AEGIS LABS INC.

Test Report
And Application for Grant of Equipment Authorization

Pertaining To:

Equipment Under Test	Model Number	FCC ID:
Mini PCI Type 3B Dual Band 802.11a & 802.11b WLAN Adapter	**WM3B2100A**	**MSQM3000N**

Configuration
Installed in an ASUSTek Computer, Inc. M3000N Notebook Computer

MEASUREMENTS PERFORMED IN ACCORDANCE WITH

Regulatory Standard(s)
47 CFR Part 15, Subpart E Section 15.407 (UNII Devices)
Test Method: ANSI C63.4: 1992 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

ACCREDITED

Certificate Number: 1111.01

APPLICANT:

ASUSTek Computer, Inc.
No. 150, Li-Te Rd.
Peitou, Taipei, Taiwan

Contact(s): Mr. Henry Yeh

PREPARED BY:

Aegis Labs, Inc.
22431 Antonio Parkway B160-417
Rancho S. Margarita, CA 92688

Agent(s): Mr. Steve Kuiper
Mr. Rick Candelas

Test Report #: INTEL-030522F
Test Report Revision: None

	REPORT BODY	APPENDICES	TOTAL PAGES
		A	
PAGES	15	34	49

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1.0 CERTIFICATION OF TEST DATA

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 are furnished through the use of part-time, full-time or consulting engineers with the appropriate qualifications to carry out their duties. The intended purpose of this test report is to describe the measurement procedure and to determine whether the equipment under test "EUT" complies with both the conducted and radiated limits. Limits for emissions testing are described under Subpart E of Part 15 of the FCC rules for Unlicensed National Information Infrastructure (UNII) Devices.

The data, data evaluation and equipment configuration represented herein are a true and accurate representation of the Equipment Under Test (EUT) under the requirements specified in the emissions standard as described below. The test results contained in this report are only representative of the test sample tested as described in Section 3.0 of this report. Certification of the EUT is required as a prerequisite to marketing as defined in Part 2 of the FCC Rules.

Prepared By:

06/06/03

Rick Candelas **Date:**
Staff Engineer
Aegis Labs, Inc.

Report Approved By:

06/06/03

Steve J. Kuiper **Date:**
Quality Assurance Manager
Aegis Labs, Inc.

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2.0 SUMMARY OF TEST RESULTS

The test results provided within this report, indicate that the EUT has been found to be in **COMPLIANCE** with the test specifications based upon the following RF compliance standards:

Pass/Fail determination is based upon the nominal values of the test data.

EMISSIONS STANDARD			
FCC Part 15 Section	**Description**	**Results**	**Comments**
Operation in the 5.15-5.25 GHz Band			
15.407(d)	Any UNII device shall use a transmitting antenna that is an integral part of the device.	PASSED	The antenna is integral to the notebook computer
15.407(e)	UNII devices will be restricted to indoor operations.	PASSED	Refer to "Functional Description" Exhibit
15.407(a)(1)	26dB emissions bandwidth in MHz.	N/A	5.18 GHz = 31.33 MHz
15.407(a)(1)	Peak transmit power shall not exceed the lesser of 50mW or 4dBm+10logB (where B = 26dB emissions bandwidth).	PASSED	5.18 GHz = 16.9dBm (48.98mW)
15.407(a)(1)	The peak power spectral density shall not exceed 4dBm in any 1MHz band.	PASSED	5.18 GHz = 2.0dBm
15.407(a)(1)	Peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the transmitting antenna exceeds 6dBi.	N/A	5 GHz antenna gain = -0.3dBi
15.407(b)(5) / 15.209	Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in Section 15.209.	PASSED	-1.94dB @ 60.08 MHz (Vertical Antenna Polarization)
15.407(b)(1)	All emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of –27dBm/MHz.	PASSED	-9.16dB @ 5150 MHz (Vertical Antenna Polarization)
Operation in the 5.25-5.35 GHz Band			
15.407(a)(2)	26dB emissions bandwidth in MHz.	N/A	5.26 GHz = 34.08 MHz 5.32 GHz = 33.42 MHz
15.407(a)(2)	Peak transmit power shall not exceed the lesser of 250mW or 11dBm+10logB (where B = 26dB emissions bandwidth).	PASSED	5.26 GHz = 16.85dBm (48.42mW) 5.32 GHz = 17.37dBm (54.58mW)
15.407(a)(2)	The peak power spectral density shall not exceed 11dBm in any 1MHz band.	PASSED	5.26 GHz = 2.0dBm 5.32 GHz = 2.17dBm
15.407(a)(2)	Peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the transmitting antenna exceeds 6dBi.	N/A	5 GHz antenna gain = -0.3dBi
15.407(b)(5) / 15.209	Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in Section 15.209.	PASSED	-1.94dB @ 60.08 MHz (Vertical Antenna Polarization)
15.407(b)(2)	All emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of –27dBm/MHz. Must meet all applicable technical requirements for operating in the 5.15-5.25 GHz band.	PASSED	-7.23dB @ 5350 MHz (Vertical Antenna Polarization)

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2.0 SUMMARY OF TEST RESULTS (Continued)

EMISSIONS STANDARD			
FCC Part 15 Section	**Description**	**Results**	**Comments**
General Requirements For All Bands			
15.407(a)(6)	The ratio of the peak excursion of the modulation envelope to the peak transmit power shall not exceed 13dB across any 1 MHz bandwidth or the emissions bandwidth whichever is less.	PASSED	5.18 GHz = 7.16 dB 5.26 GHz = 7.33 dB 5.32 GHz = 7.17 dB
15.407(c)	The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure.	PASSED	Refer to "Functional Description" Exhibit
15.407(g)	Frequency stability – emissions is maintained within the band of operation under all conditions of normal operation.	PASSED	Refer to "Functional Description" Exhibit
15.407(f)	Radio frequency radiation exposure requirement.	PASSED	Refer to SAR Test report.
15.407(b) / 15.207	UNII devices using AC power line are required to comply with the conducted limits set forth in Section 15.207.	PASSED	-4.95 dB @ 0.1518 MHz (LINE 2)

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3.0 ADMINISTRATIVE DATA AND TEST DESCRIPTION

DEVICE TESTED:	ITE Type: Mini PCI Type 3B Dual Band 802.11a & 802.11b WLAN Adapter Model Number(s): WM3B2100A Serial Number: 0004235071C4 FCC ID: MSQM3000N
TEST DATE(S):	May 21-28, 2003
DATE EUT RECEIVED:	May 21, 2003
ORIGIN OF TEST SAMPLE(S):	Pre-Production Unit
RESPONSIBLE PARTY:	ASUSTek Computer, Inc. No. 150, Li-Te Rd. Peitou, Taipei, Taiwan
CLIENT CONTACT:	Mr. Henry Yeh
MANUFACTURER:	ASUSTek Computer, Inc.
TEST LOCATION:	Aegis Labs, Inc. 32231 Trabuco Creek Road Trabuco Canyon, CA 92678 Conducted Site #2 Radiated Site #2
A2LA CERTIFICATE:	1111.01, Valid through February 28, 2004
PURPOSE OF TEST:	To demonstrate compliance with the relevant standards described in Section 2.0 of this report.
TEST(S) PERFORMED:	Refer to Table in Section 2.0 of this report.

All calibration vendors were responsible for certifying Aegis Labs, Inc. test equipment as per the manufacturer's specifications and that the equipment is calibrated using instruments and standards where the accuracy is traceable to the National Institute of Standards and Technology (NIST). Calibration of all test equipment conforms to ANSI/NCSL Z540-1 and ISO 10012-1 and/or ISO/IEC Guide 17025 compliance (Additionally, other pertinent test equipment will carry MIL-STD-45662A). All calibration documents are on file with Aegis Labs, Inc., with copies provided upon request.

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4.0 DESCRIPTION OF EUT

4.1 EUT Description

Equipment Under Test (EUT)	
Trade Name:	Mini PCI Type 3B Dual Band 802.11a & 802.11b WLAN Adapter
Model Number:	WM3B2100A
Frequency Range:	5.15-5.35 GHz
Enclosure:	The EUT contains it's own shield made of aluminum approximately 6cm wide by 2cm deep by 4.5cm high.
Transfer Rate:	6/36/52 Mbps
Antenna Type:	M3N Dual Band Antenna
Antenna Gain (See Note 2):	Main = -1.1dBi Aux = -0.3dBi
Transmit Output Power:	17 dBm (Typical) Please see Appendix I (Data Sheets) for actual output power.
Power Supply:	3.3VDC from computer MPCI slot.
Number of External Test Ports Exercised:	2 Antenna Ports (1 Main & 1 Auxiliary)

The Mini PCI Type 3B Dual Band 802.11a & 802.11b WLAN Adapter is an embedded 2.4 and 5 GHz Wireless Local Area Network Mini-PCI adapter. The Mini-PCI Type 3B form factor is designed for notebook computer systems where overall thickness must be kept to an absolute minimum and connect to antennas internal to the notebook computer. It is capable of a data rate of up to 52 Mbps.

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

NOTE 2: Refer to the antenna specifications for a further description of the antennas. Antennas will be professionally installed inside the laptop computer by the laptop vendor.

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4.2 EUT Configuration

The EUT was set-up according to the ANSI C63.4: 1992 guidelines for emissions testing. For emissions testing the EUT (Mini PCI Type 3B Dual Band 802.11a & 802.11b WLAN Adapter, Model Number: WM3B2100A) had an antenna connected to both its main and auxiliary ports. All the appropriate test ports were exercised during both the pre-qualification and final evaluation scans.

The EUT was tested installed in the mini PCI slot of the ASUSTek Computer, Inc. M3000N notebook computer and was connected to a set of M3N dual band antennas via its main and auxiliary Ipex/Hirose antenna ports. Data can be found in Appendix I.

The ASUSTek Computer, Inc. M3000N notebook computer was connected to a Canon printer, Logitech mouse, and NEC monitor via its parallel, USB, and video ports respectively.

The EUT was transmitting on the channel stated in each test description at the maximum power.

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4.3 List of EUT, Sub-Assemblies, and Host Equipment

LIST OF EUT AND SUB-ASSEMBLIES			
Equipment Name	**Manufacturer**	**Model Number**	**Serial Number**
Mini PCI Type 3B Dual Band 802.11a & 802.11b WLAN Adapter	Intel Corporation	WM3B2100A	0004235071C4
EUT Sub-Assemblies			
Auxiliary M3N Dual Band Antenna	Yageo	PN: 4313 345 01252	N/A
Main M3N Dual Band Antenna	Yageo	PN: 4313 345 02252	N/A

HOST EQUIPMENT LIST			
Equipment Name	**Manufacturer**	**Model Number**	**Serial Number**
Monitor	NEC	JC-1575VMA	2Y785821
Printer	Canon	BJC-4200	MT1-18
Mouse	Logitech	M-BJ58	LNA22802012

NOTE: All the power cords of the above support equipment are standard non-shielded, 1.8 meters long.

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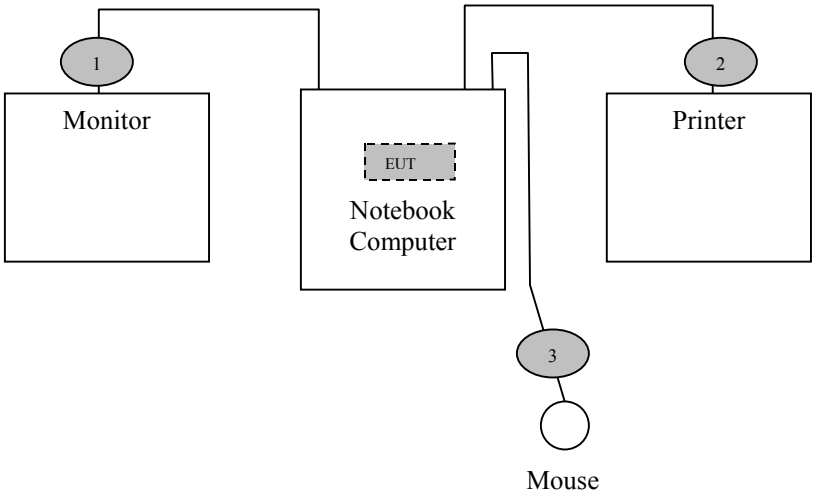
4.4 I/O Cabling Diagram and Description



Cable 1: This is a 6-foot braid and foil shielded round cable connecting the ASUSTek Computer, Inc. M3000N notebook computer with the NEC monitor. It has metallic DB-15 type connector at the computer end and is hardwired to the monitor. The cable is bundled to a length of one meter and the shield of the cable is grounded to the chassis of both devices via the connector shells.

Cable 2: This is a 6-foot braid and foil shielded round cable connecting the ASUSTek Computer, Inc. M3000N notebook computer to the Canon Printer. It has a metallic DB-25 type connector at the computer end and a metallic centronics type connector at the printer end. The cable is bundled to a length of one meter and the shield of the cable is grounded to the chassis of both devices via the connector shells.

Cable 3: This is a 6-foot braid and foil shielded round cable connecting the ASUSTek Computer, Inc. M3000N notebook computer to the Logitech mouse. It has a metallic USB-B type connector at the computer end and is hardwired to the mouse. The shield of the cable is grounded to the chassis of the computer via the connector shell.

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5.0 TEST EQUIPMENT AND TEST SETUPS

The test equipment settings and functions are selected using the guidance of ANSI C63.4-1992. All test equipment setups and operations during conducted and radiated emissions testing are in accordance with this reference document.

5.1 AC Power Line Conducted Emissions

During conducted emissions measurements, a spectrum analyzer was used as the measuring instrument along with a preselector and quasi-peak detector. A 10 dB attenuation pad was used for the protection of the spectrum analyzer input stage. The conducted emissions from the EUT in the frequency range from 150 kHz to 30 MHz were captured for graphical display through the use of automated LABVIEW EMI measurement software. All graphical readings were measured in the "Peak" mode only to reduce testing time. Upon completion of the graphical scan, the test lab personnel performed the conducted measurement scan manually using the spectrum analyzer front panel keys. All peak measurements coming within 3 dB of the limit line were "Averaged" and/or "Quasi-Peaked" and denoted appropriately in the EXCEL spreadsheet.

The Equipment Under Test (EUT) was configured as a system with peripherals connected, so that at least one interface port of each type is connected to one external peripheral when tested for conducted emissions according to ANSI C63.4: 1992. Excess power cord length was wrapped in a bundle 30 to 40 centimeters in length near the center of the cord. The EUT was tested in a tabletop configuration.

The emission readings for Line 1 and Line 2 are highlighted on the data sheets in Appendix A. The graphical scans only reflects peak readings while the tabulated data sheets reflect peak, average, and/or quasi-peak readings which ever applies.

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5.2 Spurious Radiated Emissions

A spectrum analyzer was used as the measuring instrumentation along with a preselector and quasi-peak-detector. The pre-amplifiers were used to increase the sensitivity of the instrument. The spectrum analyzer was used in the peak detector mode with the "max-hold" feature activated and in Positive Peak mode. In this mode, the spectrum analyzer records the highest measured reading over all the sweeps. The quasi-peak detector was used only for those readings, which are marked accordingly in the data sheet. The effective measurement bandwidth used for the radiated emissions test was 120 kHz for (30 MHz- 1000 MHz). The spectrum analyzer operated such that the modulation of the signal was filtered out to set the analyzer in linear mode. For testing beyond 1000 MHz a spectrum analyzer capable of taking reading above 1000 MHz was connected to the high frequency amplifier, where these measurement readings were taken with the transducer placed at a 3-meter test distance from the EUT.

The Open Area Test Sites (OATS) was used for radiated emission testing. These test sites are designed according to ANSI C63.4: 1992 and ANSI C63.7: 1992 guidelines. The Measurements were conducted in accordance with ANSI C63.4: 1992 and ANSI C63.7: 1992 requirements.

Broadband biconical, log periodic, and horn antennas were used as transducers during the measurement reading phase. The frequency spans were wide (30 MHz-88 MHz, 88 MHz- 216 MHz, 216 MHz- 300 MHz, and 300 MHz- 1000 MHz). After 1000 MHz the horn antenna was used to measure emissions. The emission readings in both horizontal and vertical polarities are highlighted on the data sheets in Appendix A.

5.3 Conducted Emissions at the Antenna Port

A spectrum analyzer or power meter was used as the measuring instrumentation along with an attenuator and/or filter connected to the EUT antenna port. The attenuator and filters are used to ensure that the front end of the measurement instrument is not overloaded by the fundamental transmission. . The instruments recorded the measured readings with the bandwidths (video and resolution) set in accordance with the FCC Rules and regulations.

The measured readings are on the data sheets in Appendix A.

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5.4 Test and Measurement Equipment Used

TEST EQUIPMENT USED					
Equipment Name	**Manufacturer**	**Model Number**	**Serial Number**	**Calibration Due Date**	**Calibration Cycle**
EMI Receiver - RF Section	Hewlett Packard	85462A	3325A00137	12/16/03	1 Year
EMI Receiver - RF Filter Section	Hewlett Packard	85460A	3330A00138	12/16/03	1 Year
Attenuator - 5W-10dB	Pasternack	PE7014-10	N/A	11/03/03	1 Year
LISN (EUT)	FCC	FCC-LISN-50-25-2	9931	02/20/04	1 Year
LISN (Access)	Com-Power	LI-200	12019	01/25/04	1 Year
LISN (Access)	Com-Power	LI-200	12018	01/25/04	1 Year
Spectrum Analyzer	Agilent	8564EC	4046A00387	02/28/04	2 Years
Preamplifier	Agilent	8449B	3008A01573	04/29/03	1 Year
Notch Filter	Microwave Circuits, Inc.	N0452502	0002 DC0151	N/A	N/A
Antenna - Biconical	EMCO	3110	9108-1421	02/11/04	1 Year
Antenna - Log Periodic	EMCO	3148	4947	02/11/04	1 Year
1-18 GHz Antenna - Horn	EMCO	3115	2230	09/14/03	1 Year
18-26.5 GHz Antenna – Horn	Custom Microwave	H042	001	05/09/04	1 Year
26.5-40 GHz Antenna – Horn	Custom Microwave	H028	001	05/09/04	1 Year
Power Meter	Rohde & Schwarz	NRVS	DE30863	11/24/03	1 Year
Power Sensor	Leistungsmesskoph	NRV-Z5	844855/012	11/24/03	1 Year
Temperature/Humidity Monitor	Dickson	TH550	7255185	01/18/04	1 Year

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6.0 SAMPLE CALCULATIONS

If a preamplifier is used during the Radiated Emissions Testing, it is required that the amplifier gain be subtracted from the Spectrum Analyzer (Meter) Reading. In addition, a correction factor for the antenna, cable and a distance factor, if any, must be applied to the Meter Reading before a true field strength reading can be obtained. In the Automatic Mode of A.R.M.S. measurements, these considerations are automatically presented as a part of the printout. In the case of manual measurements and for greater efficiency and convenience, usage of the calibration correction factors in the Appendices is necessary to calculate the Corrected Meter Reading. These correlation factors for each meter reading, shall be modified to reflect these correlation factors at each frequency value so that the meter readings can be compared directly to the modified specification limit. This modified specification limit is referred to as the "Corrected Meter Reading Limit" (CML).

The equation shall be derived in the following manner:

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

Where, F = Antenna Factor
C = Cable Factor
G = Amplifier Gain
D = Distance Factor

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

CML = Specification Limit - F - C + G + D

For the manual mode of measurement, a table of corrected meter reading limits shall be used to permit immediate comparison of the meter reading to determine if the measured emission amplitude exceeded the specification limit at that specific frequency. There shall be two calculation sheets done, one for three meter and one for ten-meter measurement distances, where applicable. The correction factors for the antenna and the amplifier gain are attached in the Appendices.

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7.0 MODIFICATIONS AND RECOMMENDATIONS

No modifications were made to the EUT.

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APPENDIX A

TEST DATA

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AEGIS LABS INC.

AC POWER LINE CONDUCTED EMISSIONS TEST RESULTS

CLIENT:	ASUSTek Computer, Inc.	**DATE:**	05/24/03
EUT:	Mini PCI Type 3B Dual Band 802.11a & 802.11b WLAN Adapter	**PROJECT NUMBER:**	INTEL-030521-10
MODEL NUMBER:	WM3B2100A	**TEST ENGINEER:**	Rick Candelas
SERIAL NUMBER:	0004235071C4	**SITE #:**	2
CONFIGURATION:	Installed in the mini PCI slot of the ASUSTek Computer, Inc. M3000N notebook computer.	**TEMPERATURE:**	17 C
		HUMIDITY:	67% RH
		TIME:	2:00 PM

Standard:	FCC CFR 47, Part 15.407(b)(5)
Description:	U-NII devices using an AC power line are required to comply with the conducted limits set forth in Sec. 15.207.
Results:	Passes the conducted limits by -4.95 @ 0.1518 MHz

Conducted Limits		
Frequency (MHz)	**Quasi-Peak Limit (dBuV)**	**Average Limit (dBuV)**
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

NOTE: During preliminary scans, there wasn't any difference which channel or data rate was used with the EUT; therefore the final testing was made with the EUT at the low channel and a data rate of 6 Mbps

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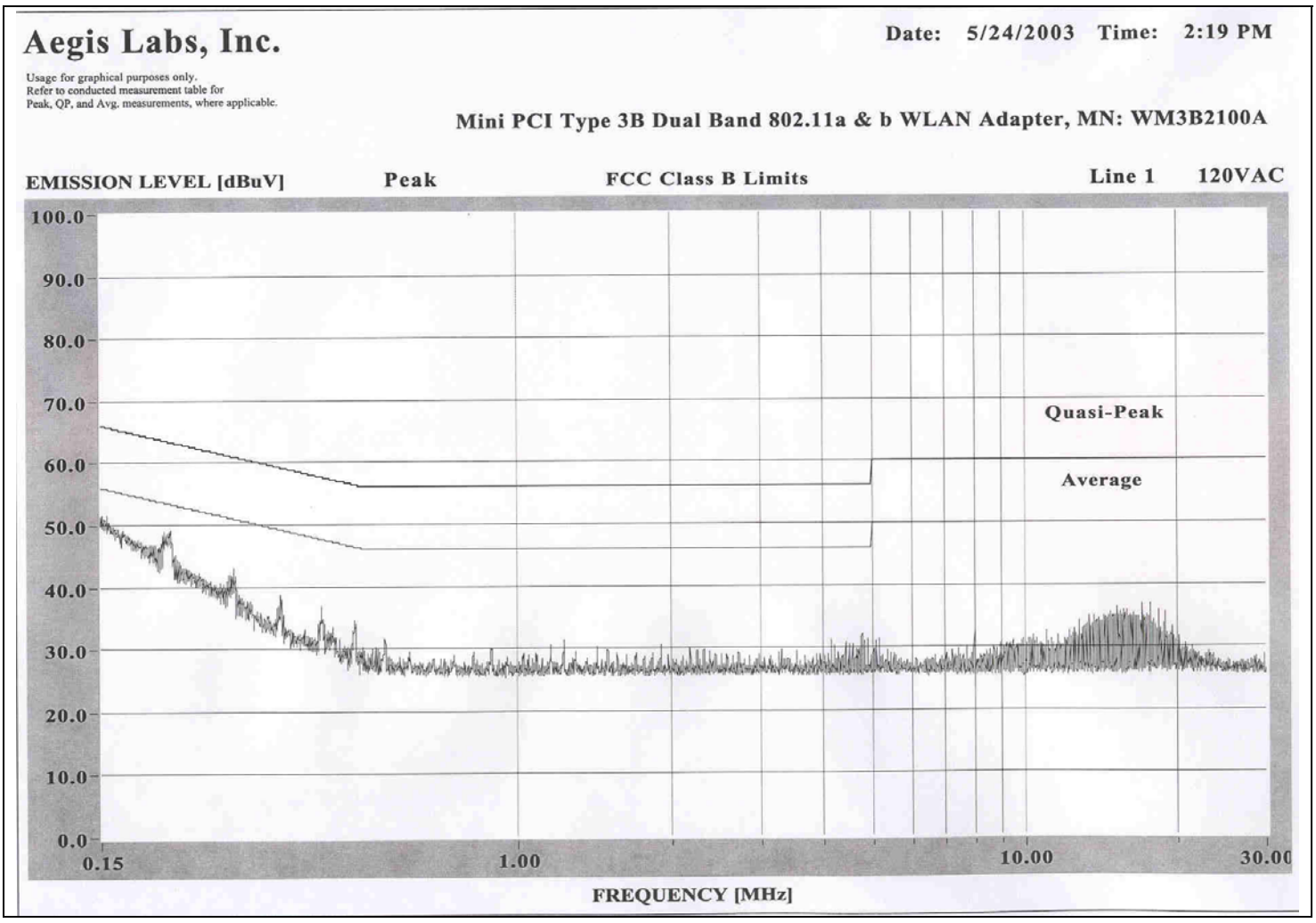
AC Power Line Conducted Emissions Test Results (Continued)

CONDUCTED EMISSIONS – LINE 1						
Freq. (MHz)	*Meter Reading (dBuV)*	*Detector (PK/QP/AV)*	*Average Limit (dBuV)*	*Average Delta(dB)*	*Quasi-Peak Limit (dBuV)*	*Quasi-Peak Delta(dB)*
0.1521	**50.10**	**PK**	**55.94**	**-5.84**	**65.94**	**-15.84**
0.2040	**47.30**	**PK**	**54.46**	**-7.16**	**64.46**	**-17.16**
0.2664	**39.90**	**PK**	**52.67**	**-12.77**	**62.67**	**-22.77**
0.3417	**39.40**	**PK**	**50.52**	**-11.12**	**60.52**	**-21.12**
4.7500	**35.50**	**PK**	**46.00**	**-10.50**	**56.00**	**-20.50**
12.3900	**36.20**	**PK**	**50.00**	**-13.80**	**60.00**	**-23.80**



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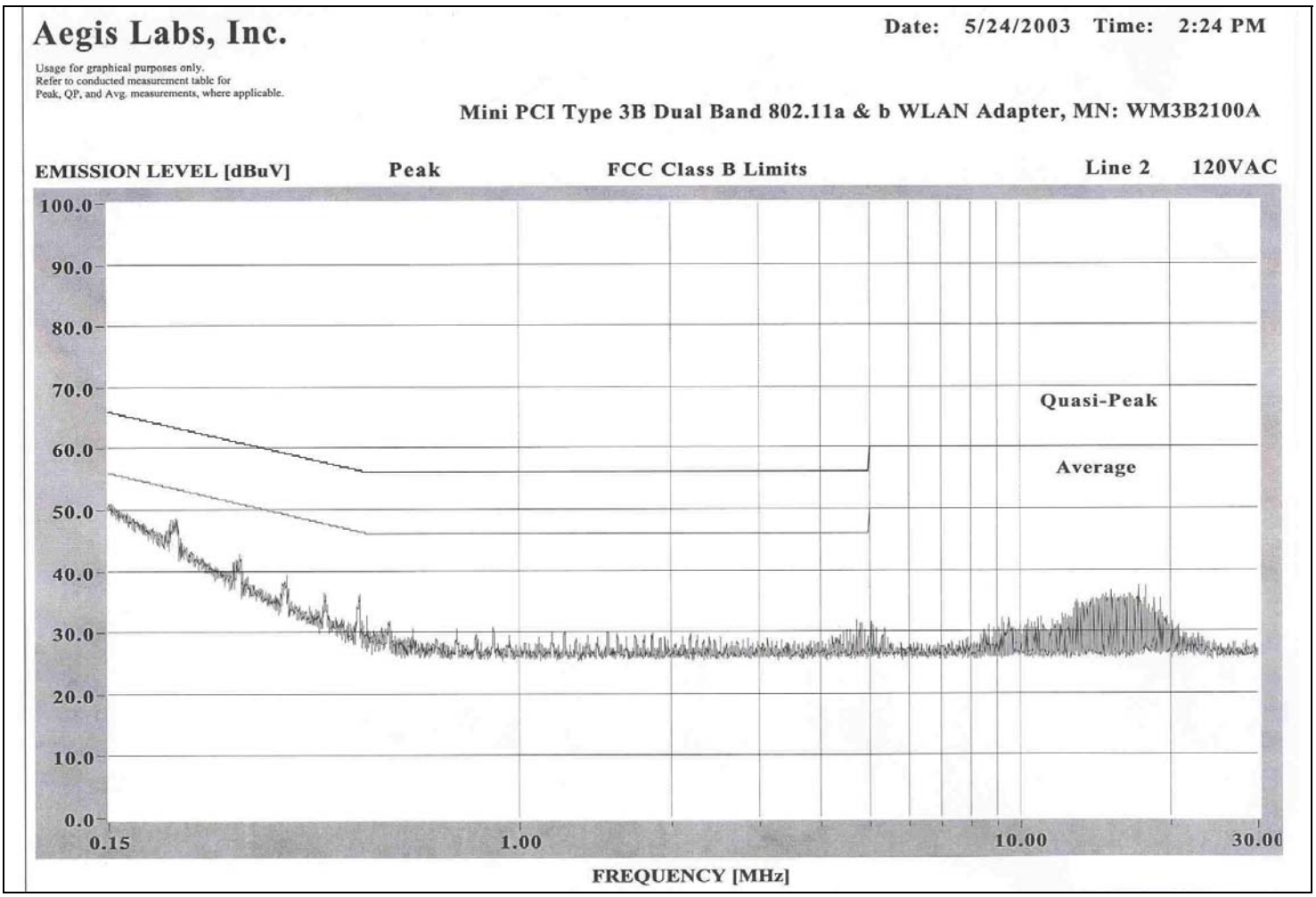
AC Power Line Conducted Emissions Test Results (Continued)

CONDUCTED EMISSIONS - LINE 2						
Freq. (MHz)	*Meter Reading (dBuV)*	*Detector (PK/QP/AV)*	*Average Limit (dBuV)*	*Average Delta(dB)*	*Quasi-Peak Limit (dBuV)*	*Quasi-Peak Delta(dB)*
0.1518	**51.00**	**PK**	**55.95**	**-4.95**	**65.95**	**-14.95**
0.2028	**48.10**	**PK**	**54.49**	**-6.39**	**64.49**	**-16.39**
0.2670	**43.10**	**PK**	**52.66**	**-9.56**	**62.66**	**-19.56**
0.3423	**42.00**	**PK**	**50.50**	**-8.50**	**60.50**	**-18.50**
4.8200	**33.90**	**PK**	**46.00**	**-12.10**	**56.00**	**-22.10**
17.2900	**38.80**	**PK**	**50.00**	**-11.20**	**60.00**	**-21.20**



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SPURIOUS RADIATED EMISSIONS TEST RESULTS

CLIENT:	ASUSTek Computer, Inc.	**DATE:**	05/24/03
EUT:	Mini PCI Type 3B Dual Band 802.11a & 802.11b WLAN Adapter	**PROJECT NUMBER:**	INTEL-030521-09
MODEL NUMBER:	WM3B2100A	**TEST ENGINEER:**	Rick Candelas
SERIAL NUMBER:	0004235071C4	**SITE #:**	2
CONFIGURATION:	Installed in the mini PCI slot of the ASUSTek Computer, Inc. M3000N notebook computer.	**TEMPERATURE:**	17 C
		HUMIDITY:	64% RH
		TIME:	8:00 AM

Standard:	FCC CFR 47, Part 15.407(b)(5)
Description:	Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in Sec. 15.209. (Using CISPR22 Class B Limits)
Results:	Passes the radiated limits by –1.94 @ 60.08 MHz (Vertical antenna polarization)

Radiated Limits	
Frequency (MHz)	**Quasi-Peak Limit (dBuV) @ 10m**
30-230	30
230-1000	37

NOTE: During preliminary scans, there wasn't any difference which channel or data rate was used with the EUT; therefore the final testing was made with the EUT at the low channel and a data rate of 6 Mbps

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Spurious Radiated Emissions Test Results (Continued)

RADIATED EMISSIONS - Horizontal Antenna Polarization							
Freq. (MHz)	*Meter Reading (dBuV)*	*Antenna Height (cm)*	*Azimuth (Degrees)*	*Quasi Pk Or AVG (dBuV)*	*Corrected Reading (dBuV/m)*	*Limits (dBuV/m)*	*Diff (dB) +=FAIL*
60.05	39.90	400	45		15.09	30.00	-14.91
80.03	38.30	400	225		11.91	30.00	-18.09
100.10	40.30	400	90		17.70	30.00	-12.30
110.13	**44.70**	**400**	**90**		**23.86**	**30.00**	**-6.14**
120.12	**46.10**	**400**	**90**		**26.92**	**30.00**	**-3.08**
130.10	**44.90**	**400**	**135**		**26.79**	**30.00**	**-3.21**
144.04	**43.80**	**400**	**135**		**26.38**	**30.00**	**-3.62**
150.16	**37.10**	**400**	**180**		**20.00**	**30.00**	**-10.00**
240.06	**39.90**	**400**	**90**		**25.91**	**37.00**	**-11.09**
304.08	36.90	250	225		19.44	37.00	-17.56
320.06	38.60	300	45		22.25	37.00	-14.75
336.06	40.30	250	45		24.48	37.00	-12.52
352.10	36.30	200	90		20.71	37.00	-16.29
368.07	36.90	200	90		21.31	37.00	-15.69
384.05	36.70	150	270		21.20	37.00	-15.80

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Spurious Radiated Emissions Test Results (Continued)

RADIATED EMISSIONS - Vertical Antenna Polarization								
Freq. (MHz)	*Meter Reading (dBuV)*	*Antenna Height (cm)*	*Azimuth (Degrees)*	*Quasi Pk Or AVG (dBuV)*		*Corrected Reading (dBuV/m)*	*Limits (dBuV/m)*	*Diff (dB) +=FAIL*
48.19	38.60	100	0			16.98	30.00	-13.02
60.08	**57.20**	**100**	**270**	**52.58**	**Q**	**28.06**	**30.00**	**-1.94**
80.04	40.10	100	270			14.22	30.00	-15.78
100.10	40.90	100	135			17.70	30.00	-12.30
110.10	**42.40**	**100**	**135**			**20.36**	**30.00**	**-9.64**
120.11	**41.60**	**100**	**135**			**20.92**	**30.00**	**-9.08**
130.13	36.20	100	180			16.40	30.00	-13.60
144.03	**44.60**	**100**	**270**			**26.68**	**30.00**	**-3.32**
150.14	**42.00**	**100**	**90**			**24.70**	**30.00**	**-5.30**
200.01	33.70	100	90			18.89	30.00	-11.11
240.06	38.20	100	135			25.21	37.00	-11.79
312.40	35.80	100	180			19.46	37.00	-17.54
324.10	40.90	100	45			25.52	37.00	-11.48
336.07	**43.60**	**100**	**45**			**28.25**	**37.00**	**-8.75**
352.09	39.80	100	45			24.41	37.00	-12.59
368.08	41.10	100	45			25.74	37.00	-11.26
384.07	38.20	100	45			23.26	37.00	-13.74

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Spurious Radiated Emissions Test Results (Continued)

CLIENT:	ASUSTek Computer, Inc.	**DATE:**	05/21/03
EUT:	Mini PCI Type 3B Dual Band 802.11a & 802.11b WLAN Adapter	**PROJECT NUMBER:**	INTEL-030521
MODEL NUMBER:	WM3B2100A	**TEST ENGINEER:**	Rick Candelas
SERIAL NUMBER:	0004235071C4	**SITE #:**	2
CONFIGURATION:	Installed in the mini PCI slot of the ASUSTek Computer, Inc. M3000N notebook computer.	**TEMPERATURE:**	32 C
		HUMIDITY:	33% RH
		TIME:	2:00 PM

Standard:	FCC CFR 47, Part 15.407(b)(6)
Description:	The provisions of Sec. 15.205 apply to intentional radiators operating under this section.
Results:	Passes the radiated limits by –7.23 @ 5350 MHz (Vertical antenna polarization)

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)	EIRP < -27dBm/MHz (68.3dBuV/m)

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Spurious Radiated Emissions Test Results (Continued)

Fundamental Measurements at the LOW, MID, and HI Channels
Aegis Labs, Inc. File #: INTEL-030521-03

RADIATED EMISSIONS - Horizontal Antenna Polarization								
Freq. (MHz)	*Meter Reading (dBuV)*	*Antenna Height (cm)*	*Azimuth (Degrees)*	*Quasi Pk Or AVG (dBuV)*		*Corrected Reading (dBuV/m)*	*Limits (dBuV/m)*	*Diff (dB) +=FAIL*
5180.00	54.33	200	225			93.50		
5180.00	44.50	200	225		A	83.67		
5256.67	57.17	200	180			96.39		
5320.00	61.50	200	225			100.77		
5320.00	53.33	200	225		A	92.60		

RADIATED EMISSIONS - Vertical Antenna Polarization								
Freq. (MHz)	*Meter Reading (dBuV)*	*Antenna Height (cm)*	*Azimuth (Degrees)*	*Quasi Pk Or AVG (dBuV)*		*Corrected Reading (dBuV/m)*	*Limits (dBuV/m)*	*Diff (dB) +=FAIL*
5180.00	62.67	200	45			101.84		
5180.00	53.00	200	45		A	92.17		
5256.50	64.67	200	0			103.89		
5320.00	65.50	200	0			104.77		
5320.00	55.67	200	0		A	94.94		

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

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Spurious Radiated Emissions Test Results (Continued)

Band Edge Field Strength Calculations at the LOW and HI Channels
Aegis Labs, Inc. File #: INTEL-030521-02

RADIATED EMISSIONS - Horizontal Antenna Polarization								
Freq. (MHz)	*Meter Reading (dBuV)*	*Antenna Height (cm)*	*Azimuth (Degrees)*	*Quasi Pk Or AVG (dBuV)*		*Corrected Reading (dBuV/m)*	*Limits (dBuV/m)*	*Diff (dB) +=FAIL*
5150.00						56.50	74.00	-17.50
5150.00					A	32.34	54.00	-21.66
5350.00						62.77	74.00	-11.23
5350.00					A	42.60	54.00	-11.40

RADIATED EMISSIONS - Vertical Antenna Polarization								
Freq. (MHz)	*Meter Reading (dBuV)*	*Antenna Height (cm)*	*Azimuth (Degrees)*	*Quasi Pk Or AVG (dBuV)*		*Corrected Reading (dBuV/m)*	*Limits (dBuV/m)*	*Diff (dB) +=FAIL*
5150.00						64.84	74.00	-9.16
5150.00					A	40.84	54.00	-13.16
5350.00						66.77	74.00	-7.23
5350.00					A	44.94	54.00	-9.06

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)

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Spurious Radiated Emissions Test Results (Continued)

Spurious Emissions Measurements
Aegis Labs, Inc. File #: INTEL-030521-02

RADIATED EMISSIONS - Horizontal Antenna Polarization								
Freq. (MHz)	*Meter Reading (dBuV)*	*Antenna Height (cm)*	*Azimuth (Degrees)*	*Quasi Pk Or AVG (dBuV)*		*Corrected Reading (dBuV/m)*	*Limits (dBuV/m)*	*Diff (dB) +=FAIL*
EUT Transmitting on Low Channel (5.18 GHz)								
3453.30	44.17	100	225			43.14	68.30	-25.16
6906.69	44.00	150	225			49.41	68.30	-18.89
10359.98	44.50	100	0			53.10	68.30	-15.20
EUT Transmitting on Mid Channel (5.26 GHz)								
3506.44	43.50	100	180			42.67	68.30	-25.63
7013.23	43.67	100	225			49.45	68.30	-18.85
10519.67	44.50	100	90			53.31	68.30	-14.99
EUT Transmitting on Hi Channel (5.32 GHz)								
3546.67	45.00	100	225			44.25	68.30	-24.05
7093.11	43.83	100	225			49.48	68.30	-18.82
10640.26	43.83	100	225			52.67	74.00	-21.33
10640.26				30.17	A	39.01	54.00	-14.99
RADIATED EMISSIONS - Vertical Antenna Polarization								
Freq. (MHz)	*Meter Reading (dBuV)*	*Antenna Height (cm)*	*Azimuth (Degrees)*	*Quasi Pk Or AVG (dBuV)*		*Corrected Reading (dBuV/m)*	*Limits (dBuV/m)*	*Diff (dB) +=FAIL*
EUT Transmitting on Low Channel (5.18 GHz)								
3453.41	45.17	125	180			44.16	68.30	-24.14
6906.69	45.67	200	0			50.92	68.30	-17.38
10359.89	45.67	125	90			54.47	68.30	-13.83
EUT Transmitting on Mid Channel (5.26 GHz)								
3506.83	45.33	100	270			44.50	68.30	-23.80
7013.25	46.00	100	0			51.58	68.30	-16.72
10519.84	43.83	100	225			52.84	68.30	-15.46
EUT Transmitting on Hi Channel (5.32 GHz)								
3546.59	45.83	100	180			45.08	68.30	-23.22
7093.29	47.33	200	0			52.82	68.30	-15.48
10639.61	50.50	100	180			59.57	74.00	-14.43
10639.61				41.17	A	50.24	54.00	-3.76

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AEGIS LABS INC.

CONDUCTED BAND EDGE MEASUREMENTS

CLIENT:	ASUSTek Computer, Inc.	**DATE:**	05/22/03
EUT:	Mini PCI Type 3B Dual Band 802.11a & 802.11b WLAN Adapter	**PROJECT NUMBER:**	INTEL-030521-08e
MODEL NUMBER:	WM3B2100A	**TEST ENGINEER:**	Rick Candelas
SERIAL NUMBER:	0004235071C4	**SITE #:**	2
CONFIGURATION:	Installed in the mini PCI slot of the ASUSTek Computer, Inc. M3000N notebook computer.	**TEMPERATURE:**	32 C
		HUMIDITY:	33% RH
		TIME:	2:00 PM

Standard:	FCC CFR 47, Part 15.407
Description:	Conducted band edge plots for use in calculating the emissions within a restricted band near the operating band using the "Marker Delta Method".
Results:	For signals in the restricted bands immediately above and below the 5.15 to 5.35 GHz allocated band a measurement was made of the amplitude of the spurious emissions with respect to the intentional signals. The relative amplitude, in dBc, was then applied to the average and peak field strength of the intentional signal to calculate the field strength of the unintentional signals.

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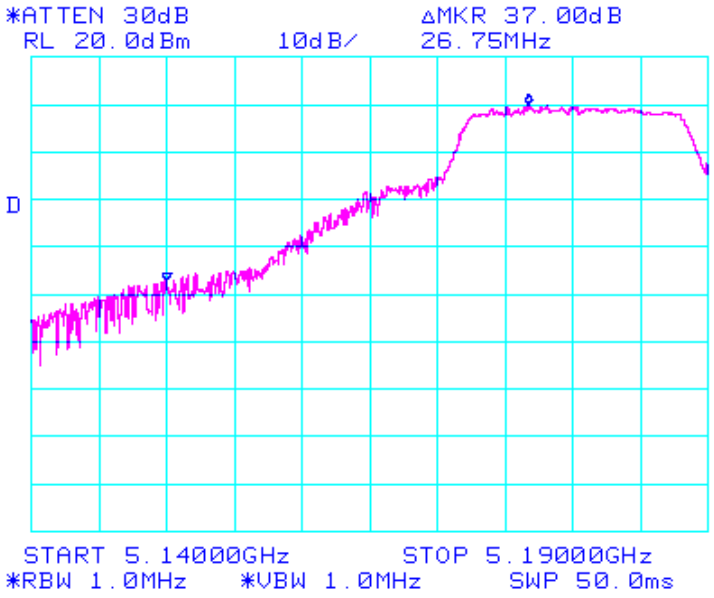
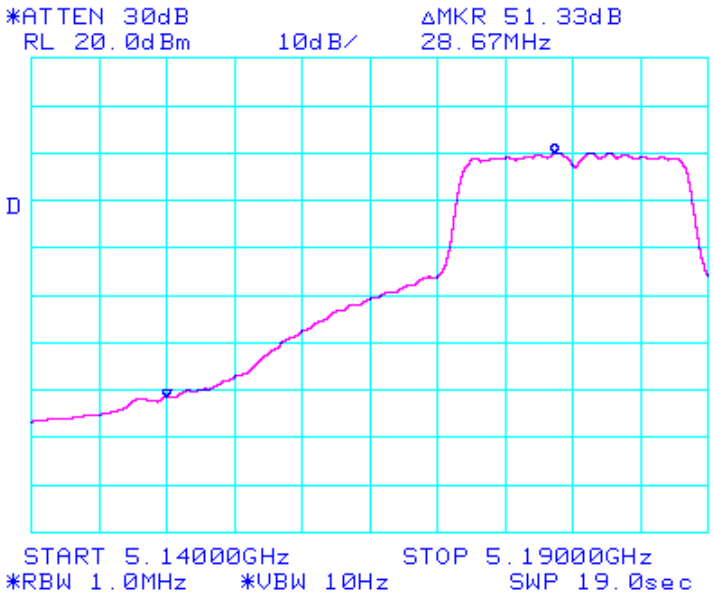
Conducted Band Edge Measurements (Continued)

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

Test Date	*Data*	*Test Eng.*
05/22/03	5.15 GHz band edge **PEAK** delta (INTEL-030521-08e1)	Rick Candelas



Test Date	*Data*	*Test Eng.*
05/22/03	5.15 GHz band edge **AVERAGE** delta (INTEL-030521-08e2)	Rick Candelas



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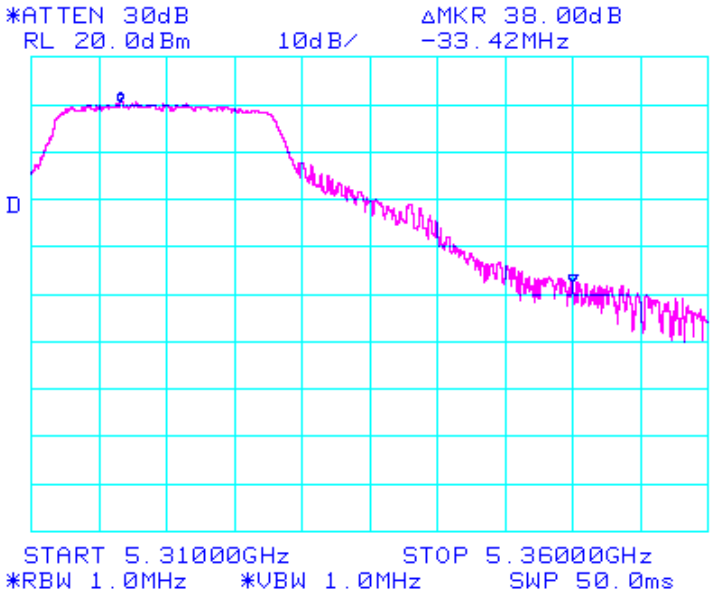
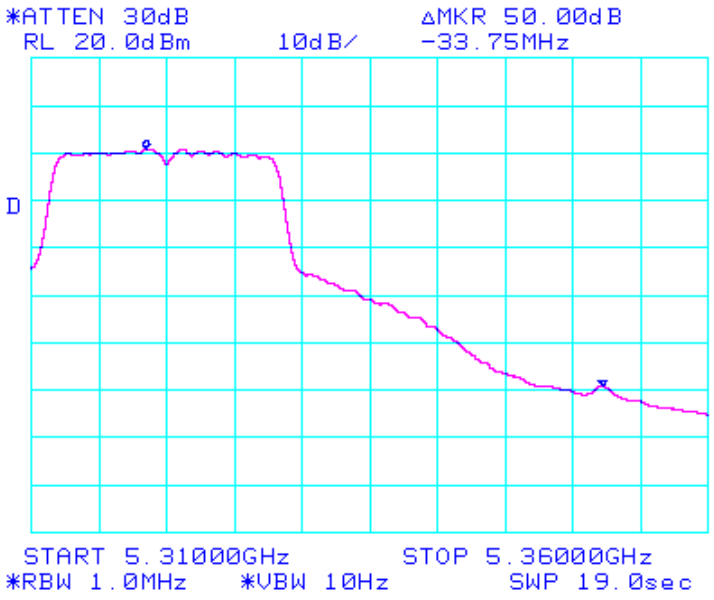
Conducted Band Edge Measurements (Continued)

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

Test Date	*Data*	*Test Eng.*
05/22/03	5.35 GHz band edge **PEAK** delta (INTEL-030521-08e3)	Rick Candelas



Test Date	*Data*	*Test Eng.*
05/22/03	5.35 GHz band edge **AVERAGE** delta (INTEL-030521-08e4)	Rick Candelas



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PEAK TRANSMIT POWER

CLIENT:	ASUSTek Computer, Inc.	**DATE:**	05/21/03
EUT:	Mini PCI Type 3B Dual Band 802.11a & 802.11b WLAN Adapter	**PROJECT NUMBER:**	INTEL-030521-01
MODEL NUMBER:	WM3B2100A	**TEST ENGINEER:**	Rick Candelas
SERIAL NUMBER:	0004235071C4	**SITE #:**	2
CONFIGURATION:	Installed in the mini PCI slot of the ASUSTek Computer, Inc. M3000N notebook computer.	**TEMPERATURE:**	25 C
		HUMIDITY:	35% RH
		TIME:	8:30 AM

Standard:	FCC CFR 47, Part 15.407(a)(1) & 15.407(a)(2)
Description:	For the band 5.15-5.25 GHz, the peak transmit power over the frequency band of operation shall not exceed the lesser of 50 mW or 4 dBm + 10logB, where B is the 26-dB emission bandwidth in MHz. For the band 5.25-5.35 GHz, the peak transmit power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 dBm + 10logB, where B is the 26-dB emission bandwidth in MHz.
Results:	48.98 mW @ 5.18 GHz (Low Channel) 48.42 mW @ 5.26 GHz (Mid Channel) 54.58 mW @ 5.32 GHz (Hi Channel)

Peak Transmit Power Limits		
Frequency (MHz)	**Output Power (mW)**	**Output Power (Note 1)**
5150-5250	50 (17 dBm)	4 dBm + 10logB = 18.96 dBm @ 5180 MHz
5250-5350	250 (24 dBm)	11 dBm + 10logB = 26.32 dBm @ 5260 MHz 11 dBm + 10logB = 26.24 dBm @ 5320 MHz

Note 1: Calculated using the 26-dB emissions bandwidth measurements.

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Peak Transmit Power (Continued)

Frequency (MHz)	Rate (Mbps)	Power (dBm)	Cable Factor (dB)	Power Corrected (dBm)	Power (mW)
5180.00	6	16.75	0.15	16.90	48.98
5180.00	36	16.37	0.15	16.52	44.87
5180.00	52	16.75	0.15	16.90	48.98
5260.00	6	16.70	0.15	16.85	48.42
5260.00	36	16.26	0.15	16.41	43.75
5260.00	52	16.70	0.15	16.85	48.42
5320.00	6	17.22	0.15	17.37	54.58
5320.00	36	16.73	0.15	16.88	48.75
5320.00	52	17.22	0.15	17.37	54.58

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26-dB EMISSIONS BANDWIDTH

CLIENT:	ASUSTek Computer, Inc.	**DATE:**	05/23/03
EUT:	Mini PCI Type 3B Dual Band 802.11a & 802.11b WLAN Adapter	**PROJECT NUMBER:**	INTEL-030521-08b
MODEL NUMBER:	WM3B2100A	**TEST ENGINEER:**	Rick Candelas
SERIAL NUMBER:	0004235071C4	**SITE #:**	2
CONFIGURATION:	Installed in the mini PCI slot of the ASUSTek Computer, Inc. M3000N notebook computer.	**TEMPERATURE:**	26 C
		HUMIDITY:	50% RH
		TIME:	11:00 AM

Standard:	FCC CFR 47, Part 15.407(a)(1) & 15.407(a)(2)
Description:	26-dB emission bandwidth in MHz
Results:	31.33 MHz @ 5.18 GHz (Low Channel) 34.08 MHz @ 5.26 GHz (Mid Channel) 33.42 MHz @ 5.32 GHz (Hi Channel)

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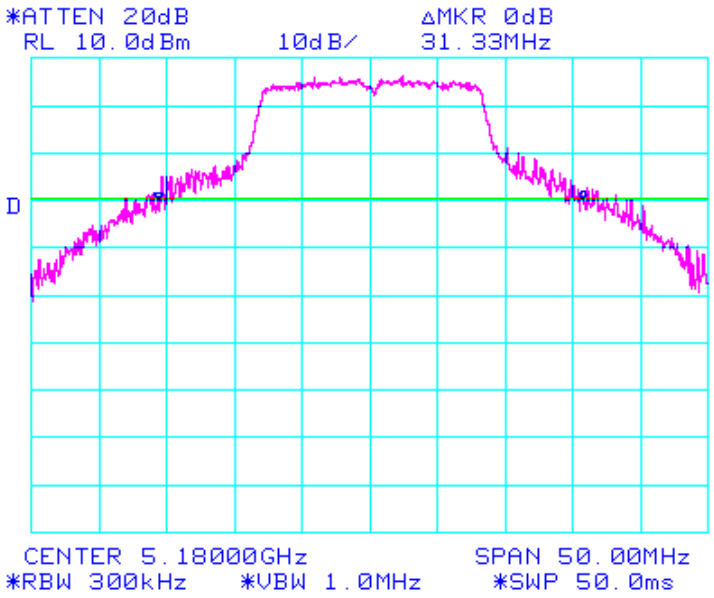
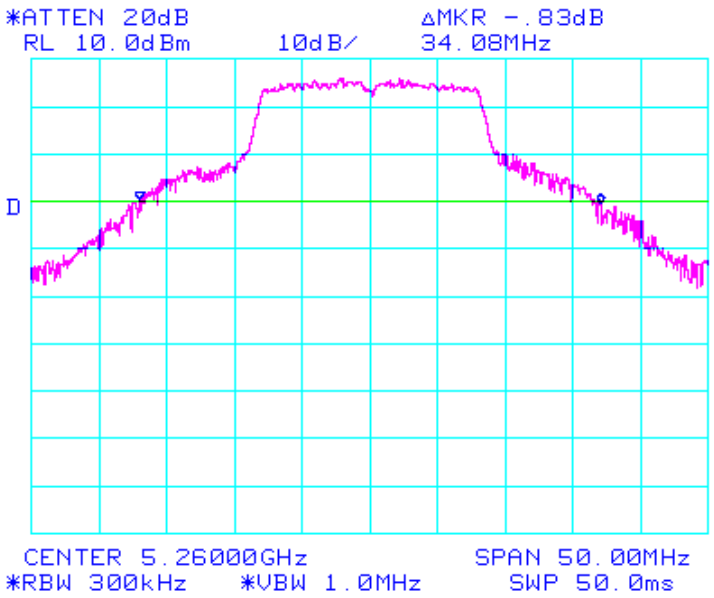
26-dB Emissions Bandwidth (Continued)

Test Date	*Data*	*Test Eng.*
05/23/03	5.18 GHz (INTEL-030521-08b1)	Rick Candelas



Test Date	*Data*	*Test Eng.*
05/23/03	5.26 GHz (INTEL-030521-08b3)	Rick Candelas



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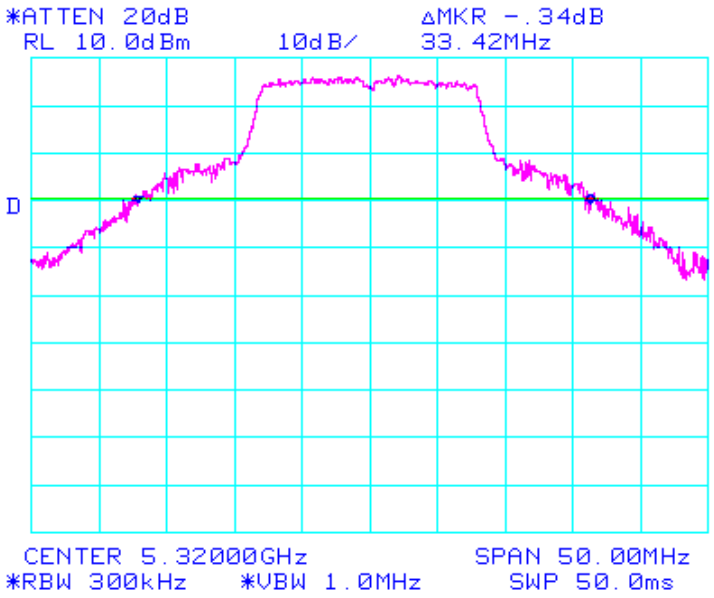
26-dB Emissions Bandwidth (Continued)

Test Date	*Data*	*Test Eng.*
05/23/03	5.32 GHz (INTEL-030521-08b5)	Rick Candelas



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AEGIS LABS INC.

PEAK POWER SPECTRAL DENSITY

CLIENT:	ASUSTek Computer, Inc.	**DATE:**	05/23/03
EUT:	Mini PCI Type 3B Dual Band 802.11a & 802.11b WLAN Adapter	**PROJECT NUMBER:**	INTEL-030521-08a
MODEL NUMBER:	WM3B2100A	**TEST ENGINEER:**	Rick Candelas
SERIAL NUMBER:	0004235071C4	**SITE #:**	2
CONFIGURATION:	Installed in the mini PCI slot of the ASUSTek Computer, Inc. M3000N notebook computer.	**TEMPERATURE:**	26 C
		HUMIDITY:	50% RH
		TIME:	10:00 AM

Standard:	FCC CFR 47, Part 15.407(a)(1) & 15.407(a)(2)
Description:	For the band 5.15-5.25 GHz, the peak power spectral density shall not exceed 4 dBm in any 1-MHz band For the band 5.2 5-5.35 GHz, the peak power spectral density shall not exceed 11 dBm in any 1-MHz band
Results:	2.00 dBm @ 5.18 GHz (Low Channel) 2.00 dBm @ 5.26 GHz (Mid Channel) 2.17 dBm @ 5.32 GHz (Hi Channel)

Peak Power Spectral Density Limits	
Frequency (MHz)	Limit (dBm)
5150-5250	4
5250-5350	11

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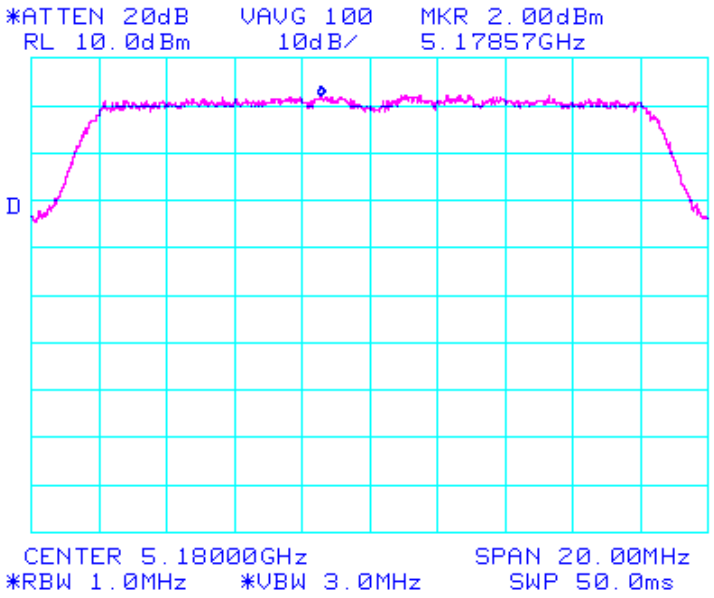
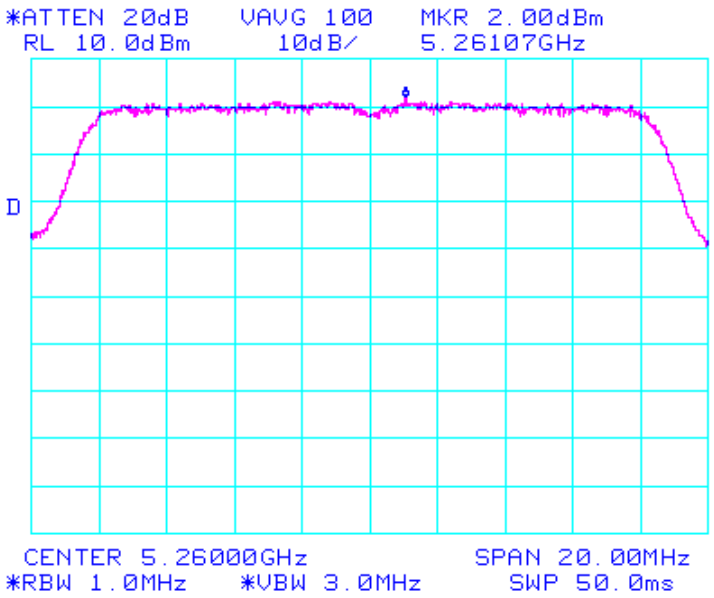
Peak Power Spectral Density (Continued)

Test Date	*Data*	*Test Eng.*
05/23/03	5.18 GHz (INTEL-030521-08a1)	Rick Candelas



Test Date	*Data*	*Test Eng.*
05/23/03	5.26 GHz (INTEL-030521-08a3)	Rick Candelas



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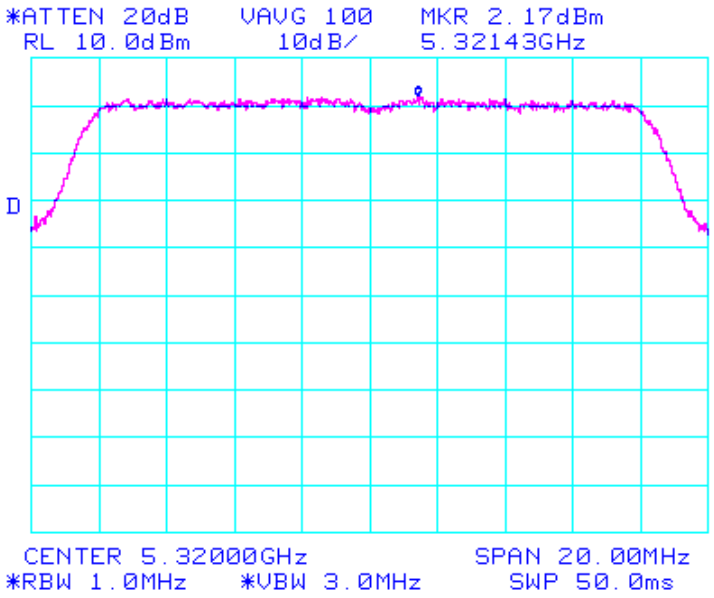
Peak Power Spectral Density (Continued)

Test Date	*Data*	*Test Eng.*
05/23/03	5.32 GHz (INTEL-030521-08a5)	Rick Candelas



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PEAK EXCURSION

CLIENT:	ASUSTek Computer, Inc.	**DATE:**	05/23/03
EUT:	Mini PCI Type 3B Dual Band 802.11a & 802.11b WLAN Adapter	**PROJECT NUMBER:**	INTEL-030521-08C
MODEL NUMBER:	WM3B2100A	**TEST ENGINEER:**	Rick Candelas
SERIAL NUMBER:	0004235071C4	**SITE #:**	2
CONFIGURATION:	Installed in the mini PCI slot of the ASUSTek Computer, Inc. M3000N notebook computer.	**TEMPERATURE:**	26 C
		HUMIDITY:	50% RH
		TIME:	11:00 AM

Standard:	FCC CFR 47, Part 15.407(a)(6)
Description:	The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the peak transmit power shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.
Results:	7.16 dB @ 5.18 GHz (Low Channel) 7.33 dB @ 5.26 GHz (Mid Channel) 7.17 dB @ 5.32 GHz (Hi Channel)

Peak Excursion Limits	
Frequency (MHz)	Limit (dB)
5150-5350	13

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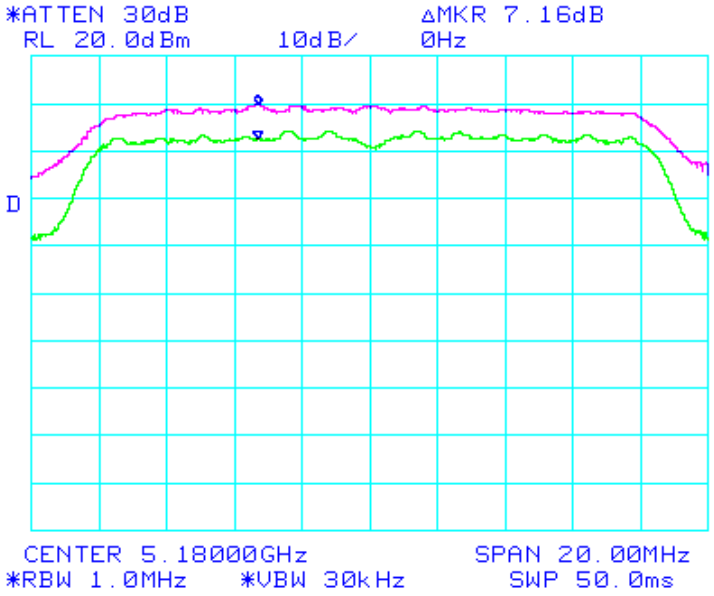
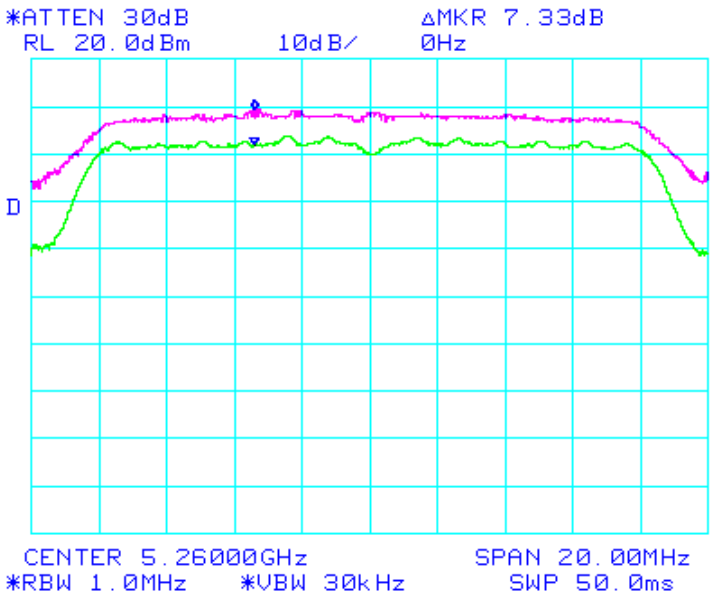
Peak Excursion (Continued)

Test Date	*Data*	*Test Eng.*
05/23/03	5.18 GHz (INTEL-030521-08c1)	Rick Candelas



Test Date	*Data*	*Test Eng.*
05/23/03	5.26 GHz (INTEL-030521-08c2)	Rick Candelas



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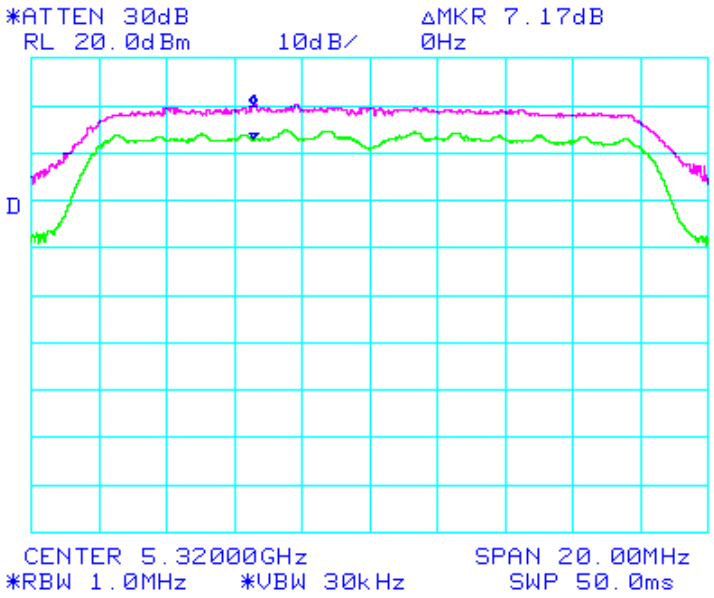
Peak Excursion (Continued)

Test Date	*Data*	*Test Eng.*
05/23/03	5.32 GHz (INTEL-030521-08c3)	Rick Candelas



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CONDUCTED OUT OF BAND EMISSIONS

CLIENT:	ASUSTek Computer, Inc.	**DATE:**	05/28/03
EUT:	Mini PCI Type 3B Dual Band 802.11a & 802.11b WLAN Adapter	**PROJECT NUMBER:**	INTEL-030521-08f
MODEL NUMBER:	WM3B2100A	**TEST ENGINEER:**	Rick Candelas
SERIAL NUMBER:	0004235071C4	**SITE #:**	2
CONFIGURATION:	Installed in the mini PCI slot of the ASUSTek Computer, Inc. M3000N notebook computer.	**TEMPERATURE:**	24 C
		HUMIDITY:	44% RH
		TIME:	8:00 AM

Standard:	FCC CFR 47, Part 15.407(b)(1) and 15.407(b)(2)
Description:	For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz. For transmitters operating in the 5.25-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5.25-5.35 GHz band that generate emissions in the 5.15-5.25 GHz band must meet all applicable technical requirements for operation in the 5.15-5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5.15-5.25 GHz band.

Test Results Summary

Plot	Channel Frequency (MHz)	Data	Results
INTEL-030521-08f01	5180	30MHz – 1GHz	-57.00 dBm @ 497.20 MHz
INTEL-030521-08f02		1GHz – 5GHz	-55.50 dBm @ 4.05 GHz
INTEL-030521-08f03		5GHz – 10GHz	-47.00 dBm @ 5.39 GHz
INTEL-030521-08f04		10GHz – 20GHz	-50.17 dBm @ 13.33 GHz
INTEL-030521-08f05		20GHz – 40GHz	-43.83 dBm @ 36.43 GHz
INTEL-030521-08f06	5260	30MHz – 1GHz	-56.17 dBm @ 901.40 MHz
INTEL-030521-08f07		1GHz – 5GHz	-55.17 dBm @ 4.00 GHz
INTEL-030521-08f08		5GHz – 10GHz	-46.50 dBm @ 5.44 GHz
INTEL-030521-08f09		10GHz – 20GHz	-51.00 dBm @ 13.45 GHz
INTEL-030521-08f10		20GHz – 40GHz	-43.83 dBm @ 36.67 GHz
INTEL-030521-08f11	5320	30MHz – 1GHz	-56.83 dBm @ 671.81 MHz
INTEL-030521-08f12		1GHz – 5GHz	-55.17 dBm @ 3.55 GHz
INTEL-030521-08f13		5GHz – 10GHz	-48.67 dBm @ 5.53 GHz
INTEL-030521-08f14		10GHz – 20GHz	-51.00 dBm @ 13.42 GHz
INTEL-030521-08f15		20GHz – 40GHz	-44.00 dBm @ 36.10 GHz

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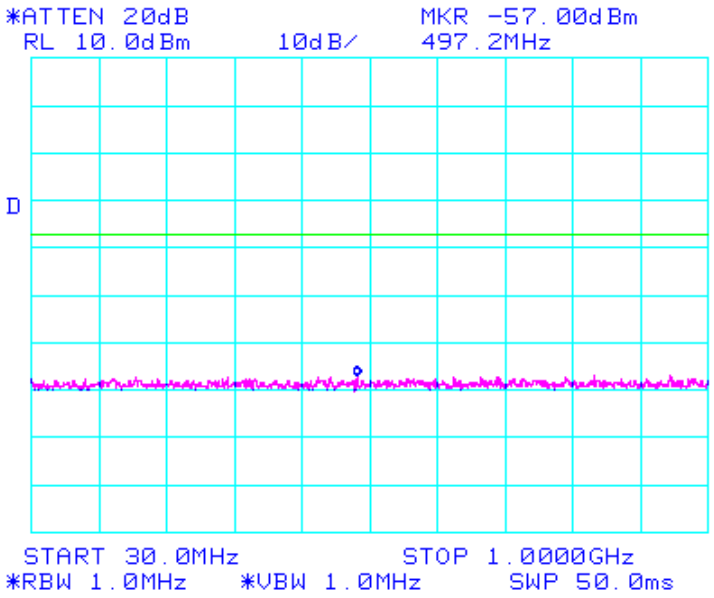
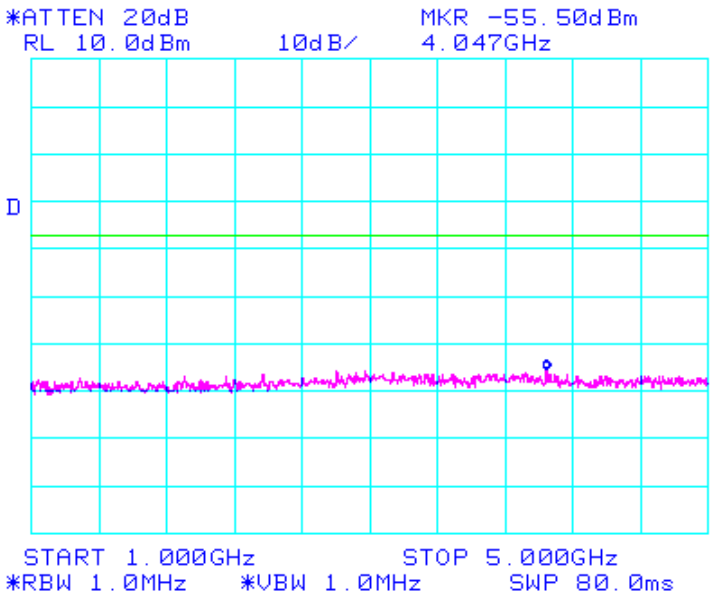
Conducted Out Of Band Emissions (Continued)

Test Date	*Data*	*Test Eng.*
05/28/03	5.18 GHz (INTEL-030521-08f1)	Rick Candelas



Test Date	*Data*	*Test Eng.*
05/28/03	5.18 GHz (INTEL-030521-08f2)	Rick Candelas



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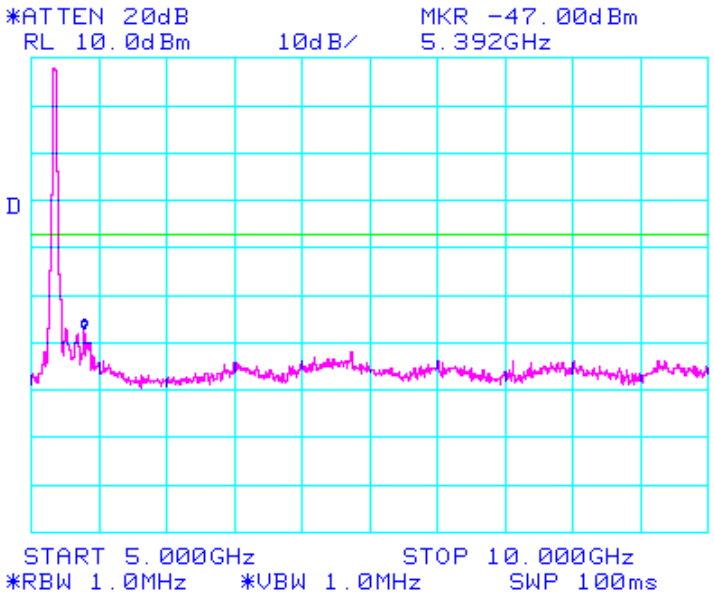
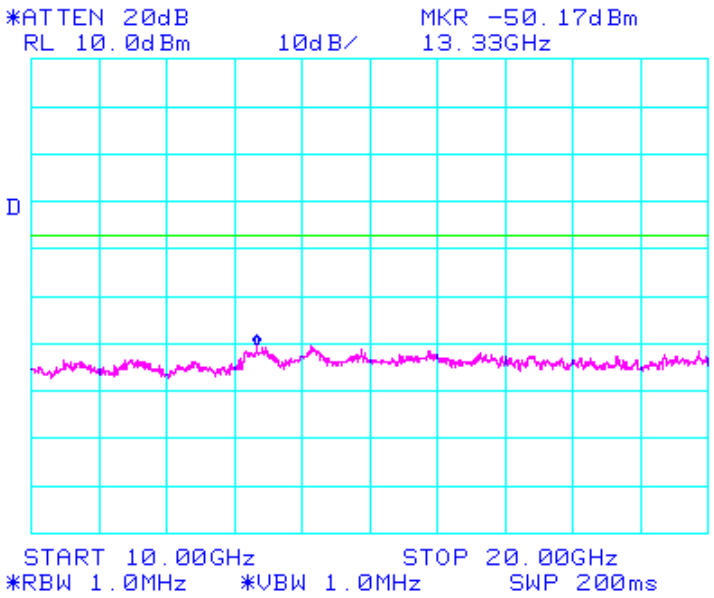
Conducted Out Of Band Emissions (Continued)

Test Date	*Data*	*Test Eng.*
05/28/03	5.18 GHz (INTEL-030521-08f3)	Rick Candelas



Test Date	*Data*	*Test Eng.*
05/28/03	5.18 GHz (INTEL-030521-08f4)	Rick Candelas



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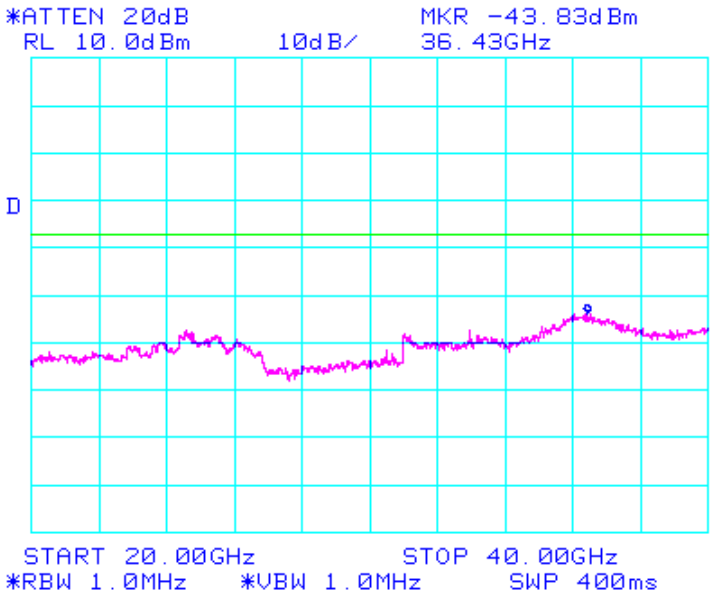
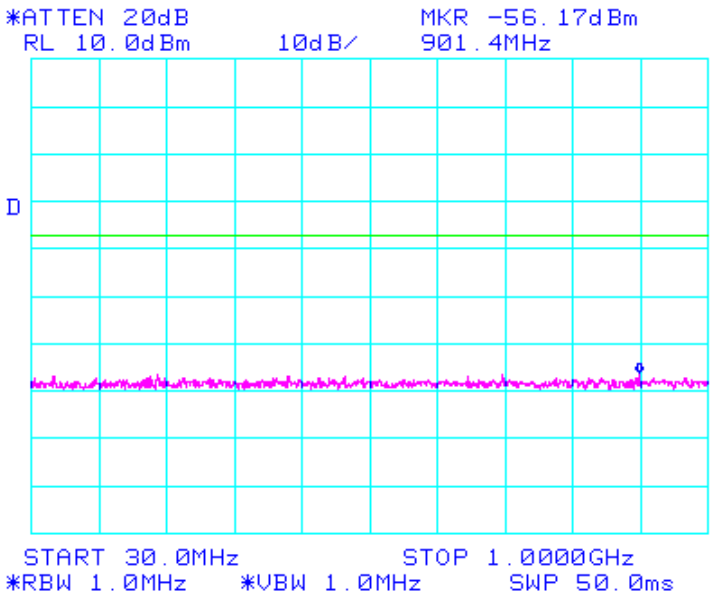
Conducted Out Of Band Emissions (Continued)

Test Date	*Data*	*Test Eng.*
05/28/03	5.18 GHz (INTEL-030521-08f5)	Rick Candelas



Test Date	*Data*	*Test Eng.*
05/28/03	5.26 GHz (INTEL-030521-08f6)	Rick Candelas



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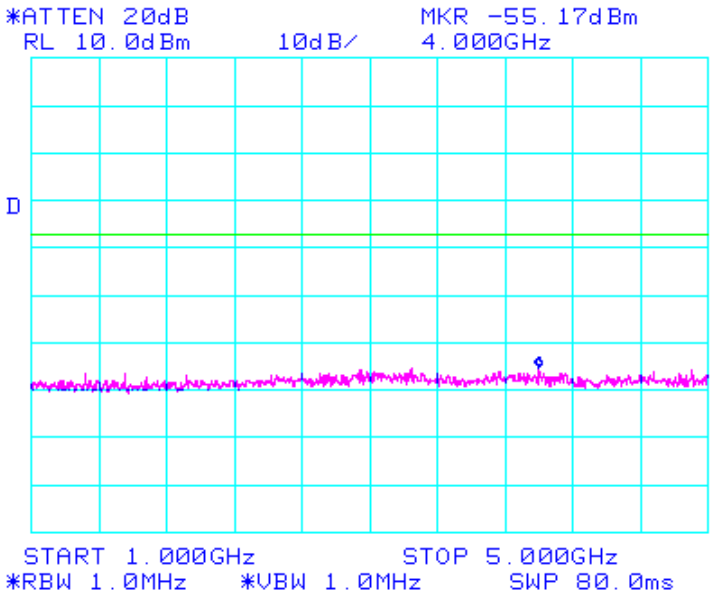
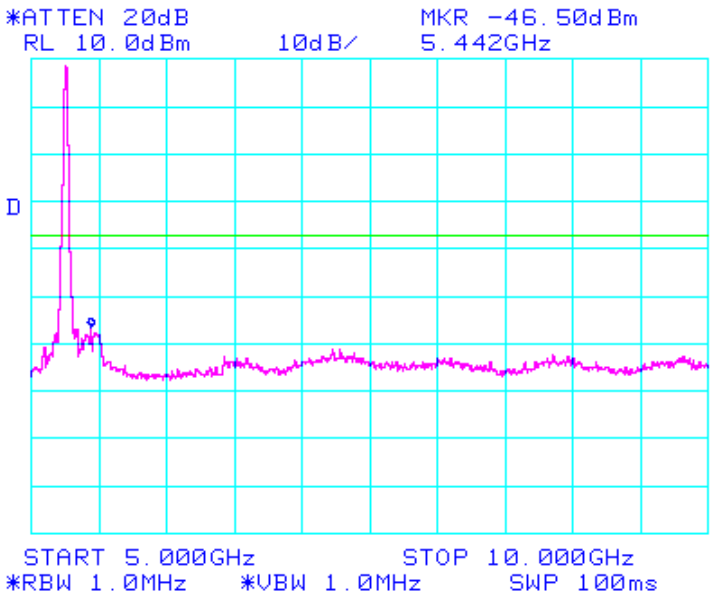
Conducted Out Of Band Emissions (Continued)

Test Date	*Data*	*Test Eng.*
05/28/03	5.26 GHz (INTEL-030521-08f7)	Rick Candelas



Test Date	*Data*	*Test Eng.*
05/28/03	5.26 GHz (INTEL-030521-08f8)	Rick Candelas



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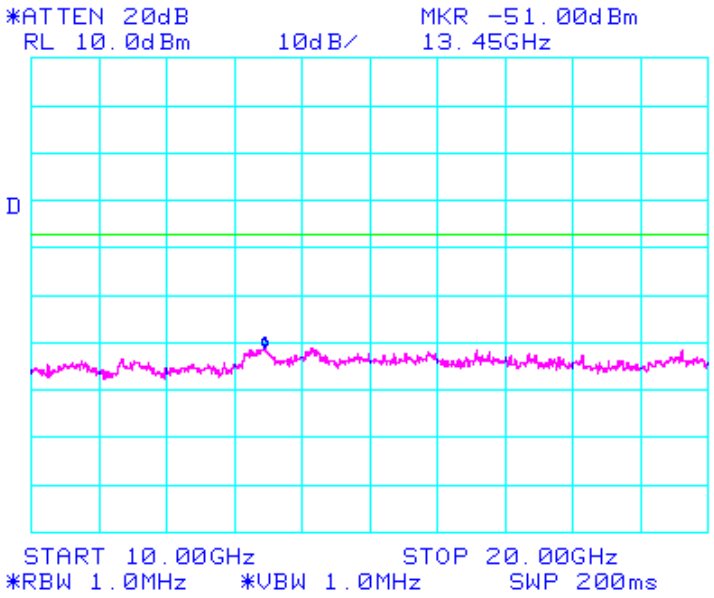
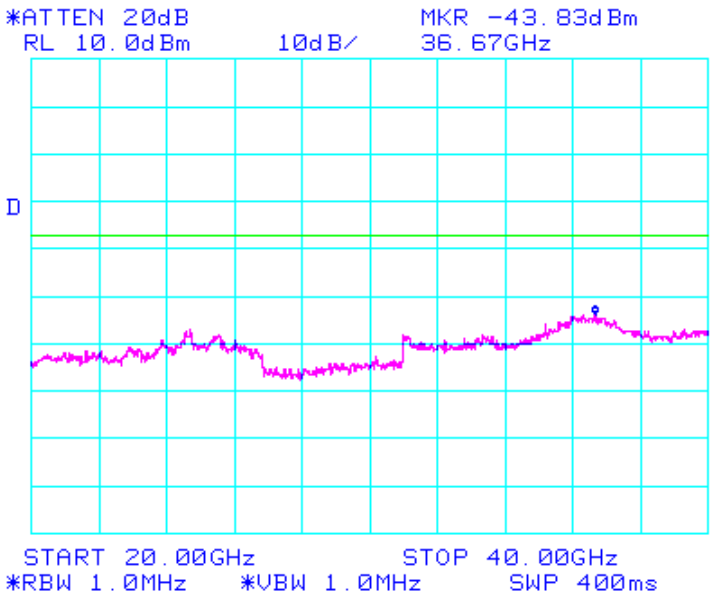
Conducted Out Of Band Emissions (Continued)

Test Date	*Data*	*Test Eng.*
05/28/03	5.26 GHz (INTEL-030521-08f9)	Rick Candelas



Test Date	*Data*	*Test Eng.*
05/28/03	5.26 GHz (INTEL-030521-08f10)	Rick Candelas



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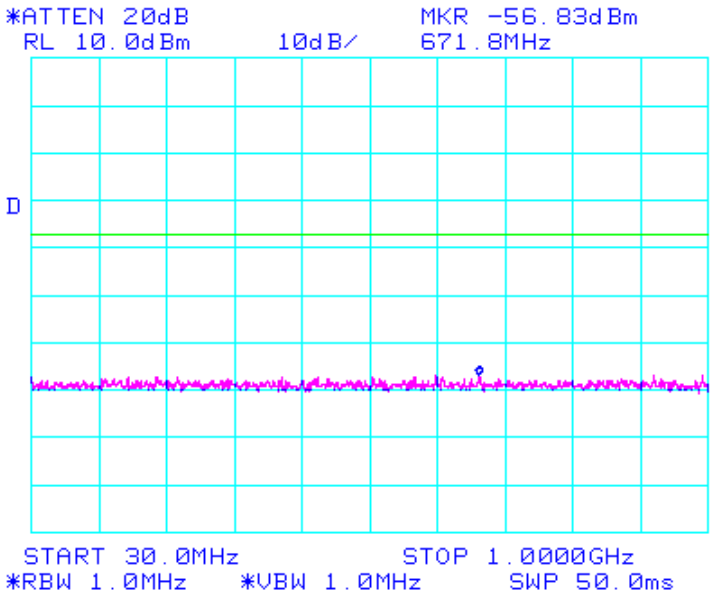
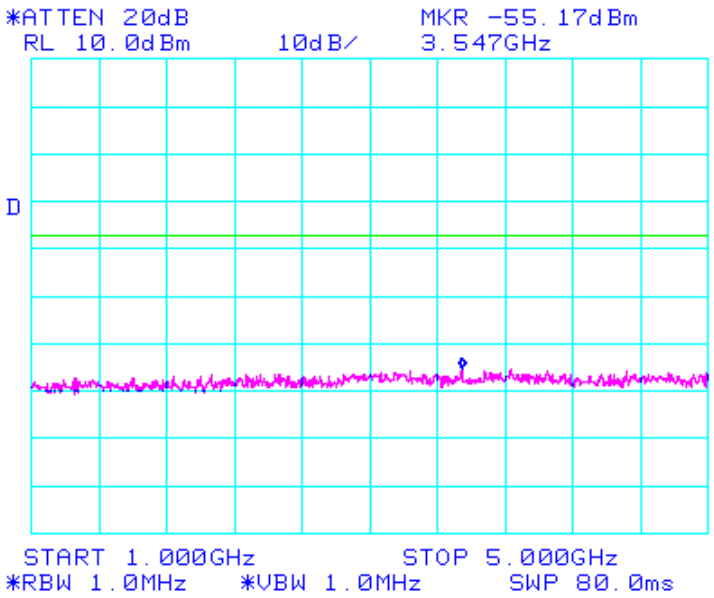
Conducted Out Of Band Emissions (Continued)

Test Date	*Data*	*Test Eng.*
05/28/03	5.32 GHz (INTEL-030521-08f11)	Rick Candelas



Test Date	*Data*	*Test Eng.*
05/28/03	5.32 GHz (INTEL-030521-08f12)	Rick Candelas



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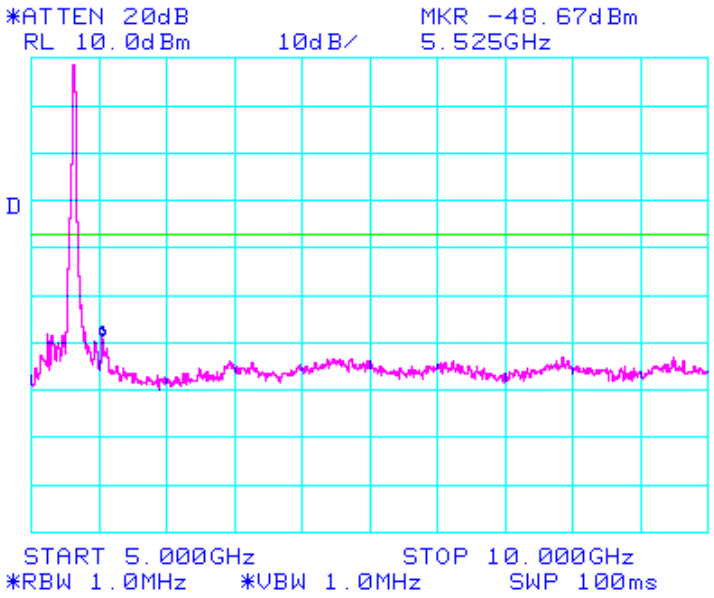
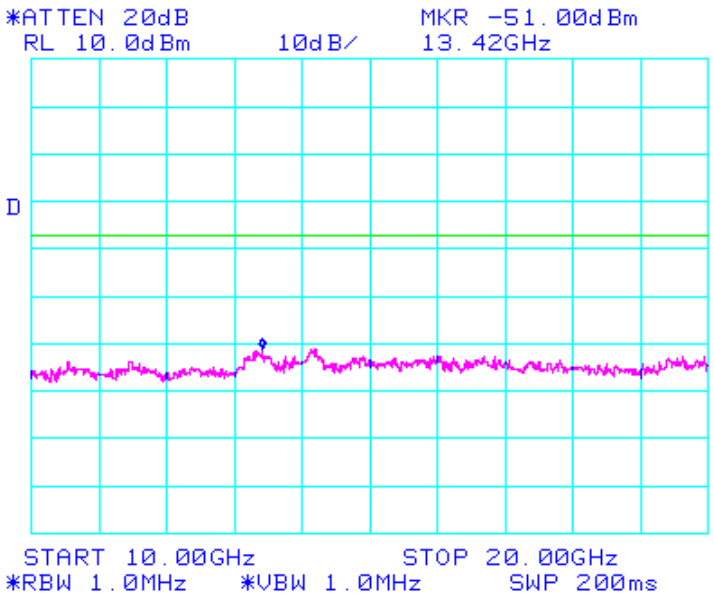
Conducted Out Of Band Emissions (Continued)

Test Date	*Data*	*Test Eng.*
05/28/03	5.32 GHz (INTEL-030521-08f13)	Rick Candelas



Test Date	*Data*	*Test Eng.*
05/28/03	5.32 GHz (INTEL-030521-08f14)	Rick Candelas



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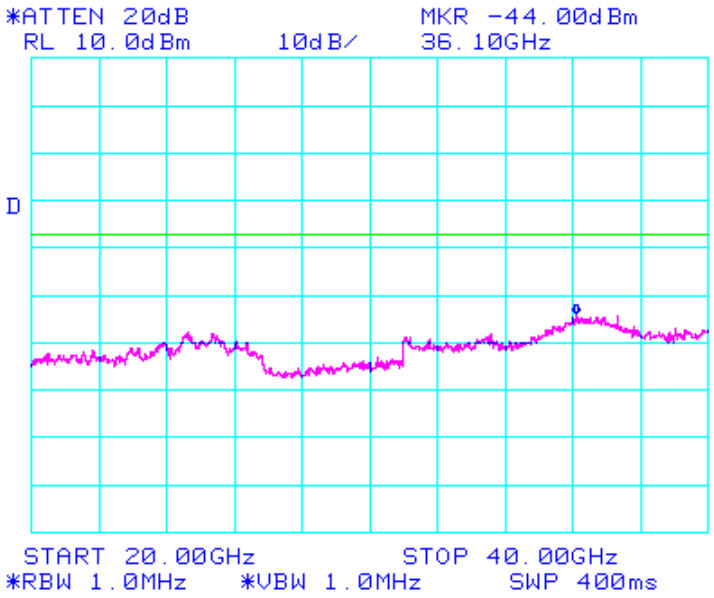
Conducted Out Of Band Emissions (Continued)

Test Date	*Data*	*Test Eng.*
05/28/03	5.32 GHz (INTEL-030521-08f15)	Rick Candelas



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