

Modular Approval
 Test Report
 And Application for Grant of Equipment Authorization

TEST REPORT PERTAINING TO:

Equipment Under Test	Model Number(s)
Intel PRO/Wireless 4965AG_ Network Connection	4965AG_

CONFIGURATION

802.11a / 802.11b / 802.11g with a set of Ethertronics Antennas

MEASUREMENTS PERFORMED IN ACCORDANCE WITH THE FOLLOWING STANDARD (S)

Regulatory Standard(s)
47 CFR Part 15, Subpart C Section 15.247

Test Method:
 ANSI C63.4: 2003 American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz



Certificate Number: 1111.01

PREPARED FOR:

Intel Corporation
 2111 NE 25th Avenue
 Hillsboro, Oregon 97124
 Contact(s): Mr. Robert Paxman

PREPARED BY:

Aegis Labs, Inc.
 22431 Antonio Parkway B160-417
 Rancho S. Margarita, CA 92688
 Agent(s): Mr. Rick Candelas
 Mr. Johnny Candelas



Test Report #: INTEL-061107F

Test Report Revision: NONE

	REPORT BODY	APPENDICES		TOTAL PAGES
		<i>A</i>	<i>B</i>	
PAGES	16	109	1	126

The contents of this report shall not be reproduced except in full, without the written approval of Aegis Labs, Inc.
 The Intel logo is used for identification purposes only and is a registered trademark of Intel Corporation

TABLE OF CONTENTS

SECTION	TITLE	PAGE
	COVER SHEET.....	01
	TABLE OF CONTENTS.....	02
1.0	REGULATORY COMPLIANCE GUIDELINES.....	03
1.1	Guidelines For Testing To Emissions Standards.....	03
2.0	SUMMARY OF REGULATORY LIMITS.....	04
3.0	ADMINISTRATIVE DATA AND TEST DESCRIPTION.....	10
4.0	DESCRIPTION OF EUT CONFIGURATION.....	11
4.1	EUT Description	11
4.2	EUT Configuration.....	12
4.3	List of EUT Sub-Assemblies and Host Equipment	12
4.4	I/O Cabling Diagram and Description	13
4.5	EMC Test Hardware and Software Measurement Equipment.....	14
5.0	CONDITIONS DURING EMISSIONS MEASUREMENTS.....	15
5.1	General.....	15
5.2	Conducted Emissions Test Setup.....	15
5.3	Radiated Emissions Test Setup.....	16

APPENDICES

A	Test Data
B	Modifications And Recommendations

1.0 REGULATORY COMPLIANCE GUIDELINES

Aegis Labs, Inc. operates as both a Nevada and California Corporation with no organizational or financial relationship with any company, institution, or private individual. Testing and engineering functions provided by Aegis Labs were furnished by RF technicians and engineers with accredited qualifications and training credentials to carry out their duties.

The object of this report was to publish verifiable test results of an EUT subjected to the tests outlined in the standard listed on the cover page of this report.

1.1 Guidelines For Testing To Emissions Standards

This standard for EMC emission requirements apply to electrical equipment for Information Technology Equipment (ITE). Compliance to these standards and in combination with the other standards listed in this test report can be used to demonstrate presumption of compliance with the protection requirements of the appropriate agency standard.

The purpose of this standard is to specify minimum requirements for emissions regarding electromagnetic compatibility (EMC) and protect the radio frequency spectrum 9 kHz. – 400 GHz. from unwanted interference generated from electrical/digital systems that intentionally or unintentionally generated RF energy. The emissions standards, normative documents and/or publications were used to conduct all tests performed on the equipment herein referred to as "Equipment Under Test".

2.0 SUMMARY OF TEST RESULTS

802.11a Mode (5745-5825 MHz) Chain A EMISSIONS STANDARD

FCC Part 15 Section	Description	Results	Comments
15.247(a)(2)	The minimum 6dB bandwidth shall be at least 500 kHz.	PASSED	5745 MHz = 16.50 MHz 5785 MHz = 16.50 MHz 5825 MHz = 16.50 MHz
15.247(b)(3)	The maximum peak output power of the intentional radiator shall not exceed 1 watt.	PASSED	5745 MHz = 19.61 dBm = 91.40 mW 5785 MHz = 19.71 dBm = 93.53 mW 5825 MHz = 19.91 dBm = 97.94 mW
15.247(b)(5)	The intentional radiator shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the FCC guidelines per Section 1.1307(b)(1).	PASSED	Refer to MPE Calculations Exhibit
15.247(c)	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.	PASSED	See Data Sheets
15.247(c)	Radiated emissions, which fall in the restricted bands, as defined in Sec. 15.205(a), must also comply with the radiated emission limits specified in Sec. 15.209(a). All others must be < -20dBc.	PASSED	See Data Sheets
15.247(d)	The peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.	PASSED	5745 MHz = -5.83 dB 5785 MHz = -6.67 dB 5825 MHz = -7.83 dB
15.207	AC Conducted Emissions	PASSED	See Data Sheets
15.209	Radiated Emissions (30-1000 MHz)	PASSED	See Data Sheets

2.0 Summary of Test Results (Continued)

802.11a Mode (5745-5825 MHz) Chain B
EMISSIONS STANDARD

FCC Part 15 Section	Description	Results	Comments
15.247(a)(2)	The minimum 6dB bandwidth shall be at least 500 kHz.	PASSED	5745 MHz = 16.42 MHz 5785 MHz = 16.50 MHz 5825 MHz = 16.33 MHz
15.247(b)(3)	The maximum peak output power of the intentional radiator shall not exceed 1 watt.	PASSED	5745 MHz = 20.21 dBm = 104.94 mW 5785 MHz = 20.31 dBm = 107.39 mW 5825 MHz = 20.31 dBm = 107.39 mW
15.247(b)(5)	The intentional radiator shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the FCC guidelines per Section 1.1307(b)(1).	PASSED	Refer to MPE Calculations Exhibit
15.247(c)	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.	PASSED	See Data Sheets
15.247(c)	Radiated emissions, which fall in the restricted bands, as defined in Sec. 15.205(a), must also comply with the radiated emission limits specified in Sec. 15.209(a). All others must be < -20dBc.	PASSED	See Data Sheets
15.247(d)	The peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.	PASSED	5745 MHz = -4.00 dB 5785 MHz = -3.83 dB 5825 MHz = -6.17 dB
15.207	AC Conducted Emissions	PASSED	See Data Sheets
15.209	Radiated Emissions (30-1000 MHz)	PASSED	See Data Sheets

2.0 Summary of Test Results (Continued)

802.11b Mode (2400-2483.5 MHz) Chain A
EMISSIONS STANDARD

FCC Part 15 Section	Description	Results	Comments
15.247(a)(2)	The minimum 6dB bandwidth shall be at least 500 kHz.	PASSED	2412 MHz = 12.58 MHz 2437 MHz = 12.67 MHz 2462 MHz = 12.67 MHz
15.247(b)(3)	The maximum peak output power of the intentional radiator shall not exceed 1 watt.	PASSED	2412 MHz = 19.07 dBm = 80.68 mW 2437 MHz = 19.24 dBm = 83.90 mW 2462 MHz = 20.03 dBm = 100.64 mW
15.247(b)(5)	The intentional radiator shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the FCC guidelines per Section 1.1307(b)(1).	PASSED	Refer to MPE Calculations Exhibit
15.247(c)	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.	PASSED	See Data Sheets
15.247(c)	Radiated emissions, which fall in the restricted bands, as defined in Sec. 15.205(a), must also comply with the radiated emission limits specified in Sec. 15.209(a). All others must be < -20dBc.	PASSED	See Data Sheets
15.247(d)	The peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.	PASSED	2412 MHz = -9.00 dB 2437 MHz = -9.00 dB 2462 MHz = -8.67 dB
15.207	AC Conducted Emissions	PASSED	See Data Sheets
15.209	Radiated Emissions (30-1000 MHz)	PASSED	See Data Sheets

2.0 Summary of Test Results (Continued)

802.11b Mode (2400-2483.5 MHz) Chain B
EMISSIONS STANDARD

FCC Part 15 Section	Description	Results	Comments
15.247(a)(2)	The minimum 6dB bandwidth shall be at least 500 kHz.	PASSED	2412 MHz = 12.08 MHz 2437 MHz = 12.17 MHz 2462 MHz = 13.00 MHz
15.247(b)(3)	The maximum peak output power of the intentional radiator shall not exceed 1 watt.	PASSED	2412 MHz = 18.73 dBm = 74.61 mW 2437 MHz = 18.88 dBm = 77.23 mW 2462 MHz = 19.94 dBm = 98.58 mW
15.247(b)(5)	The intentional radiator shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the FCC guidelines per Section 1.1307(b)(1).	PASSED	Refer to MPE Calculations Exhibit
15.247(c)	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.	PASSED	See Data Sheets
15.247(c)	Radiated emissions, which fall in the restricted bands, as defined in Sec. 15.205(a), must also comply with the radiated emission limits specified in Sec. 15.209(a). All others must be < -20dBc.	PASSED	See Data Sheets
15.247(d)	The peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.	PASSED	2412 MHz = -7.67 dB 2437 MHz = -6.50 dB 2462 MHz = -6.67 dB
15.207	AC Conducted Emissions	PASSED	See Data Sheets
15.209	Radiated Emissions (30-1000 MHz)	PASSED	See Data Sheets

2.0 Summary of Test Results (Continued)

802.11g Mode (2400-2483.5 MHz) Chain A
EMISSIONS STANDARD

FCC Part 15 Section	Description	Results	Comments
15.247(a)(2)	The minimum 6dB bandwidth shall be at least 500 kHz.	PASSED	2412 MHz = 16.50 MHz 2437 MHz = 16.50 MHz 2462 MHz = 16.50 MHz
15.247(b)(3)	The maximum peak output power of the intentional radiator shall not exceed 1 watt.	PASSED	2412 MHz = 23.80 dBm = 239.86 mW 2437 MHz = 23.83 dBm = 241.52 mW 2462 MHz = 23.48 dBm = 222.82 mW
15.247(b)(5)	The intentional radiator shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the FCC guidelines per Section 1.1307(b)(1).	PASSED	Refer to MPE Calculations Exhibit
15.247(c)	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.	PASSED	See Data Sheets
15.247(c)	Radiated emissions, which fall in the restricted bands, as defined in Sec. 15.205(a), must also comply with the radiated emission limits specified in Sec. 15.209(a). All others must be < -20dBc.	PASSED	See Data Sheets
15.247(d)	The peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.	PASSED	2412 MHz = -6.33 dB 2437 MHz = -7.17 dB 2462 MHz = -8.67 dB
15.207	AC Conducted Emissions	PASSED	See Data Sheets
15.209	Radiated Emissions (30-1000 MHz)	PASSED	See Data Sheets

2.0 Summary of Test Results (Continued)

 802.11g Mode (2400-2483.5 MHz) Chain B
 EMISSIONS STANDARD

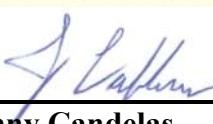
FCC Part 15 Section	Description	Results	Comments
15.247(a)(2)	The minimum 6dB bandwidth shall be at least 500 kHz.	PASSED	2412 MHz = 16.42 MHz 2437 MHz = 16.50 MHz 2462 MHz = 16.50 MHz
15.247(b)(3)	The maximum peak output power of the intentional radiator shall not exceed 1 watt.	PASSED	2412 MHz = 23.54 dBm = 225.92 mW 2437 MHz = 23.63 dBm = 230.65 mW 2462 MHz = 23.52 dBm = 224.88 mW
15.247(b)(5)	The intentional radiator shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the FCC guidelines per Section 1.1307(b)(1).	PASSED	Refer to MPE Calculations Exhibit
15.247(c)	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.	PASSED	See Data Sheets
15.247(c)	Radiated emissions, which fall in the restricted bands, as defined in Sec. 15.205(a), must also comply with the radiated emission limits specified in Sec. 15.209(a). All others must be < -20dBc.	PASSED	See Data Sheets
15.247(d)	The peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.	PASSED	2412 MHz = -8.67 dB 2437 MHz = -6.67 dB 2462 MHz = -8.00 dB
15.207	AC Conducted Emissions	PASSED	See Data Sheets
15.209	Radiated Emissions (30-1000 MHz)	PASSED	See Data Sheets

ANALYSIS AND CONCLUSIONS

Based upon the measurement results we find that this equipment is within the limits of the global standards listed on the cover page of this test report. All results are based on a test of one sample. If any significant changes are made to the unit, the changes shall be evaluated and a retest may be required.

Approval Signatories

Test and Report Completed By:


 Johnny Candelas
 Test Technician
 Aegis Labs, Inc.

11/08/06

Date:

Report Approved By:


 Rick Candelas
 Quality Assurance Manager
 Aegis Labs, Inc.

11/08/06

Date:

3.0 ADMINISTRATIVE DATA AND TEST DESCRIPTION

DEVICE TESTED:	ITE Type: Intel PRO/Wireless 4965AG_ Network Connection Model Number(s): 4965AG Serial Number: 0013E804612B FCC ID: PD94965AG
DATE EUT RECEIVED:	August 25 th , 2006
TEST DATE(S):	September 7 th – October 11 th , 2006
ORIGIN OF TEST SAMPLE(S):	Production
EQUIPMENT CLASS:	EUT tested as CLASS B device
RESPONSIBLE PARTY:	Intel Corporation 2111 NE 25 th Avenue Hillsboro, Oregon 97124
CLIENT CONTACT:	Mr. Robert Paxman
MANUFACTURER:	Intel Corporation
TEST LOCATION:	Aegis Labs, Inc. 32231 Trabuco Creek Road Trabuco Canyon, CA 92678 Open Area Test Site #1 & #2
ACCREDITATION CERTIFICATE(s):	A2LA Certificate Number: 1111.01, Valid through February 28, 2008
PURPOSE OF TEST:	To demonstrate compliance with the standards as described in Sections 1.0 & 2.0 of this report.
UNCERTAINTY BUDGET:	Proficiency Testing and Uncertainty Calculations for all tests indicated in this report have been conducted in accordance with ISO 17025: 2005 requirements Section 5.4.6, and 5.9. Uncertainty Budgets and Proficiency Test results available upon request.
STATEMENT OF CALIBRATION:	All accredited equipment calibrations were performed by Liberty Labs, Inc. and World Cal. with typical calibration uncertainty estimates derived from ISO Guide to the determination of uncertainties with a Coverage Factor of k=2 for 95% level of confidence.

4.0 DESCRIPTION OF EUT CONFIGURATION

4.1 EUT Description

Equipment Under Test (EUT)	
Trade Name:	Intel PRO/Wireless 4965AG_ Network Connection
Model Number:	4965AG_
Frequency Range:	802.11a = 5745 – 5825 MHz 802.11b/g = 2412 – 2462MHz
Type of Transmission:	Direct Sequence Spread Spectrum
Transfer Rate:	1/5.5/11 Mbps for 802.11b mode 6/36/54 Mbps for 802.11g and 802.11a modes
Number of Channels:	802.11a mode (5725-5850 MHz) = 5 802.11b mode (2400-2483.5 MHz) = 11 802.11g mode (2400-2483.5 MHz)= 11
Modulation Type:	DBPSK, DQPSK, CCK, OFDM
Antenna Type:	PIFA (Main/Aux)
Antenna Gain (See Note 2):	Ethertronics Antenna @ 5 GHz = 5.00 dBi Ethertronics Antenna @ 2.4 GHz = 3.00 dBi
Transmit Output Power:	Please see Appendix A (Data Sheets) for actual output power.
Power Supply:	3.3VDC from computer MPC1 slot.
Number of External Test Ports Exercised:	3 Antenna Ports

The Intel PRO/Wireless 4965AG_ Network Connection is an embedded 802.11a/b/g network adapter operating in the 2.4 GHz and 5 GHz spectrum. The EUT is based on the Mini Card form factor designed to meet the space and size requirements for thin and light notebook PCs. It is capable of a data rate of up to 54 Mbps.

NOTE 1: For a more detailed description, please refer to the manufacturer's specifications or User's Manual.

NOTE 2: The EUT was tested with a set of Ethertronics Antennas. (Refer to the antenna specifications exhibits).

4.2 EUT Configuration

The EUT was tested installed in the Mini PCI-E slot of the host computer as a modular device using a PCI extender board to extend the EUT outside the computer chassis. The EUT was then connected to a set of antennas via its Chain A, B, & C antenna ports. Data for a set of Ethertronics antennas can be found in Appendix A (Data Sheets)

The low, middle, and high channels were tested in 802.11a, b, & g modes. Also, the EUT was tested once transmitting from Chain A antenna port and once transmitting from Chain B antenna port. The EUT was placed in either continuous transmit or continuous receive mode by a program provided by the manufacturer (*CRTU Version 4.1.14.0000*).

4.3 List of EUT, Sub-Assemblies and Host Equipment

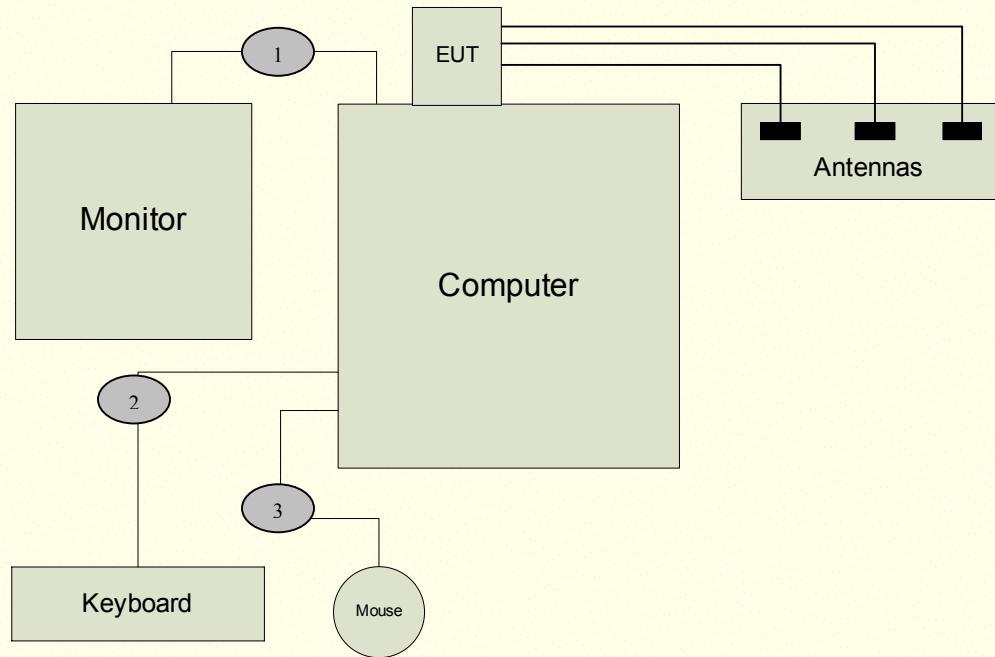
Equipment Under Test			
Manufacturer	Equipment Name	Model or Part Number	Serial Number
Intel Corporation	Intel PRO/Wireless 4965AG_Network Connection	4965AG_	0013E804612B

EUT Sub Assemblies			
Manufacturer	Equipment Name	Model or Part Number	Serial Number
Ethertronics	Chain A (Tx) Antenna	MPCI01001	N/A
Ethertronics	Chain B (Tx) Antenna	MPCI01001	N/A
Ethertronics	Chain C (Rx) Antenna	MPCI01001	N/A

HOST EQUIPMENT LIST			
Manufacturer	Equipment Name	Model or Part Number	Serial Number
GST	Host Computer	GST-8000	G0400295337-015
Sony	Monitor	CPD-200ES	0742818
Logitech	Keyboard	Y-BF37	MCT25200581
Logitech	Mouse	M-BJ58	LNA22802012

NOTE: All the power cords of the above support equipment are standard and non-shielded.

4.4 I/O Cabling Diagram and Description



Signal Line Cable Description

Cable	Length	Construction	Source Connector	Destination Connector	Bundled Length	Ferrite Attached	Note
1	1.5m	Round, Braid & Foil Shielded	Host Computer: Metallic DB-15	Monitor: Hardwired	N/A	N/A	N/A
2	1.5m	Round, Braid & Foil Shielded	Host Computer: Metallic 8-pin Mini DIN	Keyboard: Hardwired	N/A	N/A	N/A
3	1.5m	Round, Braid & Foil Shielded	Host Computer: Metallic 8-pin Mini DIN	Mouse: Hardwired	N/A	N/A	N/A

4.5 EMC Test Hardware and Software Measurement Equipment

TEST EQUIPMENT LIST - Emissions

Equipment Name	Manufacturer	Model Number	Serial Number	Calibration Due Date	Maintenance Calibration Cycle
Spectrum Analyzer	Agilent	8565EC	3946A00245	07/24/07	1 Year
Antenna - Horn	EMCO	3115	2230	05/15/07	1 Year
Preamp	Agilent	8449B	3008A01573	12/08/06	1 Year
18 Foot Coax	Semflex	X116BFSX10216	546	12/14/06	1 Year
2.4 GHz Notch Filter	Micro-Tronics	BRM50702-02	003	10/21/06	1.5 Years
5.725-5.850 GHz Notch Filter	Microwave Circuits	N0257881	3173-01	04/21/07	2 Years
Antenna - 18-26.5 GHz Pre-amplified Horn	Aegis Labs, Inc.	H042	SLK-35-3W	02/08/07	1 Year
EMI Receiver - RF Section	Hewlett Packard	8546A	3325A00137	04/26/07	1 Year
EMI Receiver - RF Filter Section	Hewlett Packard	85460A	3325A00138	04/26/07	1 Year
10dB Attenuator	Radiall	R412710000	Lot 9624	06/30/07	2 Years
LISN (EUT)	Solar Electronics	9252-50-R-24-BNC	961025	03/30/08	2 Years
LISN (Access)	Solar Electronics	9252-50-R-24-BNC	961024	07/05/07	2 Years
Antenna - Biconical	EMCO	3110B	3383	04/06/07	1 Year
Antenna - Log Periodic	EMCO	3148	47943	06/22/07	1 Year
Power Meter	Anritsu	ML2487A	6K00001785	05/30/07	1 Year
Wide Bandwidth Sensor	Anritsu	MA2491A	31193	05/30/07	1 Year
12dB Attenuator	Narda	4779-12	203	12/09/06	1.5 Year
Temperature/Humidity Monitor	Dickson	TH550	7255185	03/24/07	1 Year

5.0 CONDITIONS DURING EMISSIONS MEASUREMENTS

5.1 General

All measurements were made according to the procedures defined in or referred to by the standard listed on the cover page of this report. The measurements were made in the operating mode producing the largest emissions consistent with normal operation and connected to the minimum configuration of auxiliary devices.

5.2 Conducted Emissions Test Setup

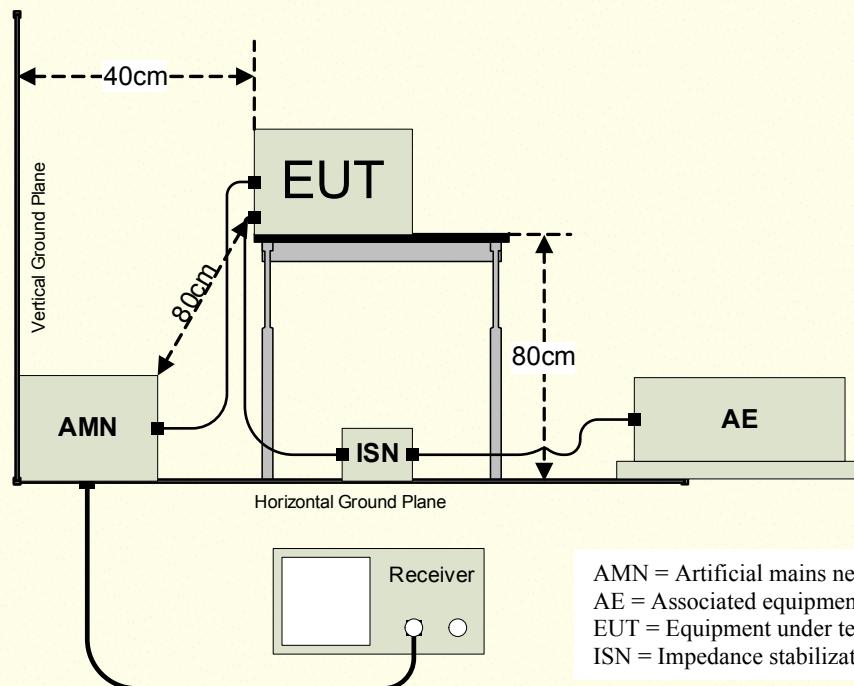
The following was the test configuration.

EUT signal cables that hung closer than 40 cm to the horizontal metal ground plane were folded back and forth forming a bundle 30 cm to 40 cm long. The power cord of the EUT was also bundled in the center and plugged into one of the artificial mains network (AMN). All peripheral equipment was powered from a second AMN via a multiple outlet strip placed at a distance on 10cm from each other. The AMN and ISN were positioned 80cm from the EUT. Signal cables that were not connected to an AE were terminated using the correct termination. If applicable, the current probe was placed at 0.1 m from the ISN.

Peak, quasi-peak and/or average detectors were used for testing performed between 150 kHz and 30 MHz. A swept frequency scan was performed for both Line 1 and Line 2. The six highest readings were compared against the limit and recorded in the data sheet along with a snapshot image of the sweep scan. The graphical scans in Appendix A only reflect peak readings while the tabulated data sheets reflect peak, average, and/or quasi-peak measurements.

Climatic Conditions:

The EUT was tested within its intended operating and climatic conditions.



AMN = Artificial mains network
 AE = Associated equipment
 EUT = Equipment under test
 ISN = Impedance stabilization network

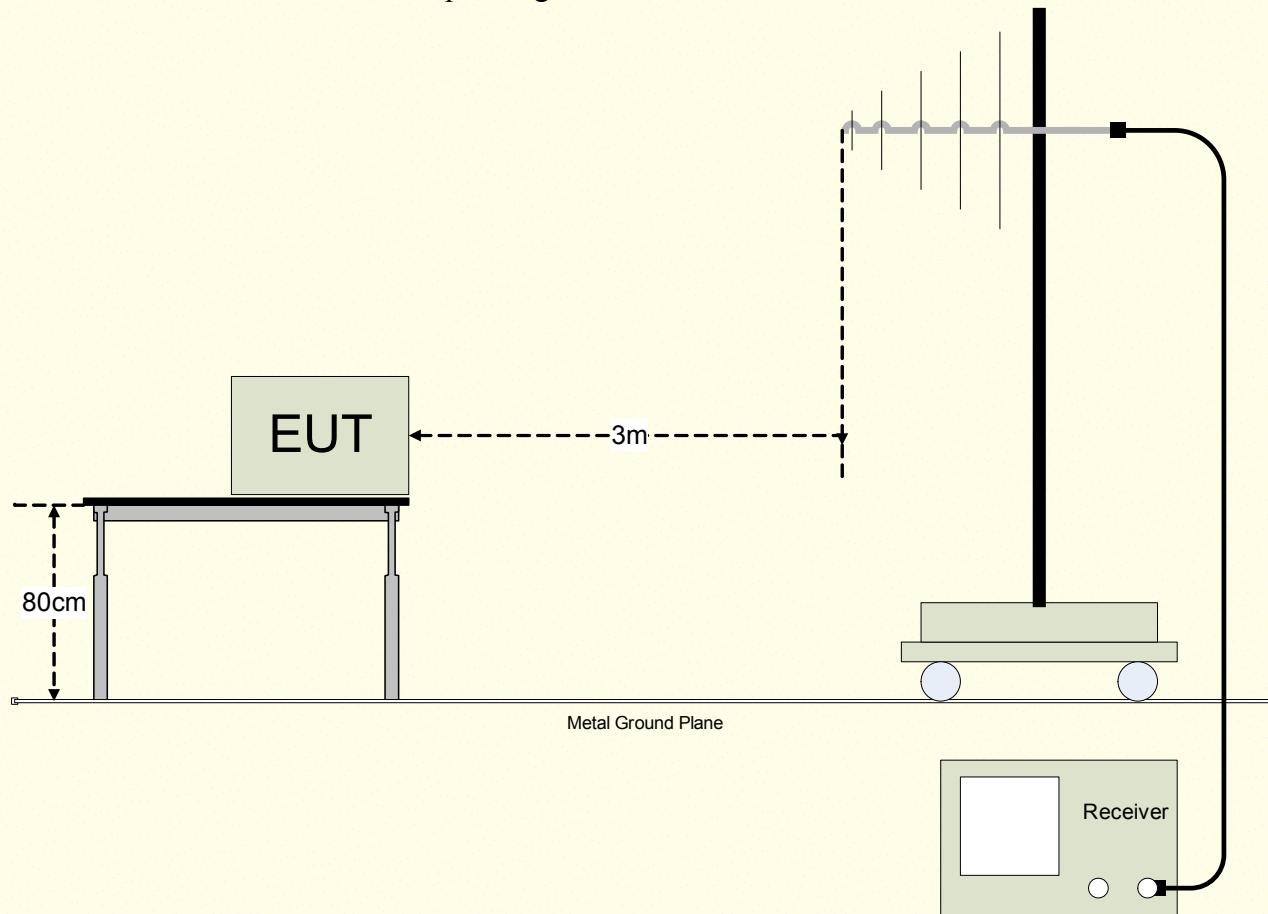
5.3 Radiated Emissions Test Setup

The Open Area Test Site (OATS) was used for radiated emission testing. The receiving (Rx) antenna(s) was placed 10m from the nearest side of the EUT facing the Rx antenna. The EUT (if floor-standing) was placed directly on the flush-mounted 360 degree rotating turntable. The EUT (if table-top) was placed directly on an 80cm high non-metallic table, and the table was placed on the rotating turntable. During the initial EMI scan, all the suspect frequencies, i.e.; harmonics, broadband signals were checked with the Rx broadband antennas in both vertical and horizontal polarities. The biconical Rx, log periodic Rx, and horn Rx antennas were used from 30MHz – 299.99MHz, 300MHz – 1000MHz, and 1GHz – 18GHz respectively.

Upon completion of all harmonic and broadband measurements, the balance of any remaining frequencies was checked between 30MHz – 18GHz. Any signals appearing within 20 dB of the classification limit was measured. Each signal was maximized by first rotating the turntable at least 360 degrees and recording the azimuth in the data sheet. Lastly, the Rx antenna was raised and/or lowered to maximize the signal elevation. If the measured signal was obtained using the peak detector and that signal appeared within 3 dB of the regulatory limit line, then the same signal was re-measured using the quasi-peak detector on the EMI receiver. Both meter readings if necessary were recorded on the data sheet.

Climatic Conditions:

The EUT was tested within its intended operating and climatic conditions.





22431 ANTONIO PARKWAY B160-417
RANCHO SANTA MARGARITA, CA 92688

T (949)459-2754 AegisLabsInc.com
F (949)459-2759

APPENDIX A

TEST DATA

AC POWER PORT - CONDUCTED EMISSIONS TEST RESULTS

CLIENT:	Intel Corporation	DATE:	09/07/06
EUT:	Intel PRO/Wireless 4965AG_ Network Connection	PROJECT NUMBER:	INTEL-061107
MODEL NUMBER:	4965AG_	TEST ENGINEER:	JC
SERIAL NUMBER:	0013E804612B	SITE #:	1
CONFIGURATION:	Tested installed in the host computer's mini PCI slot.	TEMPERATURE:	22 deg. C
		HUMIDITY:	49%
		TIME:	2:15 PM

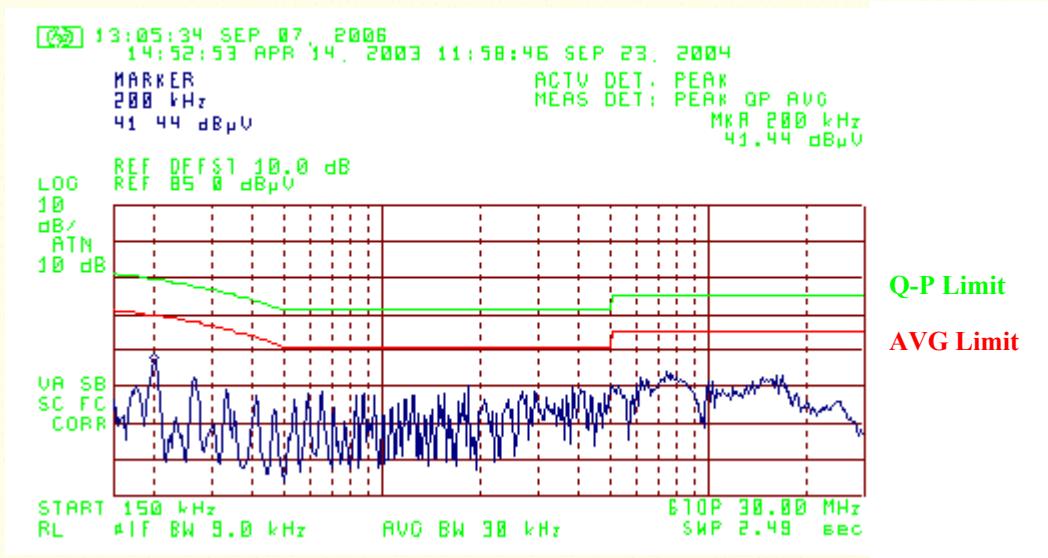
Description:	Conducted Power RF Emissions (150 kHz – 30 MHz)
Results:	PASSED LINE 1 and LINE 2 Limits
Note:	Conducted Emissions Measurements were performed on the EUT with the power supply set at the following voltage and frequency. • 120VAC / 60 Hz

AC Power Port – Conducted Emissions Test Results (Continued)

Continuously Transmitting @ 120VAC/60Hz (INTEL-061107-01)

FCC CLASS B CONDUCTED EMISSIONS – LINE 1

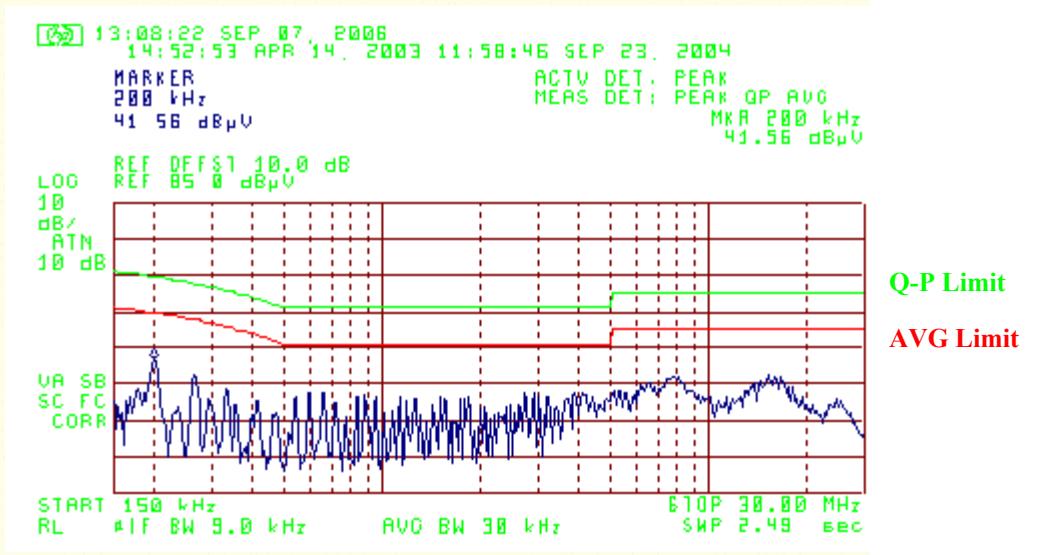
Freq. (MHz)	Meter Reading (dB _u V)	Detector (PK/QP/Avg)	Average Limit (dB _u V)	Average Delta(dB)	Quasi-Peak Limit (dB _u V)	Quasi-Peak Delta(dB)
0.2000	41.44	PK	54.57	-13.13	64.57	-23.13
0.2700	37.40	PK	52.57	-15.17	62.57	-25.17
1.8400	35.48	PK	46.00	-10.52	56.00	-20.52
7.3900	38.91	PK	50.00	-11.09	60.00	-21.09
10.0000	36.02	PK	50.00	-13.98	60.00	-23.98
16.1400	38.26	PK	50.00	-11.74	60.00	-21.74



AC Power Port – Conducted Emissions Test Results (Continued)

Continuously Transmitting @ 120VAC/60Hz (INTEL-061107-01)

Freq. (MHz)	Meter Reading (dB _u V)	Detector (PK/QP/Avg)	Average Limit (dB _u V)	Average Delta(dB)	Quasi-Peak Limit (dB _u V)	Quasi-Peak Delta(dB)
0.2000	41.56	PK	54.57	-13.01	64.57	-23.01
0.2700	37.40	PK	52.57	-15.17	62.57	-25.17
0.3300	33.69	PK	50.86	-17.17	60.86	-27.17
4.1300	32.63	PK	46.00	-13.37	56.00	-23.37
7.6800	36.91	PK	50.00	-13.09	60.00	-23.09
15.2200	37.46	PK	50.00	-12.54	60.00	-22.54



RADIATED EMISSIONS TEST RESULTS

CLIENT:	Intel Corporation	DATE:	09/07/06
EUT:	Intel PRO/Wireless 4965AG_Network Connection	PROJECT NUMBER:	INTEL-061107
MODEL NUMBER:	4965AG_	TEST ENGINEER:	JC
SERIAL NUMBER:	0013E804612B	SITE #:	1
CONFIGURATION:	Tested installed in the host computer's mini PCI slot.	TEMPERATURE:	22 deg. C
		HUMIDITY:	49%
		TIME:	2:15 PM

Description:	Radiated RF Emissions (30 MHz – 1000 MHz)
Results:	PASSED Horizontal and Vertical Antenna Polarizations Class B Limits
Note:	Radiated Emissions Measurements were performed on the EUT with the power supply set at the following voltage and frequency. <ul style="list-style-type: none"> • 120VAC / 60 Hz.

Radiated Emissions Sample Calculations

Corrected Meter Reading = Meter Reading + F +C - D

Where, F = Antenna Factor

C = Cable Factor

G = Amplifier Gain

D = Distance Factor (if applicable)

Therefore, the equation for determining the Corrected Meter Reading Limit (CML) is:

CML = Specification Limit - F - C + D

Radiated Emissions Test Results (Continued)

Continuously Transmitting @ 120VAC/60Hz (INTEL-061107-03)

Horizontal Open Field Maximized Data

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Cable Factor (dB)	Cable Factor (dB)	Antenna Factor (dB)	Corrected Reading (dBuV/m)	Limits (dBuV/m)	Diff (dB) +=FAIL
48.02	8.58	400	45		2.65	10.32	10.46	32.01	40.00	-7.99
120.00	14.23	400	90	11.03	Q	2.39	11.20	10.46	35.08	43.50
250.01	10.96	350	90		2.91	17.40	10.46	41.73	46.00	-4.27
305.09	11.32	300	270		3.07	14.49	10.46	39.33	46.00	-6.67
375.00	10.53	250	45		3.35	15.10	10.46	39.44	46.00	-6.57
386.00	11.63	225	45		3.39	15.54	10.46	41.02	46.00	-4.98

Vertical Open Field Maximized Data

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Cable Factor (dB)	Cable Factor (dB)	Antenna Factor (dB)	Corrected Reading (dBuV/m)	Limits (dBuV/m)	Diff (dB) +=FAIL
48.01	11.12	100	45		2.65	10.52	10.46	34.75	40.00	-5.25
119.98	18.40	100	90	14.65	Q	2.39	10.80	10.46	38.30	43.50
250.03	8.51	100	45		2.91	18.30	10.46	40.18	46.00	-5.82
306.35	13.06	100	45		3.07	14.78	10.46	41.37	46.00	-4.63
358.01	7.94	100	0		3.27	15.44	10.46	37.11	46.00	-8.89
375.05	8.85	100	90		3.35	15.30	10.46	37.96	46.00	-8.04
386.01	15.71	100	180	13.62	Q	3.39	15.61	10.46	43.08	46.00

RADIATED EMISSIONS TEST RESULTS

CLIENT:	Intel Corporation	DATE:	09/18/06
EUT:	Intel PRO/Wireless 4965AG – Network Connection	PROJECT NUMBER:	INTEL-061107
MODEL NUMBER:	4965AG –	TEST ENGINEER:	BM/JC
SERIAL NUMBER:	0013E804612B	SITE #:	2
CONFIGURATION:	Tested installed in the host computer's mini PCI slot in 802.11a (5745-5825 MHz) mode with Ethertronics Antennas.	TEMPERATURE:	20 deg. C
		HUMIDITY:	48% RH
		TIME:	9:00 PM

Description:	Radiated RF Emissions (1 GHz – 18 GHz)
Results:	PASSED Horizontal and Vertical Antenna Polarizations Class B Limits
Note:	Radiated Emissions Measurements were performed on the EUT with power supply set at the following voltage and frequency. <ul style="list-style-type: none"> • 120VAC / 60 Hz.

Unwanted Spurious Emissions Limits			
Frequency (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m) (Emissions in the restricted bands)	Field Strength (dBm/MHz) (Emissions outside the restricted bands)
Above 960	500	54.00 (Average) 74.00 (Peak)	< -20 dBc

Radiated Emissions Sample Calculations

Corrected Meter Reading = Meter Reading + F + C - D

Where, F = Antenna Factor

C = Cable Factor

G = Amplifier Gain

D = Distance Factor (if applicable)

Therefore, the equation for determining the Corrected Meter Reading Limit (CML) is:

CML = Specification Limit - F - C + D

Radiated Emissions Test Results (Continued)

Fundamental Measurements in 802.11a mode (5745-5825 MHz)

Channels 149, 157, & 165

Continuous TX at Chain A Antenna port with Ethertronics Antennas

Aegis Labs, Inc. File #: INTEL-061107-20

RADIATED EMISSIONS - Horizontal Antenna Polarization											
Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +FAIL	Comments	
5745.00	61.83	100	135		4.99	35.25	102.07			Ch. 149	
5745.00				52.19	A	4.99	35.25	92.43			
5785.00	61.33	100	135		5.01	35.26	101.59			Ch. 157	
5785.00				52.14	A	5.01	35.26	92.40			
5825.00	62.83	100	135		5.02	35.27	103.12			Ch. 165	
5825.00				53.63	A	5.02	35.27	93.92			

RADIATED EMISSIONS – Vertical Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +FAIL	Comments
5745.00	68.83	100	135		4.99	35.05	108.86			Ch. 149
5745.00				59.29	A	4.99	35.05	99.32		
5785.00	68.83	100	225		5.01	35.07	108.91			Ch. 157
5785.00				59.22	A	5.01	35.07	99.30		
5825.00	69.33	100	225		5.02	35.10	109.45			Ch. 165
5825.00				59.53	A	5.02	35.10	99.65		

NOTE: Fundamental signals measured to calculate the band edge field strengths using the “Marker Delta Method”.

Radiated Emissions Test Results (Continued)

Band Edge Field Strength Measurements in 802.11a mode (5745-5825 MHz)

Channels 149 & 165

Continuous TX at Chain A Antenna port with Ethertronics Antennas

Aegis Labs, Inc. File #: INTEL-061107-20

RADIATED EMISSIONS - Horizontal Antenna Polarization										
Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
5725.00	32.83	100	135		4.98	35.25	73.05	82.07	-9.01	Ch. 149
5850.00	30.17	100	135		5.03	35.27	70.47	83.12	-12.64	Ch. 165

RADIATED EMISSIONS – Vertical Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
5725.00	43.50	100	135		4.98	35.04	83.51	88.86	-5.35	Ch. 149
5850.00	30.50	100	225		5.03	35.11	70.64	89.45	-18.80	Ch. 165

NOTE: The “Band Edge Field Strength” was calculated using the “Fundamental” and “Conducted Band Edge” measurements per the “Marker-Delta Method” with the following formula:

$$BE = Fm - \Delta m$$

Where

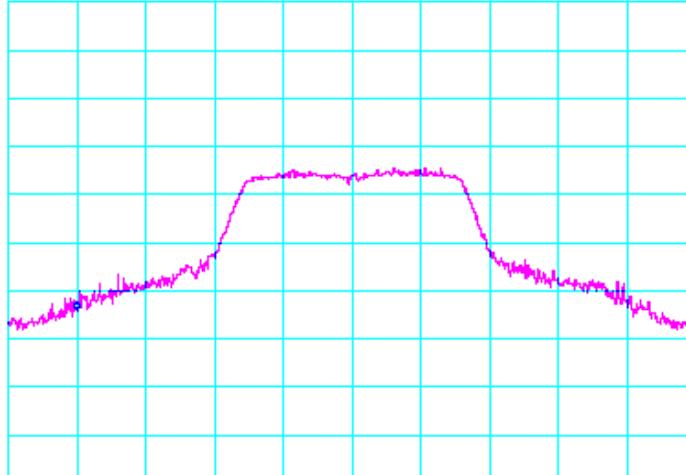
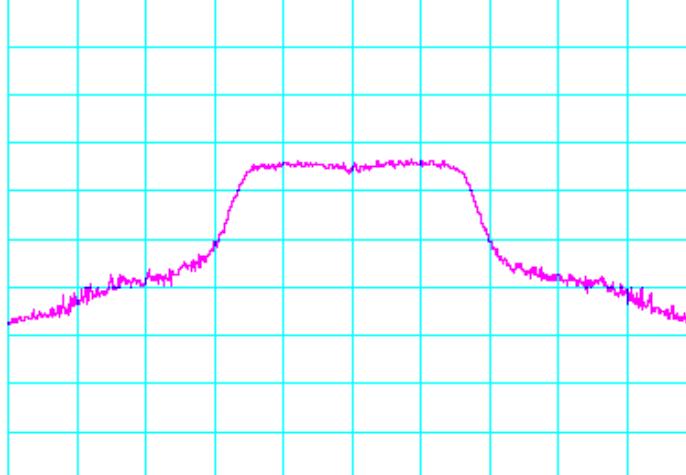
BE = Band Edge Field Strength

Fm = Measured Fundamental (Peak or Average)

Δm = Measured Conducted Band Edge Delta (Peak or Average)

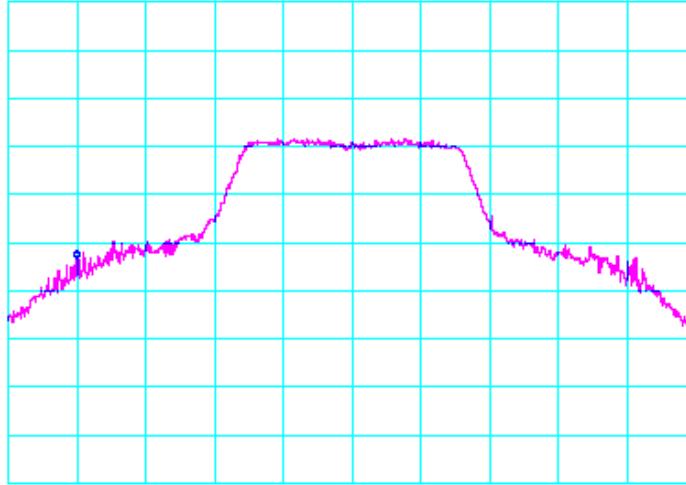
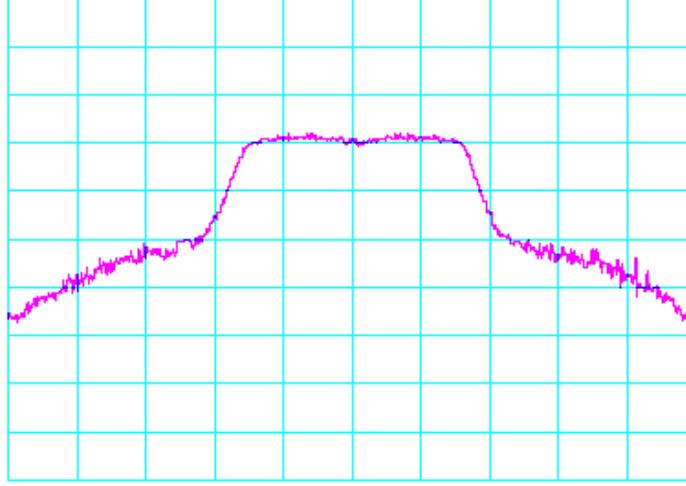
Radiated Emissions Test Results (Continued)

Plots Showing Out-Of-Band Emissions (Peak RBW=VBW=1MHz)

Test Date	Data	Test Eng.
09/18/06	5.745 GHz band edge PEAK (Horizontal Antenna Polarity) (INTEL-061107-20a01)	BM
	*ATTEN 0dB RL 97. 0dBμV 10dB/ MKR 32. 83dBμV 5. 72500GHz 	
		
	CENTER 5.74500GHz SPAN 50.00MHz *RBW 1.0MHz *VBW 1.0MHz SWP 50.0ms	
Test Date	Data	Test Eng.
09/18/06	5.825 GHz band edge PEAK (Horizontal Antenna Polarity) (INTEL-061107-20a02)	BM
	*ATTEN 0dB RL 97. 0dBμV 10dB/ MKR 30. 17dBμV 5. 85000GHz 	
		
	CENTER 5.82500GHz SPAN 50.00MHz *RBW 1.0MHz *VBW 1.0MHz SWP 50.0ms	

Radiated Emissions Test Results (Continued)

Plots Showing Out-Of-Band Emissions (Peak RBW=VBW=1MHz)

Test Date	Data	Test Eng.
09/18/06	5.745 GHz band edge PEAK (Vertical Antenna Polarity) (INTEL-061107-20a03)	BM
	*ATTEN 0dB RL 97. 0dBμV 10dB/ MKR 43. 50dBμV 5. 72500GHz 	
		
	CENTER 5. 74500GHz SPAN 50. 00MHz *RBW 1. 0MHz *VBW 1. 0MHz SWP 50. 0ms	
Test Date	Data	Test Eng.
09/18/06	5.825 GHz band edge PEAK (Vertical Antenna Polarity) (INTEL-061107-20a04)	BM
	*ATTEN 0dB RL 97. 0dBμV 10dB/ MKR 30. 50dBμV 5. 85000GHz 	
		
	START 5. 80000GHz STOP 5. 85000GHz *RBW 1. 0MHz *VBW 1. 0MHz SWP 50. 0ms	

Radiated Emissions Test Results (Continued)

Spurious Emissions Measurements in 802.11a mode (5745-5825 MHz)

Channels 149, 157, & 165

Continuous TX at Chain A Antenna port with Ethertronics Antennas

Aegis Labs, Inc. File #: INTEL-061107-19

RADIATED EMISSIONS - Horizontal Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Preamp Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
7660.00	61.33	100	225		50.15	5.81	37.40	54.39	74.00	-19.61	Ch. 149
7660.00				55.99	A	50.15	5.81	37.40	49.05	54.00	-4.95
11490.00	63.00	100	225		50.58	7.42	39.23	59.06	74.00	-14.94	
11490.00				48.40	A	50.58	7.42	39.23	44.46	54.00	-9.54
7713.25	60.67	100	180		50.15	5.81	37.40	53.73	74.00	-20.27	Ch. 157
7713.25				55.24	A	50.15	5.81	37.40	48.30	54.00	-5.70
11570.00	63.50	100	135		50.58	7.42	39.23	59.56	74.00	-14.44	
11570.00				47.50	A	50.58	7.42	39.23	43.56	54.00	-10.44
7766.66	60.17	100	180		50.58	7.42	39.23	56.23	74.00	-17.77	Ch.165
7766.66				54.62	A	50.58	7.42	39.23	50.68	54.00	-3.32

RADIATED EMISSIONS - Vertical Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Preamp Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
7660.00	62.67	100	180		50.15	5.81	37.26	55.59	74.00	-18.41	Ch. 149
7660.00				57.91	A	50.15	5.81	37.26	50.83	54.00	-3.17
11490.00	70.33	100	180		50.53	7.41	39.19	66.41	74.00	-7.59	
11490.00				54.90	A	50.53	7.41	39.19	50.98	54.00	-3.02
7713.42	62.83	100	180		50.14	5.83	37.29	55.80	74.00	-18.20	Ch. 157
7713.42				57.08	A	50.14	5.83	37.29	50.05	54.00	-3.95
11570.00	71.17	100	180		50.58	7.42	39.23	67.23	74.00	-6.77	
11570.00				54.60	A	50.58	7.42	39.23	50.66	54.00	-3.34
7766.66	61.17	100	180		50.13	5.85	37.31	54.20	74.00	-19.80	Ch.165
7766.66				56.73	A	50.13	5.85	37.31	49.76	54.00	-4.24
11650.00	65.83	100	135		50.64	7.42	39.26	61.87	74.00	-12.13	
11650.00				48.86	A	50.64	7.42	39.26	44.90	54.00	-9.10

Radiated Emissions Test Results (Continued)

Spurious Emissions Measurements in 802.11a mode (5745-5825 MHz)

Channels 149, 157, & 165

Continuous RX at Chain A Antenna port with Ethertronics Antennas

Aegis Labs, Inc. File #: INTEL-061107-19

RADIATED EMISSIONS - Horizontal Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Preamp Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
3830.00	55.67	100	225		50.78	4.05	33.13	42.07	74.00	-31.93	Ch. 149
3830.00				46.31	A	50.78	4.05	33.13	32.71	54.00	-21.29
3856.62	56.83	100	225		50.78	4.07	33.18	43.30	74.00	-30.70	Ch. 157
3856.62				47.14	A	50.78	4.07	33.18	33.61	54.00	-20.39
3883.34	55.00	100	225		50.78	4.08	33.24	41.55	74.00	-32.45	Ch.165
3883.34				45.57	A	50.78	4.08	33.24	32.12	54.00	-21.88

RADIATED EMISSIONS - Vertical Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Preamp Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
3830.00	57.00	100	135		50.78	4.05	33.13	43.40	74.00	-30.60	Ch. 149
3830.00				50.58	A	50.78	4.05	33.13	36.98	54.00	-17.02
3856.65	56.50	100	135		50.78	4.07	32.83	42.62	74.00	-31.38	Ch. 157
3856.65				49.76	A	50.78	4.07	32.83	35.88	54.00	-18.12
3883.35	55.67	100	135		50.78	4.08	32.90	41.87	74.00	-32.13	Ch.165
3883.35				47.81	A	50.78	4.08	32.90	34.01	54.00	-19.99

Radiated Emissions Test Results (Continued)

Fundamental Measurements in 802.11a mode (5745-5825 MHz)

Channels 149, 157, & 165

 Continuous TX at **Chain B** Antenna port with **Ethertronics Antennas**

Aegis Labs, Inc. File #: INTEL-061107-24

RADIATED EMISSIONS - Horizontal Antenna Polarization											
Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments	
5745.00	66.83	100	135		4.99	35.25	107.07			Ch. 149	
5745.00				56.07	A	4.99	35.25	96.31			
5785.00	62.67	100	135		5.01	35.26	102.93			Ch. 157	
5785.00				52.68	A	5.01	35.26	92.94			
5825.00	64.17	100	135		5.02	35.27	104.46			Ch. 165	
5825.00				54.34	A	5.02	35.27	94.63			

RADIATED EMISSIONS – Vertical Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
5745.00	71.83	100	180		4.99	35.05	111.86			Ch. 149
5745.00				62.01	A	4.99	35.05	102.04		
5785.00	71.50	100	225		5.01	35.07	111.58			Ch. 157
5785.00				61.73	A	5.01	35.07	101.81		
5825.00	71.50	100	225		5.02	35.10	111.62			Ch. 165
5825.00				62.32	A	5.02	35.10	102.44		

NOTE: Fundamental signals measured to calculate the band edge field strengths using the “Marker Delta Method”.

Radiated Emissions Test Results (Continued)

Band Edge Field Strength Measurements in 802.11a mode (5745-5825 MHz)

Channels 149 & 165

Continuous TX at Chain B Antenna port with Ethertronics Antennas

Aegis Labs, Inc. File #: INTEL-061107-24

RADIATED EMISSIONS - Horizontal Antenna Polarization										
Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
5725.00	36.50	100	135		4.98	35.25	76.72	87.07	-10.34	Ch. 149
5850.00	29.83	100	135		5.03	35.27	70.13	84.46	-14.32	Ch. 165

RADIATED EMISSIONS – Vertical Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
5725.00	46.50	100	180		4.98	35.04	86.51	91.86	-5.35	Ch. 149
5850.00	33.50	100	225		5.03	35.11	73.64	91.62	-17.97	Ch. 165

NOTE: The “Band Edge Field Strength” was calculated using the “Fundamental” and “Conducted Band Edge” measurements per the “Marker-Delta Method” with the following formula:

$$BE = Fm - \Delta m$$

Where

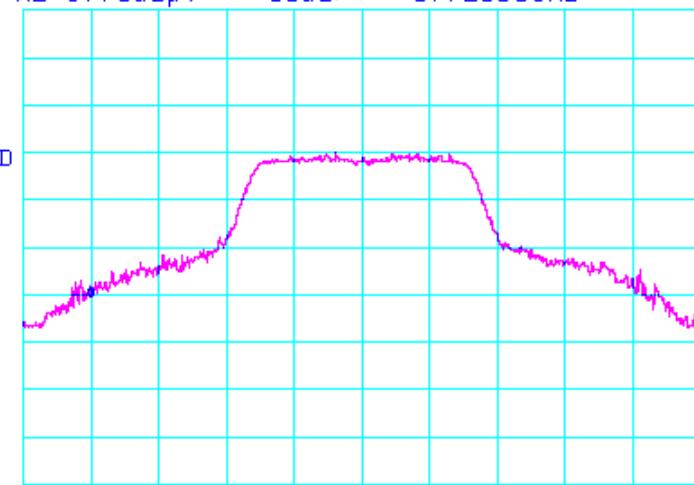
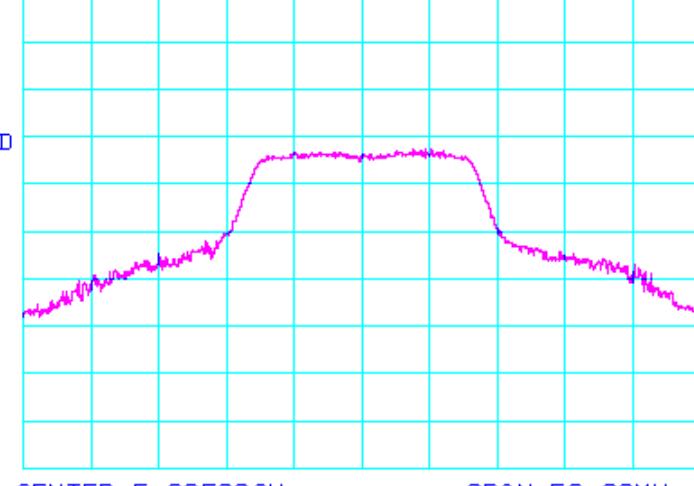
BE = Band Edge Field Strength

Fm = Measured Fundamental (Peak or Average)

Δm = Measured Conducted Band Edge Delta (Peak or Average)

Radiated Emissions Test Results (Continued)

Plots Showing Out-Of-Band Emissions (Peak RBW=VBW=1MHz)

Test Date	Data	Test Eng.
09/20/06	5.745 GHz band edge PEAK (Horizontal Antenna Polarity) (INTEL-061107-24a01)	BM
	*ATTEN 0dB RL 97.0dBμV 10dB/ MKR 36.50dBμV  D CENTER 5.74500GHz SPAN 50.00MHz *RBW 1.0MHz *VBW 1.0MHz SWP 50.0ms	
09/20/06	5.825 GHz band edge PEAK (Horizontal Antenna Polarity) (INTEL-061107-24a02)	BM
	*ATTEN 0dB RL 97.0dBμV 10dB/ MKR 29.83dBμV  D CENTER 5.82500GHz SPAN 50.00MHz *RBW 1.0MHz *VBW 1.0MHz SWP 50.0ms	

Radiated Emissions Test Results (Continued)

Plots Showing Out-Of-Band Emissions (Peak RBW=VBW=1MHz)

Test Date	Data	Test Eng.
09/20/06	5.745 GHz band edge PEAK (Vertical Antenna Polarity) (INTEL-061107-24a03)	BM
09/20/06	5.825 GHz band edge PEAK (Vertical Antenna Polarity) (INTEL-061107-24a04)	BM

Radiated Emissions Test Results (Continued)

Spurious Emissions Measurements in 802.11a mode (5745-5825 MHz)

Channels 149, 157, & 165

Continuous TX at Chain B Antenna port with Ethertronics Antennas

Aegis Labs, Inc. File #: INTEL-061107-22

RADIATED EMISSIONS - Horizontal Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Preamp Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
11490.00	59.33	100	225		50.53	7.41	39.19	55.41	74.00	-18.59	Ch. 149
11490.00				45.19	A	50.53	7.41	39.19	41.27	54.00	-12.73
11570.00	61.50	100	135		50.58	7.42	39.23	57.56	74.00	-16.44	Ch. 157
11570.00				45.43	A	50.58	7.42	39.23	41.49	54.00	-12.51
11650.00	58.00	100	180		50.53	7.41	39.19	54.08	74.00	-19.92	Ch.165
11650.00				41.48	A	50.53	7.41	39.19	37.56	54.00	-16.44

RADIATED EMISSIONS - Vertical Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Preamp Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
11490.00	63.00	100	135		50.53	7.41	39.19	59.08	74.00	-14.92	Ch. 149
11490.00				48.32	A	50.53	7.41	39.19	44.40	54.00	-9.60
11570.00	62.67	100	180		50.58	7.42	39.23	58.73	74.00	-15.27	Ch. 157
11570.00				47.28	A	50.58	7.42	39.23	43.34	54.00	-10.66
11650.00	62.50	100	180		50.64	7.42	39.26	58.54	74.00	-15.46	Ch.165
11650.00				44.56	A	50.64	7.42	39.26	40.60	54.00	-13.40

Radiated Emissions Test Results (Continued)

Spurious Emissions Measurements in 802.11a mode (5745-5825 MHz)

Channels 149, 157, & 165

Continuous RX at Chain B Antenna port with Ethertronics Antennas

Aegis Labs, Inc. File #: INTEL-061107-22

RADIATED EMISSIONS - Horizontal Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Preamp Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
3830.00	57.00	100	225		50.78	4.05	33.13	43.40	74.00	-30.60	Ch. 149
3830.00				47.76	A	50.78	4.05	33.13	34.16	54.00	-19.84
3856.62	57.67	100	225		50.78	4.07	33.18	44.14	74.00	-29.86	Ch. 157
3856.62				49.53	A	50.78	4.07	33.18	36.00	54.00	-18.00
3883.34	56.83	100	180		50.78	4.08	33.24	43.38	74.00	-30.62	Ch.165
3883.34				47.37	A	50.78	4.08	33.24	33.92	54.00	-20.08

RADIATED EMISSIONS - Vertical Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Preamp Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
3830.00	57.17	125	135		50.78	4.05	33.13	43.57	74.00	-30.43	Ch. 149
3830.00				48.82	A	50.78	4.05	33.13	35.22	54.00	-18.78
3856.65	57.50	125	135		50.78	4.07	32.83	43.62	74.00	-30.38	Ch. 157
3856.65				49.29	A	50.78	4.07	32.83	35.41	54.00	-18.59
3883.35	57.17	100	225		50.78	4.08	32.90	43.37	74.00	-30.63	Ch.165
3883.35				46.73	A	50.78	4.08	32.90	32.93	54.00	-21.07

RADIATED EMISSIONS TEST RESULTS

CLIENT:	Intel Corporation	DATE:	09/18/06
EUT:	Intel PRO/Wireless 4965AG – Network Connection	PROJECT NUMBER:	INTEL-061107
MODEL NUMBER:	4965AG –	TEST ENGINEER:	BM/JC
SERIAL NUMBER:	0013E804612B	SITE #:	2
CONFIGURATION:	Tested installed in the host computer's mini PCI slot in 802.11b (2400-2483.5 MHz) mode with Ethertronics Antennas.	TEMPERATURE:	20 deg. C
		HUMIDITY:	48% RH
		TIME:	9:00 PM

Description:	Radiated RF Emissions (1 GHz – 18 GHz)
Results:	PASSED Horizontal and Vertical Antenna Polarizations Class B Limits
Note:	Radiated Emissions Measurements were performed on the EUT with power supply set at the following voltage and frequency. <ul style="list-style-type: none"> • 120VAC / 60 Hz.

Unwanted Spurious Emissions Limits			
Frequency (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m) (Emissions in the restricted bands)	Field Strength (dBm/MHz) (Emissions outside the restricted bands)
Above 960	500	54.00 (Average) 74.00 (Peak)	< -20 dBc

Radiated Emissions Sample Calculations

Corrected Meter Reading = Meter Reading + F + C - D

Where, F = Antenna Factor

C = Cable Factor

G = Amplifier Gain

D = Distance Factor (if applicable)

Therefore, the equation for determining the Corrected Meter Reading Limit (CML) is:

CML = Specification Limit - F - C + D

Radiated Emissions Test Results (Continued)

Fundamental Measurements in 802.11b mode (2400-2483.5 MHz)

Channels 1, 6, & 11

Continuous TX at Chain A Antenna port with Ethertronics Antennas

Aegis Labs, Inc. File #: INTEL-061107-20

RADIATED EMISSIONS - Horizontal Antenna Polarization											
Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +FAIL	Comments	
2412.00	73.83	100	225		3.19	29.50	106.52			Ch. 1	
2412.00				70.41 A	3.19	29.50	103.10				
2437.00	73.67	125	225		3.20	29.59	106.46			Ch. 6	
2437.00				70.16 A	3.20	29.59	102.95				
2462.00	75.17	125	225		3.22	29.67	108.06			Ch. 11	
2462.00				71.70 A	3.22	29.67	104.59				

RADIATED EMISSIONS – Vertical Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +FAIL	Comments
2412.00	71.67	100	180		3.19	29.04	103.89			Ch. 1
2412.00				68.13 A	3.19	29.04	100.35			
2437.00	71.33	100	180		3.20	29.11	103.65			Ch. 6
2437.00				68.08 A	3.20	29.11	100.40			
2462.00	72.33	125	225		3.22	29.19	104.74			Ch. 11
2462.00				68.67 A	3.22	29.19	101.08			

NOTE: Fundamental signals measured to calculate the band edge field strengths using the “Marker Delta Method”.

Radiated Emissions Test Results (Continued)

 Band Edge Field Strength Measurements in **802.11b mode (2400-2483.5 MHz)**

Channels 1 & 11

 Continuous TX at **Chain A** Antenna port with **Ethertronics Antennas**

Aegis Labs, Inc. File #: INTEL-061107-20

RADIATED EMISSIONS - Horizontal Antenna Polarization										
Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +FAIL	Comments
2390.00							60.85	74.00	-13.15	Ch. 1
2390.00				A			49.26	54.00	-4.74	
2376.80							61.35	74.00	-12.65	
2368.20				A			49.26	54.00	-4.74	
2400.00	40.83	100	225		3.18	29.46	73.47	86.52	-13.05	
2483.50							61.39	74.00	-12.61	Ch. 11
2483.50				A			50.42	54.00	-3.58	
2501.80							62.06	74.00	-11.94	
2501.20				A			50.92	54.00	-3.08	

RADIATED EMISSIONS – Vertical Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +FAIL	Comments
2390.00							58.22	74.00	-15.78	Ch. 1
2390.00				A			46.51	54.00	-7.49	
2376.80							58.72	74.00	-15.28	
2368.20				A			46.51	54.00	-7.49	
2400.00	38.33	100	180		3.18	29.00	70.51	83.89	-13.38	
2483.50							58.07	74.00	-15.93	Ch. 11
2483.50				A			46.91	54.00	-7.09	
2501.80							58.74	74.00	-15.26	
2501.20				A			47.41	54.00	-6.59	

NOTE: The “Band Edge Field Strength” was calculated using the “Fundamental” and “Conducted Band Edge” measurements per the “Marker-Delta Method” with the following formula:

$$BE = Fm - \Delta m$$

Where

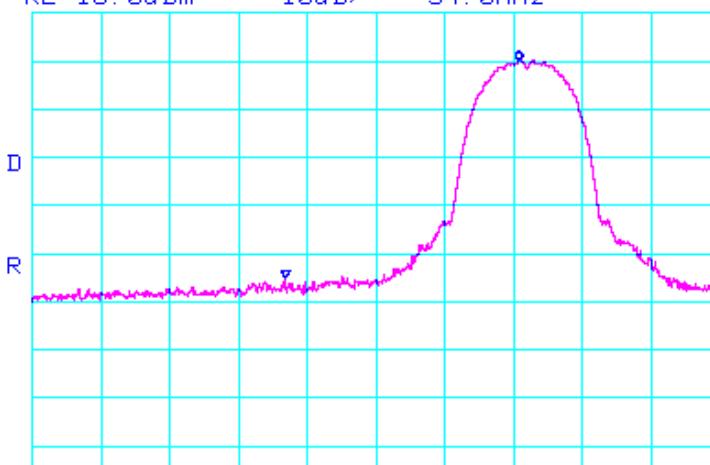
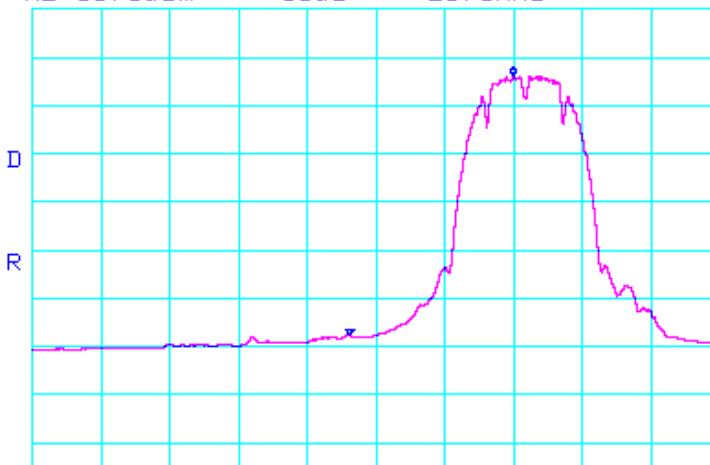
BE = Band Edge Field Strength

Fm = Measured Fundamental (Peak or Average)

 Δm = Measured Conducted Band Edge Delta (Peak or Average)

Radiated Emissions Test Results (Continued)

Plots Showing Out-Of-Band Emissions (Peak RBW=VBW=1MHz; Average RBW = 1MHz, VBW = 10Hz)

Test Date	Data	Test Eng.
09/21/06	2.412 GHz band edge PEAK DELTA (INTEL-061107-21b01)	JC
	 *ATTEN 20dB △MKR 45.17dB RL 16.0dBm 34.0MHz 10dB/ 34.0MHz CENTER 2.3900GHz SPAN 100.0MHz *RBW 1.0MHz *VBW 1.0MHz SWP 50.0ms	
09/21/06	2.412 GHz band edge AVERAGE DELTA (INTEL-061107-21b02)	JC
	 *ATTEN 20dB △MKR 53.84dB RL 16.0dBm 23.8MHz 10dB/ 23.8MHz CENTER 2.3900GHz SPAN 100.0MHz *RBW 1.0MHz *VBW 10Hz SWP 37.0sec	

Radiated Emissions Test Results (Continued)

Plots Showing Out-Of-Band Emissions (Peak RBW=VBW=1MHz; Average RBW = 1MHz, VBW = 10Hz)

Test Date	Data	Test Eng.
09/21/06	2.462 GHz band edge PEAK DELTA (INTEL-061107-21b03) 	JC
09/21/06	2.462 GHz band edge AVERAGE DELTA (INTEL-061107-21b04) 	JC

Spurious Radiated Emissions Test Results (Continued)

 Spurious Emissions Measurements in **802.11b mode (2400-2483.5 MHz)**

Channels 1, 6, & 11

 Continuous TX at **Chain A** Antenna port with **Ethertronics Antennas**

Aegis Labs, Inc. File #: INTEL-061107-19

RADIATED EMISSIONS - Horizontal Antenna Polarization												
Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Preamp Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments	
4824.00	53.67	100	135		51.08	4.57	33.91	41.07	74.00	-32.93	Ch. 1	
4824.00				47.38	A	51.08	4.57	33.91	34.78	54.00	-19.22	
9648.01	58.33	100	135		50.15	6.56	38.12	52.85	86.52	-33.67		
14472.02	49.67	100	180		52.10	8.22	42.55	48.34	74.00	-25.66		
14472.02				37.32	A	52.10	8.22	42.55	35.99	54.00	-18.01	
4873.99	55.00	100	135		51.12	4.59	34.02	42.50	74.00	-31.50	Ch. 6	
4873.99				49.86	A	51.12	4.59	34.02	37.36	54.00	-16.64	
9747.96	54.50	100	135		50.19	6.60	38.20	49.11	86.46	-37.35		
14622.01	50.67	100	225		52.06	8.27	42.28	49.17	74.00	-24.83		
14622.01				41.54	A	52.06	8.27	42.28	40.04	54.00	-13.96	
4924.00	54.83	100	180		51.15	4.61	34.13	42.42	74.00	-31.58	Ch. 11	
4924.00				49.24	A	51.15	4.61	34.13	36.83	54.00	-17.17	
9848.01	56.67	100	180		50.23	6.64	38.28	51.36	88.06	-36.70		
14772.00	48.50	100	135		51.99	8.32	41.89	46.72	74.00	-27.28		
14772.00				37.59	A	51.99	8.32	41.89	35.81	54.00	-18.19	

RADIATED EMISSIONS - Vertical Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Preamp Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments	
4824.01	53.00	100	135		51.08	4.57	33.78	40.27	74.00	-33.73	Ch. 1	
4824.01				46.79	A	51.08	4.57	33.78	34.06	54.00	-19.94	
9648.01	57.67	100	135		50.15	6.56	38.09	52.16	83.89	-31.73		
14472.02	49.33	100	225		52.10	8.22	42.74	48.18	74.00	-25.82		
14472.02				38.00	A	52.10	8.22	42.74	36.85	54.00	-17.15	
4873.99	54.33	100	135		51.12	4.59	33.87	41.68	74.00	-32.32	Ch. 6	
4873.99				48.88	A	51.12	4.59	33.87	36.23	54.00	-17.77	
9747.96	56.00	100	135		50.19	6.60	38.15	50.56	83.65	-33.09		
14622.01	52.67	100	225		52.06	8.27	42.46	51.34	74.00	-22.66		
14622.01				45.35	A	52.06	8.27	42.46	44.02	54.00	-9.98	
4924.05	55.00	100	135		51.15	4.61	33.96	42.42	74.00	-31.58	Ch. 11	
4924.05				50.03	A	51.15	4.61	33.96	37.45	54.00	-16.55	
9848.06	57.50	100	135		50.23	6.64	38.21	52.12	84.74	-32.62		
14772.00	49.83	100	225		51.99	8.32	42.04	48.20	74.00	-25.80		
14772.00				39.90	A	51.99	8.32	42.04	38.27	54.00	-15.73	

Radiated Emissions Test Results (Continued)

Spurious Emissions Measurements in 802.11b mode (2400-2483.5 MHz)

Channels 1, 6, & 11

Continuous RX at Chain A Antenna port with Ethertronics Antennas

Aegis Labs, Inc. File #: INTEL-061107-19

RADIATED EMISSIONS - Horizontal Antenna Polarization												
Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Preamp Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +FAIL	Comments	
4824.00	51.17	100	135		51.08	4.57	33.91	38.57	74.00	-35.43	Ch. 1	
4824.00				40.29	A	51.08	4.57	33.91	27.69	54.00	-26.31	
4874.00	50.33	100	135		51.12	4.59	34.02	37.83	74.00	-36.17	Ch. 6	
4874.00				39.71	A	51.12	4.59	34.02	27.21	54.00	-26.79	
4924.00	50.83	100	135		51.15	4.61	34.13	38.42	74.00	-35.58	Ch. 11	
4924.00				40.02	A	51.15	4.61	34.13	27.61	54.00	-26.39	

RADIATED EMISSIONS - Vertical Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Preamp Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +FAIL	Comments	
4824.00	52.00	100	135		51.08	4.57	33.78	39.27	74.00	-34.73	Ch. 1	
4824.00				41.10	A	51.08	4.57	33.78	28.37	54.00	-25.63	
4874.00	51.50	100	135		51.12	4.59	33.87	38.85	74.00	-35.15	Ch. 6	
4874.00				40.58	A	51.12	4.59	33.87	27.93	54.00	-26.07	
4924.00	50.67	100	135		51.15	4.61	33.96	38.09	74.00	-35.91	Ch. 11	
4924.00				39.79	A	51.15	4.61	33.96	27.21	54.00	-26.79	

Radiated Emissions Test Results (Continued)

Fundamental Measurements in 802.11b mode (2400-2483.5 MHz)

Channels 1, 6, & 11

Continuous TX at Chain B Antenna port with Ethertronics Antennas

Aegis Labs, Inc. File #: INTEL-061107-24

RADIATED EMISSIONS - Horizontal Antenna Polarization											
Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments	
2412.00	75.50	100	135		3.19	29.50	108.19			Ch. 1	
2412.00				72.19	A	3.19	29.50	104.88			
2437.00	75.17	100	135		3.20	29.59	107.96			Ch. 6	
2437.00				71.88	A	3.20	29.59	104.67			
2462.00	76.17	100	135		3.22	29.67	109.06			Ch. 11	
2462.00				72.68	A	3.22	29.67	105.57			

RADIATED EMISSIONS – Vertical Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
2412.00	70.67	100	180		3.19	29.04	102.89			Ch. 1
2412.00				67.41	A	3.19	29.04	99.63		
2437.00	70.50	100	180		3.20	29.11	102.82			Ch. 6
2437.00				67.32	A	3.20	29.11	99.64		
2462.00	68.83	100	180		3.22	29.19	101.24			Ch. 11
2462.00				65.46	A	3.22	29.19	97.87		

NOTE: Fundamental signals measured to calculate the band edge field strengths using the “Marker Delta Method”.

Radiated Emissions Test Results (Continued)

Band Edge Field Strength Measurements in 802.11b mode (2400-2483.5 MHz)

Channels 1 & 11

Continuous TX at Chain B Antenna port with Ethertronics Antennas

Aegis Labs, Inc. File #: INTEL-061107-24

RADIATED EMISSIONS - Horizontal Antenna Polarization										
Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
2390.00							62.02	74.00	-11.98	Ch. 1
2390.00				A			50.88	54.00	-3.12	
2374.30							62.19	74.00	-11.81	
2385.50				A			51.38	54.00	-2.62	
2400.00	43.33	100	135		3.18	29.46	75.97	88.19	-12.22	
2483.50							62.39	74.00	-11.61	Ch. 11
2483.50				A			51.57	54.00	-2.43	

RADIATED EMISSIONS – Vertical Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
2390.00							56.72	74.00	-17.28	Ch. 1
2390.00				A			45.63	54.00	-8.37	
2374.30							55.24	74.00	-18.76	
2385.50				A			44.37	54.00	-9.63	
2400.00	38.00	100	180		3.18	29.00	70.18	82.89	-12.71	
2483.50							54.57	74.00	-19.43	Ch. 11
2483.50				A			43.87	54.00	-10.13	

NOTE: The “Band Edge Field Strength” was calculated using the “Fundamental” and “Conducted Band Edge” measurements per the “Marker-Delta Method” with the following formula:

$$BE = Fm - \Delta m$$

Where

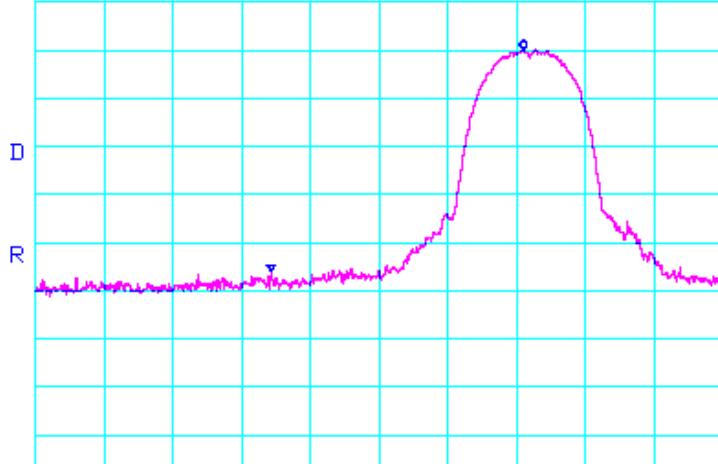
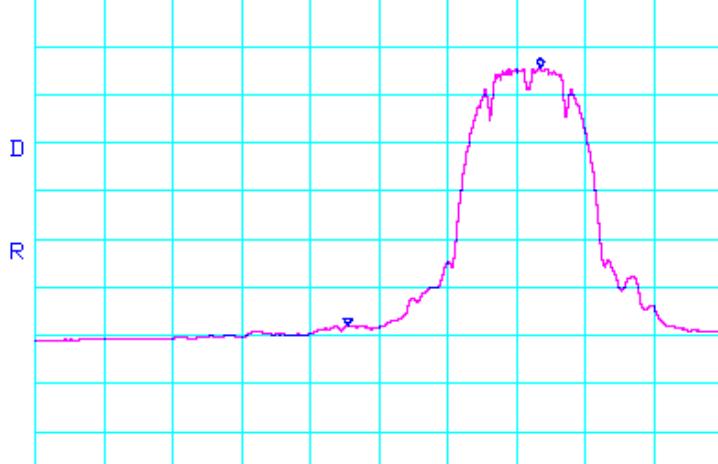
BE = Band Edge Field Strength

Fm = Measured Fundamental (Peak or Average)

Δm = Measured Conducted Band Edge Delta (Peak or Average)

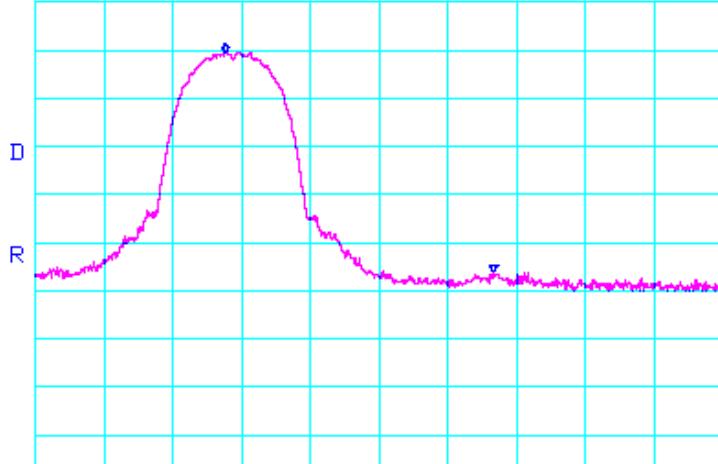
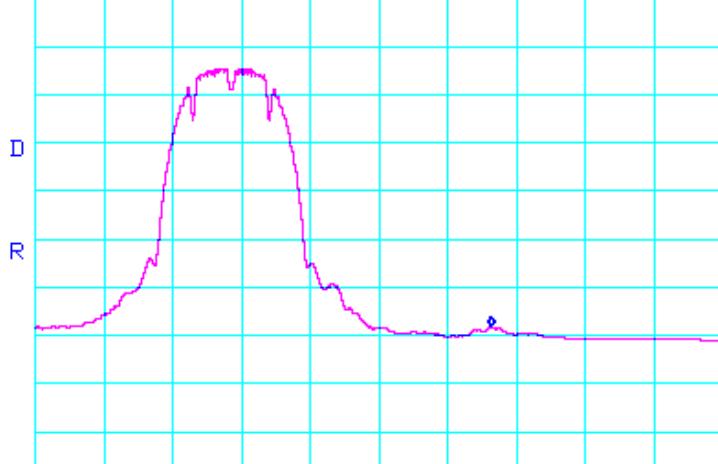
Radiated Emissions Test Results (Continued)

Plots Showing Out-Of-Band Emissions (Peak RBW=VBW=1MHz; Average RBW = 1MHz, VBW = 10Hz)

Test Date	Data	Test Eng.
09/21/06	2.412 GHz band edge PEAK DELTA (INTEL-061107-25b01)	JC
	 *ATTEN 20dB ΔMKR 46.00 dB RL 16.0 dBm 10dB/ 36.7MHz D R CENTER 2.3900GHz SPAN 100.0MHz *RBW 1.0MHz *VBW 1.0MHz SWP 50.0ms	
Test Date	Data	Test Eng.
09/21/06	2.412 GHz band edge AVERAGE DELTA (INTEL-061107-25b02)	JC
	 *ATTEN 20dB ΔMKR 53.50 dB RL 16.0 dBm 10dB/ 28.0MHz D R CENTER 2.3900GHz SPAN 100.0MHz *RBW 1.0MHz *VBW 10Hz SWP 37.0sec	

Radiated Emissions Test Results (Continued)

Plots Showing Out-Of-Band Emissions (Peak RBW=VBW=1MHz; Average RBW = 1MHz, VBW = 10Hz)

Test Date	Data	Test Eng.
09/21/06	2.462 GHz band edge PEAK DELTA (INTEL-061107-25b03)	JC
	 *ATTEN 20dB RL 16.0dBm 10dB/ ΔMKR 45.50dB 2.4835GHz -39.0MHz CENTER 2.4835GHz SPAN 100.0MHz *RBW 1.0MHz *VBW 1.0MHz SWP 50.0ms	
Test Date	Data	Test Eng.
09/21/06	2.462 GHz band edge AVERAGE DELTA (INTEL-061107-25b04)	JC
	 *ATTEN 20dB RL 16.0dBm 10dB/ MKR -52.17dB 2.4998GHz CENTER 2.4835GHz SPAN 100.0MHz *RBW 1.0MHz *VBW 10Hz SWP 37.0sec	

Spurious Radiated Emissions Test Results (Continued)

Spurious Emissions Measurements in 802.11b mode (2400-2483.5 MHz)

Channels 1, 6, & 11

Continuous TX at Chain B Antenna port with Ethertronics Antennas

Aegis Labs, Inc. File #: INTEL-061107-22

RADIATED EMISSIONS - Horizontal Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Preamp Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
14472.02	57.67	100	135		52.10	8.22	42.55	56.34	74.00	-17.66	Ch. 1
14472.02				48.78	A	52.10	8.22	42.55	47.45	54.00	-6.55
14622.01	57.83	100	225		52.06	8.27	42.28	56.33	74.00	-17.67	Ch. 6
14622.01				47.63	A	52.06	8.27	42.28	46.13	54.00	-7.87
14772.00	56.33	100	135		51.99	8.32	41.89	54.55	74.00	-19.45	Ch. 11
14772.00				44.30	A	51.99	8.32	41.89	42.52	54.00	-11.48

RADIATED EMISSIONS - Vertical Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Preamp Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
14472.02	59.00	150	225		52.10	8.22	42.74	57.85	74.00	-16.15	Ch. 1
14472.02				51.71	A	52.10	8.22	42.74	50.56	54.00	-3.44
14622.01	58.83	150	225		52.06	8.27	42.46	57.50	74.00	-16.50	Ch. 6
14622.01				50.19	A	52.06	8.27	42.46	48.86	54.00	-5.14
14772.00	57.33	150	225		51.99	8.32	42.04	55.70	74.00	-18.30	Ch. 11
14772.00				48.67	A	51.99	8.32	42.04	47.04	54.00	-6.96

Radiated Emissions Test Results (Continued)

Spurious Emissions Measurements in 802.11b mode (2400-2483.5 MHz)

Channels 1, 6, & 11

Continuous RX at Chain B Antenna port with Ethertronics Antennas

Aegis Labs, Inc. File #: INTEL-061107-22

RADIATED EMISSIONS - Horizontal Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Preamp Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
4824.00	55.50	100	135		51.08	4.57	33.91	42.90	74.00	-31.10	Ch. 1
4824.00				43.28	A	51.08	4.57	33.91	30.68	54.00	-23.32
4874.00	55.33	100	135		51.12	4.59	34.02	42.83	74.00	-31.17	Ch. 6
4874.00				42.46	A	51.12	4.59	34.02	29.96	54.00	-24.04
4924.00	54.83	100	135		51.15	4.61	34.13	42.42	74.00	-31.58	Ch. 11
4924.00				42.82	A	51.15	4.61	34.13	30.41	54.00	-23.59

RADIATED EMISSIONS - Vertical Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Preamp Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
4824.00	55.50	100	135		51.08	4.57	33.78	42.77	74.00	-31.23	Ch. 1
4824.00				42.99	A	51.08	4.57	33.78	30.26	54.00	-23.74
4874.00	54.67	100	135		51.12	4.59	33.87	42.02	74.00	-31.98	Ch. 6
4874.00				42.12	A	51.12	4.59	33.87	29.47	54.00	-24.53
4924.00	55.17	100	135		51.15	4.61	33.96	42.59	74.00	-31.41	Ch. 11
4924.00				42.54	A	51.15	4.61	33.96	29.96	54.00	-24.04

RADIATED EMISSIONS TEST RESULTS

CLIENT:	Intel Corporation	DATE:	09/19/06
EUT:	Intel PRO/Wireless 4965AG – Network Connection	PROJECT NUMBER:	INTEL-061107
MODEL NUMBER:	4965AG –	TEST ENGINEER:	BM/JC
SERIAL NUMBER:	0013E804612B	SITE #:	2
CONFIGURATION:	Tested installed in the host computer's mini PCI slot in 802.11g (2400-2483.5 MHz) mode with Ethertronics Antennas.	TEMPERATURE:	22 deg. C
		HUMIDITY:	33% RH
		TIME:	6:00 PM

Description:	Radiated RF Emissions (1 GHz – 18 GHz)
Results:	PASSED Horizontal and Vertical Antenna Polarizations Class B Limits
Note:	Radiated Emissions Measurements were performed on the EUT with power supply set at the following voltage and frequency. <ul style="list-style-type: none"> • 120VAC / 60 Hz.

Unwanted Spurious Emissions Limits			
Frequency (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m) (Emissions in the restricted bands)	Field Strength (dBm/MHz) (Emissions outside the restricted bands)
Above 960	500	54.00 (Average) 74.00 (Peak)	< -20 dBc

Radiated Emissions Sample Calculations

Corrected Meter Reading = Meter Reading + F + C - D

Where, F = Antenna Factor

C = Cable Factor

G = Amplifier Gain

D = Distance Factor (if applicable)

Therefore, the equation for determining the Corrected Meter Reading Limit (CML) is:

CML = Specification Limit - F - C + D

Radiated Emissions Test Results (Continued)

Fundamental Measurements in 802.11g mode (2400-2483.5 MHz)

Channels 1, 6, & 11

Continuous TX at Chain A Antenna port with Ethertronics Antennas

Aegis Labs, Inc. File #: INTEL-061107-26 & -34

RADIATED EMISSIONS - Horizontal Antenna Polarization												
Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Distance Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments	
2412.00	80.83	100	225		9.54	3.19	29.50	103.98			Ch. 1	
2412.00				66.50	A	9.54	3.19	29.50	89.65			
2437.00	81.33	100	225		9.54	3.20	29.59	104.58			Ch. 6	
2437.00				66.78	A	9.54	3.20	29.59	90.03			
2462.00	82.17	100	225		9.54	3.22	29.67	105.52			Ch. 11	
2462.00				67.67	A	9.54	3.22	29.67	91.02			

RADIATED EMISSIONS - Vertical Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Distance Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
2412.00	80.00	100	180		9.54	3.19	29.04	102.68			Ch. 1
2412.00				65.00	A	9.54	3.19	29.04	87.68		
2437.00	79.17	100	180		9.54	3.20	29.11	101.95			Ch. 6
2437.00				64.67	A	9.54	3.20	29.11	87.45		
2462.00	81.67	125	225		9.54	3.22	29.19	104.54			Ch. 11
2462.00				67.50	A	9.54	3.22	29.19	90.37		

NOTE: Fundamental signals measured at 1 meter and extrapolated to 3 meters to calculate the radiated band edge field strengths.

Radiated Emissions Test Results (Continued)

Band Edge Field Strength Measurements in 802.11g mode (2400-2483.5 MHz)

Channels 1 & 11

Continuous TX at Chain A Antenna port with Ethertronics Antennas

Aegis Labs, Inc. File #: INTEL-061107-26 & -34

RADIATED EMISSIONS - Horizontal Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Distance Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
2390.00	40.50	100	225		9.54	3.17	29.43	63.56	74.00	-10.44	Ch. 1
2390.00				23.50	A	9.54	3.17	29.43	46.56	54.00	-7.44
2400.00	43.50	100	225		9.54	3.18	29.46	66.60	74.00	-7.40	
2483.50	47.50	100	225		9.54	3.24	29.74	70.94	74.00	-3.06	Ch. 11
2483.50				28.17	A	9.54	3.24	29.74	51.61	54.00	-2.39

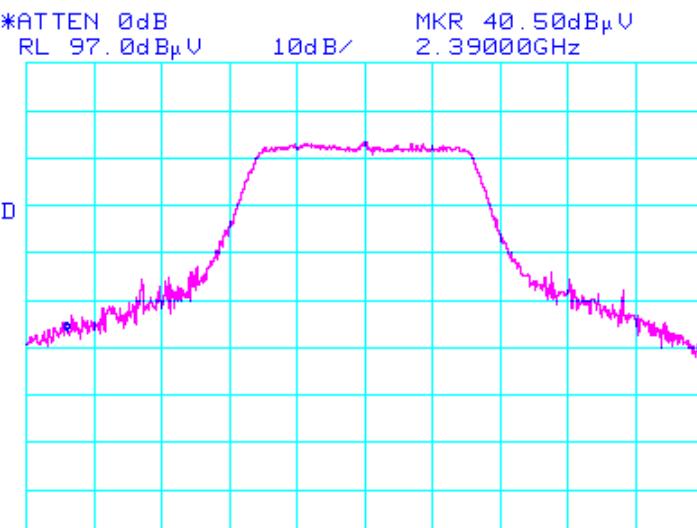
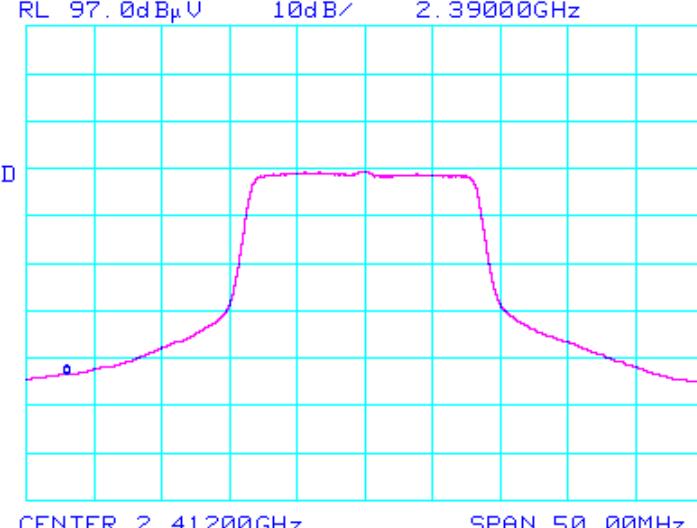
RADIATED EMISSIONS - Vertical Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Distance Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
2390.00	42.33	100	180		9.54	3.17	28.97	64.93	74.00	-9.07	Ch. 1
2390.00				22.83	A	9.54	3.17	28.97	45.43	54.00	-8.57
2400.00	45.17	100	180		9.54	3.18	29.00	67.81	74.00	-6.19	
2483.50	48.17	125	225		9.54	3.24	29.25	71.12	74.00	-2.88	Ch. 11
2483.50				28.83	A	9.54	3.24	29.25	51.78	54.00	-2.22

NOTE: The “Band Edge Field Strength” was calculated using the “Radiated Fundamental” measurements.

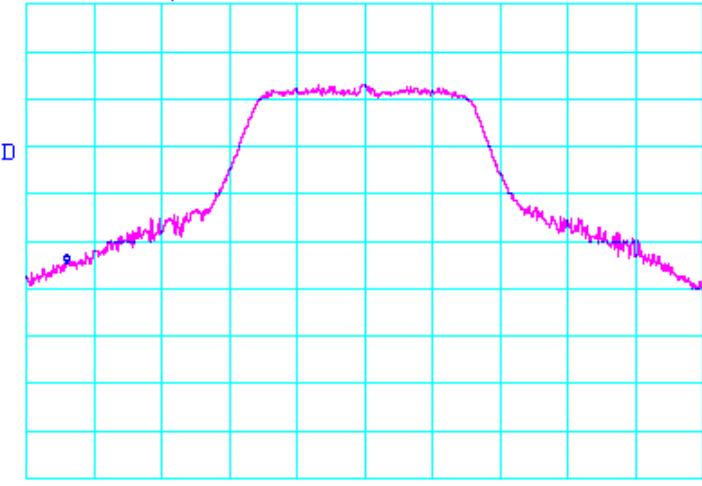
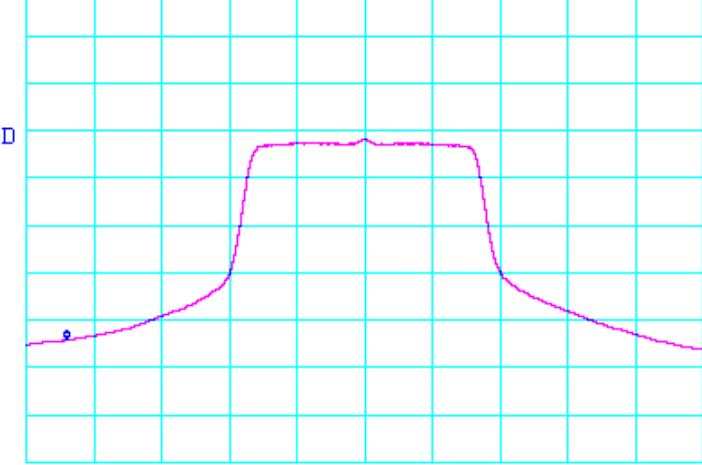
Radiated Emissions Test Results (Continued)

Plots Showing Out-Of-Band Emissions (Peak RBW=VBW=1MHz; Average RBW = 1MHz, VBW = 10Hz)

Test Date	Data	Test Eng.
09/21/06	2.412 GHz band edge PEAK DELTA (Horizontal) (INTEL-061107-34a09)	BM
	 <p> *ATTEN 0dB RL 97.0dBμV 10dB/ MKR 40.50dBμV 2.39000GHz </p> <p> CENTER 2.41200GHz SPAN 50.00MHz *RBW 1.0MHz *VBW 1.0MHz SWP 50.0ms </p>	
09/21/06	2.412 GHz band edge AVERAGE DELTA (Horizontal) (INTEL-061107-34a10)	BM
	 <p> *ATTEN 0dB RL 97.0dBμV 10dB/ MKR 23.50dBμV 2.39000GHz </p> <p> CENTER 2.41200GHz SPAN 50.00MHz *RBW 1.0MHz *VBW 10Hz SWP 19.0sec </p>	

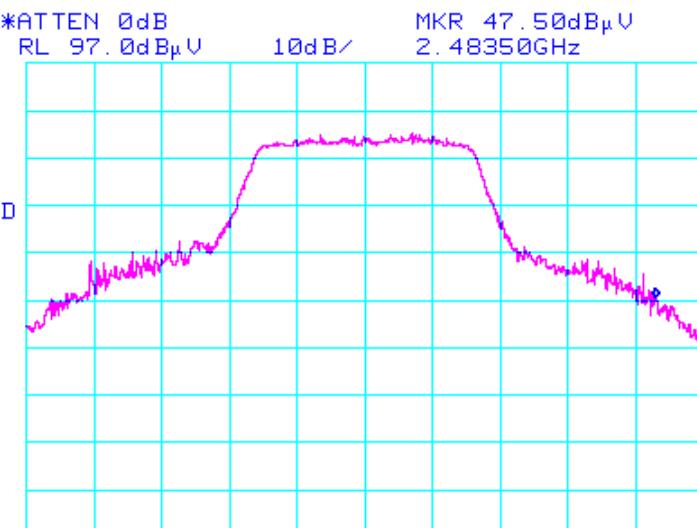
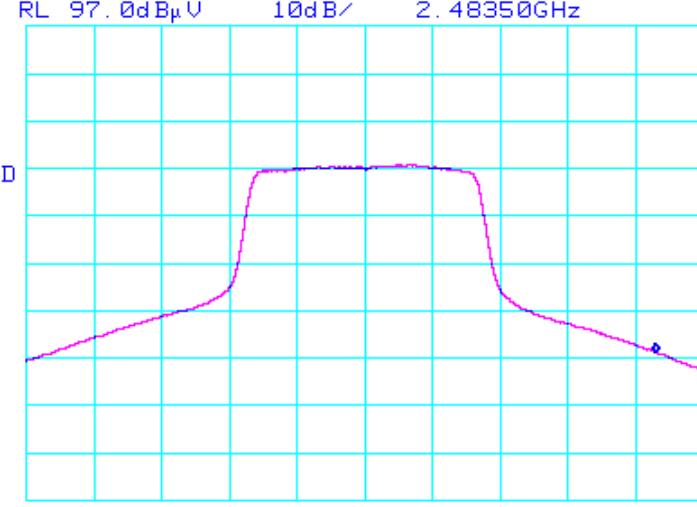
Radiated Emissions Test Results (Continued)

Plots Showing Out-Of-Band Emissions (Peak RBW=VBW=1MHz; Average RBW = 1MHz, VBW = 10Hz)

Test Date	Data	Test Eng.
09/21/06	2.412 GHz band edge PEAK DELTA (Vertical) (INTEL-061107-34a11)	BM
	 <p> *ATTEN 0dB RL 97.0dBμV 10dB/ MKR 42.33dBμV 2.39000GHz </p> <p> CENTER 2.41200GHz SPAN 50.00MHz *RBW 1.0MHz *VBW 1.0MHz SWP 50.0ms </p>	
09/21/06	2.412 GHz band edge AVERAGE DELTA (Vertical) (INTEL-061107-34a12)	BM
	 <p> *ATTEN 0dB RL 97.0dBμV 10dB/ MKR 22.83dBμV 2.39000GHz </p> <p> CENTER 2.41200GHz SPAN 50.00MHz *RBW 1.0MHz *VBW 10Hz SWP 19.0sec </p>	

Radiated Emissions Test Results (Continued)

Plots Showing Out-Of-Band Emissions (Peak RBW=VBW=1MHz; Average RBW = 1MHz, VBW = 10Hz)

Test Date	Data	Test Eng.
09/21/06	2.462 GHz band edge PEAK DELTA (Horizontal) (INTEL-061107-26a09)	BM
	 <p> *ATTEN 0dB RL 97.0dBμV 10dB/ MKR 47.50dBμV 2.48350GHz </p> <p> CENTER 2.46200GHz SPAN 50.00MHz *RBW 1.0MHz *VBW 1.0MHz SWP 50.0ms </p>	
09/21/06	2.462 GHz band edge AVERAGE DELTA (Horizontal) (INTEL-061107-26a10)	BM
	 <p> *ATTEN 0dB RL 97.0dBμV 10dB/ MKR 28.17dBμV 2.48350GHz </p> <p> CENTER 2.46200GHz SPAN 50.00MHz *RBW 1.0MHz *VBW 10Hz SWP 19.0sec </p>	

Radiated Emissions Test Results (Continued)

Plots Showing Out-Of-Band Emissions (Peak RBW=VBW=1MHz; Average RBW = 1MHz, VBW = 10Hz)

Test Date	Data	Test Eng.
09/21/06	2.462 GHz band edge PEAK DELTA (Vertical) (INTEL-061107-26a11)	BM

Radiated Emissions Test Results (Continued)

 Spurious Emissions Measurements in **802.11g mode (2400-2483.5 MHz)**

Channels 1, 6, & 11

 Continuous TX at **Chain A** Antenna port with **Ethertronics Antennas**

Aegis Labs, Inc. File #: INTEL-061107-35

RADIATED EMISSIONS - Horizontal Antenna Polarization												
Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Preamp Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments	
9648.00	54.33	100	225		50.15	6.56	38.12	48.85	83.98	-35.13	Ch. 1	
9747.96	53.50	100	180		50.19	6.60	38.20	48.11	84.58	-36.47	Ch. 6	
9848.01	53.50	100	180		50.23	6.64	38.28	48.19	85.52	-37.33	Ch. 11	

RADIATED EMISSIONS - Vertical Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Preamp Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
9647.62	55.00	100	180		50.15	6.56	38.09	49.49	82.68	-33.19	Ch. 1
9747.82	54.83	100	180		50.19	6.60	38.15	49.39	81.95	-32.56	Ch. 6
9848.28	56.00	100	135		50.23	6.64	38.21	50.62	84.54	-33.92	Ch. 11

Radiated Emissions Test Results (Continued)

Fundamental Measurements in 802.11g mode (2400-2483.5 MHz)

Channels 1, 6, & 11

Continuous TX at Chain B Antenna port with Ethertronics Antennas

Aegis Labs, Inc. File #: INTEL-061107-26 & -34

RADIATED EMISSIONS - Horizontal Antenna Polarization												
Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Distance Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments	
2412.00	82.67	100	180		9.54	3.19	29.50	105.82			Ch. 1	
2412.00				67.00	A	9.54	3.19	29.50	90.15			
2437.00	81.50	100	180		9.54	3.20	29.59	104.75			Ch. 6	
2437.00				66.15	A	9.54	3.20	29.59	89.40			
2462.00	80.50	100	180		9.54	3.22	29.67	103.85			Ch. 11	
2462.00				66.17	A	9.54	3.22	29.67	89.52			

RADIATED EMISSIONS - Vertical Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Distance Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
2412.00	81.50	100	180		9.54	3.19	29.04	104.18			Ch. 1
2412.00				66.67	A	9.54	3.19	29.04	89.35		
2437.00	78.33	100	180		9.54	3.20	29.11	101.11			Ch. 6
2437.00				64.32	A	9.54	3.20	29.11	87.10		
2462.00	78.00	100	180		9.54	3.22	29.19	100.87			Ch. 11
2462.00				63.17	A	9.54	3.22	29.19	86.04		

NOTE: Fundamental signals measured at 1 meter and extrapolated to 3 meters to calculate the radiated band edge field strengths.

Radiated Emissions Test Results (Continued)

Band Edge Field Strength Measurements in 802.11g mode (2400-2483.5 MHz)

Channels 1 & 11

Continuous TX at Chain B Antenna port with Ethertronics Antennas

Aegis Labs, Inc. File #: INTEL-061107-26 & -34

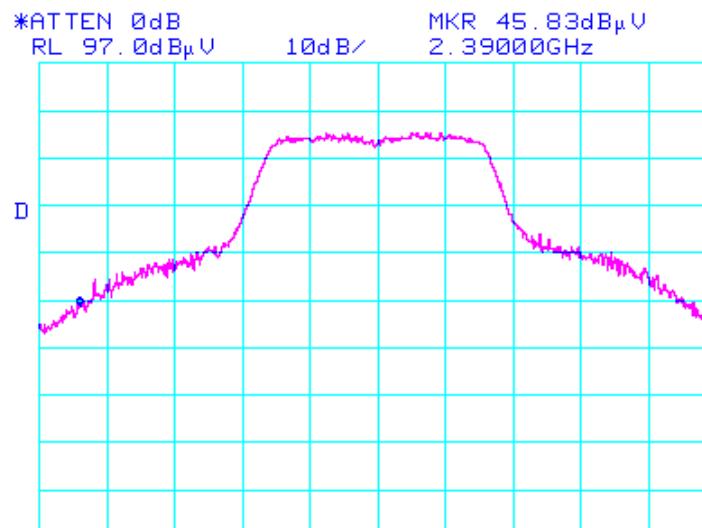
RADIATED EMISSIONS - Horizontal Antenna Polarization											
Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Distance Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
2390.00	45.83	100	180		9.54	3.17	29.43	68.89	74.00	-5.11	Ch. 1
2390.00				25.50	A	9.54	3.17	29.43	48.56	54.00	-5.44
2400.00	44.17	100	180		9.54	3.18	29.46	67.27	74.00	-6.73	
2483.50	46.17	100	180		9.54	3.24	29.74	69.61	74.00	-4.39	Ch. 11
2483.50				26.83	A	9.54	3.24	29.74	50.27	54.00	-3.73

RADIATED EMISSIONS - Vertical Antenna Polarization											
Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Distance Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
2390.00	45.17	100	180		9.54	3.17	28.97	67.77	74.00	-6.23	Ch. 1
2390.00				26.00	A	9.54	3.17	28.97	48.60	54.00	-5.40
2400.00	46.00	100	180		9.54	3.18	29.00	68.64	74.00	-5.36	
2483.50	41.67	100	180		9.54	3.24	29.25	64.62	74.00	-9.38	Ch. 11
2483.50				23.67	A	9.54	3.24	29.25	46.62	54.00	-7.38

NOTE: The “Band Edge Field Strength” was calculated using the “Radiated Fundamental” measurements.

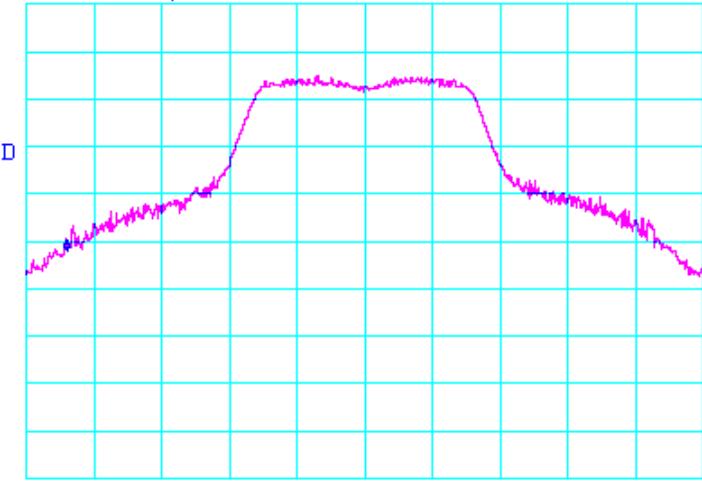
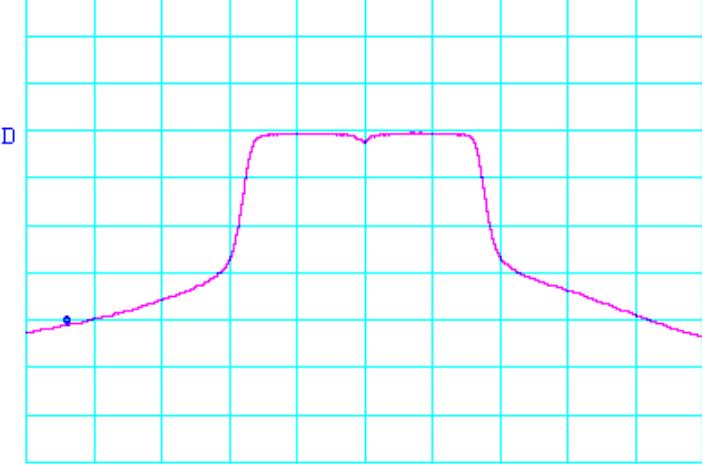
Radiated Emissions Test Results (Continued)

Plots Showing Out-Of-Band Emissions (Peak RBW=VBW=1MHz; Average RBW = 1MHz, VBW = 10Hz)

Test Date	Data	Test Eng.
09/21/06	2.412 GHz band edge PEAK DELTA (Horizontal) (INTEL-061107-34a13)	BM
	 <p> *ATTEN 0dB RL 97.0dBμV 10dB/ MKR 45.83dBμV 2.39000GHz </p> <p> CENTER 2.41200GHz SPAN 50.00MHz *RBW 1.0MHz *VBW 1.0MHz SWP 50.0ms </p>	
09/21/06	2.412 GHz band edge AVERAGE DELTA (Horizontal) (INTEL-061107-34a14)	BM
	 <p> *ATTEN 0dB RL 97.0dBμV 10dB/ MKR 25.50dBμV 2.39000GHz </p> <p> CENTER 2.41200GHz SPAN 50.00MHz *RBW 1.0MHz *VBW 10Hz SWP 19.0sec </p>	

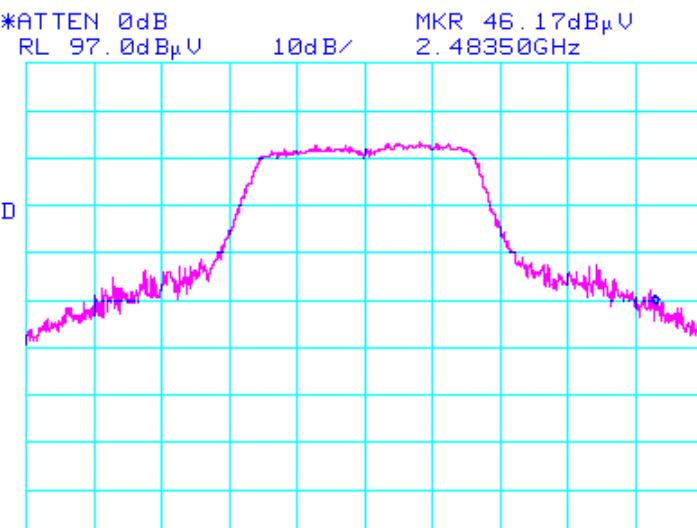
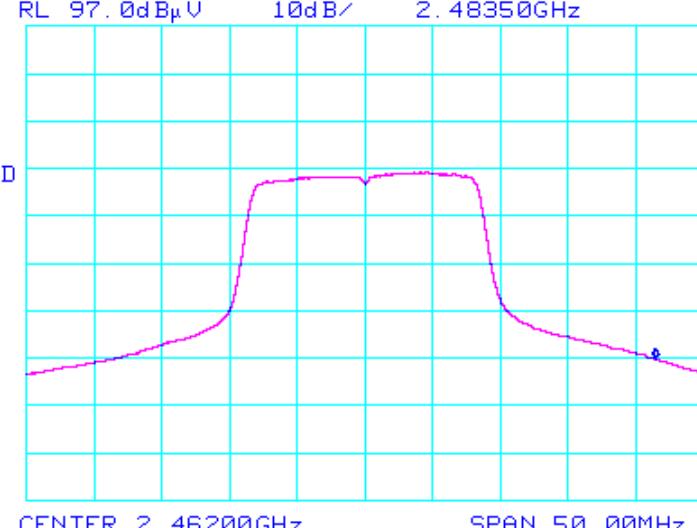
Radiated Emissions Test Results (Continued)

Plots Showing Out-Of-Band Emissions (Peak RBW=VBW=1MHz; Average RBW = 1MHz, VBW = 10Hz)

Test Date	Data	Test Eng.
09/21/06	2.412 GHz band edge PEAK DELTA (Vertical) (INTEL-061107-34a15)	BM
	 <p> *ATTEN 0dB RL 97.0dBμV 10dB/ MKR 45.17dBμV 2.39000GHz </p> <p> CENTER 2.41200GHz SPAN 50.00MHz *RBW 1.0MHz *VBW 1.0MHz SWP 50.0ms </p>	
09/21/06	2.412 GHz band edge AVERAGE DELTA (Vertical) (INTEL-061107-34a16)	BM
	 <p> *ATTEN 0dB RL 97.0dBμV 10dB/ MKR 26.00dBμV 2.39000GHz </p> <p> CENTER 2.41200GHz SPAN 50.00MHz *RBW 1.0MHz *VBW 10Hz SWP 19.0sec </p>	

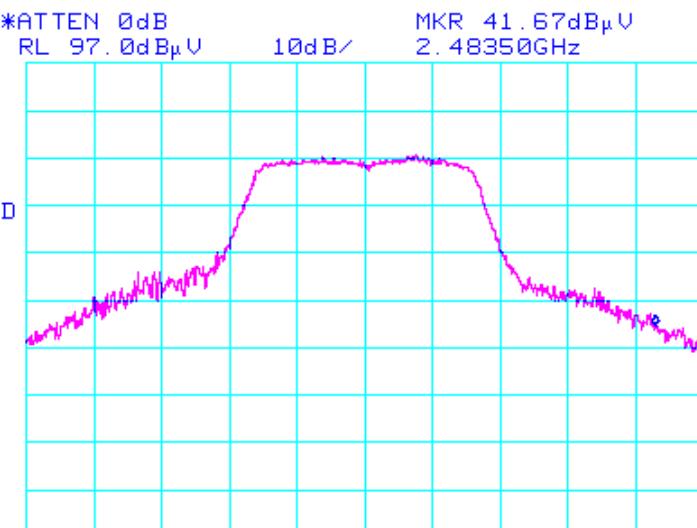
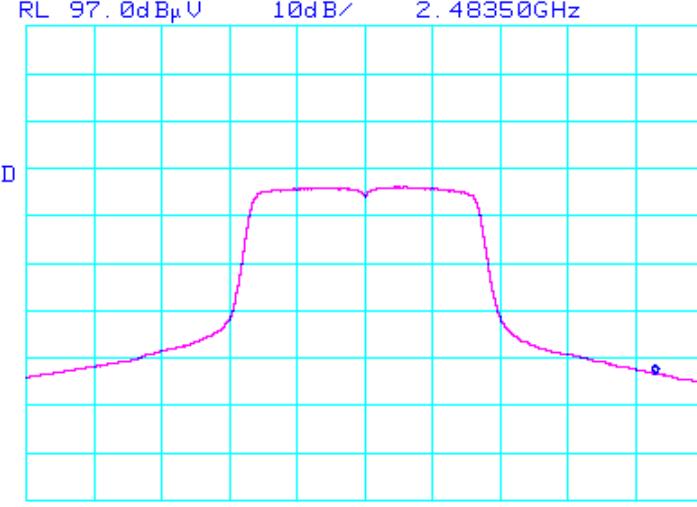
Radiated Emissions Test Results (Continued)

Plots Showing Out-Of-Band Emissions (Peak RBW=VBW=1MHz; Average RBW = 1MHz, VBW = 10Hz)

Test Date	Data	Test Eng.
09/21/06	2.462 GHz band edge PEAK DELTA (Horizontal) (INTEL-061107-26a13)	BM
	 <p> *ATTEN 0dB RL 97.0dBμV 10dB/ MKR 46.17dBμV 2.48350GHz </p> <p> CENTER 2.46200GHz SPAN 50.00MHz *RBW 1.0MHz *VBW 1.0MHz SWP 50.0ms </p>	
09/21/06	2.462 GHz band edge AVERAGE DELTA (Horizontal) (INTEL-061107-26a14)	BM
	 <p> *ATTEN 0dB RL 97.0dBμV 10dB/ MKR 26.83dBμV 2.48350GHz </p> <p> CENTER 2.46200GHz SPAN 50.00MHz *RBW 1.0MHz *VBW 10Hz SWP 19.0sec </p>	

Radiated Emissions Test Results (Continued)

Plots Showing Out-Of-Band Emissions (Peak RBW=VBW=1MHz; Average RBW = 1MHz, VBW = 10Hz)

Test Date	Data	Test Eng.
09/21/06	2.462 GHz band edge PEAK DELTA (Vertical) (INTEL-061107-26a15)	BM
	 <p> *ATTEN 0dB RL 97.0dBμV 10dB/ MKR 41.67dBμV 2.48350GHz </p> <p> CENTER 2.46200GHz SPAN 50.00MHz *RBW 1.0MHz *VBW 1.0MHz SWP 50.0ms </p>	
09/21/06	2.462 GHz band edge AVERAGE DELTA (Vertical) (INTEL-061107-26a16)	BM
	 <p> *ATTEN 0dB RL 97.0dBμV 10dB/ MKR 23.67dBμV 2.48350GHz </p> <p> CENTER 2.46200GHz SPAN 50.00MHz *RBW 1.0MHz *VBW 10Hz SWP 19.0sec </p>	

Radiated Emissions Test Results (Continued)

Spurious Emissions Measurements in 802.11g mode (2400-2483.5 MHz)

Channels 1, 6, & 11

Continuous TX at Chain B Antenna port with Ethertronics Antennas

Aegis Labs, Inc. File #: INTEL-061107-36

RADIATED EMISSIONS - Horizontal Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Preamp Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
3215.76	54.67	100	225		50.88	3.71	31.72	39.21	85.82	-46.61	Ch. 1
9748.12	54.50	100	180		50.19	6.60	38.20	49.11	84.75	-35.64	Ch. 6
9848.01	53.50	100	180		50.23	6.64	38.28	48.19	83.85	-35.66	Ch. 11

RADIATED EMISSIONS - Vertical Antenna Polarization

Freq. (MHz)	Meter Reading (dBuV)	Antenna Height (cm)	Azimuth (degrees)	Quasi pk or AVG (dBuV)	Preamp Factor (dB)	Cable Factor (dB)	Ant. Factor (dB)	Corrected Reading (dBuV)	Limits (dBuV)	Diff (dB) +=FAIL	Comments
3216.03	55.17	100	180		50.88	3.71	31.28	39.27	84.18	-44.91	Ch. 1
9747.96	55.17	100	180		50.19	6.60	38.15	49.73	81.11	-31.38	Ch. 6
9848.28	54.33	100	180		50.23	6.64	38.21	48.95	80.87	-31.92	Ch. 11

PEAK TRANSMIT POWER

CLIENT:	Intel Corporation	DATE:	09/29/06
EUT:	Intel PRO/Wireless 4965AG_Network Connection	PROJECT NUMBER:	INTEL-061107
MODEL NUMBER:	4965AG_	TEST ENGINEER:	BM/JC
SERIAL NUMBER:	0013E804612B	SITE #:	2
CONFIGURATION:	Tested installed in the host computer's mini PCI slot.	TEMPERATURE:	22 deg. C
		HUMIDITY:	36% RH
		TIME:	5:00 PM

Description:	The maximum peak output power of the intentional radiator shall not exceed 1 watt.
Results:	Passed (See Data Sheet)
Note:	Conducted Emissions Measurements were performed on the EUT with power supply set at the following voltage and frequency. • 120VAC / 60 Hz.

Peak Transmit Power Limits	
Frequency (MHz)	Output Power (W)
5745-5825	1
2412-2462	1

Peak Transmit Power (Continued)

Mode	Channel	Frequency (MHz)	Chain	Data Rate (Mbps)	Average Power (dBm)	Average Power (mW)	Peak Power (dBm)	Peak Power (mW)
802.11a	149	5745	A	6	17.55	56.88	19.61	91.40
802.11a	157	5785	A	6	17.43	55.33	19.71	93.53
802.11a	165	5825	A	6	17.56	57.01	19.91	97.94
802.11a	149	5745	B	6	17.48	55.97	20.21	104.94
802.11a	157	5785	B	6	17.57	57.14	20.31	107.39
802.11a	165	5825	B	6	17.46	55.71	20.31	107.39
<hr/>								
802.11b	1	2412	A	1	15.44	34.98	19.07	80.68
802.11b	6	2437	A	1	15.59	36.21	19.24	83.90
802.11b	11	2462	A	1	16.61	45.79	20.03	100.64
802.11b	1	2412	B	1	15.40	34.66	18.73	74.61
802.11b	6	2437	B	1	15.57	36.04	18.88	77.23
802.11b	11	2462	B	1	16.63	46.00	19.94	98.58
<hr/>								
802.11g	1	2412	A	6	16.40	43.65	23.80	239.86
802.11g	6	2437	A	6	17.60	57.54	23.83	241.52
802.11g	11	2462	A	6	16.58	45.49	23.48	222.82
802.11g	1	2412	B	6	16.47	44.36	23.54	225.92
802.11g	6	2437	B	6	17.45	55.59	23.63	230.65
802.11g	11	2462	B	6	16.56	45.29	23.52	224.88

NOTE: The output power measurement is conducted.

6dB EMISSIONS BANDWIDTH

CLIENT:	Intel Corporation	DATE:	09/19/06
EUT:	Intel PRO/Wireless 4965AG_Network Connection	PROJECT NUMBER:	INTEL-061107
MODEL NUMBER:	4965AG_	TEST ENGINEER:	JC
SERIAL NUMBER:	0013E804612B	SITE #:	2
CONFIGURATION:	Tested installed in the host computer's mini PCI slot.	TEMPERATURE:	21 deg. C
		HUMIDITY:	29% RH
		TIME:	9:50 AM

Description:	The minimum 6dB bandwidth shall be at least 500 kHz.
Results:	See Data Sheet
Note:	<p>Conducted Emissions Measurements were performed on the EUT with power supply set at the following voltage and frequency.</p> <ul style="list-style-type: none"> • 120VAC / 60 Hz.

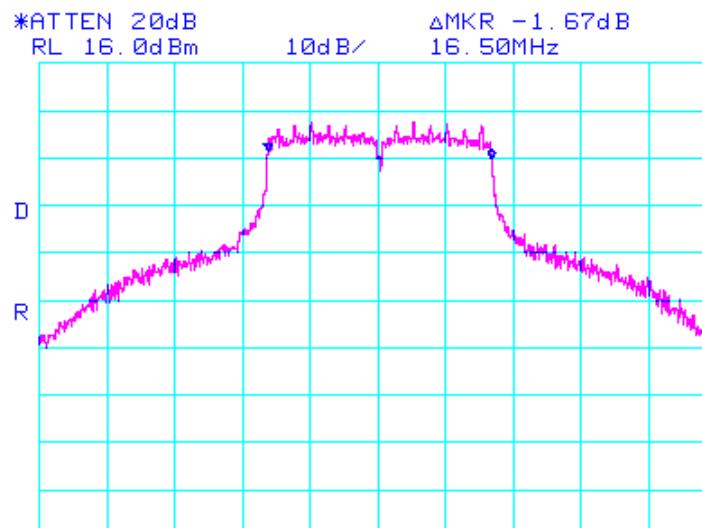
6dB Emissions Bandwidth (Continued)

802.11a Mode

Test Date	Data	Chain	Test Eng.
09/19/06	5.745 GHz (INTEL-061107-27a01)	A	JC
Test Date	Data	Chain	Test Eng.
09/19/06	5.785 GHz (INTEL-061107-27a02)	A	JC

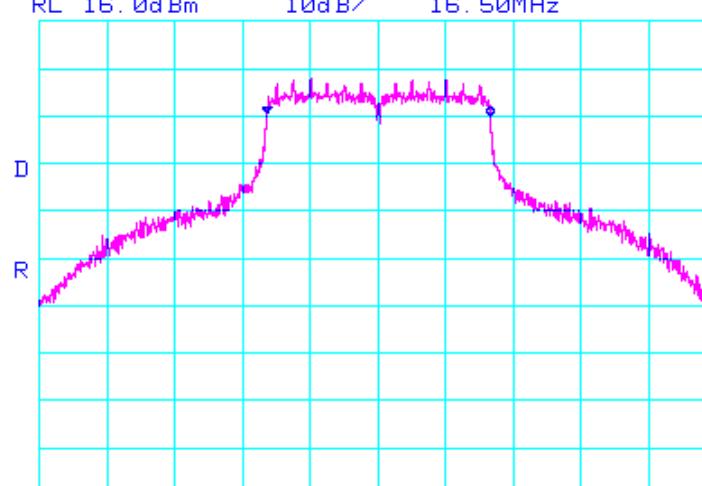
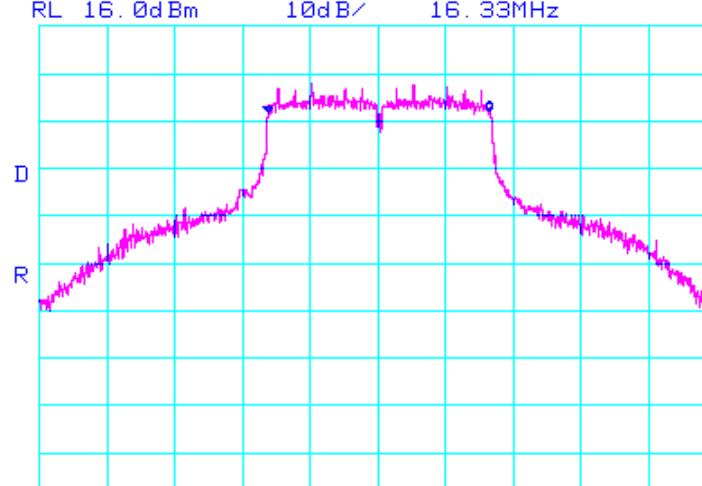
6dB Emissions Bandwidth (Continued)

802.11a Mode

Test Date	Data	Chain	Test Eng.
09/19/06	5.825 GHz (INTEL-061107-27a03)	A	JC
			
CENTER 5.82500GHz *RBW 100kHz *VBW 300kHz			
SPAN 50.00MHz SWP 50.0ms			
Test Date	Data	Chain	Test Eng.
09/19/06	5.745 GHz (INTEL-061107-27a04)	B	JC
			
CENTER 5.74500GHz *RBW 100kHz *VBW 300kHz			
SPAN 50.00MHz SWP 50.0ms			

6dB Emissions Bandwidth (Continued)

802.11a Mode

Test Date	Data	Chain	Test Eng.
09/19/06	5.785 GHz (INTEL-061107-27a05)	B	JC
 <p> $*ATTEN 20dB$ $RL 16.00 dBm$ $\Delta MKR - .67dB$ $10dB/$ $16.50MHz$ </p> <p> D R </p> <p> $CENTER 5.78500GHz$ $*RBW 100kHz$ $*VBW 300kHz$ $SPAN 50.00MHz$ $SWP 50.0ms$ </p>			
 <p> $*ATTEN 20dB$ $RL 16.00 dBm$ $\Delta MKR .34dB$ $10dB/$ $16.33MHz$ </p> <p> D R </p> <p> $CENTER 5.82500GHz$ $*RBW 100kHz$ $*VBW 300kHz$ $SPAN 50.00MHz$ $SWP 50.0ms$ </p>			

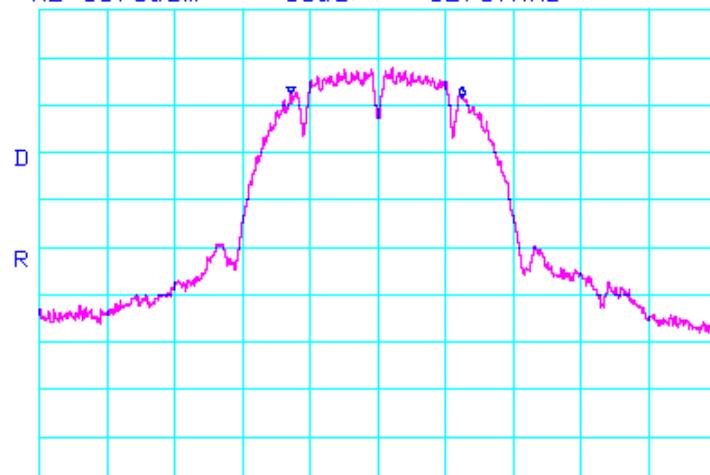
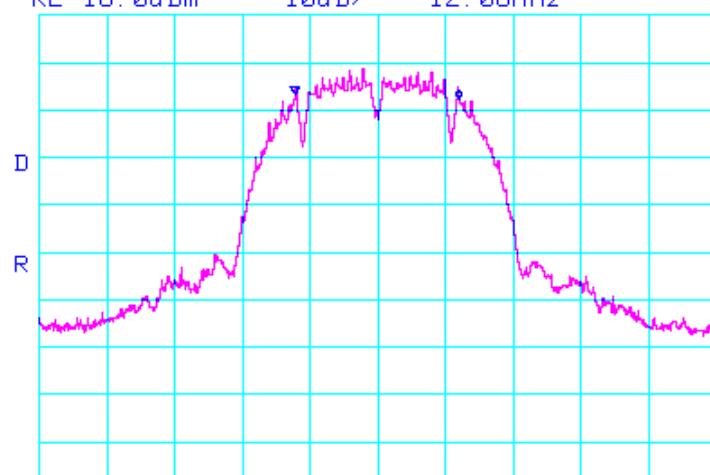
6dB Emissions Bandwidth (Continued)

802.11b Mode

Test Date	Data	Chain	Test Eng.
09/19/06	2.412 GHz (INTEL-061107-28b01)	A	JC
Test Date	Data	Chain	Test Eng.
09/19/06	2.437 GHz (INTEL-061107-28b02)	A	JC

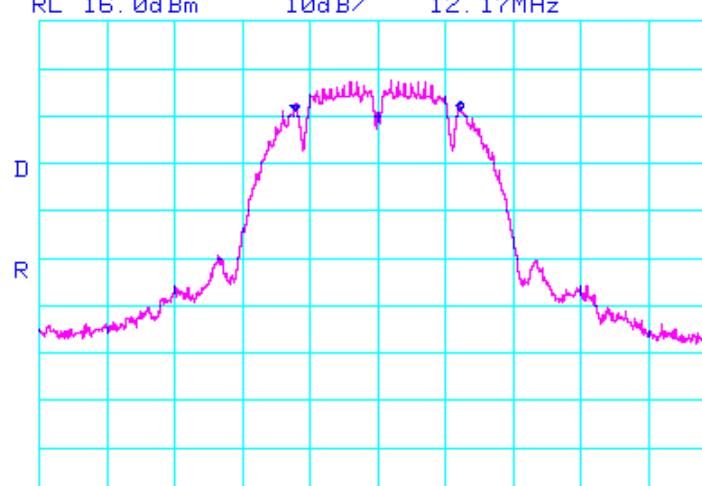
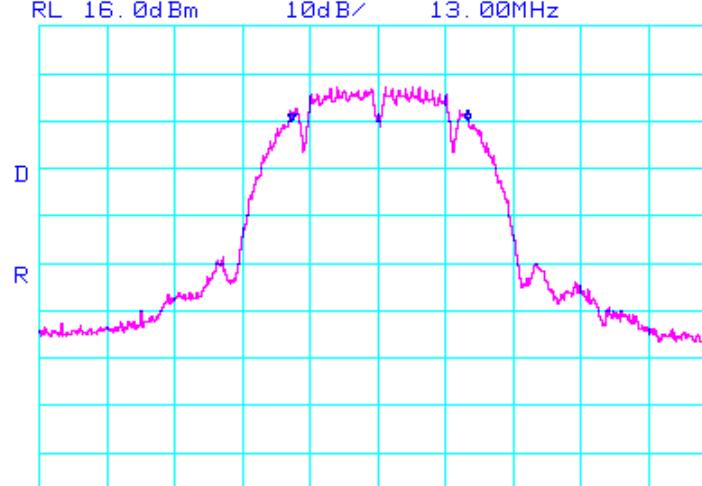
6dB Emissions Bandwidth (Continued)

802.11b Mode

Test Date	Data	Chain	Test Eng.
09/19/06	2.462 GHz (INTEL-061107-28b03)	A	JC
			
$*\text{ATTEN} \ 20\text{dB}$ $\text{RL} \ 16.00 \text{dBm}$ $\Delta\text{MKR} \ -0.83\text{dB}$ $10\text{dB/} \ 12.67\text{MHz}$			
			
CENTER 2.46200GHz SPAN 50.00MHz $*\text{RBW} \ 100\text{kHz}$ $*\text{VBW} \ 300\text{kHz}$ SWP 50.0ms			
Test Date	Data	Chain	Test Eng.
09/19/06	2.412 GHz (INTEL-061107-28b04)	B	JC
			
$*\text{ATTEN} \ 20\text{dB}$ $\text{RL} \ 16.00 \text{dBm}$ $\Delta\text{MKR} \ -1.17\text{dB}$ $10\text{dB/} \ 12.08\text{MHz}$			
			
CENTER 2.41200GHz SPAN 50.00MHz $*\text{RBW} \ 100\text{kHz}$ $*\text{VBW} \ 300\text{kHz}$ SWP 50.0ms			

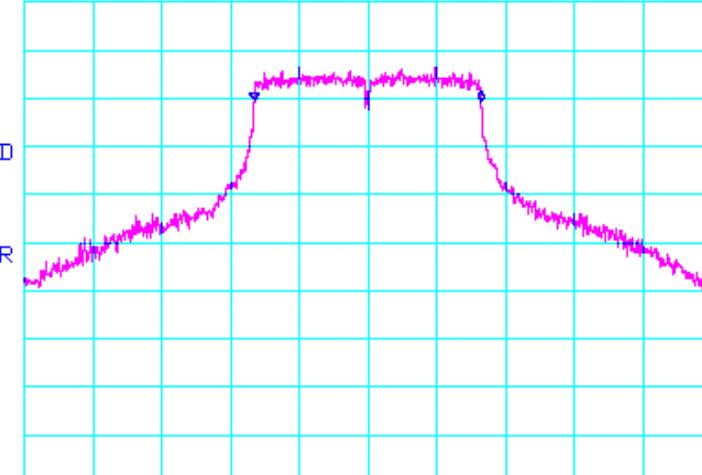
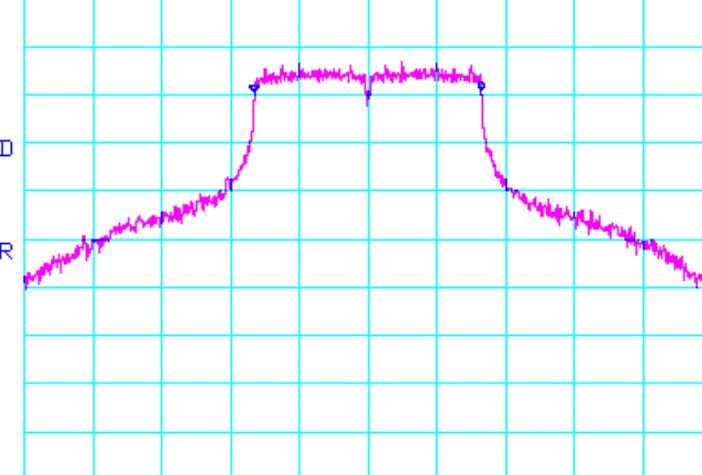
6dB Emissions Bandwidth (Continued)

802.11b Mode

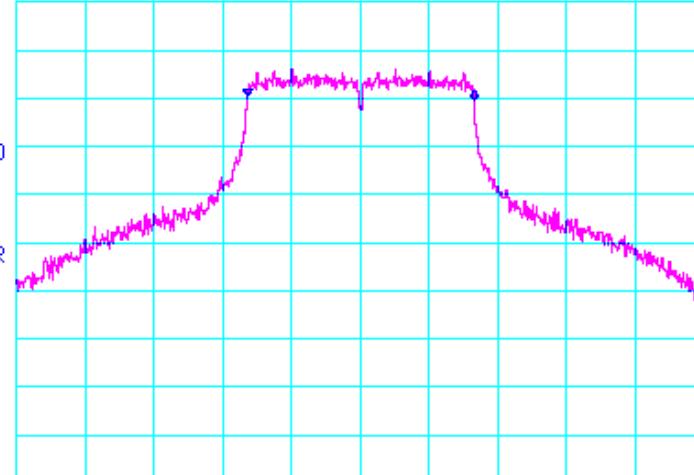
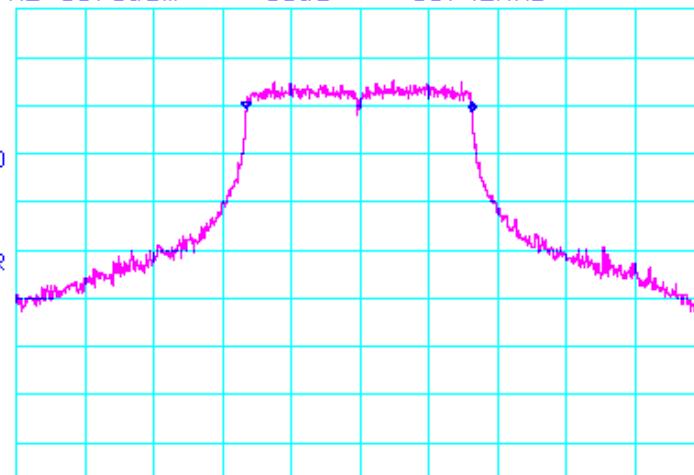
Test Date	Data	Chain	Test Eng.
09/19/06	2.437 GHz (INTEL-061107-28b05)	B	JC
			
			
Test Date	Data	Chain	Test Eng.
09/19/06	2.462 GHz (INTEL-061107-28b06)	B	JC

6dB Emissions Bandwidth (Continued)

802.11g Mode

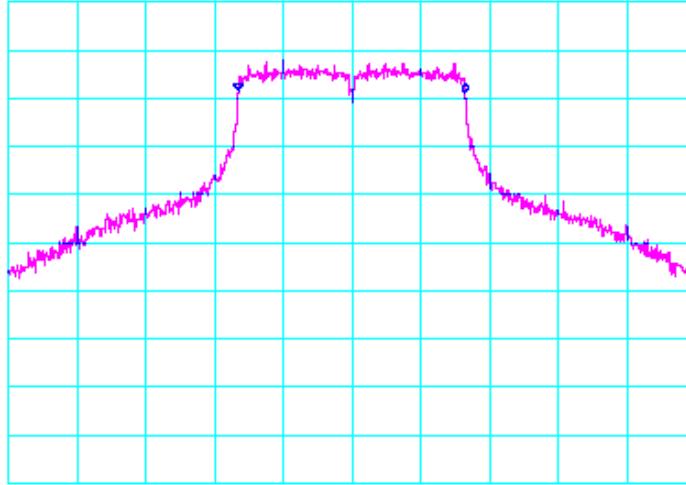
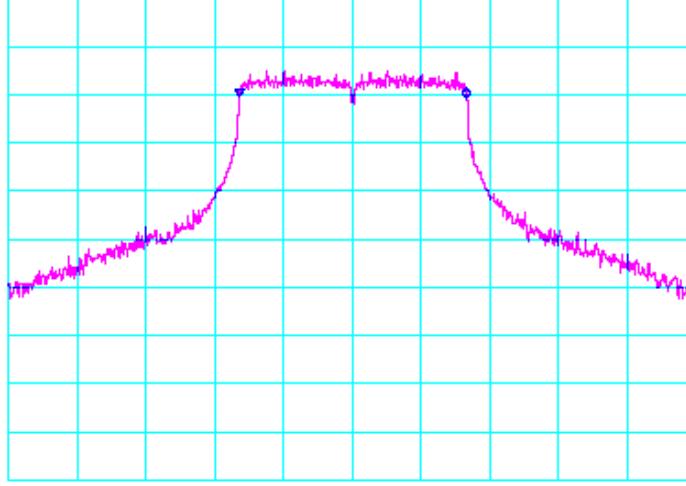
Test Date	Data	Chain	Test Eng.
09/22/06	2.412 GHz (INTEL-061107-29a01)	A	JC
	*ATTEN 20dB RL 16. 0d Bm 10dB/ 16. 50MHz △MKR - .34dB		
			
	CENTER 2. 41200GHz *RBW 100kHz *VBW 300kHz	SPAN 50. 00MHz SWP 50. 0ms	
Test Date	Data	Chain	Test Eng.
09/22/06	2.437 GHz (INTEL-061107-29a02)	A	JC
	*ATTEN 20dB RL 16. 0d Bm 10dB/ 16. 50MHz △MKR .33dB		
			
	CENTER 2. 43700GHz *RBW 100kHz *VBW 300kHz	SPAN 50. 00MHz SWP 50. 0ms	

6dB Emissions Bandwidth (Continued)

802.11g Mode			
Test Date	Data	Chain	Test Eng.
09/22/06	2.462 GHz (INTEL-061107-29a03)	A	JC
	*ATTEN 20dB RL 16. 0dBm 10dB/ △MKR -1. 00dB 16. 50MHz 		
			
	CENTER 2.46200GHz SPAN 50.00MHz *RBW 100kHz *VBW 300kHz SWP 50.0ms		
Test Date	Data	Chain	Test Eng.
09/22/06	2.412 GHz (INTEL-061107-29a04)	B	JC
	*ATTEN 20dB RL 16. 0dBm 10dB/ △MKR - .66dB 16. 42MHz 		
			
	CENTER 2.41200GHz SPAN 50.00MHz *RBW 100kHz *VBW 300kHz SWP 50.0ms		

6dB Emissions Bandwidth (Continued)

802.11g Mode

Test Date	Data	Chain	Test Eng.
09/22/06	2.437 GHz (INTEL-061107-29a05)	B	JC
	*ATTEN 20dB RL 16. 0d Bm 10dB/ 16. 50MHz △MKR - .50dB		
			
	CENTER 2.43700GHz *RBW 100kHz *VBW 300kHz	SPAN 50.00MHz SWP 50.0ms	
Test Date	Data	Chain	Test Eng.
09/22/06	2.462 GHz (INTEL-061107-29a06)	B	JC
	*ATTEN 20dB RL 16. 0d Bm 10dB/ 16. 50MHz △MKR - .34dB		
			
	CENTER 2.46200GHz *RBW 100kHz *VBW 300kHz	SPAN 50.00MHz SWP 50.0ms	

PEAK POWER SPECTRAL DENSITY

CLIENT:	Intel Corporation	DATE:	09/19/06
EUT:	Intel PRO/Wireless 4965AG_Network Connection	PROJECT NUMBER:	INTEL-061107
MODEL NUMBER:	4965AG_	TEST ENGINEER:	JC
SERIAL NUMBER:	0013E804612B	SITE #:	2
CONFIGURATION:	Tested installed in the host computer's mini PCI slot.	TEMPERATURE:	21 deg. C
		HUMIDITY:	29% RH
		TIME:	9:50 AM

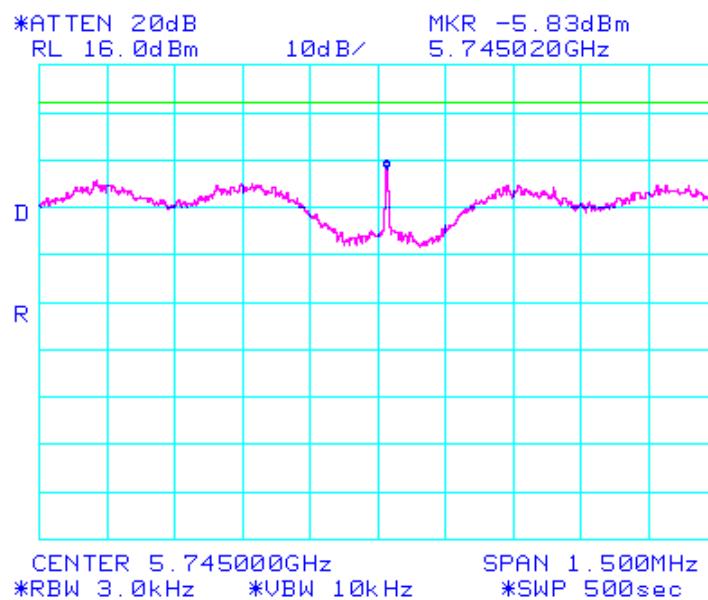
Description:	The peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.
Results:	See Data Sheet
Note:	Conducted Emissions Measurements were performed on the EUT with power supply set at the following voltage and frequency. • 120VAC / 60 Hz.

Peak Power Spectral Density Limits	
Frequency (MHz)	Limit (dBm)
5725-5850	8
2412-2462	8

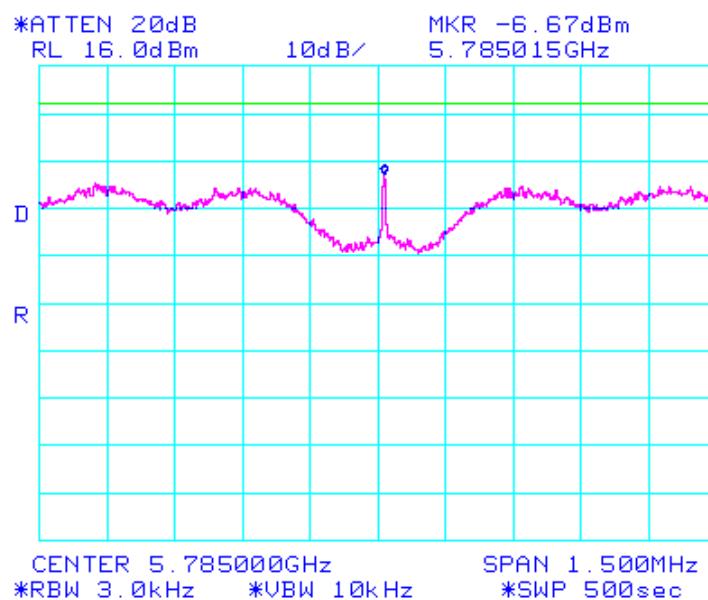
Peak Power Spectral Density (Continued)

802.11a Mode

Test Date	Data	Chain	Test Eng.
09/19/06	5.745 GHz (INTEL-061107-27c01)	A	JC

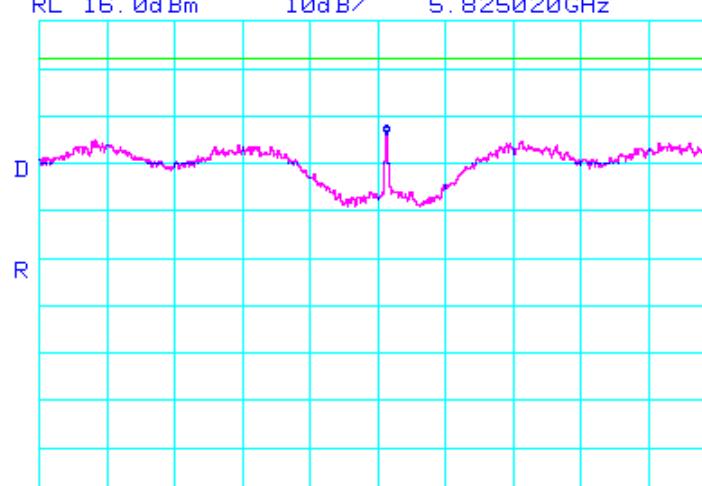
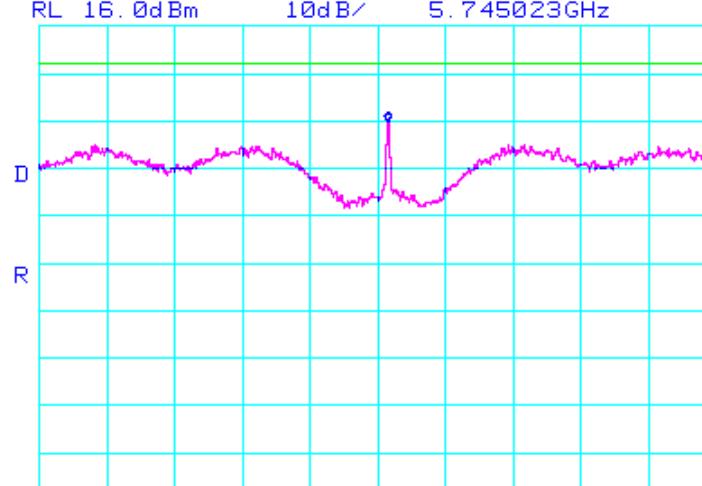


Test Date	Data	Chain	Test Eng.
09/19/06	5.785 GHz (INTEL-061107-27c02)	A	JC



Peak Power Spectral Density (Continued)

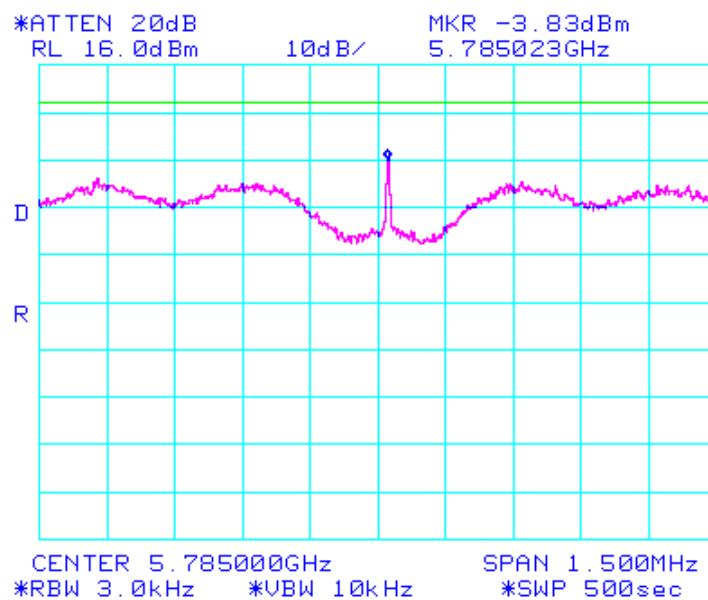
802.11a Mode

Test Date	Data	Chain	Test Eng.
09/19/06	5.825 GHz (INTEL-061107-27c03)	A	JC
			
			
Test Date	Data	Chain	Test Eng.
09/19/06	5.745 GHz (INTEL-061107-27c04)	B	JC

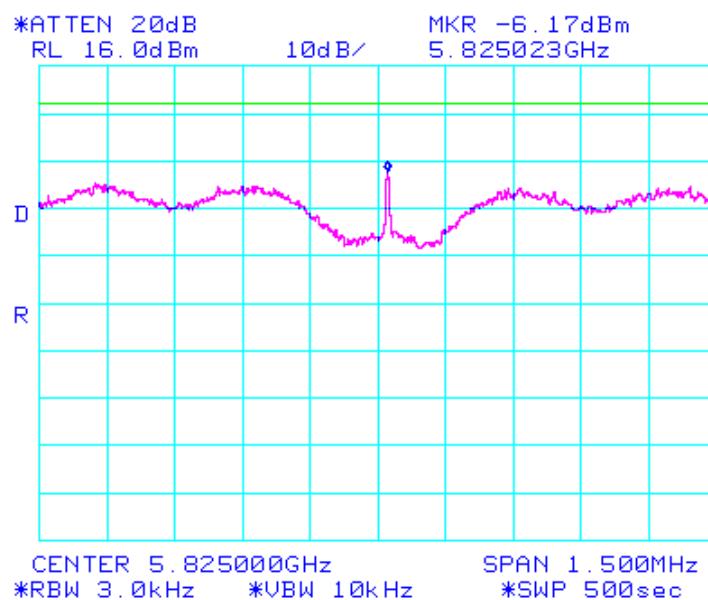
Peak Power Spectral Density (Continued)

802.11a Mode

Test Date	Data	Chain	Test Eng.
09/19/06	5.785 GHz (INTEL-061107-27c05)	B	JC

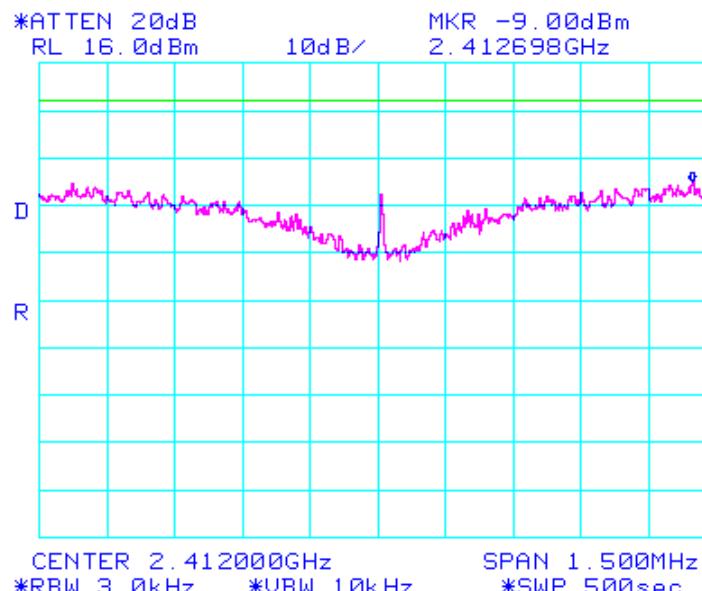
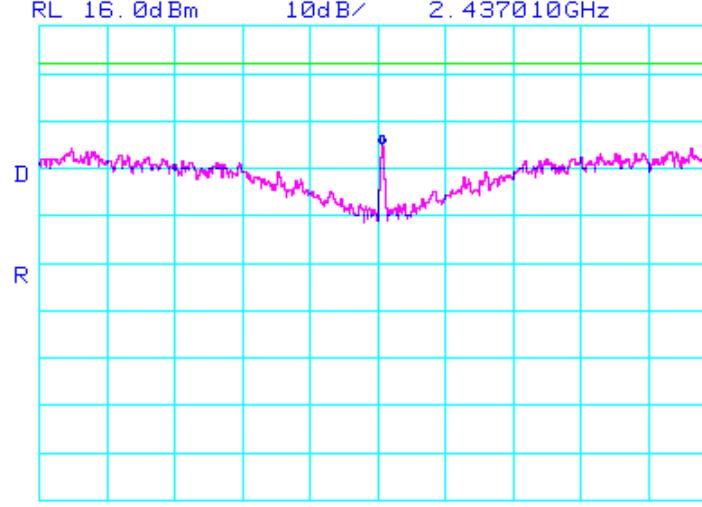


Test Date	Data	Chain	Test Eng.
09/19/06	5.825 GHz (INTEL-061107-27c06)	B	JC



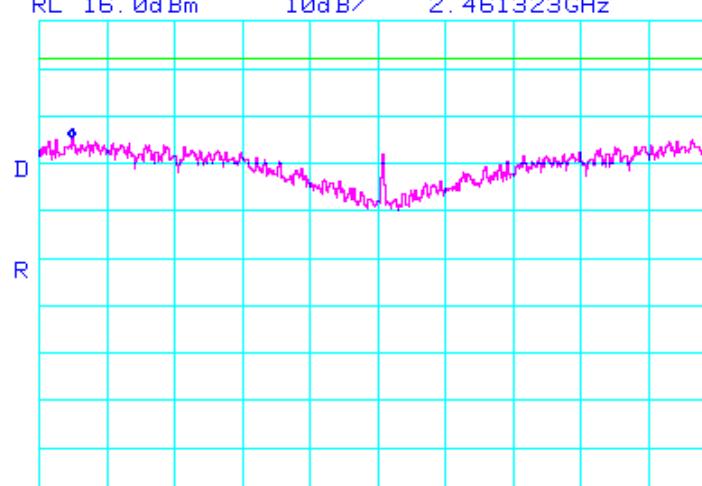
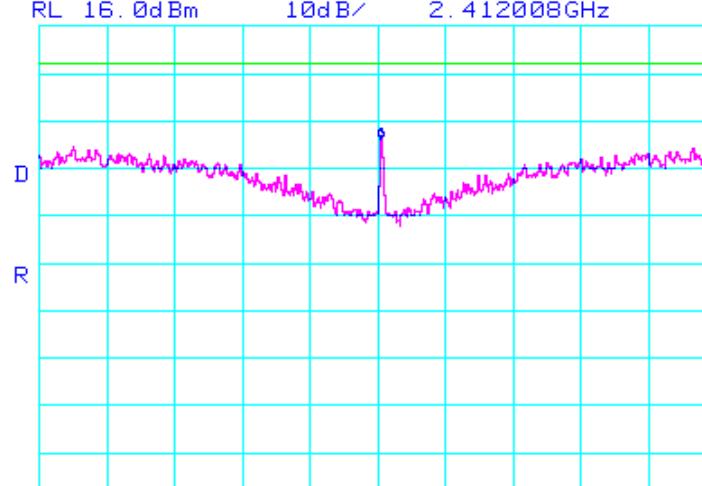
Peak Power Spectral Density (Continued)

802.11b Mode

Test Date	Data	Chain	Test Eng.
09/19/06	2.412 GHz (INTEL-061107-28d01)	A	JC
			
			
Test Date	Data	Chain	Test Eng.
09/19/06	2.437 GHz (INTEL-061107-28d02)	A	JC

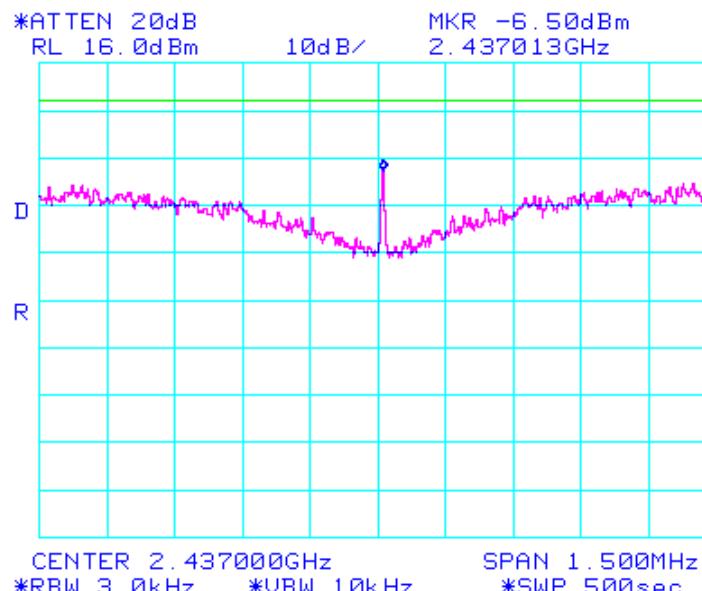
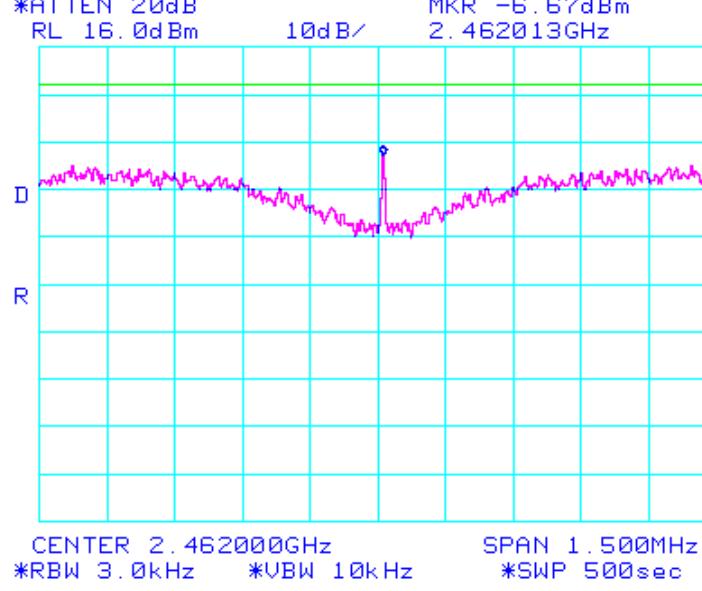
Peak Power Spectral Density (Continued)

802.11b Mode

Test Date	Data	Chain	Test Eng.
09/19/06	2.462 GHz (INTEL-061107-28d03)	A	JC
			
			
Test Date	Data	Chain	Test Eng.
09/19/06	2.412 GHz (INTEL-061107-28d04)	B	JC

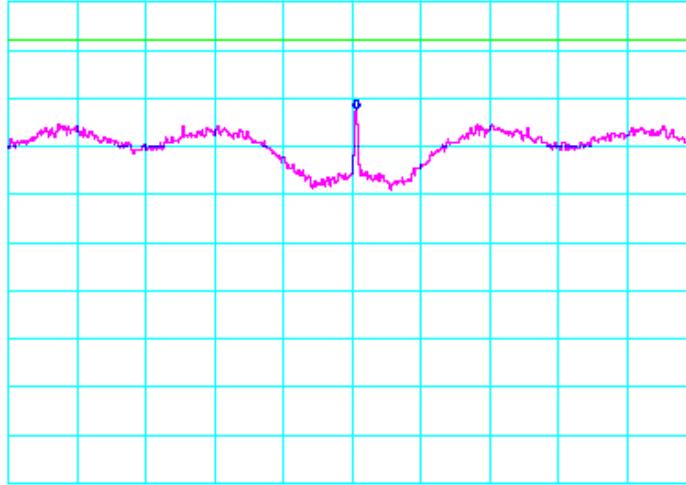
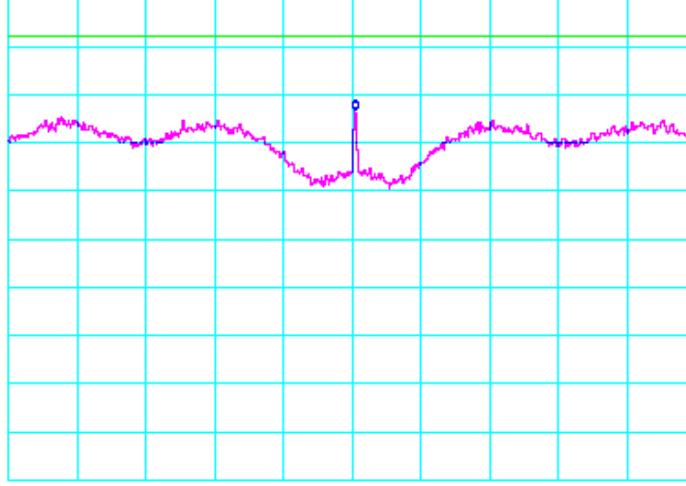
Peak Power Spectral Density (Continued)

802.11b Mode

Test Date	Data	Chain	Test Eng.
09/19/06	2.437 GHz (INTEL-061107-28d05)	B	JC
			
			

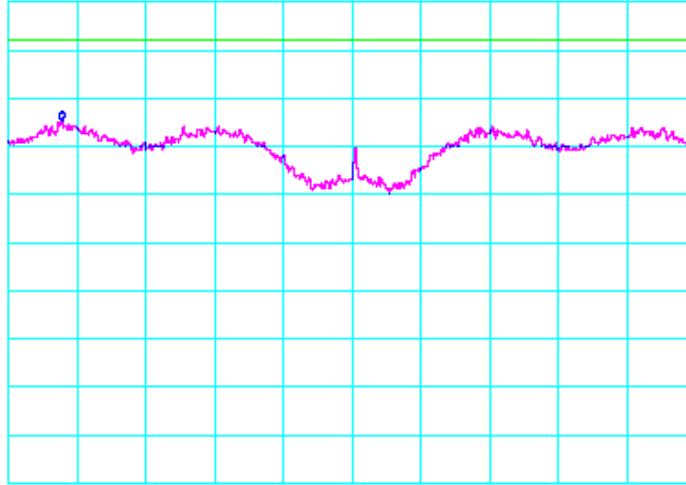
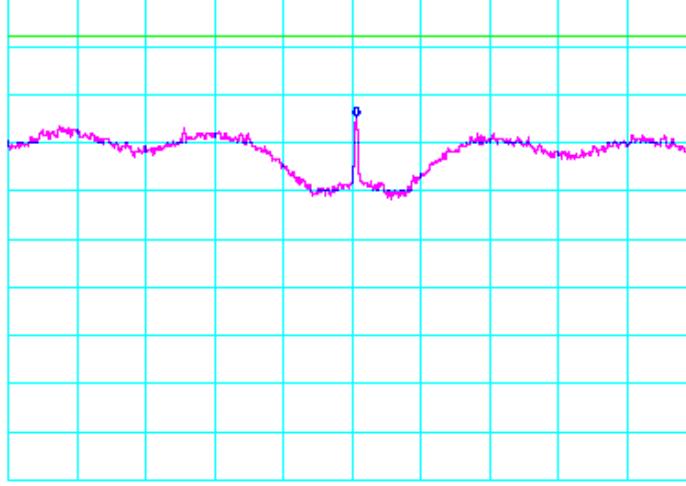
Peak Power Spectral Density (Continued)

802.11g Mode

Test Date	Data	Chain	Test Eng.
09/22/06	2.412 GHz (INTEL-061107-29c01)	A	JC
*ATTEN 20dB MKR -6.33dBm RL 16.0dBm 10dB/ 2.412010GHz			
			
CENTER 2.412000GHz SPAN 1.500MHz *RBW 3.0kHz *VBW 10kHz *SWP 500sec			
Test Date	Data	Chain	Test Eng.
09/22/06	2.437 GHz (INTEL-061107-29c02)	A	JC
*ATTEN 20dB MKR -7.17dBm RL 16.0dBm 10dB/ 2.437008GHz			
			
CENTER 2.437000GHz SPAN 1.500MHz *RBW 3.0kHz *VBW 10kHz *SWP 500sec			

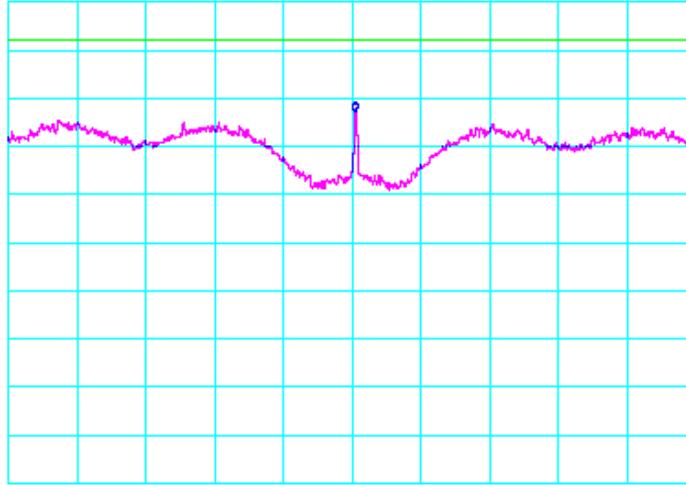
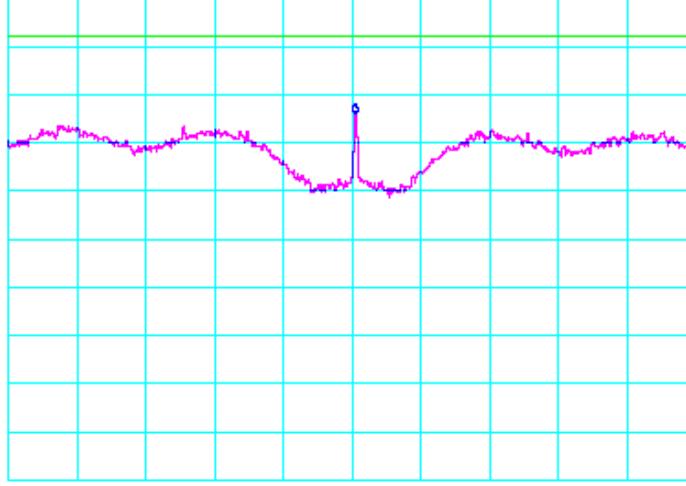
Peak Power Spectral Density (Continued)

802.11g Mode

Test Date	Data	Chain	Test Eng.
09/22/06	2.462 GHz (INTEL-061107-29c03)	A	JC
	*ATTEN 20dB RL 16. 0dBm 10dB/ MKR -8. 67dBm 2. 461368GHz		
			
	CENTER 2.462000GHz *RBW 3.0kHz *VBW 10kHz	SPAN 1.500MHz *SWP 500sec	
Test Date	Data	Chain	Test Eng.
09/22/06	2.412 GHz (INTEL-061107-29c04)	B	JC
	*ATTEN 20dB RL 16. 0dBm 10dB/ MKR -8. 67dBm 2. 412010GHz		
			
	CENTER 2.412000GHz *RBW 3.0kHz *VBW 10kHz	SPAN 1.500MHz *SWP 500sec	

Peak Power Spectral Density (Continued)

802.11g Mode

Test Date	Data	Chain	Test Eng.
09/22/06	2.437 GHz (INTEL-061107-29c05)	B	JC
*ATTEN 20dB MKR -6.67dBm RL 16.0dBm 10dB/ 2.437008GHz			
			
CENTER 2.437000GHz *RBW 3.0kHz *VBW 10kHz		SPAN 1.500MHz *SWP 500sec	
Test Date	Data	Chain	Test Eng.
09/22/06	2.462 GHz (INTEL-061107-29c06)	B	JC
*ATTEN 20dB MKR -8.00dBm RL 16.0dBm 10dB/ 2.462008GHz			
			
CENTER 2.462000GHz *RBW 3.0kHz *VBW 10kHz		SPAN 1.500MHz *SWP 500sec	

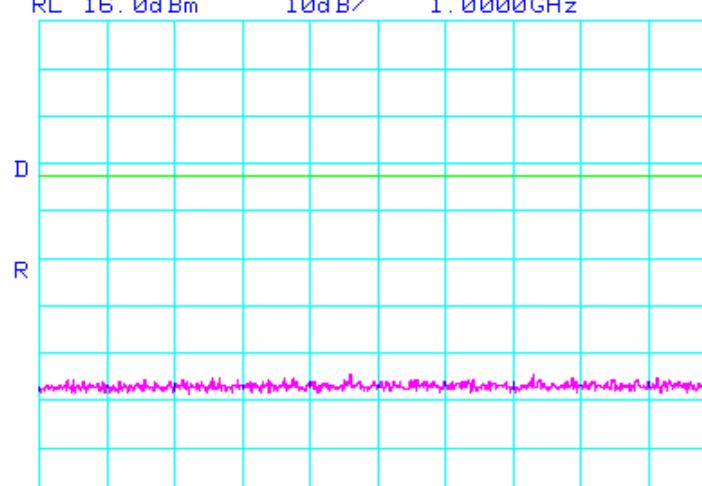
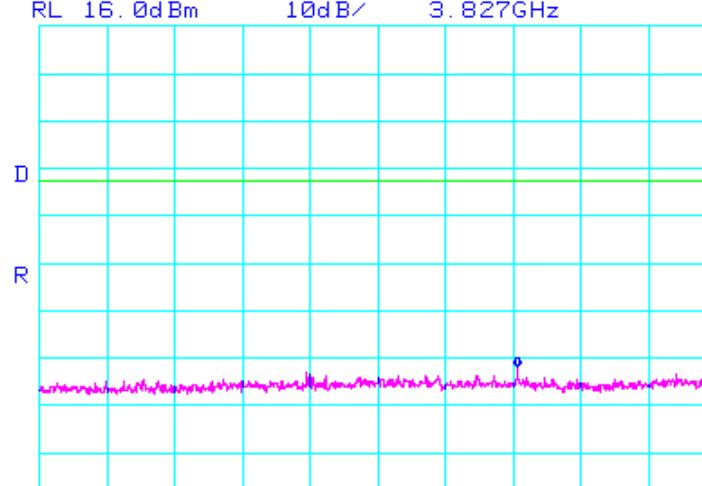
CONDUCTED OUT OF BAND EMISSIONS

CLIENT:	Intel Corporation	DATE:	09/19/06
EUT:	Intel PRO/Wireless 4965AG_Network Connection	PROJECT NUMBER:	INTEL-061107
MODEL NUMBER:	4965AG_	TEST ENGINEER:	JC
SERIAL NUMBER:	0013E804612B	SITE #:	2
CONFIGURATION:	Tested installed in the host computer's mini PCI slot.	TEMPERATURE:	21 deg. C
		HUMIDITY:	29% RH
		TIME:	9:50 AM

Description:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.
Results:	See Data Sheet
Note:	<p>Conducted Emissions Measurements were performed on the EUT with power supply set at the following voltage and frequency.</p> <ul style="list-style-type: none"> • 120VAC / 60 Hz.

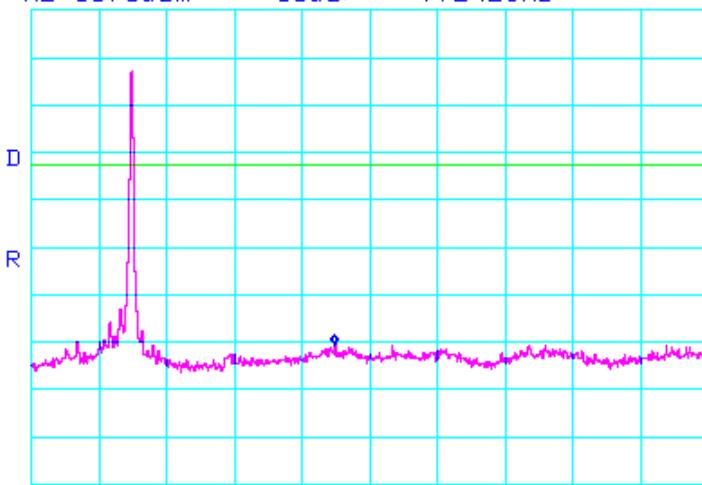
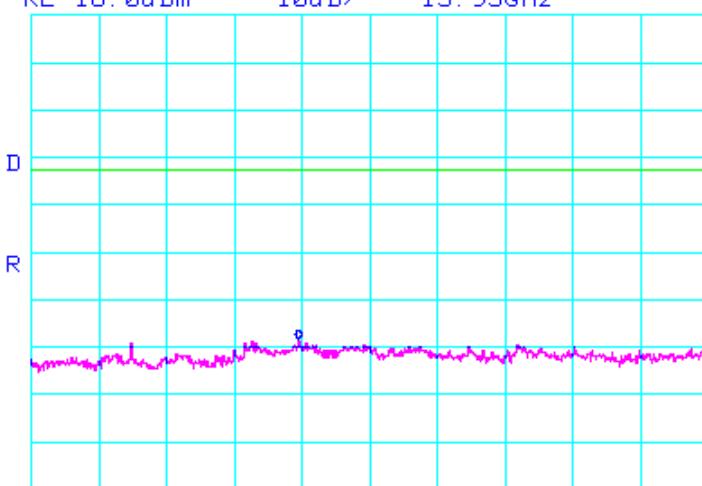
Conducted Out Of Band Emissions (Continued)

802.11a Mode

Test Date	Data	Chain	Test Eng.
09/19/06	5.745 GHz (INTEL-061107-27d01)	A	JC
			
			
Test Date	Data	Chain	Test Eng.
09/19/06	5.745 GHz (INTEL-061107-27d02)	A	JC

Conducted Out Of Band Emissions (Continued)

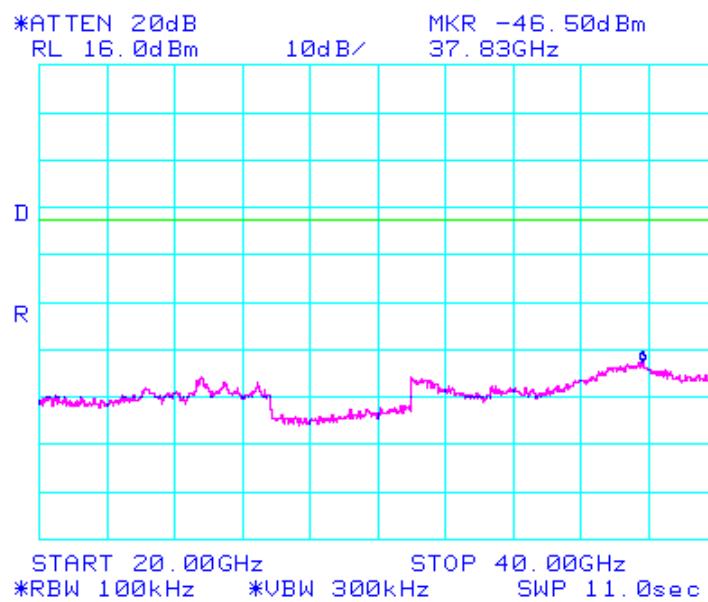
802.11a Mode

Test Date	Data	Chain	Test Eng.
09/19/06	5.745 GHz (INTEL-061107-27d03)	A	JC
	*ATTEN 20dB RL 16.0dBm MKR -54.50dBm 10dB/ 7.242GHz 		
			
	START 5.000GHz STOP 10.000GHz *RBW 100kHz *VBW 300kHz SWP 2.80sec		
Test Date	Data	Chain	Test Eng.
09/19/06	5.745 GHz (INTEL-061107-27d04)	A	JC
	*ATTEN 20dB RL 16.0dBm MKR -52.33dBm 10dB/ 13.95GHz 		
			
	START 10.00GHz STOP 20.00GHz *RBW 100kHz *VBW 300kHz SWP 5.50sec		

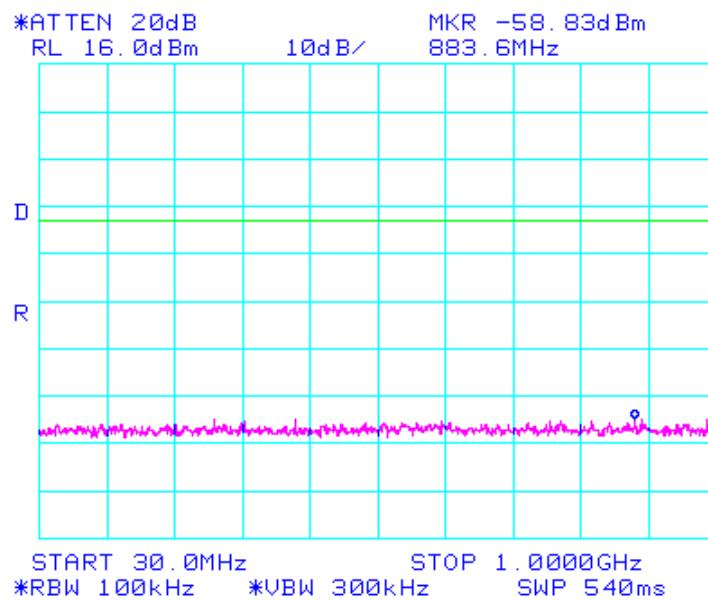
Conducted Out Of Band Emissions (Continued)

802.11a Mode

Test Date	Data	Chain	Test Eng.
09/19/06	5.745 GHz (INTEL-061107-27d05)	A	JC

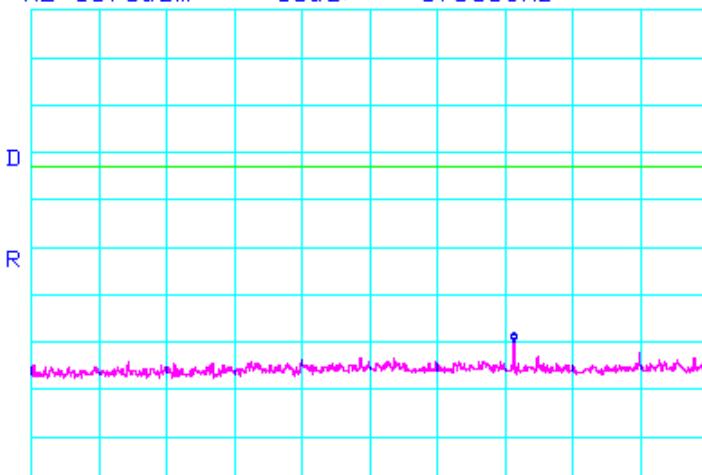
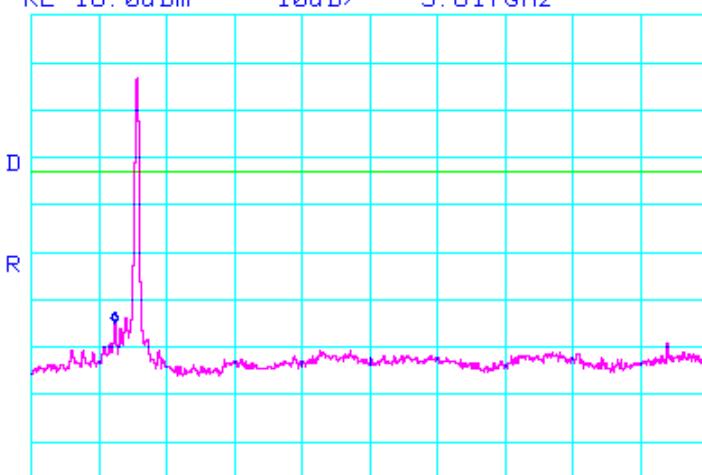


Test Date	Data	Chain	Test Eng.
09/19/06	5.785 GHz (INTEL-061107-27d06)	A	JC



Conducted Out Of Band Emissions (Continued)

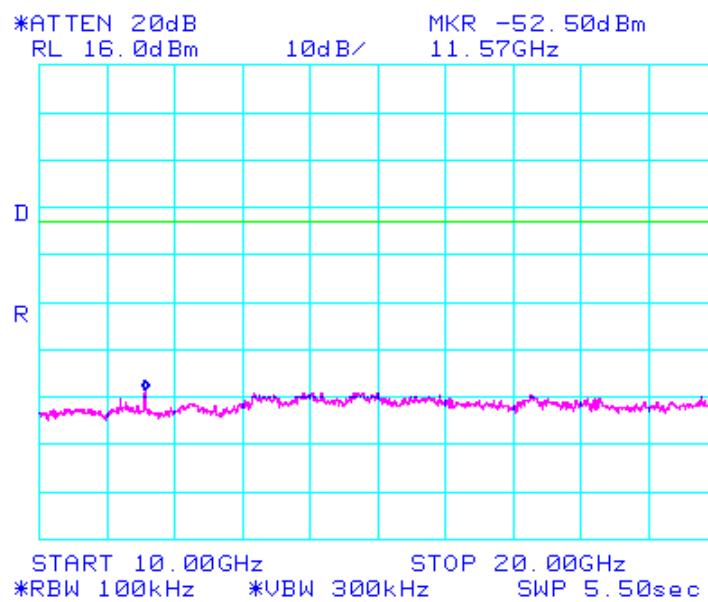
802.11a Mode

Test Date	Data	Chain	Test Eng.
09/19/06	5.785 GHz (INTEL-061107-27d07)	A	JC
	*ATTEN 20dB RL 16.0dBm MKR -53.83dBm 10dB/ 3.853GHz 		
			
	START 1.000GHz STOP 5.000GHz *RBW 100kHz *VBW 300kHz SWP 2.20sec		
Test Date	Data	Chain	Test Eng.
09/19/06	5.785 GHz (INTEL-061107-27d08)	A	JC
	*ATTEN 20dB RL 16.0dBm MKR -48.83dBm 10dB/ 5.617GHz 		
			
	START 5.000GHz STOP 10.000GHz *RBW 100kHz *VBW 300kHz SWP 2.80sec		

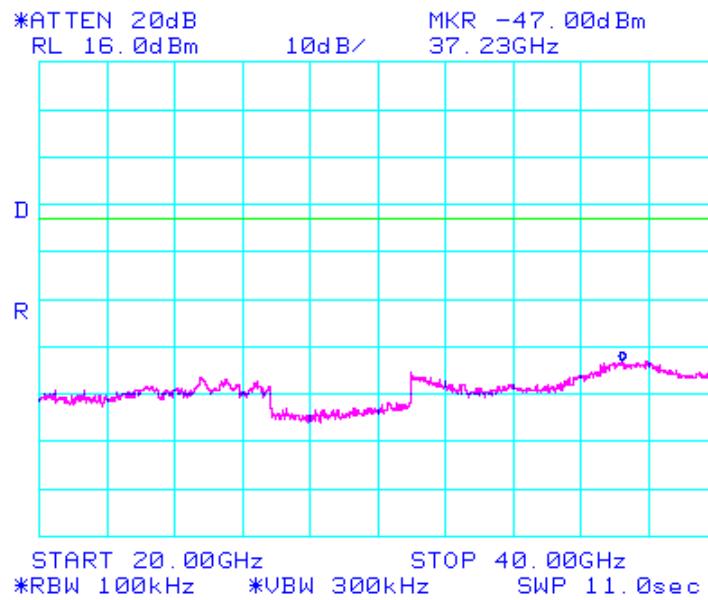
Conducted Out Of Band Emissions (Continued)

802.11a Mode

Test Date	Data	Chain	Test Eng.
09/19/06	5.785 GHz (INTEL-061107-27d09)	A	JC

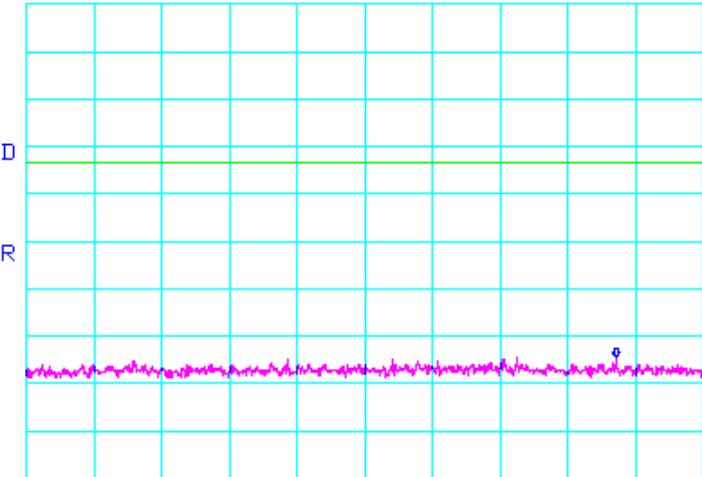
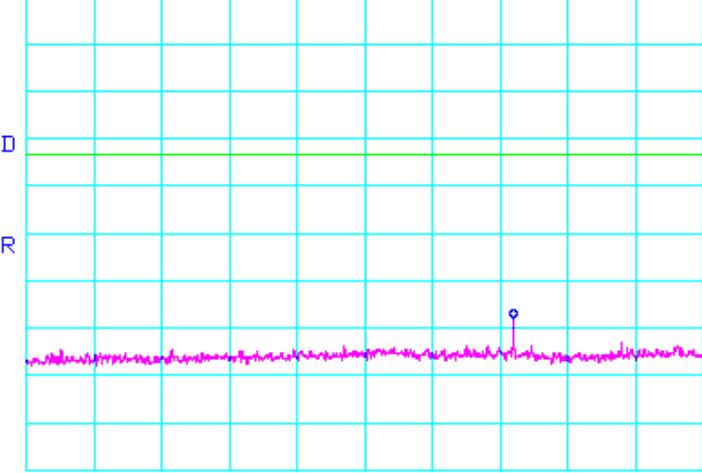


Test Date	Data	Chain	Test Eng.
09/19/06	5.785 GHz (INTEL-061107-27d10)	A	JC



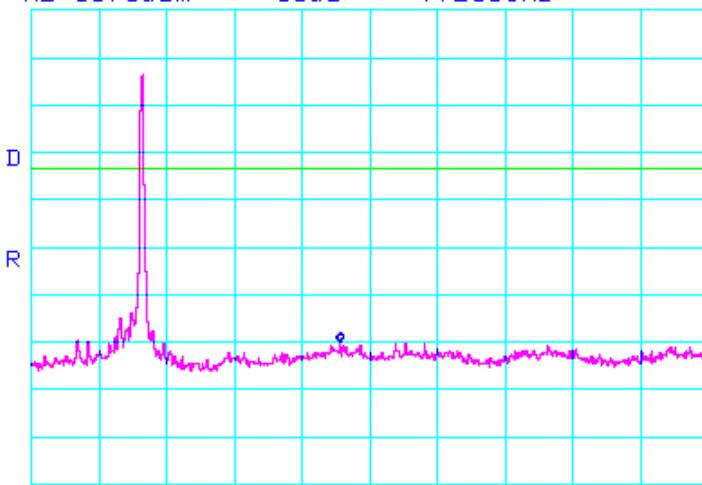
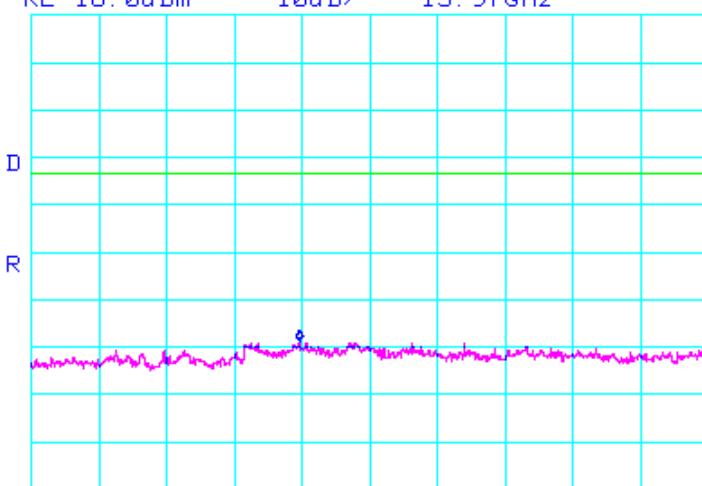
Conducted Out Of Band Emissions (Continued)

802.11a Mode

Test Date	Data	Chain	Test Eng.
09/19/06	5.825 GHz (INTEL-061107-27d11)	A	JC
	*ATTEN 20dB RL 16.00 dBm 10dB/ MKR -58.50 dBm 875.5MHz 		
	START 30.0MHz STOP 1.0000GHz *RBW 100kHz *VBW 300kHz SWP 540ms		
Test Date	Data	Chain	Test Eng.
09/19/06	5.825 GHz (INTEL-061107-27d12)	A	JC
	*ATTEN 20dB RL 16.00 dBm 10dB/ MKR -52.00 dBm 3.880GHz 		
	START 1.000GHz STOP 5.000GHz *RBW 100kHz *VBW 300kHz SWP 2.20sec		

Conducted Out Of Band Emissions (Continued)

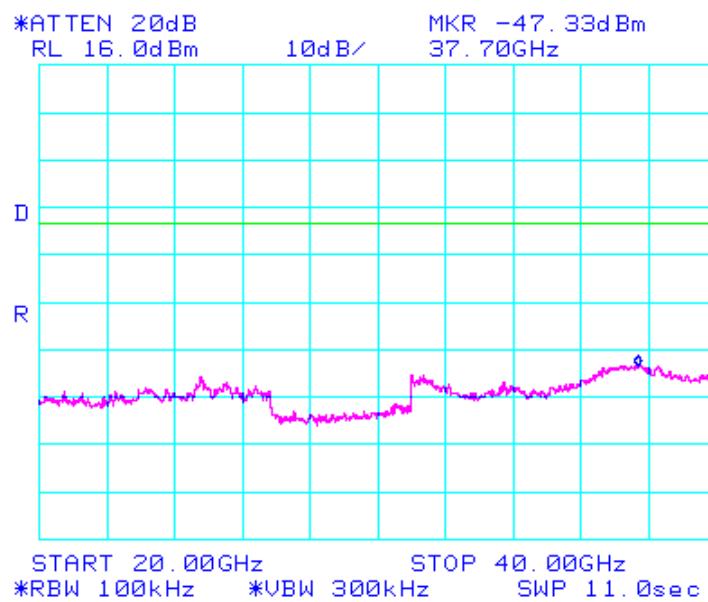
802.11a Mode

Test Date	Data	Chain	Test Eng.
09/19/06	5.825 GHz (INTEL-061107-27d13)	A	JC
	*ATTEN 20dB RL 16.00 dBm MKR -54.00 dBm 10dB/ 7.283GHz 		
			
	START 5.000GHz STOP 10.000GHz *RBW 100kHz *VBW 300kHz SWP 2.80sec		
Test Date	Data	Chain	Test Eng.
09/19/06	5.825 GHz (INTEL-061107-27d14)	A	JC
	*ATTEN 20dB RL 16.00 dBm MKR -52.67 dBm 10dB/ 13.97GHz 		
			
	START 10.00GHz STOP 20.00GHz *RBW 100kHz *VBW 300kHz SWP 5.50sec		

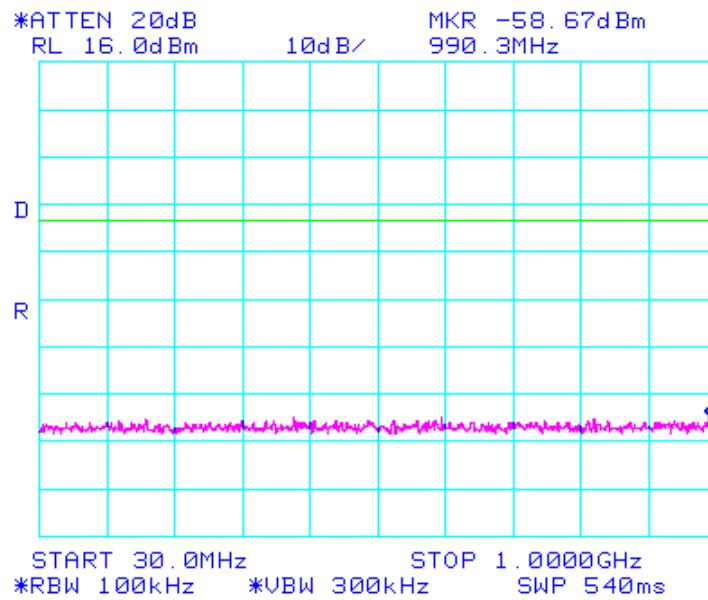
Conducted Out Of Band Emissions (Continued)

802.11a Mode

Test Date	Data	Chain	Test Eng.
09/19/06	5.825 GHz (INTEL-061107-27d15)	A	JC



<i>Test Date</i>	<i>Data</i>	<i>Chain</i>	<i>Test Eng.</i>
09/19/06	5.745 GHz (INTEL-061107-27d16)	B	JC



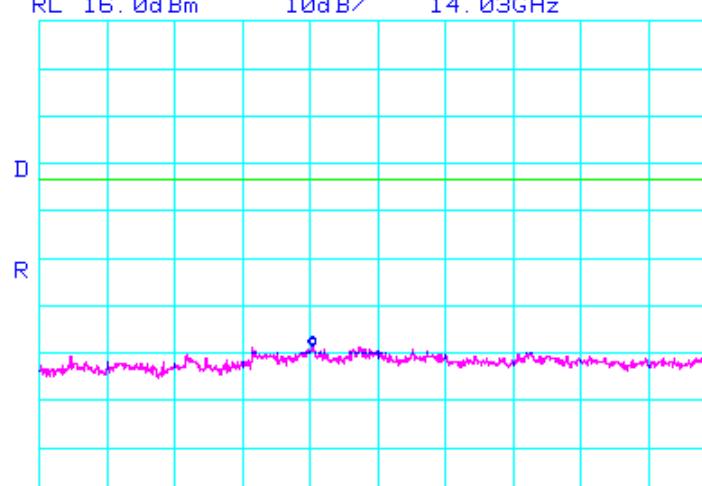
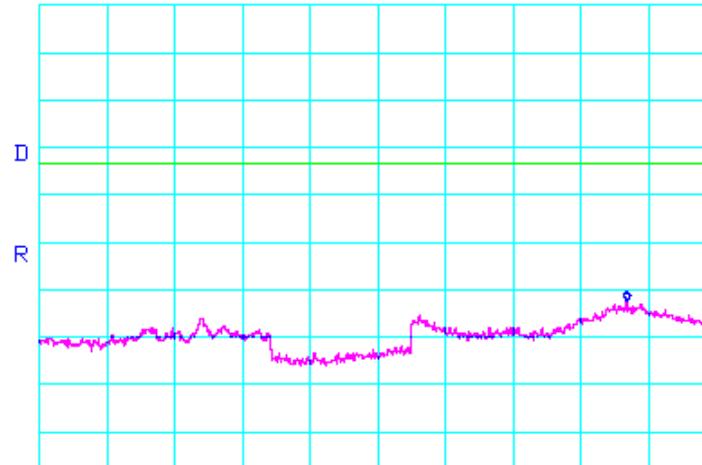
Conducted Out Of Band Emissions (Continued)

802.11a Mode

Test Date	Data	Chain	Test Eng.
09/19/06	5.745 GHz (INTEL-061107-27d17)	B	JC
*ATTEN 20dB RL 16.0dBm 10dB/ MKR -57.17dBm 3.433GHz			
START 1.000GHz STOP 5.000GHz *RBW 100kHz *VBW 300kHz SWP 2.20sec			
Test Date	Data	Chain	Test Eng.
09/19/06	5.745 GHz (INTEL-061107-27d18)	B	JC
*ATTEN 20dB RL 16.0dBm 10dB/ MKR -53.67dBm 5.583GHz			
START 5.000GHz STOP 10.000GHz *RBW 100kHz *VBW 300kHz SWP 2.80sec			

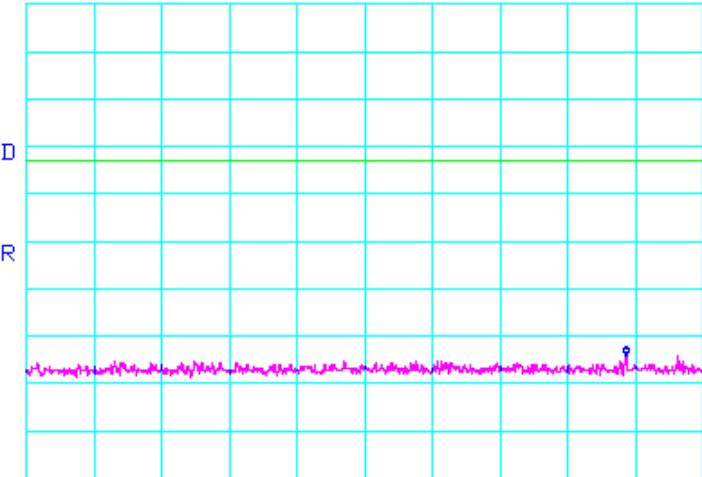
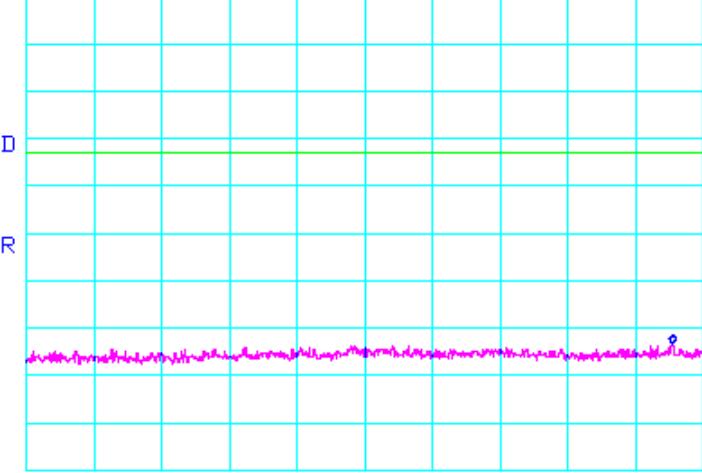
Conducted Out Of Band Emissions (Continued)

802.11a Mode

Test Date	Data	Chain	Test Eng.
09/19/06	5.745 GHz (INTEL-061107-27d19)	B	JC
 *ATTEN 20dB MKR -52. 50dBm RL 16. 0dBm 10dB/ 14. 03GHz			
 *ATTEN 20dB MKR -46. 33dBm RL 16. 0dBm 10dB/ 37. 37GHz			
Test Date	Data	Chain	Test Eng.
09/19/06	5.745 GHz (INTEL-061107-27d20)	B	JC

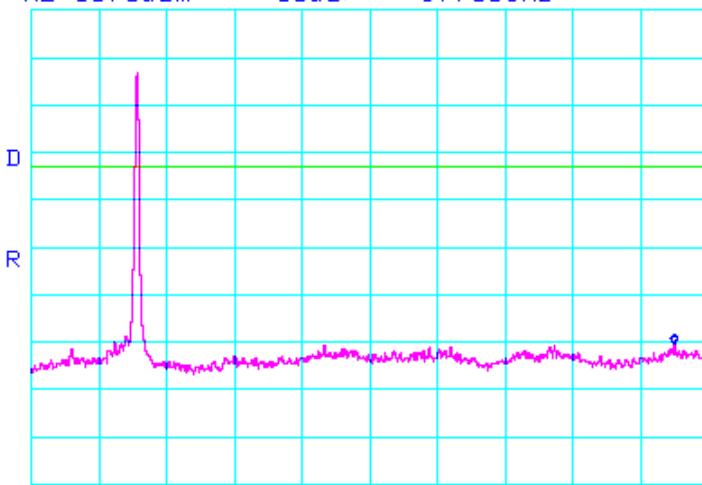
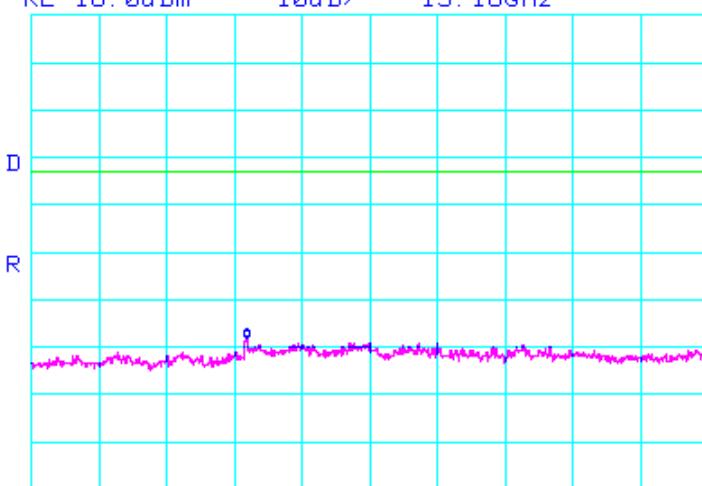
Conducted Out Of Band Emissions (Continued)

802.11a Mode

Test Date	Data	Chain	Test Eng.
09/19/06	5.785 GHz (INTEL-061107-27d21)	B	JC
	*ATTEN 20dB RL 16.0dBm 10dB/ MKR -58.17dBm  START 30.0MHz STOP 1.0000GHz *RBW 100kHz *VBW 300kHz SWP 540ms		
Test Date	Data	Chain	Test Eng.
09/19/06	5.785 GHz (INTEL-061107-27d22)	B	JC
	*ATTEN 20dB RL 16.0dBm 10dB/ MKR -57.33dBm 4.820GHz  START 1.000GHz STOP 5.000GHz *RBW 100kHz *VBW 300kHz SWP 2.20sec		

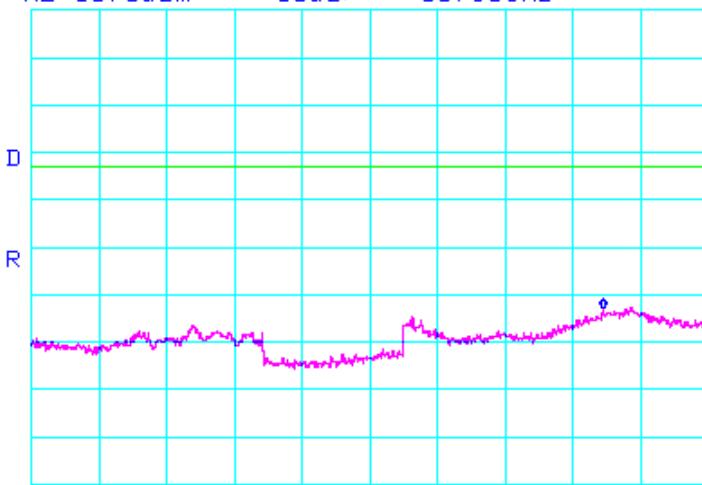
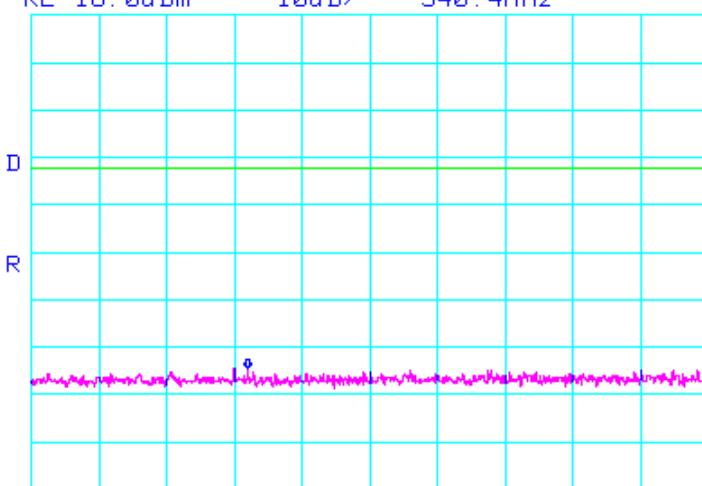
Conducted Out Of Band Emissions (Continued)

802.11a Mode

Test Date	Data	Chain	Test Eng.
09/19/06	5.785 GHz (INTEL-061107-27d23)	B	JC
	*ATTEN 20dB RL 16.0dBm 10dB/ MKR -54.33dBm 9.750GHz 		
			
	START 5.000GHz STOP 10.000GHz *RBW 100kHz *VBW 300kHz SWP 2.80sec		
Test Date	Data	Chain	Test Eng.
09/19/06	5.785 GHz (INTEL-061107-27d24)	B	JC
	*ATTEN 20dB RL 16.0dBm 10dB/ MKR -52.17dBm 13.18GHz 		
			
	START 10.00GHz STOP 20.00GHz *RBW 100kHz *VBW 300kHz SWP 5.50sec		

Conducted Out Of Band Emissions (Continued)

802.11a Mode

Test Date	Data	Chain	Test Eng.
09/19/06	5.785 GHz (INTEL-061107-27d25)	B	JC
 *ATTEN 20dB MKR -46.83dBm RL 16.0dBm 36.90GHz 10dB/  START 20.00GHz STOP 40.00GHz *RBW 100kHz *VBW 300kHz SWP 11.0sec			
Test Date	Data	Chain	Test Eng.
09/19/06	5.825 GHz (INTEL-061107-27d26)	B	JC
 *ATTEN 20dB MKR -58.50dBm RL 16.0dBm 340.4MHz 10dB/  START 30.0MHz STOP 1.0000GHz *RBW 100kHz *VBW 300kHz SWP 540ms			

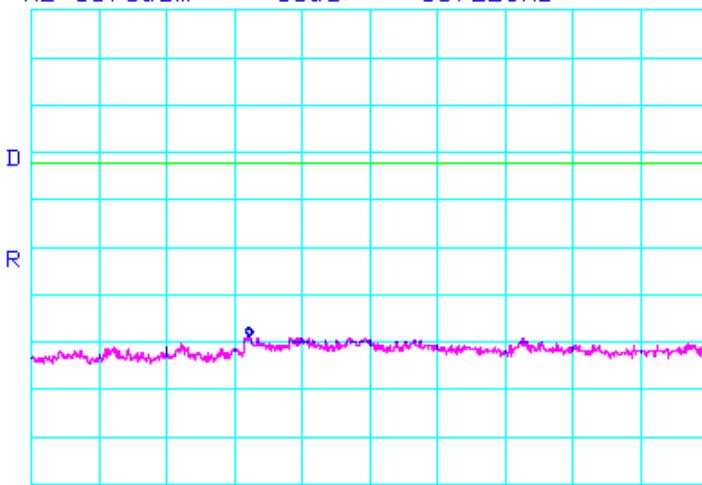
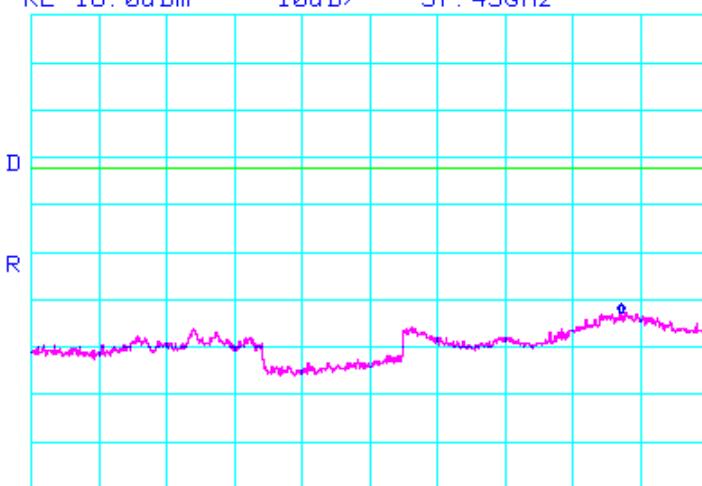
Conducted Out Of Band Emissions (Continued)

802.11a Mode

Test Date	Data	Chain	Test Eng.
09/19/06	5.825 GHz (INTEL-061107-27d27)	B	JC
Test Date	Data	Chain	Test Eng.
09/19/06	5.825 GHz (INTEL-061107-27d28)	B	JC

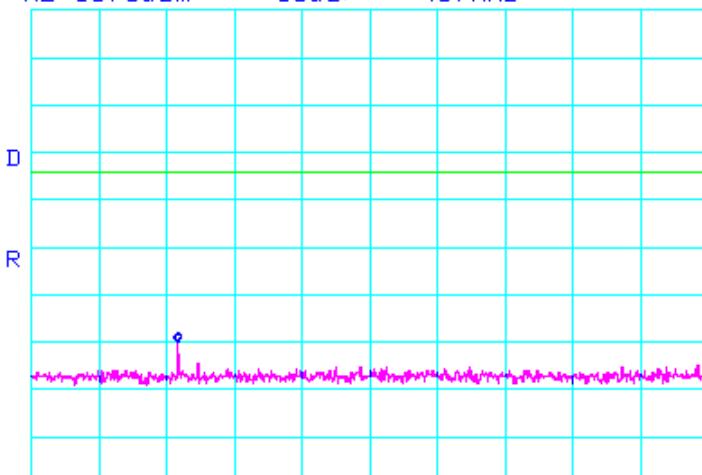
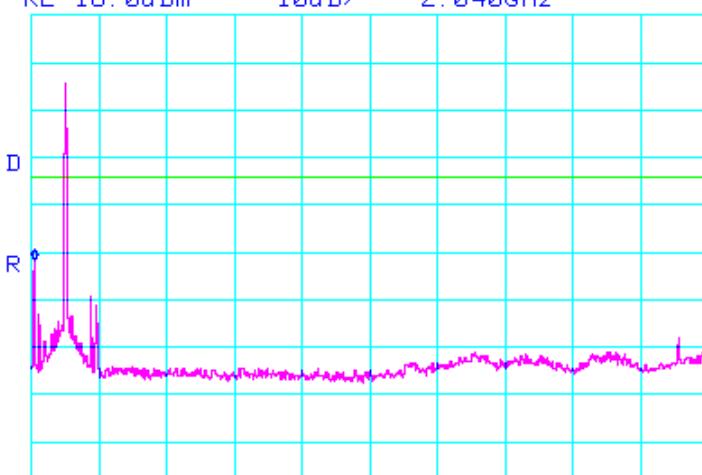
Conducted Out Of Band Emissions (Continued)

802.11a Mode

Test Date	Data	Chain	Test Eng.
09/19/06	5.825 GHz (INTEL-061107-27d29)	B	JC
	*ATTEN 20dB RL 16.0dBm MKR -52.83dBm 10dB/ 13.22GHz 		
			
	START 10.00GHz STOP 20.00GHz *RBW 100kHz *VBW 300kHz SWP 5.50sec		
Test Date	Data	Chain	Test Eng.
09/19/06	5.825 GHz (INTEL-061107-27d30)	B	JC
	*ATTEN 20dB RL 16.0dBm MKR -46.83dBm 10dB/ 37.43GHz 		
			
	START 20.00GHz STOP 40.00GHz *RBW 100kHz *VBW 300kHz SWP 11.0sec		

Conducted Out Of Band Emissions (Continued)

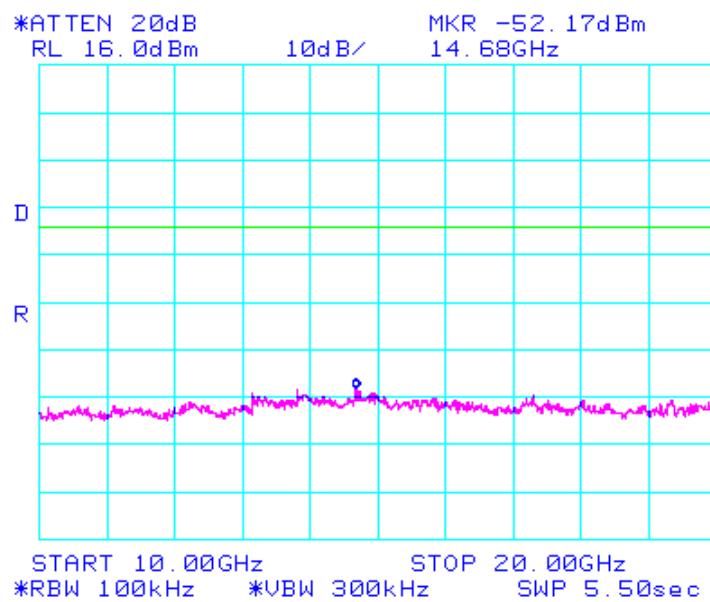
802.11b Mode

Test Date	Data	Chain	Test Eng.
09/19/06	2.412 GHz (INTEL-061107-28e01)	A	JC
	*ATTEN 20dB RL 16.00 dBm MKR -54.00 dBm 10dB/ 457MHz 		
			
	START 30MHz STOP 2.000GHz *RBW 100kHz *VBW 300kHz SWP 1.10sec		
Test Date	Data	Chain	Test Eng.
09/19/06	2.412 GHz (INTEL-061107-28e02)	A	JC
	*ATTEN 20dB RL 16.00 dBm MKR -35.50 dBm 10dB/ 2.040GHz 		
			
	START 2.000GHz STOP 10.000GHz *RBW 100kHz *VBW 300kHz SWP 4.40sec		

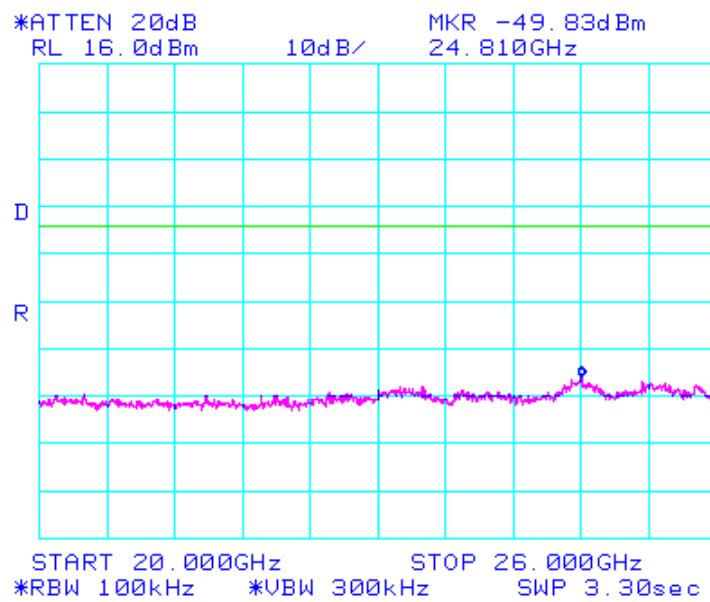
Conducted Out Of Band Emissions (Continued)

802.11b Mode

Test Date	Data	Chain	Test Eng.
09/19/06	2.412 GHz (INTEL-061107-28e03)	A	JC



Test Date	Data	Chain	Test Eng.
09/19/06	2.412 GHz (INTEL-061107-28e04)	A	JC



Conducted Out Of Band Emissions (Continued)

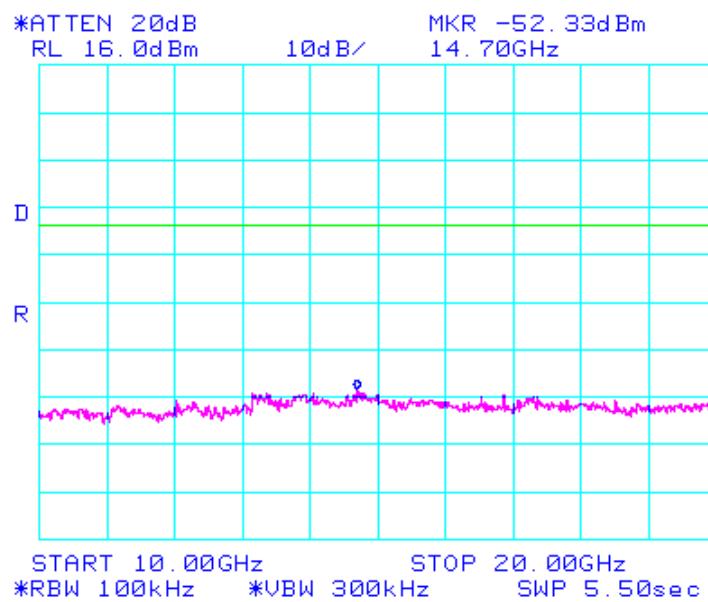
802.11b Mode

Test Date	Data	Chain	Test Eng.
09/19/06	2.437 GHz (INTEL-061107-28e05)	A	JC
	*ATTEN 20dB RL 16.0dBm 10dB/ MKR -55.17dBm START 30MHz STOP 2.000GHz *RBW 100kHz *VBW 300kHz SWP 1.10sec		
Test Date	Data	Chain	Test Eng.
09/19/06	2.437 GHz (INTEL-061107-28e06)	A	JC
	*ATTEN 20dB RL 16.0dBm 10dB/ MKR -35.67dBm START 2.000GHz STOP 10.000GHz *RBW 100kHz *VBW 300kHz SWP 4.40sec		

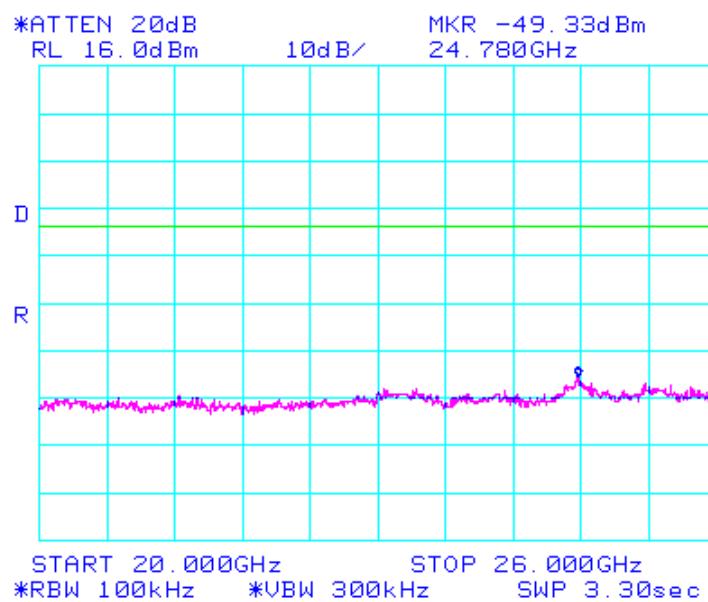
Conducted Out Of Band Emissions (Continued)

802.11b Mode

Test Date	Data	Chain	Test Eng.
09/19/06	2.437 GHz (INTEL-061107-28e07)	A	JC

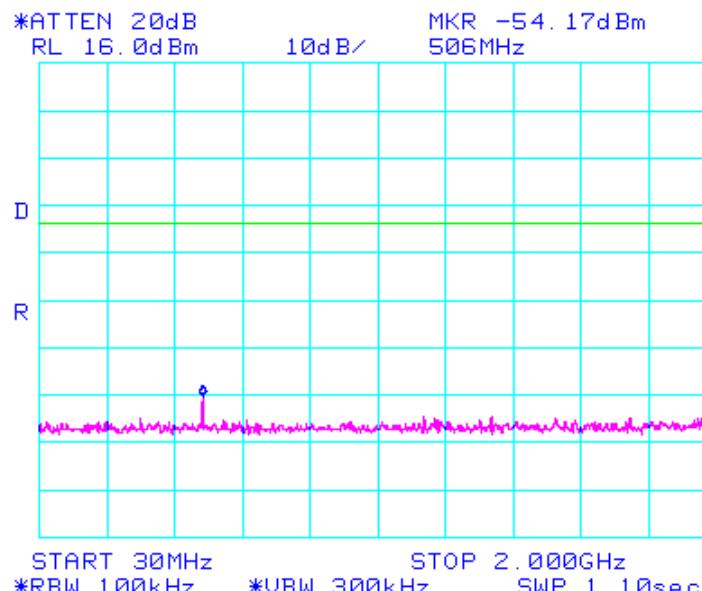


Test Date	Data	Chain	Test Eng.
09/19/06	2.437 GHz (INTEL-061107-28e08)	A	JC



Conducted Out Of Band Emissions (Continued)

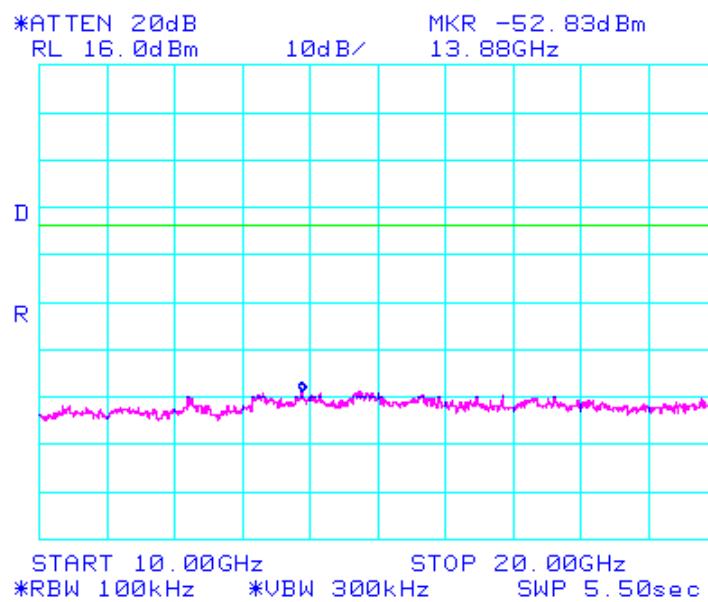
802.11b Mode

Test Date	Data	Chain	Test Eng.
09/19/06	2.462 GHz (INTEL-061107-28e09)	A	JC
			
			
Test Date	Data	Chain	Test Eng.
09/19/06	2.462 GHz (INTEL-061107-28e10)	A	JC

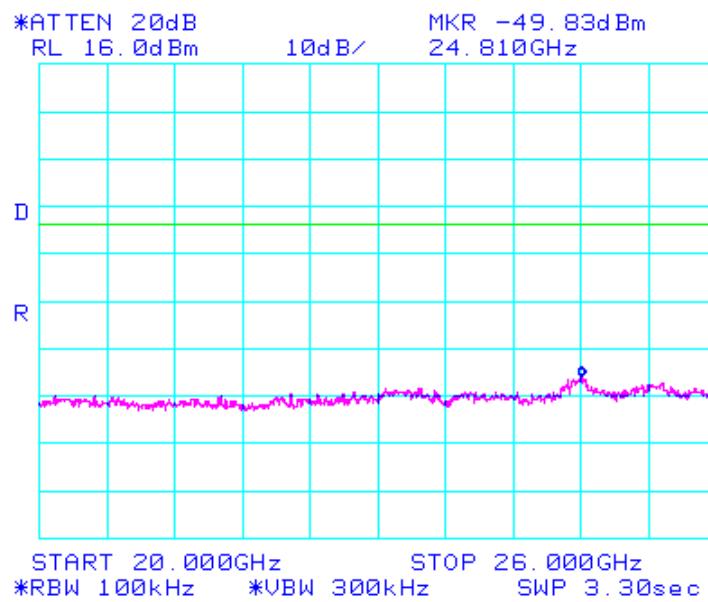
Conducted Out Of Band Emissions (Continued)

802.11b Mode

Test Date	Data	Chain	Test Eng.
09/19/06	2.462 GHz (INTEL-061107-28e11)	A	JC

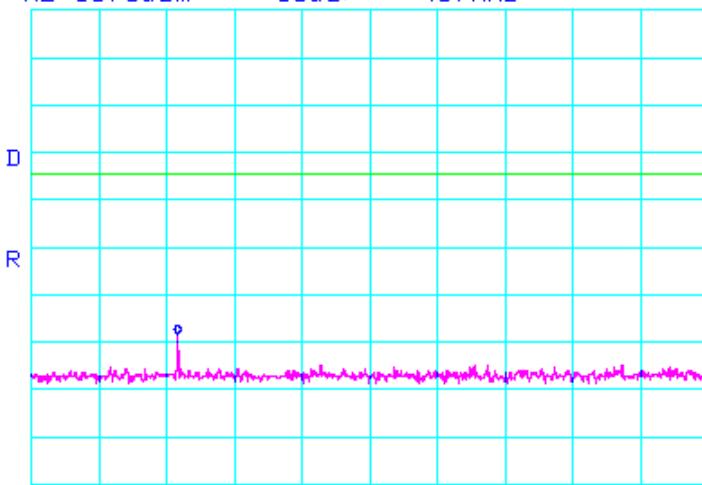
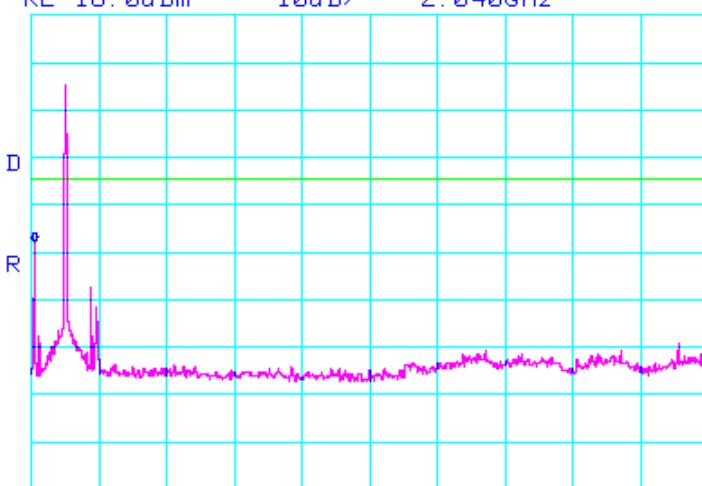


Test Date	Data	Chain	Test Eng.
09/19/06	2.462 GHz (INTEL-061107-28e12)	A	JC



Conducted Out Of Band Emissions (Continued)

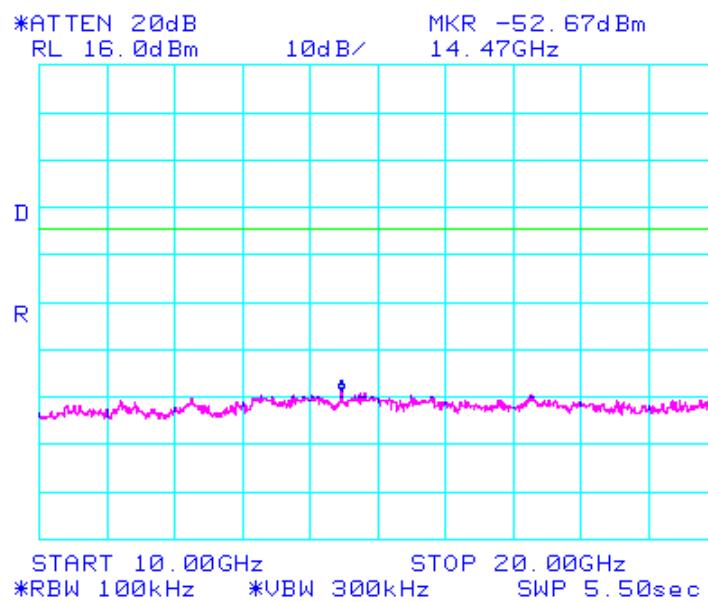
802.11b Mode

Test Date	Data	Chain	Test Eng.
09/19/06	2.412 GHz (INTEL-061107-28e13)	B	JC
 *ATTEN 20dB MKR -52.33dBm RL 16.0dBm 457MHz  START 30MHz STOP 2.000GHz *RBW 100kHz *VBW 300kHz SWP 1.10sec			
 *ATTEN 20dB MKR -31.83dBm RL 16.0dBm 2.040GHz  START 2.000GHz STOP 10.000GHz *RBW 100kHz *VBW 300kHz SWP 4.40sec			

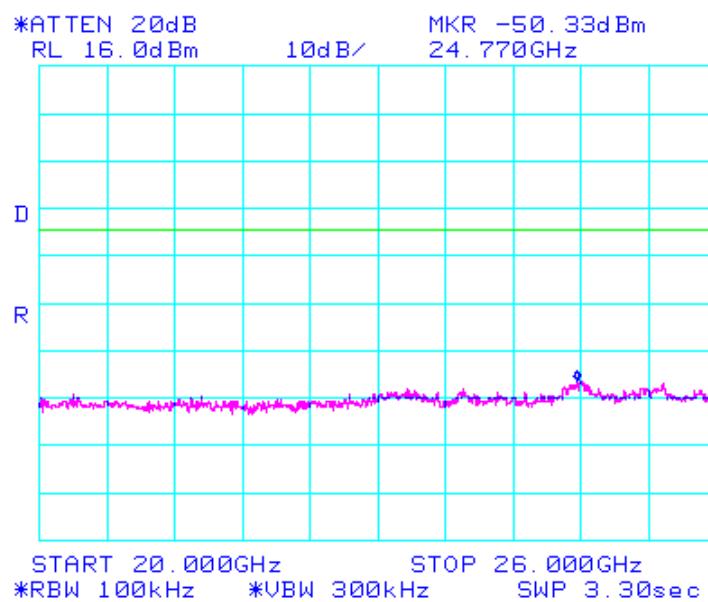
Conducted Out Of Band Emissions (Continued)

802.11b Mode

Test Date	Data	Chain	Test Eng.
09/19/06	2.412 GHz (INTEL-061107-28e15)	B	JC

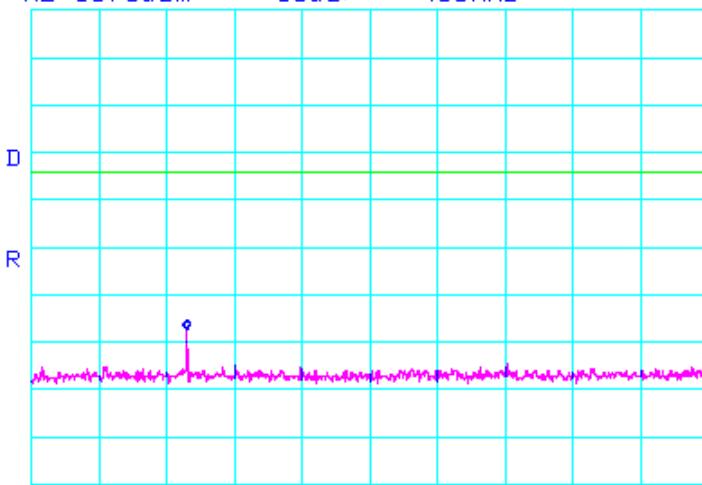
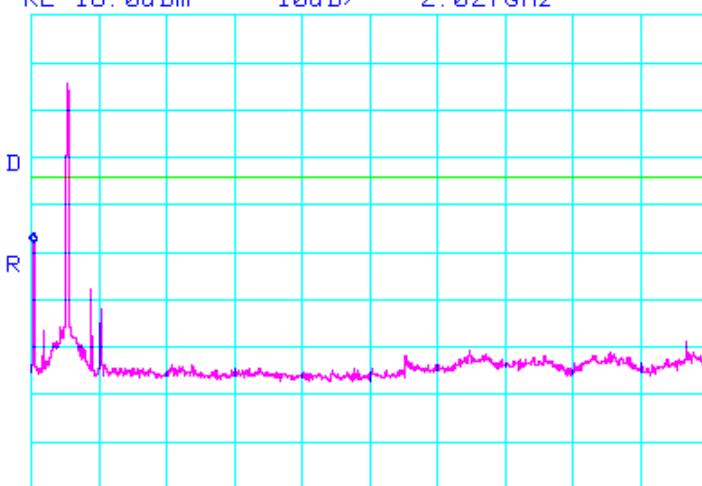


Test Date	Data	Chain	Test Eng.
09/19/06	2.412 GHz (INTEL-061107-28e16)	B	JC



Conducted Out Of Band Emissions (Continued)

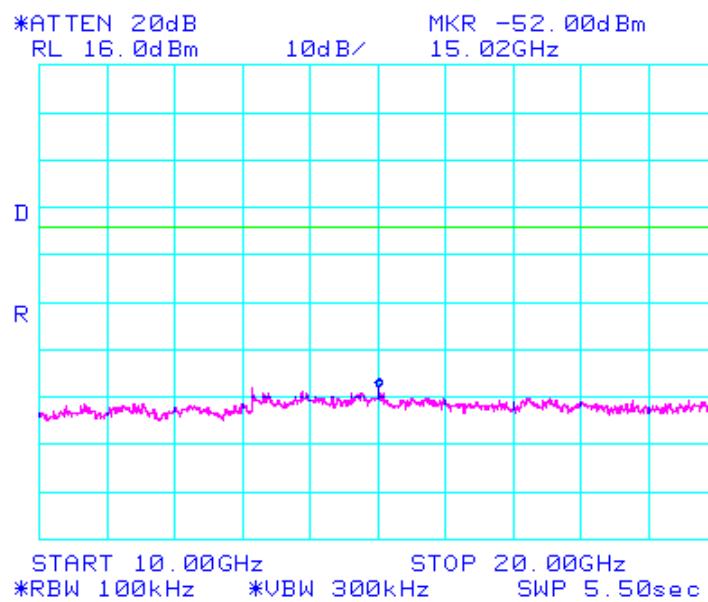
802.11b Mode

Test Date	Data	Chain	Test Eng.
09/19/06	2.437 GHz (INTEL-061107-28e17)	B	JC
	*ATTEN 20dB RL 16.00 dBm MKR -51.33dBm 10dB/ 483MHz 		
			
	START 30MHz STOP 2.000GHz *RBW 100kHz *VBW 300kHz SWP 1.10sec		
Test Date	Data	Chain	Test Eng.
09/19/06	2.437 GHz (INTEL-061107-28e18)	B	JC
	*ATTEN 20dB RL 16.00 dBm MKR -32.00dBm 10dB/ 2.027GHz 		
			
	START 2.000GHz STOP 10.000GHz *RBW 100kHz *VBW 300kHz SWP 4.40sec		

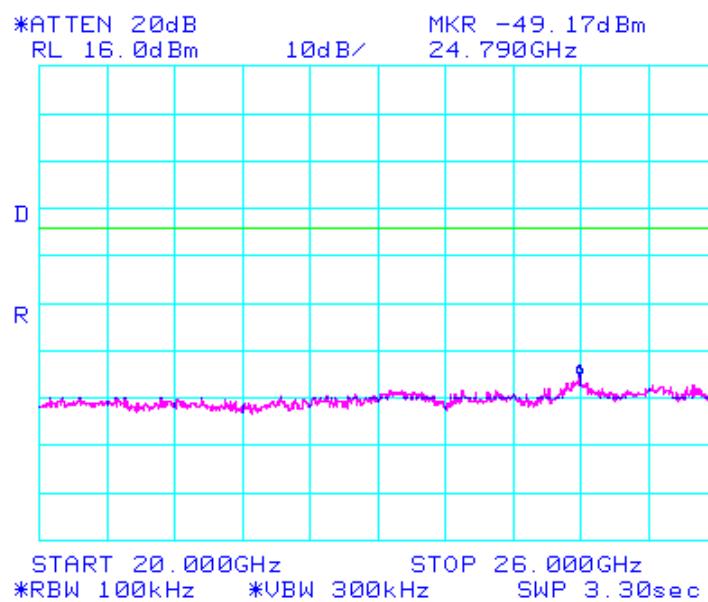
Conducted Out Of Band Emissions (Continued)

802.11b Mode

Test Date	Data	Chain	Test Eng.
09/19/06	2.437 GHz (INTEL-061107-28e19)	B	JC



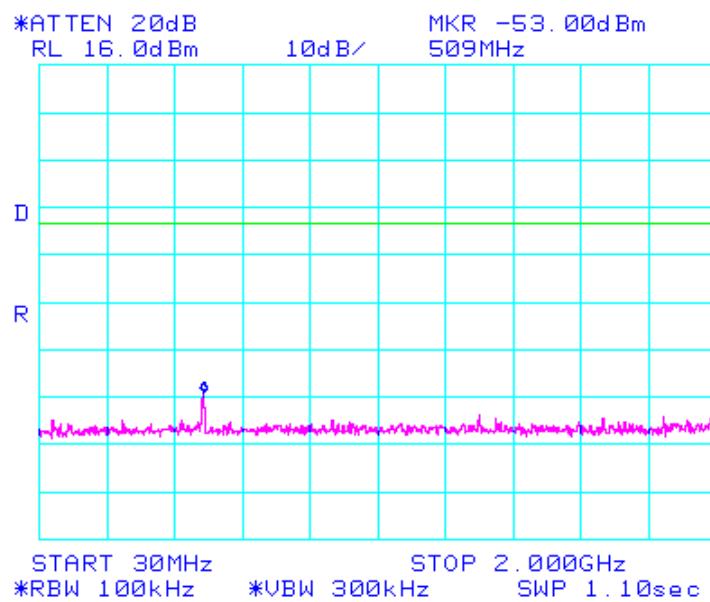
Test Date	Data	Chain	Test Eng.
09/19/06	2.437 GHz (INTEL-061107-28e20)	B	JC



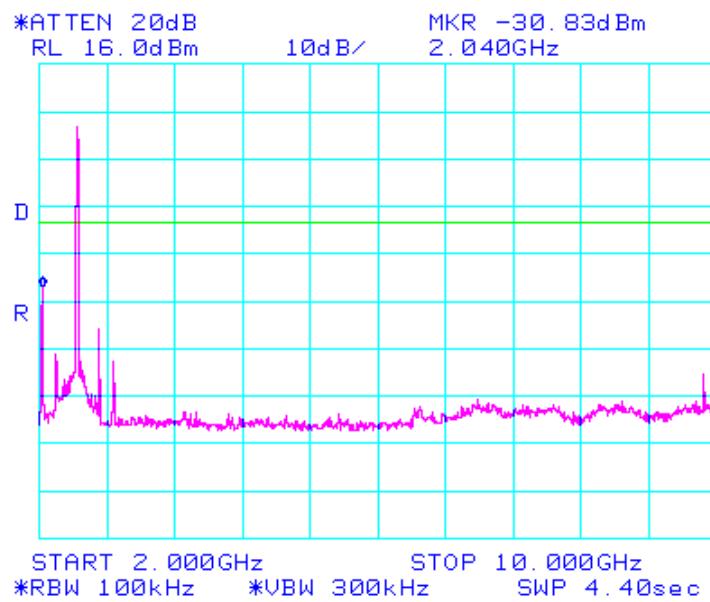
Conducted Out Of Band Emissions (Continued)

802.11b Mode

Test Date	Data	Chain	Test Eng.
09/19/06	2.462 GHz (INTEL-061107-28e21)	B	JC



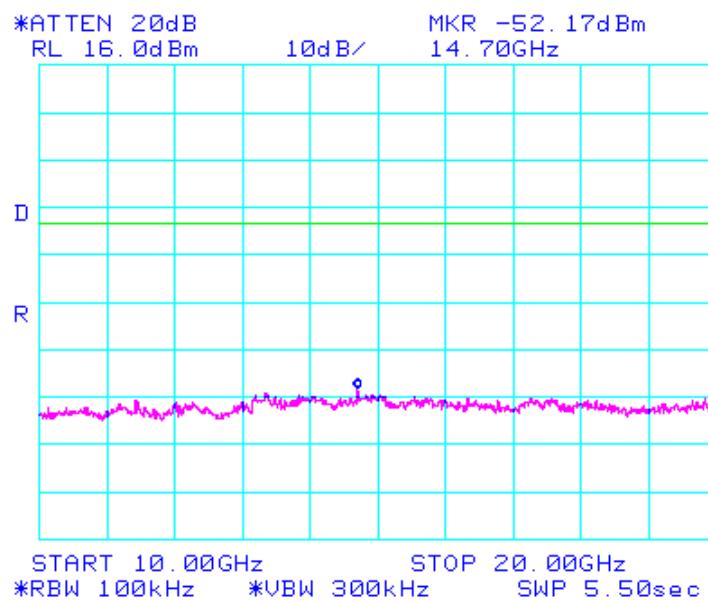
Test Date	Data	Chain	Test Eng.
09/19/06	2.462 GHz (INTEL-061107-28e22)	B	JC



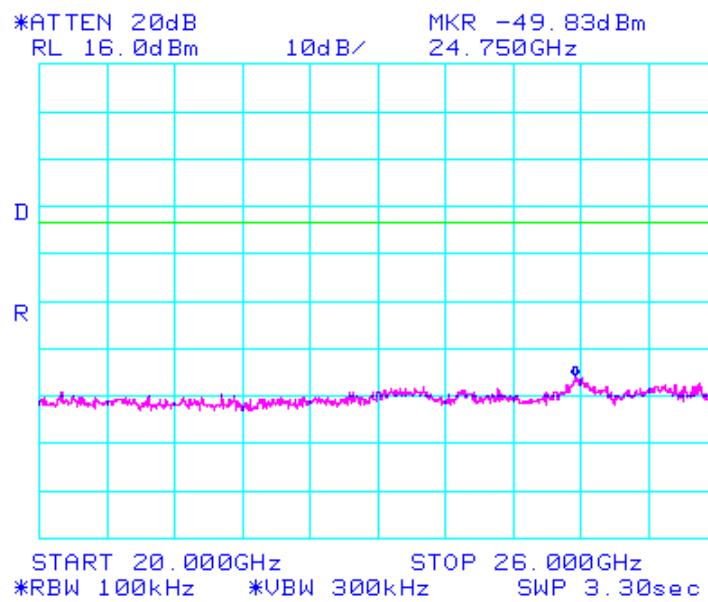
Conducted Out Of Band Emissions (Continued)

802.11b Mode

Test Date	Data	Chain	Test Eng.
09/19/06	2.462 GHz (INTEL-061107-28e23)	B	JC



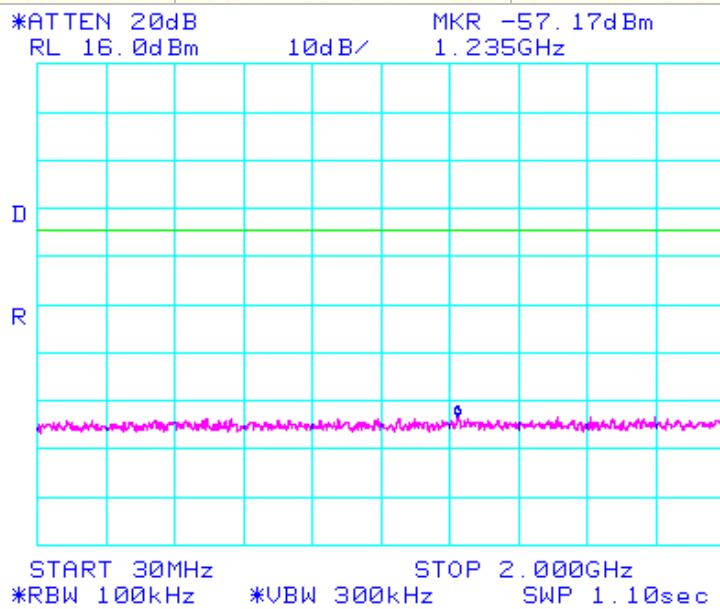
Test Date	Data	Chain	Test Eng.
09/19/06	2.462 GHz (INTEL-061107-28e24)	B	JC



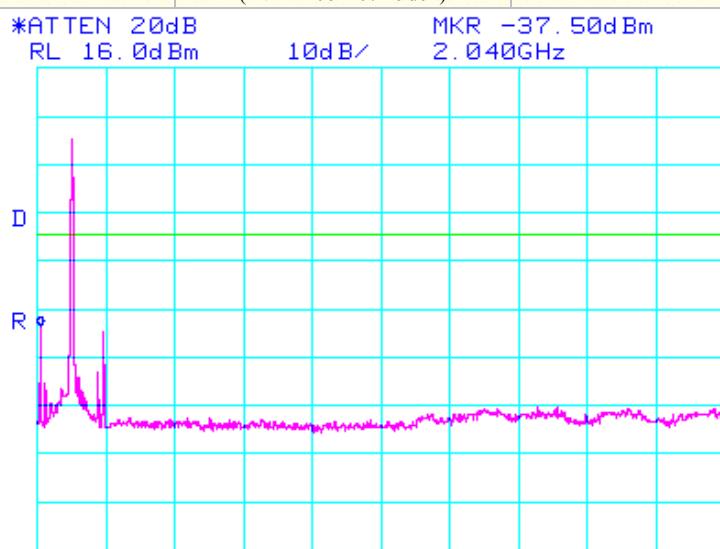
Conducted Out Of Band Emissions (Continued)

802.11g Mode

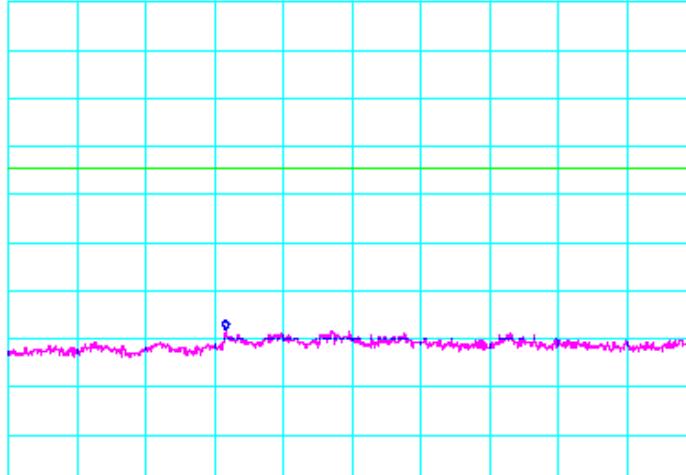
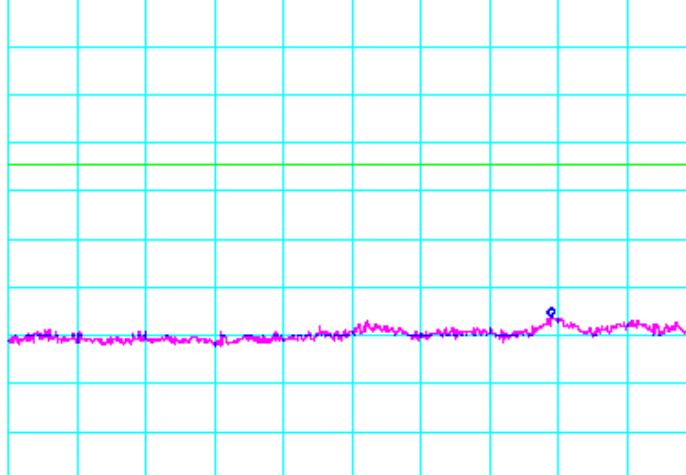
Test Date	Data	Chain	Test Eng.
09/22/06	2.412 GHz (INTEL-061107-29d01)	A	JC



Test Date	Data	Chain	Test Eng.
09/22/06	2.412 GHz (INTEL-061107-29d02)	A	JC

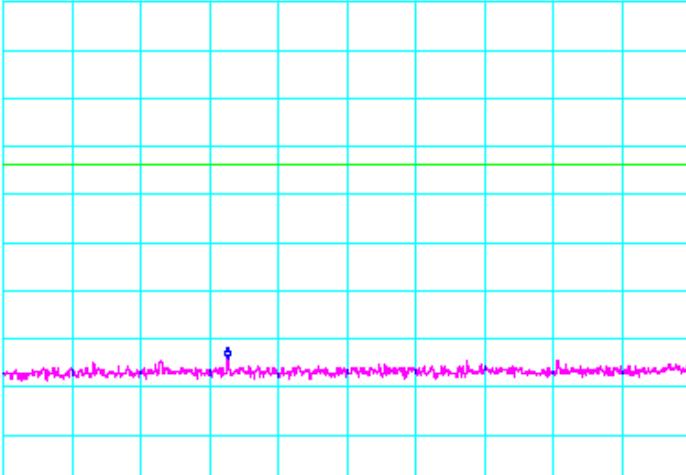
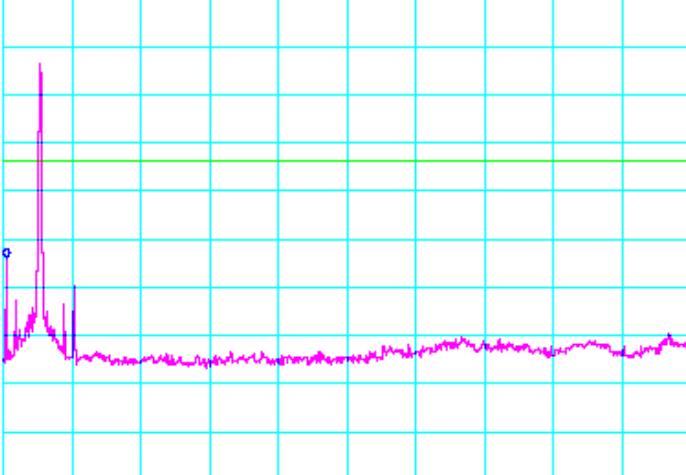


Conducted Out Of Band Emissions (Continued)

802.11g Mode			
Test Date	Data	Chain	Test Eng.
09/22/06	2.412 GHz (INTEL-061107-29d03)	A	JC
	*ATTEN 20dB RL 16. 0dBm 10dB/	MKR -52. 00dBm 13. 17GHz	
			
	START 10. 00GHz *RBW 100kHz	STOP 20. 00GHz *VBW 300kHz	
		SWP 5. 50sec	
Test Date	Data	Chain	Test Eng.
09/22/06	2.412 GHz (INTEL-061107-29d04)	A	JC
	*ATTEN 20dB RL 16. 0dBm 10dB/	MKR -50. 17dBm 24. 740GHz	
			
	START 20. 000GHz *RBW 100kHz	STOP 26. 000GHz *VBW 300kHz	
		SWP 3. 30sec	

Conducted Out Of Band Emissions (Continued)

802.11g Mode

Test Date	Data	Chain	Test Eng.
09/22/06	2.437 GHz (INTEL-061107-29d05)	A	JC
*ATTEN 20dB RL 16. 0dBm 10dB/ MKR -58. 00dBm 674MHz			
			
D R START 30MHz *RBW 100kHz *VBW 300kHz STOP 2.000GHz SWP 1.10sec			
Test Date	Data	Chain	Test Eng.
09/22/06	2.437 GHz (INTEL-061107-29d06)	A	JC
*ATTEN 20dB RL 16. 0dBm 10dB/ MKR -37. 83dBm 2.040GHz			
			
D R START 2.000GHz *RBW 100kHz *VBW 300kHz STOP 10.000GHz SWP 4.40sec			

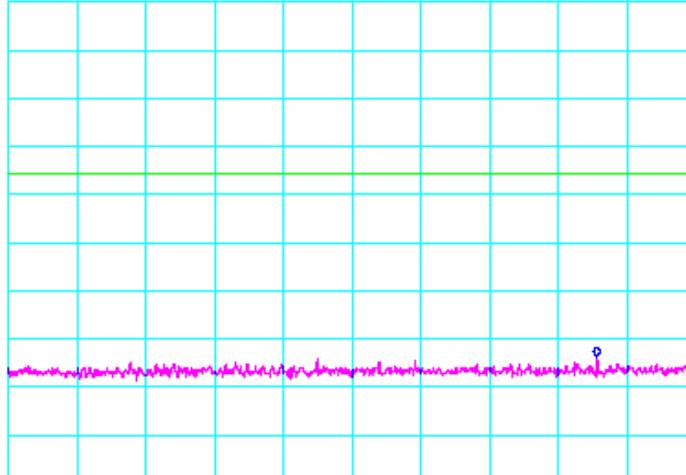
Conducted Out Of Band Emissions (Continued)

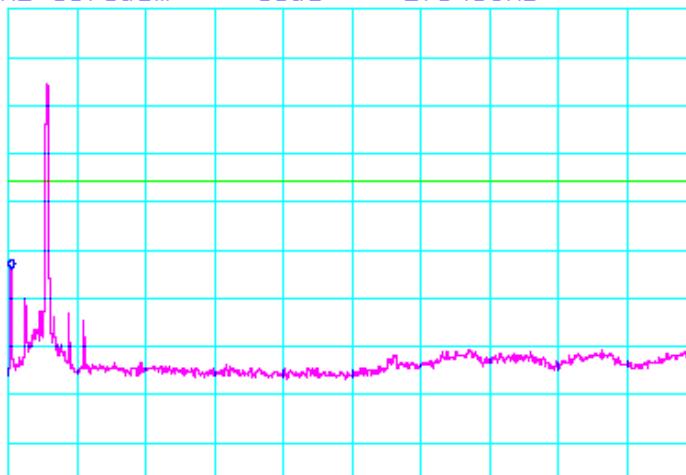
802.11g Mode

Test Date	Data	Chain	Test Eng.
09/22/06	2.437 GHz (INTEL-061107-29d07)	A	JC
*ATTEN 20dB MKR -52. 00dBm RL 16. 0dBm 10dB/ 14. 95GHz			
START 10. 00GHz STOP 20. 00GHz *RBW 100kHz *VBW 300kHz SWP 5. 50sec			
Test Date	Data	Chain	Test Eng.
09/22/06	2.437 GHz (INTEL-061107-29d08)	A	JC
*ATTEN 20dB MKR -49. 50dBm RL 16. 0dBm 10dB/ 24. 800GHz			
START 20. 000GHz STOP 26. 000GHz *RBW 100kHz *VBW 300kHz SWP 3. 30sec			

Conducted Out Of Band Emissions (Continued)

802.11g Mode

Test Date	Data	Chain	Test Eng.
09/22/06	2.462 GHz (INTEL-061107-29d09)	A	JC
	*ATTEN 20dB RL 16.0dBm 10dB/ MKR -57.67dBm 1.718GHz  <p>START 30MHz STOP 2.000GHz *RBW 100kHz *VBW 300kHz SWP 1.10sec</p>		

Test Date	Data	Chain	Test Eng.
09/22/06	2.462 GHz (INTEL-061107-29d10)	A	JC
	*ATTEN 20dB RL 16.0dBm 10dB/ MKR -37.83dBm 2.040GHz  <p>START 2.000GHz STOP 10.000GHz *RBW 100kHz *VBW 300kHz SWP 4.40sec</p>		

Conducted Out Of Band Emissions (Continued)

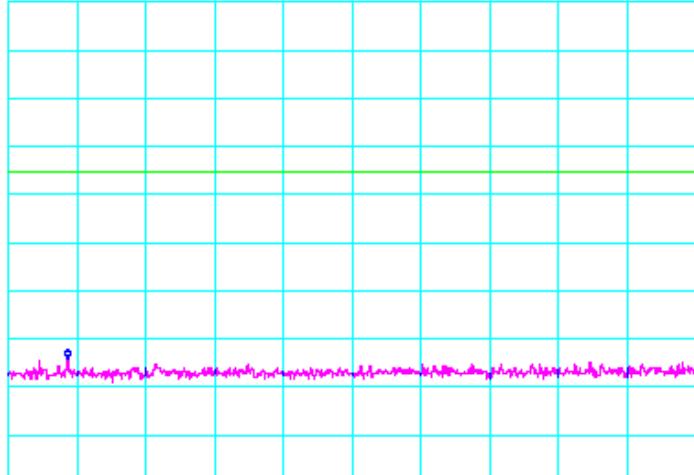
802.11g Mode

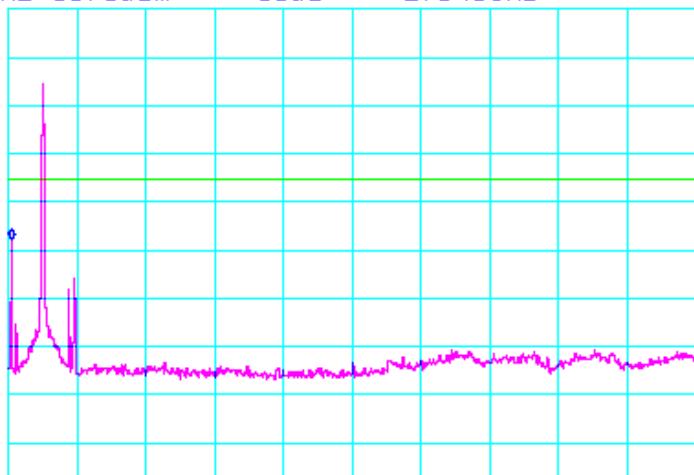
Test Date	Data	Chain	Test Eng.
09/22/06	2.462 GHz (INTEL-061107-29d11)	A	JC
	*ATTEN 20dB RL 16. 0d Bm 10dB/ MKR -52. 33d Bm 13. 18GHz		

Test Date	Data	Chain	Test Eng.
09/22/06	2.462 GHz (INTEL-061107-29d12)	A	JC
	*ATTEN 20dB RL 16. 0d Bm 10dB/ MKR -49. 83d Bm 24. 740GHz		

Conducted Out Of Band Emissions (Continued)

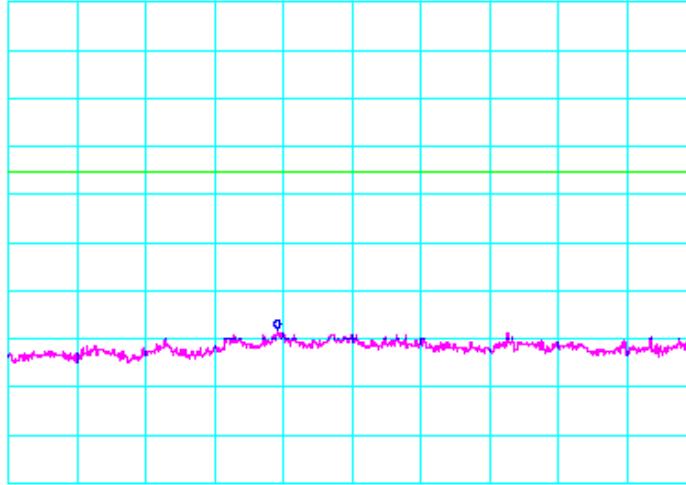
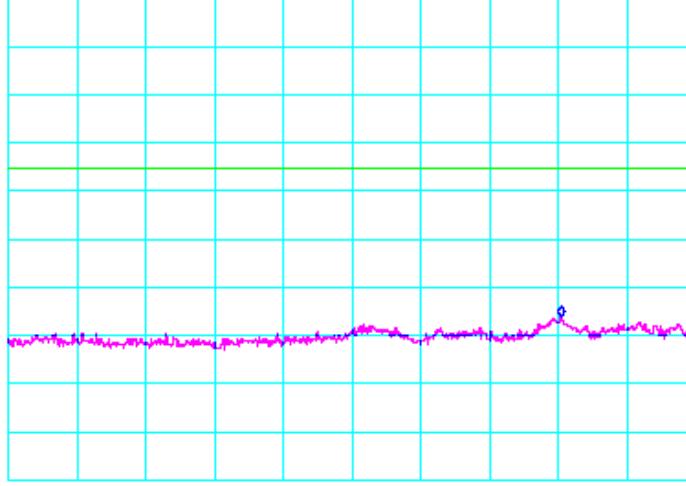
802.11g Mode

Test Date	Data	Chain	Test Eng.
09/22/06	2.412 GHz (INTEL-061107-29d13)	B	JC
	*ATTEN 20dB RL 16. 0d Bm 10dB/ MKR -58. 17d Bm 201 MHz  <p>START 30MHz STOP 2.000GHz *RBW 100kHz *VBW 300kHz SWP 1.10sec</p>		

Test Date	Data	Chain	Test Eng.
09/22/06	2.412 GHz (INTEL-061107-29d14)	B	JC
	*ATTEN 20dB RL 16. 0d Bm 10dB/ MKR -31. 67d Bm 2.040GHz  <p>START 2.000GHz STOP 10.000GHz *RBW 100kHz *VBW 300kHz SWP 4.40sec</p>		

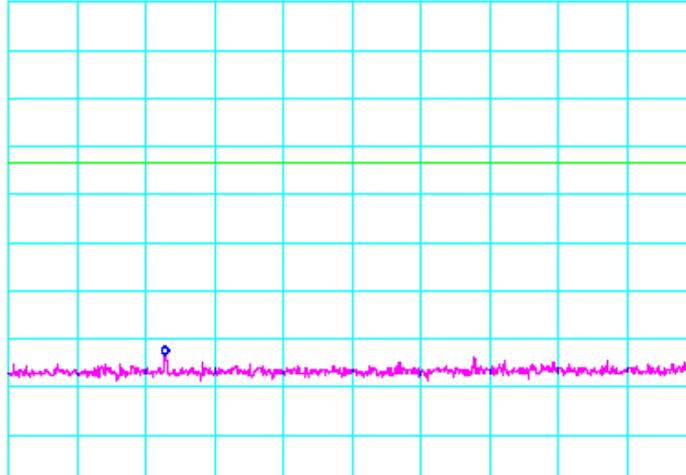
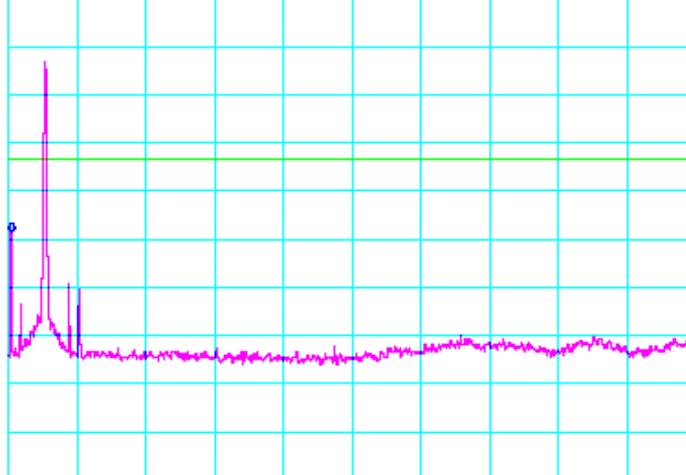
Conducted Out Of Band Emissions (Continued)

802.11g Mode

Test Date	Data	Chain	Test Eng.
09/22/06	2.412 GHz (INTEL-061107-29d15)	B	JC
	*ATTEN 20dB RL 16. 0d Bm 10dB/	MKR -52. 00d Bm 13. 92GHz	
			
	START 10. 00GHz *RBW 100kHz	STOP 20. 00GHz *VBW 300kHz	
		SWP 5. 50sec	
Test Date	Data	Chain	Test Eng.
09/22/06	2.412 GHz (INTEL-061107-29d16)	B	JC
	*ATTEN 20dB RL 16. 0d Bm 10dB/	MKR -50. 00d Bm 24. 830GHz	
			
	START 20. 000GHz *RBW 100kHz	STOP 26. 000GHz *VBW 300kHz	
		SWP 3. 30sec	

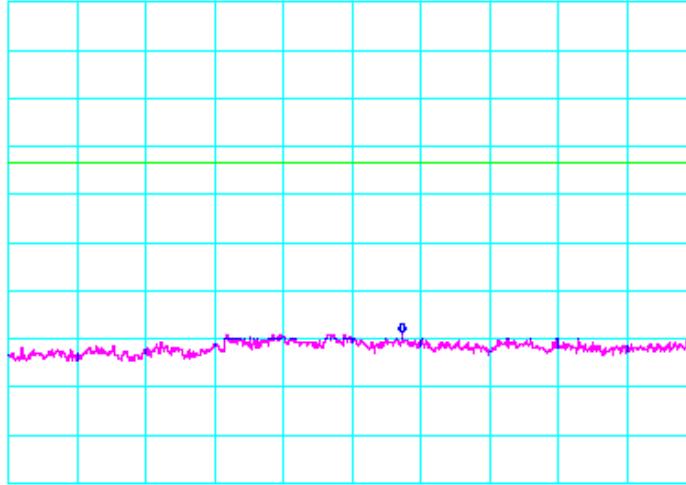
Conducted Out Of Band Emissions (Continued)

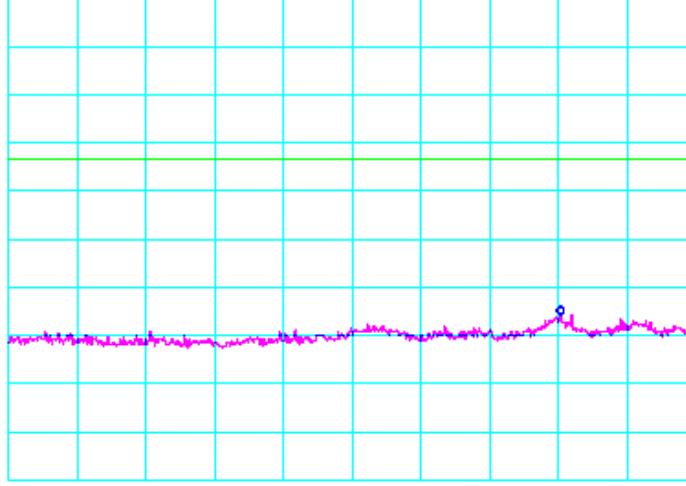
802.11g Mode

Test Date	Data	Chain	Test Eng.	
09/22/06	2.437 GHz (INTEL-061107-29d17)	B	JC	
	*ATTEN 20dB RL 16. 0dBm 10dB/	MKR -57. 50dBm 480MHz		
				
	START 30MHz *RBW 100kHz	STOP 2.000GHz *VBW 300kHz	SWP 1.10sec	
Test Date	Data	Chain	Test Eng.	
09/22/06	2.437 GHz (INTEL-061107-29d18)	B	JC	
	*ATTEN 20dB RL 16. 0dBm 10dB/	MKR -32. 67dBm 2.040GHz		
				
	START 2.000GHz *RBW 100kHz	STOP 10.000GHz *VBW 300kHz	SWP 4.40sec	

Conducted Out Of Band Emissions (Continued)

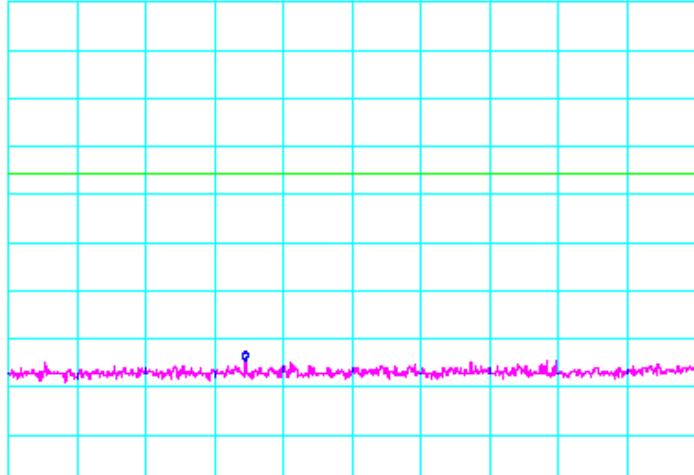
802.11g Mode

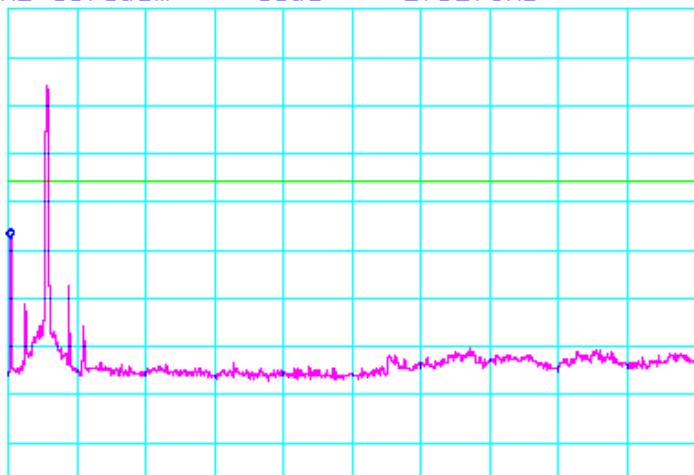
Test Date	Data	Chain	Test Eng.
09/22/06	2.437 GHz (INTEL-061107-29d19)	B	JC
	*ATTEN 20dB RL 16.0dBm 10dB/  MKR -52.83dBm 15.73GHz		

Test Date	Data	Chain	Test Eng.
09/22/06	2.437 GHz (INTEL-061107-29d20)	B	JC
	*ATTEN 20dB RL 16.0dBm 10dB/  MKR -49.83dBm 24.820GHz		

Conducted Out Of Band Emissions (Continued)

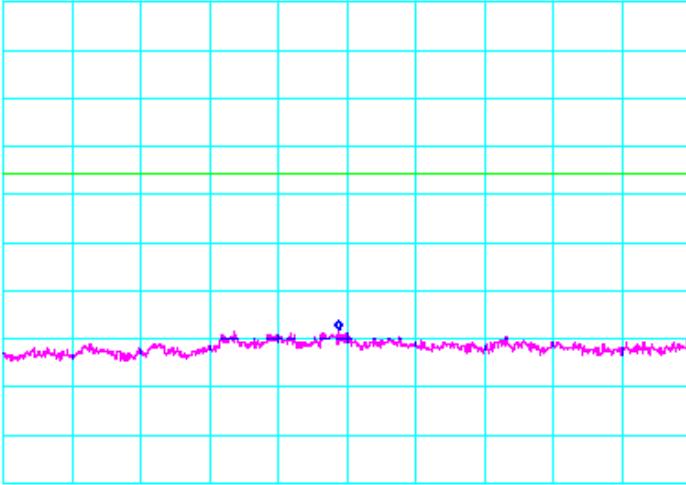
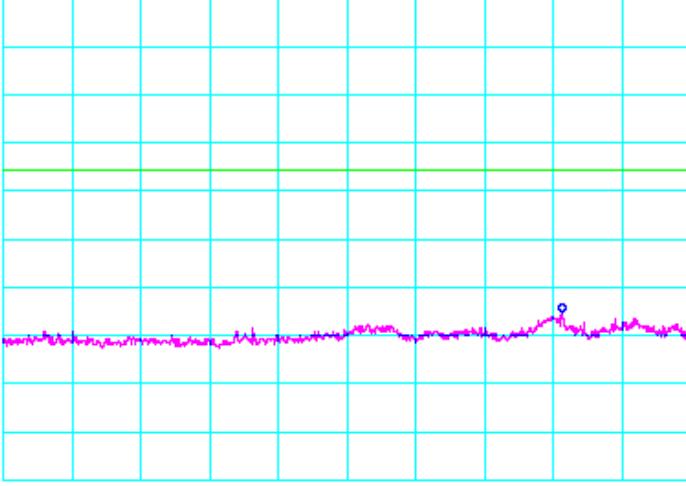
802.11g Mode

Test Date	Data	Chain	Test Eng.
09/22/06	2.462 GHz (INTEL-061107-29d21)	B	JC
	*ATTEN 20dB RL 16. 0d Bm 10dB/ MKR -58. 50d Bm 710MHz  <p>START 30MHz STOP 2.000GHz *RBW 100kHz *VBW 300kHz SWP 1.10sec</p>		

Test Date	Data	Chain	Test Eng.
09/22/06	2.462 GHz (INTEL-061107-29d22)	B	JC
	*ATTEN 20dB RL 16. 0d Bm 10dB/ MKR -31. 50d Bm 2.027GHz  <p>START 2.000GHz STOP 10.000GHz *RBW 100kHz *VBW 300kHz SWP 4.40sec</p>		

Conducted Out Of Band Emissions (Continued)

802.11g Mode

Test Date	Data	Chain	Test Eng.
09/22/06	2.462 GHz (INTEL-061107-29d23)	B	JC
	*ATTEN 20dB RL 16. 0d Bm 10dB/	MKR -52. 17d Bm 14. 88GHz	
			
	START 10. 00GHz *RBW 100kHz	STOP 20. 00GHz *VBW 300kHz	
		SWP 5. 50sec	
Test Date	Data	Chain	Test Eng.
09/22/06	2.462 GHz (INTEL-061107-29d24)	B	JC
	*ATTEN 20dB RL 16. 0d Bm 10dB/	MKR -49. 33d Bm 24. 880GHz	
			
	START 20. 000GHz *RBW 100kHz	STOP 26. 000GHz *VBW 300kHz	
		SWP 3. 30sec	

APPENDIX B***MODIFICATIONS AND RECOMMENDATIONS***

1.0	NONE