B2915ABG UPN: 1000M-FJ2915

GRANTEE: **Intel Corporation**

> 13280 Evening Creek Drive San Diego, CA 92128

TEST SITE: Elliott Laboratories, Inc.

> 41039 Boyce Road Fremont, CA 94538

REPORT DATE: July 25, 2005

FINAL TEST DATE: July 19, July 21 and July 23, 2005

AUTHORIZED SIGNATORY:

Senior EMC Engineer



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DECLARATIONS OF COMPLIANCE

Equipment Name and Model: WM3B2915ABG

Manufacturer:

Intel Corporation 13280 Evening Creek Drive San Diego, CA 92128

Tested to applicable standards:

RSS-210, Issue 5, November 2001 (Low Power License-Exempt Radiocommunication

Devices)

FCC Part 15.247 (DTS)

FCC Part 15 Subpart E (UNII Devices)

Measurement Facility Description Filed With Department of Industry:

Departmental Acknowledgement Number: IC 4549-4 Dated July 19, 2003

I declare that the testing was performed or supervised by me; that the test measurements were made in accordance with the above mentioned departmental standards (through the use of ANSI C63.4:2003 as detailed in section 5.3 of RSS-210, Issue 5); and that the equipment performed in accordance with the data submitted in this report.

Signature

Name Juan Martinez

Title Senior EMC Engineer
Company Elliott Laboratories Inc.
Address 684 W. Maude Ave

Sunnyvale, CA 94086

USA

Date: July 25, 2005

Maintenance of compliance with the above standards 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.).

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SCOPE

An electromagnetic emissions test has been performed on the Intel Corporation model WM3B2915ABG pursuant to Subparts C and E of Part 15 of FCC Rules for Unlicensed National Information Infrastructure (UNII) devices and RSS-210 Issue 5 for licence-exempt local area network (LELAN) devices. Conducted and radiated emissions data has been collected, reduced, and analyzed within this report in accordance with measurement guidelines set forth in ANSI C63.4:2003 as outlined in Elliott Laboratories test procedures.

The intentional radiator above has been tested in a simulated typical installation to demonstrate compliance with the relevant FCC 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.

The test results recorded herein are based on a single type test of the Intel Corporation model WM3B2915ABG and therefore apply only to the tested sample. The sample was selected and prepared by Robert Paxman of Intel Corporation

OBJECTIVE

The primary objective of the manufacturer is compliance with Subparts C and E of Part 15 of FCC Rules for the radiated and conducted emissions of intentional radiators. Certification of these devices is required as a prerequisite to marketing as defined in Part 2 the FCC Rules.

Certification is a procedure where the manufacturer or a contracted laboratory makes measurements and submits the test data and technical information to the FCC. The FCC issues a grant of equipment authorization upon successful completion of their 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.

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SUMMARY OF RESULTS

FCC Part 15 Section	RSS 210 Section	Description	Measured Value	Comments	Result
15.247(a)	6.2.2(o)(b)	Digital Modulation	Systems uses OFDM / DSSS techniques	System must utilize a digital transmission technology	Complies
15.247 (b) (3)	6.2.2(o)(b)	Output Power, 2400 - 2483.5 MHz (802.11b)	18.02dBm (Peak) 16.85dBm (Avg) (Note 1)	Multi-point applications: Maximum permitted is 1Watt, with EIRP limited to 4 Watts.	Complies
15.247 (b) (3) 15.247 (b) (4) (i)	6.2.2(o)(b)	Output Power, 2400 - 2483.5 MHz (802.11g)	21.63dBm (Peak) 15.22dBm (Avg) (Note 1)	Multi-point applications: Maximum permitted is 1Watt, with EIRP limited to 4 Watts.	Complies
15.247 (b) (3) 15.247 (b) (4) (i)	6.2.2(o)(b)	Output Power, 5725 - 5850 MHz	20.5dBm (Avg), 23.16dBm (Peak); (Note 1)	Multi-point applications: Maximum permitted is 1Watt, with EIRP limited to 4 Watts.	Complies
15.247(c) / 15.209		Radiated Spurious Emissions – 30MHz – 26 GHz	50dBuV/m @ 4923.9 MHz (-3.6 dB)	Emissions in restricted bands must meet the radiated emissions limits detailed in 15.207. All others must be < -20dBc	Complies
15.247 (b) (5)		RF Exposure Requirements	MPE Calculation		
15.203		RF Connector	Hirose connector (Antennas will be installed inside laptops)	Standard rf connectors permitted for professionally installed systems	Complies

Note 1: Original report states average and peak power. Due to the inconsistency in the measured peak power (Using peak power meter and UNII power measurement method), the average power was measured and matched it with the original powers that were reported in the original application. Then measured the peak power and recorded the results.

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FCC Part 15 Section	RSS 210 Section	Description	Comments	Result
Operation in t	Operation in the 5.15 – 5.25 GHz Band			
15.407 (d)		As the device operates in the 5.15 – 5.25 GHz band the antenna must be integral to the device.	Antenna Gain = 2 dBi The antenna is integral	COMPLIES
15.407(a) (1)	6.2.2 q1 (i)	Output Power	11.6dBm (Avg), 17.7dBm (Peak); Note 1	COMPLIES
15.407(b) (2)	6.2.2 q1 (ii)	Spurious Emissions above 1GHz	53dBuV/m @ 5350 MHz (-0.7dB)	COMPLIES
Operation in the 5.25 – 5.35 GHz Band Note: The device is not restricted to indoor use only, therefore the spectral density of spurious emissions in the 5.15 – 5.25 GHz band were limited to the power spectral limit of –27dBm/MHz a detailed in FCC 15.407(b)(2) and RSS 210 6.2.2 q1 (ii)				
		Maximum Antenna Gain	Antenna Gain = 2 dBi The antenna is integral	COMPLIES
15.407(a) (2)	6.2.2 q1 (ii)	Output Power	16.4dBm (Avg), 21.2dBm (Peak); Note 1	COMPLIES
15.407(b) (2)	6.2.2 q1 (ii)	Spurious Emissions above 1GHz	53dBuV/m @ 5350 MHz (-0.7dB)	COMPLIES
General requir	ements for all ba	nds		
15.407 (f)	6.2.2 q(iv)(g)	RF Exposure Requirements	Refer to MPE calculations in Exhibit 11	COMPLIES

Note 1: Original report states average and peak power. Due to the inconsistency in the measured peak power (Using peak power meter and UNII power measurement method), the average power was measured and matched it with the original powers that were reported in the original application. Then measured the peak power and recorded the results.

MEASUREMENT UNCERTAINTIES

ISO Guide 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	Frequency Range (MHz)	Calculated Uncertainty (dB)
Conducted Emissions	0.15 to 30	+ 2.4
Radiated Emissions	30 to 1000	± 3.6

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EQUIPMENT UNDER TEST (EUT) DETAILS

GENERAL

The Intel Corporation model WM3B2915ABG is a 802.11/ab/g wireless that is designed to connect to PC. Normally, the EUT would be placed on a tabletop during operation. The EUT was, therefore, treated as tabletop equipment during testing to simulate the end-user environment. The EUT is powered via the PC.

The sample was received on July 19, 2005 and tested on July 19, July 21 and July 23, 2005. The EUT consisted of the following component(s):

Manufacturer	Model	Description	Serial Number	FCC ID
Intel	WM3B2915ABG	802.11a/b/g card		PD9FJ3B2915ABG

OTHER EUT DETAILS

ENCLOSURE

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

MODIFICATIONS

The EUT did not require modifications during testing in order to comply with the emission specifications.

SUPPORT EQUIPMENT

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

Manufacturer	Model	Description	Serial Number	FCC ID
Hewlett Packard	Pavilian a300n	Computer	MXK3391864	-
Hewlett Packard	M042KG	Mouse	030870136	-
Hewlett Packard	5183	Keyboard	BF3339165	E5XKB5183
Samsung	151S R	Monitor	GG15H4JTB04858E	-

No equipment was used as remote support equipment for emissions testing.

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EUT INTERFACE PORTS

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

	Port	Connected To		Cable(s)	
1	ιΟιι	Connected 10	Description	Shielded or Unshielded	Length(m)
Ma	ain Ant	Antenna	Coax	Shielded	0.25

EUT OPERATION DURING TESTING

The EUT was transmitting continuously on either the low, middle, and high.

ANTENNA REQUIREMENTS

As the device is intended to operate in the 5.15-5.25 GHz band an integral antenna as detailed in 15.407 (d) and RSS-210 6.2.2(q1) (i) is required. The antenna for the device is an integral antenna to the end product.

PROPOSED MODIFICATION DETAILS

The only modification proposed is the addition of a new antenna. Refer to the exhibit "FCC Class II Letter".

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TEST SITE

GENERAL INFORMATION

Final test measurements were taken on July 19, July 21 and July 23, 2005at the Elliott Laboratories Anechoic Chamber 4 located at 41039 Boyce Road, Fremont, California. The test site contains separate areas for radiated and conducted emissions testing. Pursuant to section 2.948 of the Rules, construction, calibration, and equipment data has been filed with the Federal Communications Commission. In accordance with Industry Canada rules detailed in RSS 210 Issue 5 and RSS-212, construction, calibration, and equipment data for the test sites have been filed with the Federal Communications Commission.

The FCC recommends that ambient noise at the test site be at least 6 dB below the allowable limits. Ambient levels are below this requirement with the exception of predictable local TV, radio, and mobile communications traffic. The test site contains separate areas for radiated and conducted emissions testing. Considerable engineering effort has been expended to ensure that the facilities conform to all pertinent FCC requirements.

CONDUCTED EMISSIONS CONSIDERATIONS

Conducted emissions testing is performed in conformance with ANSI C63.4:2003. Measurements are made with the EUT connected to the public power network through a nominal, standardized RF impedance, which is provided by a line impedance stabilization network, known as a LISN. A LISN is inserted in series with each current-carrying conductor in the EUT power cord.

RADIATED EMISSIONS CONSIDERATIONS

The FCC has determined that radiation measurements made in a shielded enclosure are not suitable for determining levels of radiated emissions. Radiated measurements are performed in an open field environment. The test site is maintained free of conductive objects within the CISPR defined elliptical area incorporated in ANSI C63.4:2003 guidelines.

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MEASUREMENT INSTRUMENTATION

RECEIVER SYSTEM

An EMI receiver as specified in CISPR 16-1 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.

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.

INSTRUMENT CONTROL COMPUTER

The receivers utilize either a Rohde and 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.

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POWER METER

A power meter and **peak** power sensor are used for all direct output power measurements from transmitters as they provide a broadband indication of the power output.

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 biconical antenna is used to cover the range from 30 MHz to 300 MHz and a log periodic antenna is utilized from 300 MHz to 1000 MHz. Narrowband tuned dipole antennas are used over the entire 30 to 1000 MHz range for precision measurements of field strength. Above 1000 MHz, a horn antenna is used. The antenna calibration factors are included in site factors programmed into the test receivers.

ANTENNA MAST AND FOUIPMENT TURNTABLE

The antennas used to measure the radiated electric field strength are mounted on a non-conductive antenna mast equipped with a motor-drive to vary the antenna height.

ANSI C63.4:2003 specifies that the test height above ground for table mounted devices shall be 80 centimeters. Floor mounted equipment shall be placed on the ground plane if the device is normally used on a conductive floor or separated from the ground plane by insulating material from 3 to 12 mm if the device is normally used on a non-conductive floor. During radiated measurements, the EUT is positioned on a motorized turntable in conformance with this requirement.

INSTRUMENT CALIBRATION

All test equipment is regularly checked to ensure that performance is maintained in accordance with the manufacturer's specifications. All antennas are calibrated at regular intervals with respect to tuned half-wave dipoles. An exhibit of this report contains the list of test equipment used and calibration information.

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TEST PROCEDURES

EUT AND CABLE PLACEMENT

The FCC requires that interconnecting cables be connected to the available ports of the unit and that the placement of the unit and the attached cables simulate the worst case orientation that can be expected from a typical installation, so far as practicable. To this end, the position of the unit and associated cabling is varied within the guidelines of ANSI C63.4:2003, and the worst case orientation is used for final measurements.

CONDUCTED EMISSIONS

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

RADIATED EMISSIONS

Radiated emissions measurements are performed in two phases as well. A preliminary scan of emissions is conducted in which all significant EUT frequencies are identified with the system in a nominal configuration. At least two scans are performed from 30 MHz up to the frequency required by the regulation specified on page 1. One or more of these is with the antenna polarized vertically while the one or more of these is with the antenna polarized horizontally. During the preliminary scans, the EUT is rotated through 360°, the antenna height is varied and cable positions are varied to determine the highest emission relative to the limit.

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. 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. Emissions which have values close to the specification limit may also be measured with a tuned dipole antenna to determine compliance.

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CONDUCTED EMISSIONS FROM ANTENNA PORT

Direct measurements are performed 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.

Measurement bandwidths (video and resolution) are set in accordance with FCC procedures for the type of radio being tested.

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SPECIFICATION LIMITS AND SAMPLE CALCULATIONS

The limits for conducted emissions from the AC power port are given in units of microvolts, the limits for radiated electric field emissions are given in units of microvolts per meter at a specified test distance and the output power limits are given in terms of Watts, milliwatts or dBm. 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.

Where the radiated electric field strength is expressed in terms of the equivalent isotropic radiated power (eirp) the following formula is used to determine the field strength limit in terms of microvolts per meter at a distance of 3m from the equipment under test:

$$E = \frac{1000000 \text{ v } 30 \text{ P}}{3} \quad \text{microvolts per meter}$$

where P is the eirp (Watts)

For reference, converting the voltage and electric field strength specification limits from linear to decibel form is accomplished by taking the base ten logarithm, then multiplying by 20. Conversion of power specification limits from linear units (in milliwatts) to decibel form (in dBm) is accomplished by taking the base ten logarithm, then multiplying by 10.

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FCC 15.407 (a)and RSS 210 (o) 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
902 – 928	1 Watts (30 dBm)	8 dBm/3kHz
2400 – 2483.5	1 Watts (30 dBm)	8 dBm/3kHz
5725 – 5850	1 Watts (30 dBm)	8 dBm/3kHz

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

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.

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RS-210 6.2.2(q1) 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	200mW (23 dBm)	10 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.

RSS 210 (o) AND FCC 15.247 TRANSMIT MODE SPURIOUS RADIATED EMISSIONS LIMITS

The limits for unwanted (spurious) emissions from the transmitter falling in the restricted bands detailed in Part 15.205 and for all spurious emissions from the receiver are:

Limit (uV/m @ 3m)	Limit (dBuV/m @ 3m)
100	40
150	43.5
200	46.0
500	54.0
	(uV/m @ 3m) 100 150 200

All other unwanted (spurious) emissions shall be at least 20dB below the level of the highest inband signal level (30dB if the power is measured using the sample detector/power averaging method).

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RS 210 (q1) and FCC 15E TRANSMIT MODE SPURIOUS RADIATED EMISSIONS LIMITS

The table below shows the limits for unwanted (spurious) emissions falling in the restricted bands detailed in Part 15.205 and Industry Canada RSS-210 Table 2.

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

The table below shows the limits for unwanted (spurious) emissions outside of the restricted bands above 1GHz.

Operating Frequency (MHz)	EIRP Limit (dBm)	Equivalent Field Strength At 3m (dBuV/m)
5150 - 5250	-27 dBm	68.3 dBuV/m
5250 - 5350	-27 dBm (note 1)	68.3 dBuV/m
5725 – 5825	-27 dBm (note 2)	68.3 dBuV/m
	-17 dBm (note 3)	78.3 dBuV/m

Note 1:If operation is restricted to indoor use only then emissions in the band 5.15 – 5.25 GHz must meet the power spectral density limits for the intentional signals detailed in RSS 210 and FCC Subpart E for devices operating in the 5.15 – 5.25 GHz band.

Note 2: Applies to spurious signals separated by more than 10 MHz from the allocated band.

Note 3: Applies to spurious signals within 10 MHz of the allocated band.

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RS 210 Table 3 RECEIVE MODE SPURIOUS RADIATED EMISSIONS LIMITS

The table below shows the limits for unwanted (spurious) emissions from the receiver as detailed in table 3 of RSS 210:

Frequency Range (MHz)	Limit (uV/m @ 3m)	Limit (dBuV/m @ 3m)
30 to 88	100	40
88 to 216	150	43.5
216 to 960	200	46.0
960 to 1610	500	54.0
Above 1610	1000	60.0

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FCC 15.205 AC POWER PORT CONDUCTED EMISSIONS LIMITS

The table below shows the limits for emissions on the AC power line as detailed in FCC Part 15.205.

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

RSS-210 SECTION 6.6 AC POWER PORT CONDUCTED EMISSIONS LIMITS

The table below shows the limits for emissions on the AC power line as detailed in Industry Canada RSS-210 section 6.6.

Frequency		
Range	Limit	Limit
(MHz)	(uV)	(dBuV)
0.450 to 30.000	250	48

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SAMPLE CALCULATIONS - CONDUCTED EMISSIONS

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

$$R_r = C$$

and

$$C - S = M$$

where:

 R_r = Receiver Reading in dBuV

C = Corrected Reading in dBuV

S = Specification Limit in dBuV

M = Margin to Specification in +/- dB

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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, 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

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

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EXHIBIT 1: Test Equipment Calibration Data

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Radiated Emissions, 30 - 26,500 MHz, 19-Jul-05 Engineer: Mehran Birgani

Manufacturer	<u>Description</u>	Model #	Asset #	Cal Due
EMCO	Horn Antenna, D. Ridge 1-18GHz	3115	868	20-Apr-06
Rohde & Schwarz	Power Sensor, 1uW-100mW, DC-18 GHz, 50ohm	NRV-Z51	1069	04-Apr-06
Rohde & Schwarz	Power Meter, Dual Channel	NRVD	1539	04-Apr-06
Miteq	Preamplifier, 1-18GHz	AFS44	1715	21-Dec-05

wiiteq	Preampiller, 1-18GHZ	AF544	1715	21-Dec-05
1000 - 40,000, 28-Jul-05				
Engineer: Juan Martinez				
<u>Manufacturer</u>	<u>Description</u>	Model #	Asset #	Cal Due
EMCO	Horn Antenna, D. Ridge 1-18GHz	3115	868	20-Apr-06
Hewlett Packard	EMC Spectrum Analyzer, 9KHz-26.5GHz	8593EM	1141	10-Jun-06
Hewlett Packard	High Pass filter, 8.2GHz	P/N 84300-80039 (84125C)	1392	12-May-06
Hewlett Packard	EMC Spectrum Analyzer 9kHz - 40 GHz, Fremont (SA40)	8564E (84125C)	1393	26-Oct-05
Miteq	Preamplifier, 1-18GHz	AFS44	1715	21-Dec-05
Micro-Tronics	Band Reject Filter, 5725-5875MHz	BRC50705-02	1728	09-Jun-06
Micro-Tronics	Band Reject Filter, 5150-5350MHz	BRC50703-02	1729	09-Jun-06
Micro-Tronics	Band Reject Filter, 2400-2500MHz	BRM50702-02	1731	09-Jun-06

EXHIBIT 2: Test Data Log Sheets

ELECTROMAGNETIC EMISSIONS

TEST LOG SHEETS

AND

MEASUREMENT DATA

T60510 38 Pages

File: R60578 Exhibit Page 2 of 12

t	EM	C Test Data
Intel Corporation	Job Number:	J60445
FJ3B2915ABG Permissive Change	T-Log Number:	T60451
	Account Manager:	Nesha Lambert
Robert Paxman		
FCC 15.247 & 15.401	Class:	-
•	Environment:	-
	FJ3B2915ABG Permissive Change Robert Paxman FCC 15.247 & 15.401	Intel Corporation Job Number: FJ3B2915ABG Permissive Change T-Log Number: Account Manager: Robert Paxman FCC 15.247 & 15.401 Class:

EMC Test Data

For The

Intel Corporation

Model

FJ3B2915ABG Permissive Change

Date of Last Test: 7/21/2005

CEIIIO	I	EMC Test Data		
Client:	Intel Corporation	Job Number:	J60445	
Model:	FJ3B2915ABG Permissive Change	T-Log Number:	T60451	
		Account Manager:	Nesha Lambert	
Contact:	Robert Paxman			
Emissions Spec:	FCC 15.247 & 15.401	Class:	-	
Immunity Spect		Environment:	_	

EUT INFORMATION

General Description

The WM3B2915ABG is a 802.11/ab/g wireless that is designed to connect to PC. Normally, the EUT would be placed on a tabletop during operation. The EUT was, therefore, treated as tabletop equipment during testing to simulate the end-user environment. The EUT is powered via the PC.

Equipment Under Test

	Manufacturer	Model	Description	Serial Number	FCC ID
	Intel	WM3B2915ABG	802.11a/b/g card		PD9FJ3B2915ABG

Other EUT Details

IC ID: 1000M-FJ2915

CEIL att

EUT Antenna

The EUT antenna is an Cotton antenna P/N: CP250925-03

The antenna is integral to the device

2412 - 2462 MHz, Gain = .7 dBi

5150 - 5350 MHz, Gain = 2 dBi

5725 - 5825 MHz, Gain = 3.1 dBi

EUT Enclosure

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

Modification History

Mod. #	Test	Date	Modification
1			

Modifications applied are assumed to be used on subsequent tests unless otherwise stated as a further modification.

Ellion	tt	EM	C Test Data
Client:	Intel Corporation	Job Number:	J60445
Model:	FJ3B2915ABG Permissive Change	T-Log Number:	T60451
		Account Manager:	Nesha Lambert
Contact:	Robert Paxman		
Emissions Spec:	FCC 15.247 & 15.401	Class:	-

Test Configuration #1

Environment:

Local Support Equipment

			* * * * * * * * * * * * * * * * * * * *	
Manufacturer	Model	Description	Serial Number	FCC ID
Hewlett Packard	Pavilian a300n	Computer	MXK3391864	-
Hewlett Packard	M042KG	Mouse	030870136	-
Hewlett Packard	5183	Keyboard	BF3339165	E5XKB5183
Samsung	151S R	Monitor	GG15H4JTB04858E	-

Remote Support Equipment

Manufacturer	Model	Description	Serial Number	FCC ID
None				

Interface Cabling and Ports

Port	Connected To		Cable(s)	
FUIL	Connected To	Description	Shielded or Unshielded	Length(m)
Main Ant	Antenna	Coax	Shielded	0.25

EUT Operation During Emissions Tests

The EUT was transmitting continuously on either the low, middle, and high.

Immunity Spec:

(F)	Elliott
Cliont	Intel Corporation

EMC Test Data

Client:	Intel Corporation	Job Number:	J60445
Model	FJ3B2915ABG Permissive Change	T-Log Number:	T60451
wouei.	F33b2913AbG FeIIIISSIVE Clidinge	Account Manager:	Nesha Lambert
Contact:	Robert Paxman		
Spec:	FCC 15.247 & 15.401	Class:	N/A

Radiated Emissions (Cotton Antenna)

Test Specifics

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

specification listed above.

Date of Test: 7/21 & 7/23/2005 Config. Used: 1
Test Engineer: Rafael varelas & Jmartinez Config Change: None
Test Location: Fremont Chamber #4 EUT Voltage: 120V/60Hz

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.

Ambient Conditions: Temperature: 18 °C

Rel. Humidity: 41 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Output Power	15E	-	Refer to run
2	RE, 30 - 26500 MHz - Spurious Emissions	FCC Part 15.209 / 15.247(c)	Pass	53dBuV/m (461.3 u/Vm) @ 5350 MHz (- 0.7dB)
3	RE, 1000 - 18000 MHz - Rx Spurious Emissions	RSS-210	Pass	51dBuV/m (365.6uV/m) @ 7013.2MHz (-8.7dB)

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.

Elliott

EMC Test Data

Client:	Intel Corporation	Job Number:	J60445
Model	FJ3B2915ABG Permissive Change	T-Log Number:	T60451
wouei.	F33b2913AbG FeIIIISSIVE Clidinge	Account Manager:	Nesha Lambert
Contact:	Robert Paxman		
Spec:	FCC 15.247 & 15.401	Class:	N/A

Run #1a: Output Power

2 dBi

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	EIRP (W)	
36	5180	11.2	0.013	0.021	Pwr setting = 9.5
51	5240	11.6	0.015	0.023	Pwr setting = 11.5
52	5260	16.4	0.044	0.070	Pwr setting = 16.0
64	5320	16.3	0.042	0.067	Pwr setting = 18.0

Note 1 Used Average Power Meter.

Note

Original report states average and peak power. Due to the inconsistency in the measured peak power (Using peak power meter and UNII power measurement method), the average power was measured and matched it with the original powers that were reported in the original application. Then measured the peak power and recorded the results.

Run #1b: Output Power

2 dBi

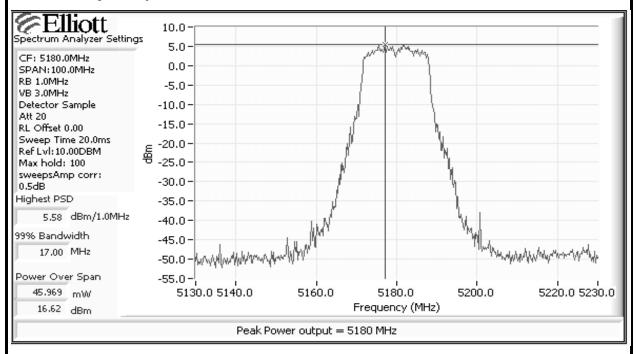
Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	EIRP (W)]
36	5180	17.0	0.050	0.079	Pwr setting = 9.5
51	5240	17.7	0.058	0.092	Pwr setting = 11.5
52	5260	21.1	0.129	0.204	Pwr setting = 16.0
64	5320	20.7	0.118	0.187	Pwr setting = 18.0

Note 1 Used Peak Power Meter.

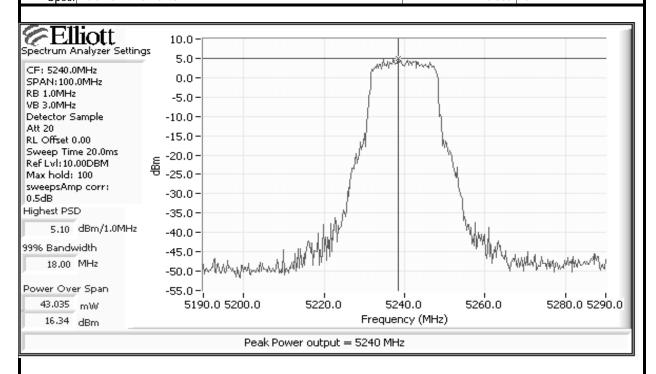
EMC Test Data Client: Intel Corporation Job Number: J60445 Model: FJ3B2915ABG Permissive Change T-Log Number: T60451 Contact: Robert Paxman Nesha Lambert Spec: FCC 15.247 & 15.401 Class: N/A

Run #1c: Output Power

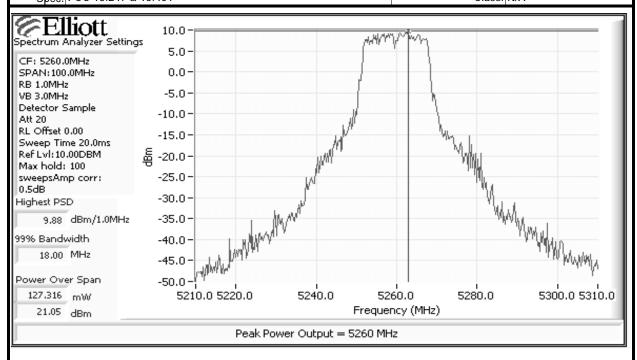
Plots for UNII using the Analyzer and software.



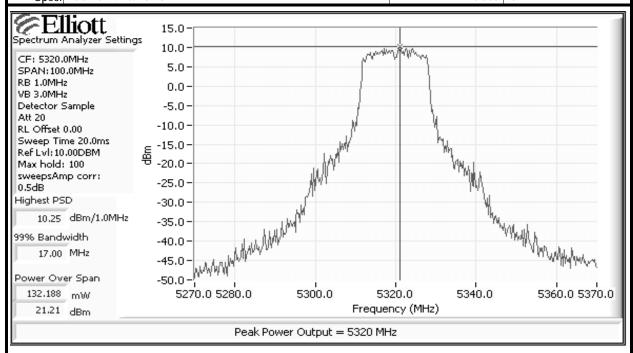
Elliott	EMC Test Data
Client: Intel Corporation	Job Number: J60445
Model: FJ3B2915ABG Permissive Change	T-Log Number: T60451
Wodel. F33b2913AbG Femilissive Change	Account Manager: Nesha Lambert
Contact: Robert Paxman	
Spec: FCC 15.247 & 15.401	Class: N/A



Client: Intel Corporation Client: Intel Corporation Model: FJ3B2915ABG Permissive Change Contact: Robert Paxman Spec: FCC 15.247 & 15.401 EMC Test Data Job Number: J60445 T-Log Number: T60451 Account Manager: Nesha Lambert Class: N/A



Client: Intel Corporation Client: Intel Corporation Model: FJ3B2915ABG Permissive Change Contact: Robert Paxman Spec: FCC 15.247 & 15.401 EMC Test Data Job Number: J60445 T-Log Number: T60451 Account Manager: Nesha Lambert Class: N/A



EMC Test Data Job Number: J60445 Client: Intel Corporation T-Log Number: T60451 Model: FJ3B2915ABG Permissive Change Account Manager: Nesha Lambert Contact: Robert Paxman Spec: FCC 15.247 & 15.401 Class: N/A Run #2a: Radiated Spurious Emissions, 30 - 26500 MHz. Low Channel @ 5180 MHz ACTV DET: PEAK MEAS DET: PEAK QP AVG ACTV DET: PEAK MEAS DET: PEAK QP AVG MKR4 31.10 MHz MKRA 25.04 MHz 52.64 dB 53.14 dB REF 109.0 dBµV REF 108.0 dBµV ÍΒ ER 5.15000 GHz #IF BW 1.0 MHz ER 5.15000 GHz #IF BW 1.0 MHz SPAN 80.77 MHz SWP 20.0 msec SPAN 80.77 MHz SWP 24.2 sec #AVG BW 1 MHz #AVG BW 10 Hz Н ٧ Fundamental emission level @ 3m in 1MHz RBW 101.2 104.1 Peak Measurement (RB=VB=1MHz) Fundamental emission level @ 3m in 1MHz RBW 91.4 94.3 Average Measurement (RB=1MHz, VB=10Hz) Delta Marker - Peak 52.64 dB Delta Marker - Average 53.14 dB Calculated Band-Edge Measurement: 51.46 dBuV/m Peak Calculated Band-Edge Measurement 41.16 dBuV/m Average Band Edge Signal Radiated Field Strength Frequency Level Pol 15.209 / 15E Detector Azimuth Height Comments $dB\mu V/m$ v/h Pk/QP/Avg MHz Limit Margin degrees meters -22.5 51.5 74.0 5150.000 Pk Note 2 54.0 5150.000 41.2 -12.8Avg Note 2

Client:	Intel Corp	oration						Job Number: J60445
Marilal	E 12D204E	4DC D.					T-L	og Number: T60451
Model:	FJ3B2915	ABG Pe	rmissive Ch	ange			Accou	ınt Manager: Nesha Lambert
Contact:	Robert Pa	xman						-
Spec:	FCC 15.2	47 & 15.4	401					Class: N/A
	ious Radia							
Frequency		Pol		9 / 15E	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	Commonte
5175.150	94.3	V	-	-	AVG	311	2.0	CH 36 fundamental
5175.150	104.1	V	-	-	PK	311	2.0	CH 36 fundamental
5175.150	91.4	Н	-	-	AVG	306	1.0	CH 36 fundamental
5175.150	101.2	Н	-	-	PK	306	1.0	CH 36 fundamental
10359.87	49.2	Н	54.0	-4.8	AVG	122	1.5	
10359.87	53.5	Н	74.0	-20.5	PK	122	1.5	
15541.21	40.5	Н	54.0	-13.5	AVG	200	1.0	
	Г1 Э	Н	74.0	-22.7	PK	200	1.0	
15541.21	51.3							
	39.4	V	54.0	-14.6	AVG	112	1.0	
10359.94			54.0 74.0	-14.6 -25.6	AVG PK	112 112	1.0 1.0	
10359.94 10359.94	39.4	V V						
10359.94 10359.94 15540.20 15540.20	39.4 48.4 40.6 51.9 For emiss 27dBm/M	V V V vions in re	74.0 54.0 74.0 estricted bar IBuV/m).	-25.6 -13.5 -22.1 nds, the lim	PK AVG PK it of 15.209 w	112 153 153 vas used. Fo	1.0 1.0 1.0	emissions, the limit was set to -
10359.94 10359.94 15540.20 15540.20 Note 1:	39.4 48.4 40.6 51.9 For emiss 27dBm/M	V V V V ions in re Hz (~680	74.0 54.0 74.0 estricted bar IBuV/m). rement calc	-25.6 -13.5 -22.1 nds, the lim	PK AVG PK it of 15.209 w	112 153 153 vas used. Fo	1.0 1.0 1.0	emissions, the limit was set to - c or average) minus the band ed
Other Spur	39.4 48.4 40.6 51.9 For emiss 27dBm/Ml Band-edg delta mark	V V V V ions in red-z (-68ce measurer m	74.0 54.0 74.0 restricted bar IBuV/m). rement calcurement.	-25.6 -13.5 -22.1 nds, the limulated from	PK AVG PK it of 15.209 w the fundame	112 153 153 vas used. For	1.0 1.0 1.0 or all other e	or average) minus the band ed
10359.94 10359.94 15540.20 15540.20 Note 1: Note 2:	39.4 48.4 40.6 51.9 For emiss 27dBm/M Band-edg delta mark Radiated ious Radia Level	V V V V ions in redactions in reductions in redactions in	74.0 54.0 74.0 restricted bar IBuV/m). rement calcurement.	-25.6 -13.5 -22.1 nds, the lim ulated from	PK AVG PK t of 15.209 w the fundame	112 153 153 vas used. Forental field strong. Channel	1.0 1.0 1.0 r all other eength (peak	c or average) minus the band ed
10359.94 10359.94 15540.20 15540.20 Note 1: Note 2: Run #2b: Other Spur Frequency MHz	39.4 48.4 40.6 51.9 For emiss 27dBm/Ml Band-edg delta mark	V V V V ions in red-z (-68ce measurer m	74.0 54.0 74.0 estricted bar BuV/m). rement calcurement. bus Emiss sions: 15.20 Limit	-25.6 -13.5 -22.1 nds, the limulated from	PK AVG PK it of 15.209 w the fundame	112 153 153 vas used. For	1.0 1.0 1.0 or all other e	or average) minus the band ed
10359.94 10359.94 15540.20 15540.20 Note 1: Note 2: Puther Spure requency MHz 10519.97	39.4 48.4 40.6 51.9 For emiss 27dBm/M Band-edg delta mark Radiated ious Radia Level dBµV/m	V V V V ions in re- Hz (-68ce measurer	74.0 54.0 74.0 estricted bar IBuV/m). rement calcurement.	-25.6 -13.5 -22.1 nds, the limi ulated from sions, 30 -	PK AVG PK t of 15.209 w the fundame 26500 MHz Detector Pk/QP/Avg	112 153 153 vas used. For ental field strope. Channel Azimuth degrees	1.0 1.0 1.0 1.0 r all other eength (peak	or average) minus the band ed
10359.94 10359.94 15540.20 15540.20 Note 1: Note 2: Puther Spur Frequency MHz 10519.97	39.4 48.4 40.6 51.9 For emiss 27dBm/M Band-edg delta mark Radiated ious Radia Level dBµV/m 45.7	V V V V ions in red-lz (~680e measurer	74.0 54.0 74.0 estricted bar BuV/m). rement calcurement. bus Emiss sions: 15.20 Limit 54.0	-25.6 -13.5 -22.1 nds, the limi ulated from sions, 30 - 9 / 15E Margin -8.3	PK AVG PK Tof 15.209 where the fundamental PK Tof 15.209 where the fundamental Pk/QP/Avg AVG	112 153 153 vas used. For ental field strong. Channel Azimuth degrees 122	1.0 1.0 1.0 1.0 r all other eength (peak	or average) minus the band ed
10359.94 10359.94 15540.20 15540.20 Note 1: Note 2: Other Spur Frequency MHz 10519.97 10519.97 15779.00	39.4 48.4 40.6 51.9 For emiss 27dBm/Ml Band-edg delta mark Radiated ious Radia Level dBµV/m 45.7 51.5	V V V V vions in red-tz (~680 e measu eer measu eer measu ted Emiss Pol v/h H	74.0 54.0 74.0 estricted bar IBuV/m). rement calcurement. bus Emiss sions: 15.20 Limit 54.0 74.0	-25.6 -13.5 -22.1 ands, the liminal silons, 30 - 27.15E Margin -8.3 -22.5	PK AVG PK t of 15.209 w the fundame 26500 MHz Detector Pk/QP/Avg AVG PK	112 153 153 vas used. For ental field stropental field st	1.0 1.0 1.0 1.0 r all other eength (peak eength (peak eength (peak eength (peak eength (peak eength (peak eength (peak eength (peak eength (peak	or average) minus the band ed
10359.94 10359.94 15540.20 15540.20 Note 1: Note 2: Other Spur Frequency MHz 10519.97 10519.97 15779.00	39.4 48.4 40.6 51.9 For emiss 27dBm/Ml Band-edg delta mark Radiated ious Radia Level dBµV/m 45.7 51.5 41.7	V V V V vions in red-tz (~680e measurer	74.0 54.0 74.0 estricted bar IBuV/m). rement calc urement. bus Emiss sions: 15.20 Limit 54.0 74.0 54.0	-25.6 -13.5 -22.1 nds, the lim ulated from sions, 30 - 9 / 15E Margin -8.3 -22.5 -12.3	PK AVG PK t of 15.209 w the fundame 26500 MHz Detector Pk/QP/Avg AVG PK AVG	112 153 153 7as used. For ental field stronger Azimuth degrees 122 122 145	1.0 1.0 1.0 1.0 1.0 r all other eength (peak ength (peak Height meters 1.5 1.5	or average) minus the band ed
10359.94 10359.94 15540.20 15540.20 Note 1: Note 2: Other Spur Frequency MHz 10519.97 10519.97 15779.00 10519.73	39.4 48.4 40.6 51.9 For emiss 27dBm/M Band-edg delta mark Radiated ious Radia Level dBμV/m 45.7 51.5 41.7 53.1	V V V V ions in red-z (~680 e measurer	74.0 54.0 74.0 74.0 sestricted bar IBuV/m). rement calcurement. Dus Emiss sions: 15.20 Limit 54.0 74.0 54.0 74.0	-25.6 -13.5 -22.1 Inds, the liming silons, 30 -20.5 -12.3 -20.9	PK AVG PK t of 15.209 w the fundame 26500 MHz Detector Pk/QP/Avg AVG PK AVG PK	112 153 153 7as used. For ental field structure. Azimuth degrees 122 122 145 145	1.0 1.0 1.0 1.0 r all other eength (peak eength (peak eength (peak Height meters 1.5 1.5 1.0	or average) minus the band ed
10359.94 10359.94 15540.20 15540.20 Note 1: Note 2: Run #2b: Other Spur Frequency	39.4 48.4 40.6 51.9 For emiss 27dBm/M Band-edg delta mark Radiated ious Radia Level dBµV/m 45.7 51.5 41.7 53.1 39.1	V V V V ions in real decided Emeasurer measurer	74.0 54.0 74.0 sestricted bar BBuV/m). rement calcurement. bus Emiss 15.20 Limit 54.0 74.0 54.0 74.0 54.0	-25.6 -13.5 -22.1 Inds, the limitated from the site of the site	PK AVG PK t of 15.209 w the fundame 26500 MHz Detector Pk/QP/Avg AVG PK AVG PK AVG AVG	112 153 153 vas used. For ental field strong to the strong	1.0 1.0 1.0 1.0 r all other eength (peak ength (peak e	or average) minus the band ed

EMC Test Data Job Number: J60445 Client: Intel Corporation T-Log Number: T60451 Model: FJ3B2915ABG Permissive Change Account Manager: Nesha Lambert Contact: Robert Paxman Spec: FCC 15.247 & 15.401 Class: N/A Run #2c: Radiated Spurious Emissions, 30 - 26500 MHz. High Channel @ 5320 MHz ACTV DET: PEAK MEAS DET: PEAK QP AVG MKRA -31.10 MHz 48.72 dB ACTV DET: PEAK MEAS DET: PEAK QP AVG MKRA -28.47 MHz 43.16 dB REF 113.0 dBpV REF 115.0 dBpV ER 5.35000 GHz #IF BW 1.0 MHz SPAN 80.77 MHz SWP 24.2 sec ER 5.35000 GHz #IF BW 1.0 MHz SPAN 80.77 MHz SWP 20.0 msec #AVG BW 1 MHz #AVG BW 10 Hz ٧ Н Fundamental emission level @ 3m in 1MHz RBW 103.9 110 Peak Measurement (RB=VB=1MHz) Fundamental emission level @ 3m in 1MHz RBW: 95.6 102 Average Measurement (RB=1MHz, VB=10Hz) Delta Marker - Peak 43.16 dB Delta Marker - Average 48.72 dB Calculated Band-Edge Measurement: 66.84 dBuV/m Peak Calculated Band-Edge Measurement: 53.28 dBuV/m Average Band Edge Signal Radiated Field Strength 15.209 / 15E Frequency Level Pol Detector Azimuth Height Comments MHz $dB\mu V/m$ v/h Limit Margin Pk/QP/Avg degrees meters 5350.000 74.0 -7.2 Pk 66.8 Note 2 5350.000 53.3 54.0 -0.7Avg Note 2

	Ellic							ت عاجديا الماما	1/0445
Client	Intel Corp	oration						Job Number:	
Model	FJ3B2915ABG Permissive Change							Log Number: Int Manager:	Nesha Lambert
Contact	Robert Paxman								
	FCC 15.247 & 15.401							Class:	N/A
	ious Radiated Emissions:							Olabbi	
Frequency	7	Pol		9 / 15E	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	Commonts	
5318.080	_	٧	-		AVG	80	1.0	CH 64 fund	lamental
5318.080		V	-	-	PK	80	1.0	CH 64 fund	
5321.500	95.6	Н	-	-	AVG	300	1.0	CH 64 fund	
5321.500	103.9	Н	-	-	PK	300	1.0	CH 64 fund	lamental
10639.9	40.37	٧	54.0	-13.6	AVG	115.0	1.0		
10639.9	50.19	٧	74.0	-23.8	PK	115.0	1.0		
15959.0	42.31	V	54.0	-11.7	AVG	122.0	1.0		
15959.0	54.4	V	74.0	-19.6	PK	122.0	1.0		
10639.8	40.54	Н	54.0	-13.5	AVG	154.0	1.0		
10639.8	51.04	Н	74.0	-23.0	PK	154.0	1.0		
15961.5	41.96	Н	54.0	-12.0	AVG	161.0	1.0		
15961.5	53.89	Н	74.0	-20.1	PK	161.0	1.0		
lote 2:	delta mark			ulated from	n the fundame	ental field stre	ength (peak	or average)	minus the band edge

EMC Test Data Client: Intel Corporation Job Number: J60445 Model: FJ3B2915ABG Permissive Change T-Log Number: T60451 Contact: Robert Paxman Account Manager: Nesha Lambert Spec: FCC 15.247 & 15.401 Class: N/A

Run #3: Radiated Rx Spurious Emissions, 1000 - 18000 MHz. Middle Channel @ 5260 MHz

Frequency	Level	Pol	RSS-2	210 Rx	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
7013.172	42.7	V	60.0	-17.3	AVG	127	1.0	
7013.172	48.1	V	80.0	-32.0	PK	127	1.0	
3312.929	43.5	V	60.0	-16.5	AVG	181	1.0	
3312.929	46.0	V	80.0	-34.0	PK	181	1.0	
7013.239	51.3	Η	60.0	-8.7	AVG	142	1.0	
7013.239	53.8	Н	80.0	-26.2	PK	142	1.0	
3312.329	27.1	Η	60.0	-32.9	AVG	0	1.0	
3312.329	37.6	Н	80.0	-42.4	PK	0	1.0	

Elliott	EMC Test Data			
Client: Intel Corporation	Job Number: J60445			
Model: FJ3B2915ABG Permissive Change	T-Log Number: T60451			
lylodel. F33b2913AbG Felfilissive Change	Account Manager: Nesha Lambert			
Contact: Robert Paxman				
Spec: FCC 15.247 & 15.401	Class: N/A			

Radiated Emissions

Test Specifics

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

specification listed above.

Date of Test: 7/19/2005 Config. Used: 1
Test Engineer: Mehran Birgani Config Change: None
Test Location: Fremont Chamber #4 Host Unit Voltage 120V/60Hz

General Test Configuration

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

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

Ambient Conditions: Temperature: 24 °C

Rel. Humidity: 45 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1a - c	RE, 30 - 26500 MHz - Spurious Emissions	FCC Part 15.209 / 15.247(c)	Pass	44.3dBμV/m (164.1μV/m) @ 11490.8MHz (-9.7dB)
2	RE, 1000 - 18000 MHz - Rx Spurious Emissions	RSS-210	Pass	52dBuV/m (407uV/m) @ 7533MHz (-7.8dB)

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.

Contact:	FJ3B2915	Client: Intel Corporation							Job Number: J60445	
Contact:	FJ3B2915	Model: F I3R2915ARG Permissive Change							T-Log Number: T60451	
	Model: FJ3B2915ABG Permissive Change							ınt Manager:	Nesha Lambert	
Spec:	Contact: Robert Paxman									
	FCC 15.24							Class:	N/A	
Run #1a:	Radiated	Spurio	ous Emiss	ions, 30 -	26500 MHz	. Low Cha	annel @ 57	745 MHz		
					Н	V	7			
Fundam	ental emis	sion leve	l @ 3m in 1	MHz RBW:	110.1	113.7	Peak Meas	surement (R	B=VB=1MHz)	
				MHz RBW:		105.5	_	•	: (RB=1MHz, VB=10H:	
ther Spuri					l		1	1_		
requency		Pol		/ 15.247	Detector	Azimuth	Height	Comments		
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters			
11/10/10/1	44.3	Н	54.0	-9.7	AVG	42	1.0			
	40 /			-10.4	AVG	46	1.0			
11490.76	43.6	V	54.0							
11490.76 11490.84 11490.76 lote 1:	55.9 54.8 For emissi	H V ons in re	74.0 74.0 estricted bar	-18.1 -19.2 nds, the limit	PK PK t of 15.209 w	42 46 vas used.	1.0			
11490.76 11490.84 11490.76 Iote 1:	55.9 54.8 For emissi	H V ons in re	74.0 74.0 estricted bar	-18.1 -19.2 nds, the limit	PK PK	42 46 vas used.	1.0	9 5785 MHz		
Run #1b:	55.9 54.8 For emissi	H V ons in re	74.0 74.0 estricted bar	-18.1 -19.2 nds, the limit	PK PK t of 15.209 w 26500 MHz	42 46 vas used. v. Center (1.0 1.0			
11490.76 11490.84 11490.76 Jote 1: Run #1b:	55.9 54.8 For emissi Radiated	H V ons in re	74.0 74.0 estricted bar ous Emiss	-18.1 -19.2 nds, the limit sions, 30 -	PK PK t of 15.209 w 26500 MHz H 110.9	42 46 vas used. v. Center (V 113.6	1.0 1.0 Channel @	surement (R	B=VB=1MHz)	
11490.76 11490.84 11490.76 Iote 1: Run #1b:	55.9 54.8 For emissi Radiated	H V ons in re	74.0 74.0 estricted bar ous Emiss	-18.1 -19.2 nds, the limit	PK PK t of 15.209 w 26500 MHz	42 46 vas used. v. Center (1.0 1.0 Channel @	surement (R		
11490.76 11490.84 11490.76 Iote 1: Run #1b: Fundame	55.9 54.8 For emissi Radiated	H V ons in re	74.0 74.0 estricted bar ous Emiss el @ 3m in 1	-18.1 -19.2 nds, the limit sions, 30 -	PK PK t of 15.209 w 26500 MHz H 110.9	42 46 vas used. v. Center (V 113.6	1.0 1.0 Channel @	surement (R	B=VB=1MHz) (RB=1MHz, VB=10H:	
11490.76 11490.84 11490.76 Iote 1: Run #1b: Fundame	55.9 54.8 For emissi Radiatec ental emissental emiss	H V ons in re	74.0 74.0 estricted bar ous Emiss el @ 3m in 1	-18.1 -19.2 nds, the limit sions, 30 - MHz RBW: MHz RBW:	PK PK t of 15.209 w 26500 MHz H 110.9 102.5	42 46 vas used. v. Center (V 113.6 105.6	1.0 1.0 Channel @ Peak Meas Average M	surement (R leasurement	B=VB=1MHz) (RB=1MHz, VB=10H:	
11490.76 11490.84 11490.76 Iote 1: Run #1b: Fundame Fundame Trequency MHz	55.9 54.8 For emissi Radiated ental emissi ental emissi Level	H V Ons in resion levesion leve	74.0 74.0 estricted bar ous Emiss el @ 3m in 1 19 @ 3m in 1	-18.1 -19.2 nds, the limit sions, 30 - MHz RBW: MHz RBW:	PK PK t of 15.209 w 26500 MHz H 110.9 102.5	42 46 vas used. z. Center (V 113.6 105.6	1.0 1.0 Channel @ Peak Meas Average M	surement (R leasurement	B=VB=1MHz) (RB=1MHz, VB=10H:	
11490.76 11490.84 11490.76 Idote 1: Run #1b: Fundame Fundame Fundame Fundame Fundame MHz 11570.05	55.9 54.8 For emissi Radiated ental emissi ental emissi Level dBμV/m	H V ons in resision leves Pol V/h	74.0 74.0 estricted bar ous Emiss el @ 3m in 1 el @ 3m in 1 15.209 Limit	-18.1 -19.2 nds, the limit sions, 30 - MHz RBW: MHz RBW: / 15.247 Margin	PK PK 1 of 15.209 w 26500 MHz H 110.9 102.5 Detector Pk/QP/Avg	42 46 vas used. v. Center (V 113.6 105.6 Azimuth degrees	1.0 1.0 Channel @ Peak Meas Average M Height meters	surement (R leasurement	B=VB=1MHz) (RB=1MHz, VB=10H:	
11490.76 11490.84 11490.76 Jote 1: Run #1b: Fundame Fundame	55.9 54.8 For emissi Radiated ental emissi ental emissi Level dBμV/m 41.9	H V V Ons in resion leversion levery/h H	74.0 74.0 74.0 estricted bar bus Emiss el @ 3m in 1 15.209 Limit 54.0	-18.1 -19.2 nds, the limit sions, 30 - MHz RBW: MHz RBW: / 15.247 Margin -12.1	PK PK 1 of 15.209 w 26500 MHz H 110.9 102.5 Detector Pk/QP/Avg AVG	42 46 ras used. 2. Center (V 113.6 105.6 Azimuth degrees 27	1.0 1.0 Channel @ Peak Meas Average M Height meters 1.0	surement (R leasurement	B=VB=1MHz) (RB=1MHz, VB=10H:	

Elliott EMC Test Data Client: Intel Corporation Job Number: J60445 T-Log Number: T60451 Model: FJ3B2915ABG Permissive Change Account Manager: Nesha Lambert Contact: Robert Paxman Spec: FCC 15.247 & 15.401 Class: N/A Run #1c: Radiated Spurious Emissions, 30 - 26500 MHz. High Channel @ 5825 MHz Н ٧ Fundamental emission level @ 3m in 1MHz RBW: 110.4 111.6 Peak Measurement (RB=VB=1MHz) Fundamental emission level @ 3m in 1MHz RBW: 102.3 103.5 Average Measurement (RB=1MHz, VB=10Hz) Other Spurious Radiated Emissions: 15.209 / 15.247 Level Pol Detector Azimuth Height Comments Frequency dBμV/m Pk/QP/Avg degrees MHz v/h Limit Margin meters 11649.92 38.0 Н 54.0 -16.0 **AVG** 60 1.0 11645.62 37.7 ٧ 54.0 -16.3 **AVG** 25 1.0 11645.62 48.6 ٧ 74.0 -25.4 PK 25 1.0 11649.92 47.5 Н 74.0 -26.5 PK 60 1.0 Note 1: For emissions in restricted bands, the limit of 15.209 was used.

	Elliott	EMC Test Data		
Client:	Intel Corporation	Job Number:	J60445	
Model	FJ3B2915ABG Permissive Change	T-Log Number:	T60451	
iviouei.	FJ3b2913AbG FeIIIIISSIVE Cliange	Account Manager:	Nesha Lambert	
Contact:	Robert Paxman			
Snec:	FCC 15 247 & 15 401	Class:	N/A	

Run #3: Radiated Rx Spurious Emissions, 1000 - 18000 MHz. Middle Channel @ 5260 MHz

Frequency	Level	Pol	RSS-2	210 Rx	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
7533.000	48.5	V	60.0	-11.5	AVG	180	1.0	
7533.000	50.5	V	80.0	-29.5	PK	180	1.0	
3500.000	27.5	V	60.0	-32.5	AVG	174	1.0	
3500.000	29.2	V	80.0	-50.8	PK	174	1.0	
7533.000	52.2	Н	60.0	-7.8	AVG	155	1.0	
7533.000	53.4	Η	80.0	-26.6	PK	155	1.0	
3500.000	29.1	Н	60.0	-30.9	AVG	100	1.0	
3500.000	30.4	Н	80.0	-49.6	PK	100	1.0	

Elliott	EMC Test Data
Client: Intel Corporation	Job Number: J60445
Model: FJ3B2915ABG Permissive Change	T-Log Number: T60451
Woder. F35b2913AbG Fermissive Change	Account Manager: Nesha Lambert
Contact: Robert Paxman	
Spec: FCC 15.247 & 15.401	Class: N/A

Radiated Emissions (Cotton Antenna)

Test Specifics

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

specification listed above.

Date of Test: 7/19/2005 Config. Used: 1 Test Engineer: Mehran Birgani Config Change: None Test Location: Fremont Chamber #4 EUT Voltage: 120V/60Hz

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.

Ambient Conditions: 25 °C Temperature:

> Rel. Humidity: 44 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Output Power	15.247	-	Refer to run

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.

Elliott

EMC Test Data

Client:	Intel Corporation	Job Number:	J60445
Model	E 12D201EADC Dermissive Change	T-Log Number:	T60451
wouei.	FJ3B2915ABG Permissive Change	Account Manager:	Nesha Lambert
Contact:	Robert Paxman		
Spec:	FCC 15.247 & 15.401	Class:	N/A

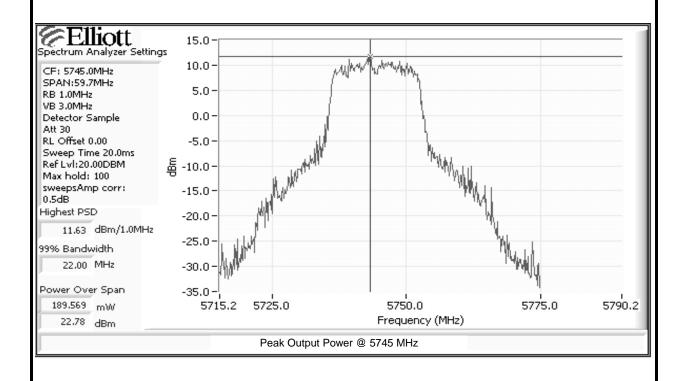
Run #1: Output Power

Antenna Gain: 3.1 dBi

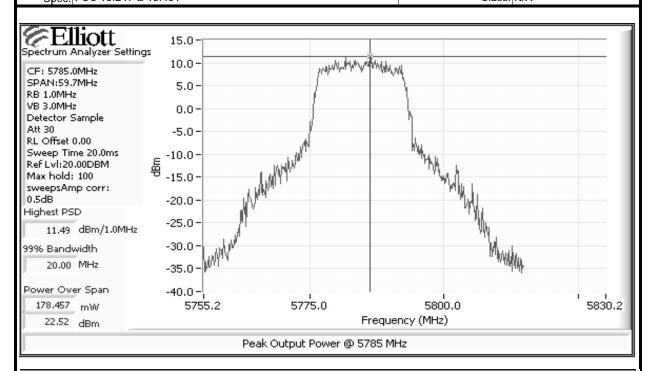
Frequency	Output Power dBm		Power (Watts)	Settings	Comment
(MHz)	Measured	Limit	, ,		
5745	17.8	30.0	0.0603	20.5	Note 1
5785	17.4	30.0	0.0550	19.5	Note 1
5825	17.2	30.0	0.0525	20.0	Note 1

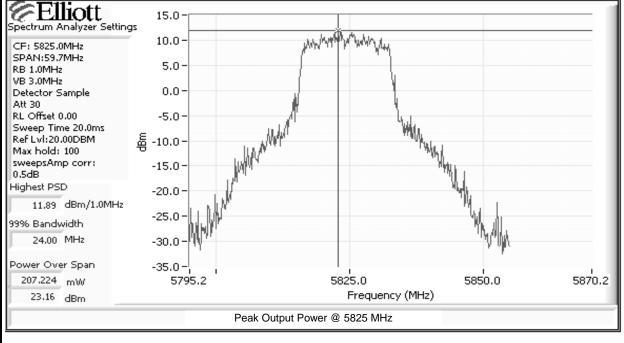
Note 1 Used Average Power Meter.

Original report states average and peak power. Due to the inconsistency in the measured peak power (Using peak power meter and UNII power measurement method), the average power was measured and matched it with the original powers that were reported in the original application. Then measured the peak power and recorded the results.



Elliott	EMC Test Data			
Client: Intel Corporation	Job Number: J60445			
Model: FJ3B2915ABG Permissive Change	T-Log Number: T60451			
Widdel. F33b2913AbG Felfilissive Change	Account Manager: Nesha Lambert			
Contact: Robert Paxman				
Spec: FCC 15.247 & 15.401	Class: N/A			





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EMC Test Data

Client:	Intel Corporation	Job Number:	J60445
Madali	FJ3B2915ABG Permissive Change	T-Log Number:	T60451
wouei.	F33b2913AbG FeIIIISSIVE Clidinge	Account Manager:	Nesha Lambert
Contact:	Robert Paxman		
Spec:	FCC 15.247 & 15.401	Class:	N/A

Radiated Emissions (Cotton Antenna)

Test Specifics

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

specification listed above.

Date of Test: 7/21 & 7/23/2005 Config. Used: 1 Test Engineer: Rafael varelas & Jmartinez Config Change: None Test Location: Fremont Chamber #4 EUT Voltage: 120V/60Hz

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.

Ambient Conditions: Temperature: 18 °C

> Rel. Humidity: 41 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Output Power	15E	-	Refer to run
2	RE, 30 - 18000 MHz - Tx Spurious Emissions	FCC Part 15.209 / 15.247(c)	Pass	50dBuV/m (330 uV/m) @ 4923.9 MHz (-3.6dB)
3	RE, 1000 - 12500 MHz - Rx Spurious Emissions	RSS-210	Pass	53.9dBuV/m (496 uV/m) @ 6498.73MHz (- 6.1dB)

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.

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EMC Test Data

Client:	Intel Corporation	Job Number:	J60445
Madali	FJ3B2915ABG Permissive Change	T-Log Number:	T60451
wouei.	F33b2913AbG FeIIIIISSIVE Clialige	Account Manager:	Nesha Lambert
Contact:	Robert Paxman		
Spec:	FCC 15.247 & 15.401	Class:	N/A

Run #1a: Output Power

0.7 dBi

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	EIRP (W)	
Low	2412	15.22	0.033	0.039	Pwr setting = 15.5
Mid	2437	16.02	0.040	0.047	Pwr setting = 16.0
High	2462	16.85	0.048	0.057	Pwr setting = 16.5

Note 1 Used Average Power Meter.

Original report states average and peak power. Due to the inconsistency in the measured peak power (Using peak Note 2 power meter and UNII power measurement method), the average power was measured and matched it with the original powers that were reported in the original application. Then measured the peak power and recorded the results.

Run #1b: Output Power

0.7 dBi

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	EIRP (W)	
Low	2412	16.21	0.042	0.049	Pwr setting = 15.5
Mid	2437	17.05	0.051	0.060	Pwr setting = 16.0
High	2462	18.02	0.063	0.074	Pwr setting = 16.5

Note 1 Used Peak Power Meter.

EMC Test Data Job Number: J60445 Client: Intel Corporation T-Log Number: T60451 Model: FJ3B2915ABG Permissive Change Account Manager: Nesha Lambert Contact: Robert Paxman Class: N/A Spec: FCC 15.247 & 15.401 Run #2a: Radiated Spurious Emissions, 30 - 18000 MHz. Low Channel @ 2412 MHz ACTV DET: PEAK MEAS DET: PEAK QP AV6 MKRA 23.22 MHz 62.35 dB ACTV DET: PEAK MEAS DET: PEAK QP AVG MKRA 29.89 MHz 55.11 dB REF 115.0 dBpV REF 115.0 dBpV ٥ ER 2.39000 GHz #IF BW 1.0 MHz ER 2.39000 GHz SPAN 80.77 MHz SWP 20.0 msec SPAN 80.77 MHz SWP 24.2 sec #IF BW 1.0 MHz #AVG BW 1 MHz #AVG BW 10 Hz ٧ Н Fundamental emission level @ 3m in 1MHz RBW: 96.8 106 Peak Measurement (RB=VB=1MHz) Fundamental emission level @ 3m in 1MHz RBW: 93.6 102.9 Average Measurement (RB=1MHz, VB=10Hz) Delta Marker - Peak 55.11 dB Delta Marker - Average 62.35 dB Calculated Band-Edge Measurement: 50.89 dBuV/m Peak Calculated Band-Edge Measurement: 40.55 dBuV/m Average Band Edge Signal Radiated Field Strength 15.209 / 15.247 Frequency Level Pol Detector Azimuth Height Comments MHz $dB\mu V/m$ v/h Limit Margin Pk/QP/Avg degrees meters 2390.000 74.0 -23.1 Pk 50.9 Note 2 2390.000 54.0 40.6 -13.5Avg Note 2

Model: FJ3B291! Contact: Robert Pa Spec: FCC 15.2 Other Spurious Radia Frequency Level MHz dBµV/m 2411.400 102.9 2411.400 106.0 2412.980 93.6	axman 47 & 15. Ited Emis Pol v/h	401 ssions:	ange			T-L	Job Number: J60445		
Contact: Robert Pa Spec: FCC 15.2 Other Spurious Radia Frequency Level MHz dBµV/m 2411.400 102.9 2411.400 106.0	axman 47 & 15. Ited Emis Pol v/h	401 ssions:	ange			T-Log Number: T60451 Account Manager: Nesha Lambert			
Spec: FCC 15.2 Other Spurious Radia Frequency Level MHz dBµV/m 2411.400 102.9 2411.400 106.0	47 & 15. ted Emis Pol v/h	ssions:							
Other Spurious Radia Frequency Level MHz dBµV/m 2411.400 102.9 2411.400 106.0	ted Emis Pol v/h	ssions:	pec: FCC 15.247 & 15.401 Class: N/A						
Frequency Level MHz dBμV/m 2411.400 102.9 2411.400 106.0	Pol v/h						Class: N/A		
MHz dBμV/m 2411.400 102.9 2411.400 106.0	v/h	45.000							
2411.400 102.9 2411.400 106.0		.	15.247	Detector	Azimuth	Height	Comments		
2411.400 106.0		Limit	Margin	Pk/QP/Avg	degrees	meters			
	V	-	102.9	AVG	134	1.1	CH#1 Fundamental		
2412.980 F 93.6	V	-	103.9	PK	134	1.1	CH#1 Fundamental		
	H	-	104.9	AVG	191	1.0	CH#1 Fundamental		
2412.980 96.8 4823.906 36.7	H V	- 54.0	105.9 -17.3	PK AVG	191 318	1.0 1.0	CH#1 Fundamental		
4823.906 36.7	V	74.0	-17.3	PK	318	1.0			
4824.003 34.8	H	54.0	-19.2	AVG	184	1.0			
4824.003 41.2	Н.	74.0	-32.8	PK	184	1.0			
				1					
Note 1: For emiss	ions in r	estricted bar	nds, the lim	it of 15.209 w	as used.				
Note 2: Band-edg	e measu	ırement calc	ulated from	i the fundame	ental field stre	ength (peak	or average) minus the band		
·									
Run #2b: Radiate	d Spuri	ous Emiss	ions, 30 -	18000 MHz	z. Middle C	hannel @	2437 MHz		
	-		ions, 30 -	· 18000 MHz	z. Middle C	hannel @	2437 MHz		
Other Spurious Radia	-	ssions:	ions, 30 -	18000 MHz	z. Middl e C	hannel @	2437 MHz Comments		
Other Spurious Radia	ted Emis	ssions:							
Other Spurious Radia Frequency Level MHz dBµV/m 4873.861 45.3	ted Emis Pol v/h V	ssions: 15.209 / Limit 54.0	/ 15.247 Margin -8.7	Detector Pk/QP/Avg AVG	Azimuth degrees	Height meters			
Other Spurious Radia Frequency Level MHz dBµV/m 4873.861 45.3 4873.861 48.7	ted Emis Pol v/h V	ssions: 15.209 / Limit 54.0 74.0	15.247 Margin -8.7 -25.3	Detector Pk/QP/Avg AVG PK	Azimuth degrees 197 197	Height meters 1.0			
Other Spurious Radia Frequency Level MHz dBµV/m 4873.861 45.3 4873.861 48.7 7311.660 35.8	Pol V/h V V	ssions: 15.209 / Limit 54.0 74.0 54.0	Margin -8.7 -25.3 -18.2	Detector Pk/QP/Avg AVG PK AVG	Azimuth degrees 197 197 39	Height meters 1.0 1.0 1.0			
Other Spurious Radia Frequency Level MHz dBμV/m 4873.861 45.3 4873.861 48.7 7311.660 35.8 7311.660 44.6	Pol V/h V V V	ssions: 15.209 / Limit 54.0 74.0 54.0 74.0	/ 15.247 Margin -8.7 -25.3 -18.2 -29.4	Detector Pk/QP/Avg AVG PK AVG PK	Azimuth degrees 197 197 39 39	Height meters 1.0 1.0 1.0 1.0			
Other Spurious Radia Frequency Level MHz dBμV/m 4873.861 45.3 4873.861 48.7 7311.660 35.8 7311.660 44.6 4873.959 39.7	rted Emis Pol v/h V V V V	ssions: 15.209 / Limit 54.0 74.0 54.0 74.0 54.0	Margin -8.7 -25.3 -18.2 -29.4 -14.3	Detector Pk/QP/Avg AVG PK AVG PK AVG AVG	Azimuth degrees 197 197 39 39 303	Height meters 1.0 1.0 1.0 1.0 1.0			
MHz dBμV/m 4873.861 45.3 4873.861 48.7 7311.660 35.8 7311.660 44.6 4873.959 39.7 4873.959 44.9	ted Emis Pol V/h V V V V H	ssions: 15.209 / Limit 54.0 74.0 54.0 74.0 54.0 54.0 54.0	7 15.247 Margin -8.7 -25.3 -18.2 -29.4 -14.3 -9.1	Detector Pk/QP/Avg AVG PK AVG PK AVG PK AVG	Azimuth degrees 197 197 39 39 303 303	Height meters 1.0 1.0 1.0 1.0 1.0 1.0 1.0			
Dther Spurious Radia Frequency Level MHz dBμV/m 4873.861 45.3 4873.861 48.7 7311.660 35.8 7311.660 44.6 4873.959 39.7	rted Emis Pol v/h V V V V	ssions: 15.209 / Limit 54.0 74.0 54.0 74.0 54.0	Margin -8.7 -25.3 -18.2 -29.4 -14.3	Detector Pk/QP/Avg AVG PK AVG PK AVG AVG	Azimuth degrees 197 197 39 39 303	Height meters 1.0 1.0 1.0 1.0 1.0			

EMC Test Data Job Number: J60445 Client: Intel Corporation T-Log Number: T60451 Model: FJ3B2915ABG Permissive Change Account Manager: Nesha Lambert Contact: Robert Paxman Spec: FCC 15.247 & 15.401 Class: N/A Run #2c: Radiated Spurious Emissions, 30 - 18000 MHz. High Channel @ 2462 MHz ACTV DET: PEAK MEAS DET: PEAK QP AVG MKRA -25.04 MHz 53.07 dB ACTV DET: PEAK MEAS DET: PEAK QP AVG MKR4 -26.05 MHz 57.34 dB REF 117.0 dBpV REF 117.0 dBpV ER 2.48350 GHz #IF BW 1.0 MHz ER 2.48350 GHz #IF BW 1.0 MHz SPAN 80.77 MHz SWP 20.0 msec SPAN 80.77 MHz SWP 24.2 sec #AVG BW 10 Hz #AVG BW 1 MHz ٧ Н Fundamental emission level @ 3m in 1MHz RBW 100.6 107.4 Peak Measurement (RB=VB=1MHz) Fundamental emission level @ 3m in 1MHz RBW: 104.3 97.4 Average Measurement (RB=1MHz, VB=10Hz) Delta Marker - Peak 53.07 dB Delta Marker - Average 57.34 dB Calculated Band-Edge Measurement: 54.33 dBuV/m Peak Calculated Band-Edge Measurement: 46.96 dBuV/m Average Band Edge Signal Radiated Field Strength 15.209 / 15.247 Frequency Level Pol Detector Azimuth Height Comments MHz $dB\mu V/m$ v/h Limit Margin Pk/QP/Avg degrees meters 2483.500 74.0 -19.7 Pk 54.3 Note 2 2483.500 47.0 54.0 -7.0 Avg Note 2

	orporation						Job Number:	J60445
	•					T-I	_og Number:	T60451
Model: FJ3B29	915ABG Pe	ermissive Ch	ange					Nesha Lambert
Contact: Robert	Paxman							
Spec: FCC 15	5.247 & 15	.401					Class:	N/A
ner Spurious Ra						l.		l
equency Leve			/ 15.247	Detector	Azimuth	Height	Comments	
MHz dBμV/	_	Limit	Margin	Pk/QP/Avg	degrees	meters		
62.900 104.3	3 V	-	-	AVG	132	1.0	Ch#11 Fun	damental
62.900 107.4		-	-	PK	132	1.0	Ch#11 Fun	damental
63.000 97.4	Н	-	-	AVG	356	1.2	Ch#11 Fun	damental
63.000 100.6		-	-	PK	356	1.2	Ch#11 Fun	damental
23.898 50.4		54.0	-3.6	AVG	197	1.0		
23.898 52.7	V	74.0	-21.3	PK	197	1.0		
86.760 44.3		54.0	-9.7	AVG	170	1.0		
86.760 50.1	V	74.0	-23.9	PK	170	1.0		
23.943 48.0	Н	54.0	-6.0	AVG	202	1.7		
23.943 50.5	Н	74.0	-23.5	PK	202	1.7		
85.283 40.1	Н	54.0	-13.9	AVG	216	1.0		
885.283 47.6	Н	74.0	-26.4	PK	216	1.0		

Elliott EMC Test Data Job Number: J60445 Client: Intel Corporation T-Log Number: T60451 Model: FJ3B2915ABG Permissive Change Account Manager: Nesha Lambert Contact: Robert Paxman Spec: FCC 15.247 & 15.401 Class: N/A Run #3: Radiated Rx Spurious Emissions, 1000 - 12500 MHz. Middle Channel @ 2347 MHz Frequency Level Pol RSS-210 Rx Detector Azimuth Height Comments dBμV/m Pk/QP/Avg meters MHz v/h Limit Margin degrees 6498.518 42.5 ٧ 60.0 -17.5 AVG 128 1.0 6498.518 46.4 ٧ 0.08 -33.6 PK 128 1.0 6498.653 53.9 Н 60.0 -6.1 AVG 123 1.0 6498.653 55.4 Н 0.08 -24.6 PK 123 1.0

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EMC Test Data

Client:	Intel Corporation	Job Number:	J60445
Madali	FJ3B2915ABG Permissive Change	T-Log Number:	T60451
wouei.	F33b2913AbG FeIIIISSIVE Clidinge	Account Manager:	Nesha Lambert
Contact:	Robert Paxman		
Spec:	FCC 15.247 & 15.401	Class:	N/A

Radiated Emissions (Cotton Antenna)

Test Specifics

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

specification listed above.

Date of Test: 7/21 & 7/23/2005 Config. Used: 1 Test Engineer: Rafael varelas & Jmartinez Config Change: None Test Location: Fremont Chamber #4 EUT Voltage: 120V/60Hz

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.

Ambient Conditions: Temperature: 18 °C

> Rel. Humidity: 41 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Output Power	15.247	-	Refer to run
2	RE, 30 - 18000 MHz - Spurious Emissions	FCC Part 15.209 / 15.247(c)	Pass	49dBuV/m (280.2 uV/m) @ 2390 MHz (- 5.1dB)
3	RE, 1000 - 12500 MHz - Rx Spurious Emissions	RSS-210	Pass	52.7dBuV/m (429 uV/m) @ 6498MHz (-7.4dB)

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.

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EMC Test Data

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Model	FJ3B2915ABG Permissive Change	T-Log Number:	T60451
wouei.	F33b2913AbG FeIIIIISSIVE Change	Account Manager:	Nesha Lambert
Contact:	Robert Paxman		
Spec:	FCC 15.247 & 15.401	Class:	N/A

Run #1a: Output Power

0.7 dBi

Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	EIRP (W)	
Low	2412	15.22	0.033	0.039	Pwr setting = 15.5
Mid	2437	15.12	0.033	0.038	Pwr setting = 17.0
High	2462	15.14	0.033	0.038	Pwr setting = 17.0

Note 1 Used Average Power Meter.

Original report states average and peak power. Due to the inconsistency in the measured peak power (Using peak Note 2 power meter and UNII power measurement method), the average power was measured and matched it with the original powers that were reported in the original application. Then measured the peak power and recorded the results.

Run #1b: Output Power

0.7 dBi

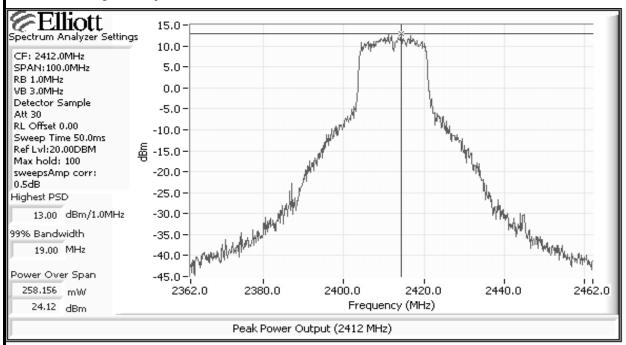
Channel	Frequency (MHz)	Output Power (dBm)	Output Power (W)	EIRP (W)	
Low	2412	21.63	0.146	0.171	Pwr setting = 15.5
Mid	2437	21.41	0.138	0.163	Pwr setting = 17.0
High	2462	21.18	0.131	0.154	Pwr setting = 17.0

Note 1 Used Peak Power Meter.

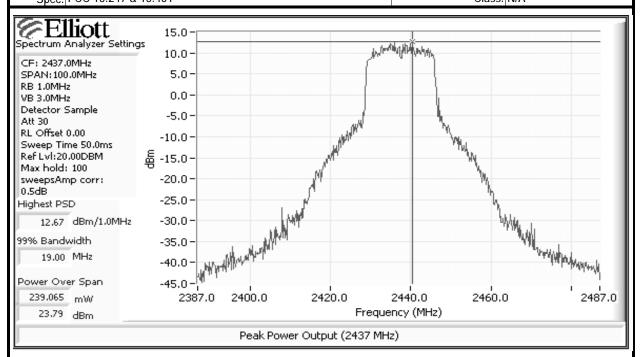
Client: Intel Corporation Client: Intel Corporation Model: FJ3B2915ABG Permissive Change Contact: Robert Paxman Spec: FCC 15.247 & 15.401 EMC Test Data Job Number: J60445 T-Log Number: T60451 Account Manager: Nesha Lambert Class: N/A

Run #1c: Output Power

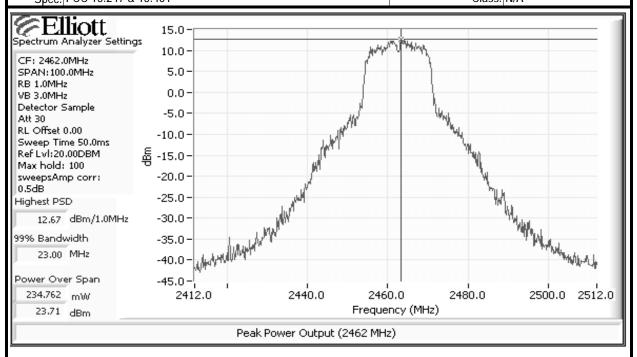
Plots for UNII using the Analyzer and software.



Client: Intel Corporation Client: Intel Corporation Model: FJ3B2915ABG Permissive Change Contact: Robert Paxman Spec: FCC 15.247 & 15.401 EMC Test Data Job Number: J60445 T-Log Number: T60451 Account Manager: Nesha Lambert Class: N/A



Client: Intel Corporation Client: Intel Corporation Model: FJ3B2915ABG Permissive Change Contact: Robert Paxman Spec: FCC 15.247 & 15.401 EMC Test Data Job Number: J60445 T-Log Number: T60451 Account Manager: Nesha Lambert Class: N/A



EMC Test Data Job Number: J60445 Client: Intel Corporation T-Log Number: T60451 Model: FJ3B2915ABG Permissive Change Account Manager: Nesha Lambert Contact: Robert Paxman Spec: FCC 15.247 & 15.401 Class: N/A Run #2a: Radiated Spurious Emissions, 30 - 18000 MHz. Low Channel @ 2412 MHz ACTV DET: PEAK MEAS DET: PEAK QP AVG MKR& 17.16 MHz 45.89 dB ACTV DET: PEAK MEAS DET: PEAK QP AVG MKR4 23.42 MHz 49.15 dB REF 116.0 dBµV REF 113.0 dBpV ER 2.39000 GHz #IF BW 1.0 MHz SPAN 80.77 MHz ER 2.39000 GHz #IF BW 1.0 MHz SPAN 80.77 MHz SWP 24.2 sec #AVG BW 1 MHz SWP 20.0 msec #AVG BW 10 Hz ٧ Н Fundamental emission level @ 3m in 1MHz RBW: 98.9 105.9 Peak Measurement (RB=VB=1MHz) Fundamental emission level @ 3m in 1MHz RBW: 90.5 98.1 Average Measurement (RB=1MHz, VB=10Hz) Delta Marker - Peak 45.89 dB Delta Marker - Average 49.15 dB Calculated Band-Edge Measurement: 60.01 dBuV/m Peak Calculated Band-Edge Measurement: 48.95 dBuV/m Average Band Edge Signal Radiated Field Strength 15.209 / 15.247 Frequency Level Pol Detector Azimuth Height Comments MHz $dB\mu V/m$ v/h Limit Margin Pk/QP/Avg degrees meters 2390.000 74.0 -14.0 Pk 60.0 Note 2 2390.000 49.0 54.0 Note 2 -5.1 Avg

	Intel Corp	oration					-	Job Number: J60445
Madal	E 12D201E	ADC Do	rmissive Ch	ango			T-L	og Number: T60451
wouei.	L19D5413	ADG PE	IIIIISSIVE CII	ange			Accou	ınt Manager: Nesha Lambert
	Robert Pa							
Spec:	FCC 15.24	47 & 15.	401					Class: N/A
	ious Radia							
Frequency		Pol		15.247	Detector	Azimuth	Height	Comments
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	011//4 5
2413.480	98.1	V	-	-	AVG	130	1.0	CH#1 Fundamental
2413.480	105.9 90.5	V H	-	-	PK	130	1.0	CH#1 Fundamental CH#1 Fundamental
2410.680 2410.680	90.5	<u>п</u> Н	-	-	AVG PK	0	1.4 1.4	CH#1 Fundamental
4823.933	27.7	V	54.0	-26.4	AVG	229	1.4	OTH I I UNUANICHAI
4823.933	37.9	V	74.0	-36.1	PK	229	1.0	
4824.338	27.9	H	54.0	-26.1	AVG	132	1.0	
4824.338	38.7	Н	74.0	-35.3	PK	132	1.0	
		e measu					ength (peak	or average) minus the band
Note 1: Note 2:	Band-edg	e measu	rement calc				ength (peak	or average) minus the band
Note 2: Run #2b:	Band-edg delta mark Radiated	e measu ker meas d Spurio	rement calc surement. ous Emiss	ulated from		ental field stre		
Note 2: Run #2b: Other Spur	Band-edg delta mark Radiated ious Radia	e measu ker meas d Spurio	rement calc surement. ous Emiss ssions:	ulated from	the fundame	ental field stre	channel @	2437 MHz
Note 2: Run #2b: Other Spur Frequency	Band-edg delta mark Radiated ious Radia Level	e measu ker meas d Spurio ted Emis Pol	rement calc surement. ous Emiss ssions: 15.209	ions, 30 -	the fundame 18000 MHz	ental field stre z. Middl e C Azimuth	Channel @	
Note 2: Run #2b: Other Spur Frequency MHz	Band-edg delta mark Radiated ious Radia Level dBµV/m	e measu ker meas d Spurio ted Emis Pol v/h	rement calc surement. ous Emiss ssions: 15.209 / Limit	ions, 30 - / 15.247 Margin	- 18000 MHz Detector Pk/QP/Avg	z. Middle C Azimuth degrees	Height meters	2437 MHz
Run #2b: Other Spur Frequency MHz 4877.647	Band-edg delta mark Radiated ious Radia Level dBμV/m 32.3	e measu ker meas d Spurio ted Emis Pol v/h V	ous Emiss sions: 15.209 / Limit 54.0	ions, 30 - / 15.247 Margin -21.8	- 18000 MHz Detector Pk/QP/Avg AVG	z. Middle C Azimuth degrees 199	Height meters	2437 MHz
Run #2b: Other Spur Frequency MHz 4877.647	Radiated ious Radia Level dBµV/m 32.3 44.6	e measuser measure	ous Emiss ssions: 15.209 / Limit 54.0 74.0	ions, 30 - 7 15.247 Margin -21.8 -29.4	Detector Pk/QP/Avg AVG PK	z. Middle C Azimuth degrees 199 199	Height meters 1.0 1.0	2437 MHz
Note 2: Run #2b: Other Spur Frequency MHz 4877.647 4877.647 7309.605	Radiated ious Radia Level dBµV/m 32.3 44.6 32.0	e measu ker meas d Spurio ted Emis Pol v/h V	ous Emiss sions: 15.209 / Limit 54.0	ions, 30 - / 15.247 Margin -21.8	- 18000 MHz Detector Pk/QP/Avg AVG	z. Middle C Azimuth degrees 199	Height meters	2437 MHz
Note 2: Run #2b: Other Spur Frequency MHz 4877.647 4877.647 7309.605	Radiated ious Radia Level dBμV/m 32.3 44.6 32.0 43.7	e measuser measure me	cous Emiss ssions: 15.209 / Limit 54.0 74.0 54.0	ions, 30 - / 15.247 Margin -21.8 -29.4 -22.0 -30.3	Detector Pk/QP/Avg AVG PK AVG	Azimuth degrees 199 148	Height meters 1.0 1.0	2437 MHz
Run #2b: Other Spur Frequency MHz 4877.647 7309.605 7309.605 4877.970	Radiated ious Radia Level dBµV/m 32.3 44.6 32.0 43.7	e measuser measure m	cous Emiss sions: 15.209 / Limit 54.0 74.0 54.0 74.0	ions, 30 - / 15.247 Margin -21.8 -29.4 -22.0	Detector Pk/QP/Avg AVG PK AVG PK	Azimuth degrees 199 148 148	Height meters 1.0 1.0 1.0	2437 MHz
Note 2: Run #2b: Other Spur Frequency MHz 4877.647 4877.647 7309.605	Radiated ious Radia Level dBµV/m 32.3 44.6 32.0 43.7 30.8	e measu ker meas d Spurio ted Emis Pol V/h V V V	rement calc surement. ous Emiss sions: 15.209 / Limit 54.0 74.0 54.0 74.0 54.0 54.0	ions, 30 - / 15.247 Margin -21.8 -29.4 -22.0 -30.3 -23.3	Detector Pk/QP/Avg AVG PK AVG PK AVG	Azimuth degrees 199 148 148 198	Height meters 1.0 1.0 1.0 1.9	2437 MHz

EMC Test Data Job Number: J60445 Client: Intel Corporation T-Log Number: T60451 Model: FJ3B2915ABG Permissive Change Account Manager: Nesha Lambert Contact: Robert Paxman Class: N/A Spec: FCC 15.247 & 15.401 Run #2c: Radiated Spurious Emissions, 30 - 18000 MHz. High Channel @ 2462 MHz ACTV DET: PEAK MEAS DET: PEAK QP AVG MKRA -22.82 MHz ACTV DET: PEAK MEAS DET: PEAK QP AVG MKR4 -33.72 MHz 50.78 dB 45.50 dB REF 117.0 dBpV REF 112.0 dBpV ER 2.48350 GHz #IF BW 1.0 MHz SPAN 80.77 MHz SWP 20.0 msec ER 2.48350 GHz SPAN 80.77 MHz SWP 24.2 sec #AVG BW 1 MHz #IF BW 1.0 MHz #AVG BW 10 Hz ٧ Н Fundamental emission level @ 3m in 1MHz RBW: 99.4 106.6 Peak Measurement (RB=VB=1MHz) Fundamental emission level @ 3m in 1MHz RBW: 91.4 98.6 Average Measurement (RB=1MHz, VB=10Hz) Delta Marker - Peak 45.5 dB Delta Marker - Average 50.78 dB Calculated Band-Edge Measurement: 61.1 dBuV/m Peak Calculated Band-Edge Measurement: 47.82 dBuV/m Average Band Edge Signal Radiated Field Strength 15.209 / 15.247 Frequency Level Pol Detector Azimuth Height Comments MHz $dB\mu V/m$ v/h Limit Margin Pk/QP/Avg degrees meters 74.0 -12.9 Pk 2483.500 61.1 Note 2 2483.500 47.8 54.0 -6.2 Avg Note 2

	Elli(Job Number:	J60445
							T-I	_og Number:	T60451
Model:	FJ3B2915	ABG Pe	rmissive Ch	ange					Nesha Lambert
Contact:	Robert Pa	xman							
Spec:	FCC 15.2	47 & 15.4	401					Class	: N/A
ner Spur	ious Radia	ted Emis	ssions:						
quency		Pol		/ 15.247	Detector	Azimuth	Height	Comments	
MHz	dBμV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters		
163.630	98.6	V	-	-	AVG	359	1.0	Ch#11 Fur	ndamental
63.630	106.6	V	-	-	PK	359	1.0	Ch#11 Fur	
60.150	91.4	Н	-	-	AVG	0	1.2	Ch#11 Fur	
60.150	99.4	Н	-	-	PK	0	1.2	Ch#11 Fur	ndamental
25.231	37.9	V	54.0	-16.1	AVG	199	1.0	<u> </u>	
25.231	49.9	V	74.0	-24.1	PK	199	1.0	<u> </u>	
90.352	38.1	V	54.0	-15.9	AVG	150	1.0	1	
90.352	49.1	V H	74.0	-25.0	PK	150	1.0		
		н	54.0	-21.5	AVG	301	1.0		
23.161	32.5					201	1.0	1	
923.161 923.161	44.9	Н	74.0	-29.2	PK	301	1.0		
23.161 23.161 90.675	44.9 33.4	H H	74.0 54.0	-29.2 -20.6	PK AVG	295	1.0		
923.161 923.161 390.675 390.675 ote 1:	44.9 33.4 44.4 For emiss Band-edge	H H H ions in ree e measu	74.0 54.0 74.0 estricted bar rement calc	-29.2 -20.6 -29.6	PK AVG PK it of 15.209 w	295 295 /as used.	1.0	or average)) minus the band e
923.161 923.161 390.675 390.675 ote 1:	44.9 33.4 44.4 For emiss	H H H ions in ree e measu	74.0 54.0 74.0 estricted bar rement calc	-29.2 -20.6 -29.6	PK AVG PK it of 15.209 w	295 295 /as used.	1.0	c or average)) minus the band e
923.161 923.161 890.675 890.675	44.9 33.4 44.4 For emiss Band-edge	H H H ions in ree e measu	74.0 54.0 74.0 estricted bar rement calc	-29.2 -20.6 -29.6	PK AVG PK it of 15.209 w	295 295 /as used.	1.0	or average)) minus the band ϵ
923.161 923.161 390.675 390.675 ote 1:	44.9 33.4 44.4 For emiss Band-edge	H H H ions in ree e measu	74.0 54.0 74.0 estricted bar rement calc	-29.2 -20.6 -29.6	PK AVG PK it of 15.209 w	295 295 /as used.	1.0	c or average)) minus the band e
923.161 923.161 890.675 890.675	44.9 33.4 44.4 For emiss Band-edge	H H H ions in ree e measu	74.0 54.0 74.0 estricted bar rement calc	-29.2 -20.6 -29.6	PK AVG PK it of 15.209 w	295 295 /as used.	1.0	or average)) minus the band e
23.161 23.161 90.675 90.675	44.9 33.4 44.4 For emiss Band-edge	H H H ions in ree e measu	74.0 54.0 74.0 estricted bar rement calc	-29.2 -20.6 -29.6	PK AVG PK it of 15.209 w	295 295 /as used.	1.0	c or average)) minus the band e
923.161 923.161 890.675 890.675 te 1:	44.9 33.4 44.4 For emiss Band-edge	H H H ions in ree e measu	74.0 54.0 74.0 estricted bar rement calc	-29.2 -20.6 -29.6	PK AVG PK it of 15.209 w	295 295 /as used.	1.0	c or average)) minus the band e
23.161 23.161 90.675 90.675	44.9 33.4 44.4 For emiss Band-edge	H H H ions in ree e measu	74.0 54.0 74.0 estricted bar rement calc	-29.2 -20.6 -29.6	PK AVG PK it of 15.209 w	295 295 /as used.	1.0	c or average)) minus the band e
23.161 23.161 90.675 90.675	44.9 33.4 44.4 For emiss Band-edge	H H H ions in ree e measu	74.0 54.0 74.0 estricted bar rement calc	-29.2 -20.6 -29.6	PK AVG PK it of 15.209 w	295 295 /as used.	1.0	c or average)) minus the band e
23.161 23.161 90.675 90.675	44.9 33.4 44.4 For emiss Band-edge	H H H ions in ree e measu	74.0 54.0 74.0 estricted bar rement calc	-29.2 -20.6 -29.6	PK AVG PK it of 15.209 w	295 295 /as used.	1.0	c or average)) minus the band e
23.161 23.161 90.675 90.675	44.9 33.4 44.4 For emiss Band-edge	H H H ions in ree e measu	74.0 54.0 74.0 estricted bar rement calc	-29.2 -20.6 -29.6	PK AVG PK it of 15.209 w	295 295 /as used.	1.0	c or average)) minus the band e
23.161 23.161 90.675 90.675 te 1:	44.9 33.4 44.4 For emiss Band-edge	H H H ions in ree e measu	74.0 54.0 74.0 estricted bar rement calc	-29.2 -20.6 -29.6	PK AVG PK it of 15.209 w	295 295 /as used.	1.0	c or average)) minus the band e
23.161 23.161 90.675 90.675	44.9 33.4 44.4 For emiss Band-edge	H H H ions in ree e measu	74.0 54.0 74.0 estricted bar rement calc	-29.2 -20.6 -29.6	PK AVG PK it of 15.209 w	295 295 /as used.	1.0	c or average)) minus the band e
23.161 23.161 90.675 90.675	44.9 33.4 44.4 For emiss Band-edge	H H H ions in ree e measu	74.0 54.0 74.0 estricted bar rement calc	-29.2 -20.6 -29.6	PK AVG PK it of 15.209 w	295 295 /as used.	1.0	c or average)) minus the band e
23.161 23.161 90.675 90.675	44.9 33.4 44.4 For emiss Band-edge	H H H ions in ree e measu	74.0 54.0 74.0 estricted bar rement calc	-29.2 -20.6 -29.6	PK AVG PK it of 15.209 w	295 295 /as used.	1.0	c or average)) minus the band e
23.161 23.161 90.675 90.675	44.9 33.4 44.4 For emiss Band-edge	H H H ions in ree e measu	74.0 54.0 74.0 estricted bar rement calc	-29.2 -20.6 -29.6	PK AVG PK it of 15.209 w	295 295 /as used.	1.0	c or average)) minus the band e
23.161 23.161 90.675 90.675 te 1:	44.9 33.4 44.4 For emiss Band-edge	H H H ions in ree e measu	74.0 54.0 74.0 estricted bar rement calc	-29.2 -20.6 -29.6	PK AVG PK it of 15.209 w	295 295 /as used.	1.0	c or average)) minus the band e
23.161 23.161 90.675 90.675 te 1:	44.9 33.4 44.4 For emiss Band-edge	H H H ions in ree e measu	74.0 54.0 74.0 estricted bar rement calc	-29.2 -20.6 -29.6	PK AVG PK it of 15.209 w	295 295 /as used.	1.0	c or average)) minus the band e
23.161 23.161 90.675 90.675	44.9 33.4 44.4 For emiss Band-edge	H H H ions in ree e measu	74.0 54.0 74.0 estricted bar rement calc	-29.2 -20.6 -29.6	PK AVG PK it of 15.209 w	295 295 /as used.	1.0	c or average)) minus the band e
23.161 23.161 90.675 90.675	44.9 33.4 44.4 For emiss Band-edge	H H H ions in ree e measu	74.0 54.0 74.0 estricted bar rement calc	-29.2 -20.6 -29.6	PK AVG PK it of 15.209 w	295 295 /as used.	1.0	c or average)) minus the band e

Elliott EMC Test Data Job Number: J60445 Client: Intel Corporation T-Log Number: T60451 Model: FJ3B2915ABG Permissive Change Account Manager: Nesha Lambert Contact: Robert Paxman Spec: FCC 15.247 & 15.401 Class: N/A Run #3: Radiated Rx Spurious Emissions, 1000 - 12500 MHz. Middle Channel @ 2347 MHz Pol Frequency Level RSS-210 Rx Detector Azimuth Height Comments MHz dBμV/m Pk/QP/Avg v/h Limit Margin degrees meters 6498.593 42.4 ٧ 60.0 -17.6 AVG 128 1.0 6498.593 46.8 ٧ 0.08 -33.2 PK 128 1.0 52.7 6498.578 Н 60.0 -7.4 AVG 122 1.0 6498.578 54.3 Н 0.08 -25.7 PK 122 1.0

EXHIBIT 3: Test Configuration Photographs

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EXHIBIT 4: Proposed FCC ID Label & Label Location

Unchanged from original application

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EXHIBIT 5: Detailed Photographs of Intel Corporation Model WM3B2915ABGConstruction

Unchanged from original application

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EXHIBIT 6: Operator's Manual for Intel Corporation Model WM3B2915ABG

Unchanged from original application

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EXHIBIT 7: Block Diagram of Intel Corporation Model WM3B2915ABG

Unchanged from original application

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EXHIBIT 8: Schematic Diagrams for Intel Corporation Model WM3B2915ABG

Unchanged from original application

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EXHIBIT 9: Theory of Operation for Intel Corporation Model WM3B2915ABG

Unchanged from original application

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EXHIBIT 10: Advertising Literature

Unchanged from original application

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EXHIBIT 11: RF Exposure Information

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EXHIBIT 12: FCC Class II Letter

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