

Intermec Technologies Corporation

DDIB

Report No. INMC0500.1

Report Prepared By



www.nwemc.com
1-888-EMI-CERT

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EMC Test Report

Certificate of Test
Last Date of Test: December 19, 2008
Intermec Technologies Corporation
Model: DDIB

Emissions			
Test Description	Specification	Test Method	Pass/Fail
Spurious Radiated Emissions	FCC 15.247 (DTS):2008	ANSI C63.4:2003 KDB No. 558074	Pass
Occupied Bandwidth	FCC 15.247 (DTS):2008	ANSI C63.4:2003 KDB No. 558074	Pass
Power Spectral Density	FCC 15.247 (DTS):2008	ANSI C63.4:2003 KDB No. 558074	Pass
Spurious Conducted Emissions	FCC 15.247 (DTS):2008	ANSI C63.4:2003 KDB No. 558074	Pass
Band Edge Compliance	FCC 15.247 (DTS):2008	ANSI C63.4:2003 KDB No. 558074	Pass
Peak Output Power	FCC 15.247 (DTS):2008	ANSI C63.4:2003 KDB No. 558074	Pass
AC Powerline Conducted Emissions	FCC 15.207:2008	ANSI C63.4:2003	Pass

Modifications made to the product
See the Modifications section of this report

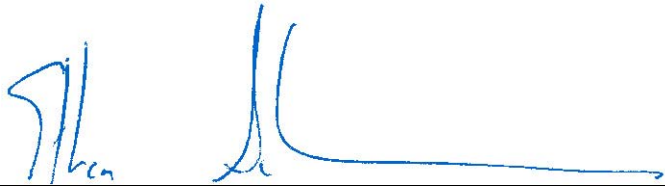
Test Facility

The measurement facility used to collect the data is located at:

Northwest EMC, Inc.
 22975 NW Evergreen Parkway, Suite 400
 Hillsboro, OR 97124

Phone: (503) 844-4066 Fax: 844-3826
 This site has been fully described in a report filed with and accepted by the FCC (Federal Communications Commission) and Industry Canada (Site filing #2834D-2).

Approved By:



Ethan Schoonover, Sultan Lab Manager



NVLAP Lab Code: 200630-0

This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government of the United States of America.

Product compliance is the responsibility of the client, therefore the tests and equipment modes of operation represented in this report were agreed upon by the client, prior to testing. This Report may only be duplicated in its entirety. The results of this test pertain only to the sample(s) tested. The specific description is noted in each of the individual sections of the test report supporting this certificate of test.

Revision Number	Description	Date	Page Number
00	None		

FCC: Accredited by NVLAP for performance of FCC radio, digital, and ISM device testing. Our Open Area Test Sites, certification chambers, and conducted measurement facilities have been fully described in reports filed with the FCC and accepted by the FCC in letters maintained in our files. Northwest EMC has been accredited by ANSI to ISO / IEC Guide 65 as a product certifier. We have been designated by the FCC as a Telecommunications Certification Body (TCB). This allows Northwest EMC to certify transmitters to FCC specifications in accordance with 47 CFR 2.960 and 2.962.



NVLAP: Northwest EMC, Inc. is accredited under the United States Department of Commerce, National Institute of Standards and Technology, and National Voluntary Laboratory Accreditation Program for satisfactory compliance with the requirements of ISO/IEC 17025 for Testing Laboratories. The NVLAP accreditation encompasses Electromagnetic Compatibility Testing in accordance with the European Union EMC Directive 2004/108/EC, and ANSI C63.4. Additionally, Northwest EMC is accredited by NVLAP to perform radio testing in accordance with the European Union R&TTE Directive 1999/5/EEC, the requirements of FCC, and the RSS radio standards for Industry Canada.



NVLAP LAB CODE 200629-0
 NVLAP LAB CODE 200630-0
 NVLAP LAB CODE 200676-0
 NVLAP LAB CODE 200761-0

Industry Canada: Accredited by NVLAP for performance of Industry Canada RSS and ICES testing. Our Open Area Test Sites and certification chambers comply with RSS-Gen, Issue 2 and have been filed with Industry Canada and accepted. Northwest EMC has been accredited by ANSI to ISO / IEC Guide 65 as a product certifier. We have been designated by NIST and recognized by Industry Canada as a Certification Body (CB) per the APEC Mutual Recognition Arrangement (MRA). This allows Northwest EMC to certify transmitters to Industry Canada technical requirements. (*Site Filing Numbers - Hillsboro: 2834D-1, 2834D-2, Sultan: 2834C-1, Irvine: 2834B-1, 2834B-2*)



CAB: Designated by NIST and validated by the European Commission as a Conformity Assessment Body (CAB) to conduct tests and approve products to the EMC directive and transmitters to the R&TTE directive, as described in the U.S. - EU Mutual Recognition Agreement.



NEMKO: Assessed and accredited by NEMKO (Norwegian testing and certification body) for European emissions and immunity testing. As a result of NEMKO's laboratory assessment, they will accept test results from Northwest EMC, Inc. for product certification (Authorization No. ELA 119).



Australia/New Zealand: The National Association of Testing Authorities (NATA), Australia has been appointed by the ACA as an accreditation body to accredit test laboratories and competent bodies for EMC standards. Accredited test reports or assessments by competent bodies must carry the NATA logo. Test reports made by an overseas laboratory that has been accredited for the relevant standards by an overseas accreditation body that has a Mutual Recognition Agreement (MRA) with NATA are also accepted as technical grounds for product conformity. The report should be endorsed with the respective logo of the accreditation body (NVLAP).



VCCI: Accepted as an Associate Member to the VCCI, Acceptance No. 564. Conducted and radiated measurement facilities have been registered in accordance with Regulations for Voluntary Control Measures, Article 8. (*Registration Numbers. - Hillsboro: C-1071, R-1025, C-2687, T-289, and R-2318, Irvine: R-1943, C-2766, and T-298, Sultan: R-871, C-1784, and T-294.*)



BSMI: Northwest EMC has been designated by NIST and validated by C-Taipei (BSMI) as a CAB to conduct tests as described in the APEC Mutual Recognition Agreement (US0017). License No.SL2-IN-E-1017.



GOST: Northwest EMC, Inc. has been assessed and accredited by the Russian Certification bodies Certinform VNIINMASH, CERTINFO, SAMTES, and Federal CHEC, to perform EMC and Hygienic testing for Information Technology Products. As a result of their laboratory assessment, they will accept test results from Northwest EMC, Inc. for product certification



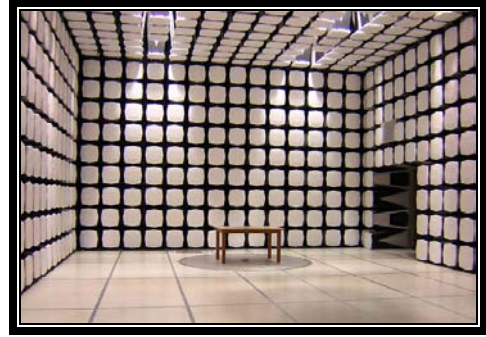
KCC: Northwest EMC, Inc is a CAB designated by MRA partners and recognized by Korea. (*Assigned Lab Numbers: Hillsboro: US0017, Irvine: US0158, Sultan: US0157*)



SCOPE

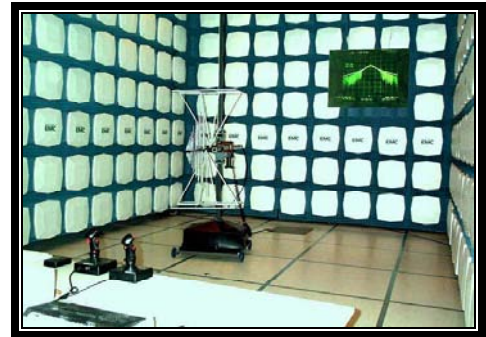
For details on the Scopes of our Accreditations, please visit:

<http://www.nwemc.com/accreditations/>



**California – Orange County Facility
Labs OC01 – OC13**

41 Tesla Ave. Irvine, CA 92618
(888) 364-2378 Fax: (503) 844-3826



**Oregon – Evergreen Facility
Labs EV01 – EV11**

22975 NW Evergreen Pkwy. Suite 400 Hillsboro, OR 97124
(503) 844-4066 Fax: (503) 844-3826



**Washington – Sultan Facility
Labs SU01 – SU07**

14128 339th Ave. SE Sultan, WA 98294
(888) 364-2378

Party Requesting the Test

Company Name:	Intermec Technologies Corporation
Address:	6001 36th Avenue West
City, State, Zip:	Everett, WA 98203-1264
Test Requested By:	Sean MacKellar
Model:	DDIB
First Date of Test:	November 18, 2008
Last Date of Test:	December 13, 2008
Receipt Date of Samples:	November 18, 2008
Equipment Design Stage:	Prototype
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test**Functional Description of the EUT (Equipment Under Test):**

One combination 802.11a/b/g - Bluetooth radio module installed in an industrial handheld computer.

Testing Objective:

Seeking to demonstrate compliance under FCC 15.247 for operation in the 2.4 and 5.8 GHz bands.

CONFIGURATION 1 INMC0500**Software/Firmware Running during test**

Description	Version
Intermec Radio Test Software, 'radio_with reset.vi'	Version 1.0 Oct 2008

EUT

Description	Manufacturer	Model/Part Number	Serial Number
EUT - 802.11 / Bluetooth radio	Intermec	DDIB	Proto 13

Peripherals in test setup boundary

Description	Manufacturer	Model/Part Number	Serial Number
Host Extender Card	None	None	None
Host Computer	Dell	Latitude D600	None
External Dipole Antenna	Laird Technologies	WTS2450-RPSMA	None

Cables

Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
Power	PA	1.6m	PA	Host Computer	Power Adapter
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 4 INMC0500**Software/Firmware Running during test**

Description	Version
Intermec Radio Test Software, 'radio_with reset.vi'	Version 1.0 Oct 2008

EUT

Description	Manufacturer	Model/Part Number	Serial Number
EUT - 802.11 / Bluetooth radio	Intermec	DDIB	Proto 13

Peripherals in test setup boundary

Description	Manufacturer	Model/Part Number	Serial Number
Host Extender Card	None	None	None
Host Computer	Dell	Latitude D600	None

Cables

Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
Power	PA	1.6m	PA	Host Computer	Power Adapter
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 6 INMC0500**Software/Firmware Running during test**

Description	Version
FCC Test Utility	1.01

EUT

Description	Manufacturer	Model/Part Number	Serial Number
EUT - 802.11 radio	Intermec	DDIB	000B6B8D3470

Peripherals in test setup boundary

Description	Manufacturer	Model/Part Number	Serial Number
Battery Replacer module	Intermec	None	None
CK3 Hand Held Computer	Intermec	CK3	20310858065
DC Power Supply (test equipment)	Topward Electric	TPS-2000	TDP

Cables

Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
DC Power	No	1.0m	PA	Battery Replacer module	DC Power Supply (test equipment)
AC Power	No	1.0m	No	AC Mains	DC Power Supply (test equipment)

PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.

Equipment modifications					
Item	Date	Test	Modification	Note	Disposition of EUT
1	11/18/2008	Peak Output Power	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
2	12/1/2008	Power Spectral Density	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
3	12/8/2008	Occupied Bandwidth	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
4	12/8/2008	Band Edge Compliance	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
5	12/11/2008	Spurious Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
6	12/11/2008	Spurious Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
7	12/19/2008	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was complete.

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

MODES OF OPERATION

Transmitting 802.11(b/g)
Transmitting 802.11(a)

CHANNELS USED FOR FINAL DATA

Low channel 1, 2412MHz
Mid channel 6, 2437MHz
High channel 11, 2462MHz
High channel 149, 5745MHz
High channel 157, 5785MHz
High channel 165, 5825MHz

DATA RATES USED FOR FINAL DATA

1 Mbps
6 Mbps
11 Mbps
36 Mbps
54 Mbps

POWER SETTINGS INVESTIGATED

3.3Vdc via host

POWER SETTINGS USED FOR FINAL DATA

3.3Vdc via host

FREQUENCY RANGE INVESTIGATED

Start Frequency	30MHz	Stop Frequency	40GHz
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CLOCKS AND OSCILLATORS

None Provided

SAMPLE CALCULATIONS

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4446A	AAT	12/7/2007	13
EV01 Cables		Bilog Cables	EVA	5/19/2008	13
Pre-Amplifier	Miteq	AM-1616-1000	AOL	5/19/2008	13
Antenna, Biconilog	EMCO	3141	AXE	1/15/2008	24
EV01 Cables		Double Ridge Horn Cables	EVB	5/19/2008	13
Pre-Amplifier	Miteq	AMF-4D-010100-24-10P	APW	5/19/2008	13
Antenna, Horn	EMCO	3115	AHC	8/12/2008	24
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVC	6/30/2008	13
Antenna, Horn	ETS	3160-07	AHU	NCR	0
EV01 Cables		Standard Gain Horns Cables	EVF	11/13/2008	13
Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVD	6/30/2008	13
Antenna, Horn	ETS	3160-08	AHV	NCR	0
EV01 Cables		18-26GHz Standard Gain Horn Cable	EVD	12/2/2008	13
Pre-Amplifier	Miteq	JSD4-18002600-26-8P	APU	12/2/2008	13
Antenna, Horn	EMCO	3160-09	AHG	NCR	0
26-40GHz Cable		TTBJ141-KMKM-72	EVX	7/30/2008	13
Pre-Amplifier	Miteq	JSW45-26004000-40-5P	AVN	7/30/2008	13
Antenna, Horn	ETS	3160-10	AIC	NCR	0

MEASUREMENT BANDWIDTHS

	Frequency Range	Peak Data	Quasi-Peak Data	Average Data
	(MHz)	(kHz)	(kHz)	(kHz)
	0.01 - 0.15	1.0	0.2	0.2
	0.15 - 30.0	10.0	9.0	9.0
	30.0 - 1000	100.0	120.0	120.0
	Above 1000	1000.0	N/A	1000.0

Measurements were made using the bandwidths and detectors specified. No video filter was used.

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

The highest gain of each type of antenna to be used with the EUT was tested. The EUT was configured for low, mid, and high band transmit frequencies. For each configuration, the spectrum was scanned throughout the specified range. In addition, measurements were made in the restricted bands to verify compliance. While scanning, emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and the EUT antenna in three orthogonal axis, and adjusting measurement antenna height and polarization, and manipulating the EUT antenna in 3 orthogonal planes (per ANSI C63.4:2003). A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

EUT: DDIB	Work Order: INMC0500
Serial Number: Proto 13	Date: 11/19/08
Customer: Intermec Technologies Corporation	Temperature: 22°C
Attendees: None	Humidity: 43%
Project: None	Barometric Pres.: 30.22
Tested by: David Divergigelis	Power: 3.3Vdc via host
	Job Site: EV12

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2008	ANSI C63.4:2003, KDB No. 558074

TEST PARAMETERS	
Antenna Height(s) (m) 1 - 4	Test Distance (m) 3

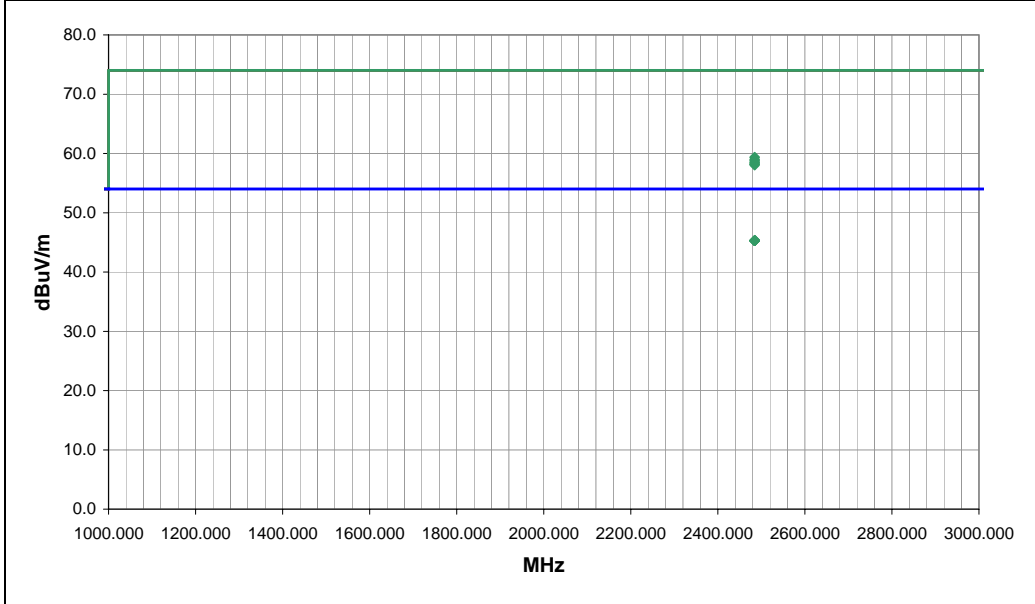
COMMENTS
See comments below for data rate.

EUT OPERATING MODES

Transmitting 802.11(b/g) High Channel

DEVIATIONS FROM TEST STANDARD
No deviations.
Run # 1
Configuration # 1
Results Pass

Signature *David Divergigelis*



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
2484.957	26.9	-1.5	247.0	1.0	3.0	20.0	V-Horn	AV	0.0	45.4	54.0	-8.6	Antenna vertical, 6Mbps
2484.087	26.8	-1.5	160.0	3.4	3.0	20.0	H-Horn	AV	0.0	45.3	54.0	-8.7	Antenna on side, 6Mbps
2484.112	26.8	-1.5	231.0	3.6	3.0	20.0	V-Horn	AV	0.0	45.3	54.0	-8.7	Antenna horizontal, 11Mbps
2484.114	26.8	-1.5	70.0	3.4	3.0	20.0	H-Horn	AV	0.0	45.3	54.0	-8.7	Antenna vertical, 36Mbps
2484.374	26.8	-1.5	321.0	3.4	3.0	20.0	H-Horn	AV	0.0	45.3	54.0	-8.7	Antenna vertical, 6Mbps
2484.494	26.8	-1.5	309.0	3.6	3.0	20.0	V-Horn	AV	0.0	45.3	54.0	-8.7	Antenna horizontal, 36Mbps
2484.552	26.8	-1.5	98.0	3.6	3.0	20.0	V-Horn	AV	0.0	45.3	54.0	-8.7	Antenna horizontal, 54Mbps
2484.592	26.8	-1.5	37.0	3.4	3.0	20.0	H-Horn	AV	0.0	45.3	54.0	-8.7	Antenna vertical, 11Mbps
2484.738	26.8	-1.5	339.0	1.0	3.0	20.0	V-Horn	AV	0.0	45.3	54.0	-8.7	Antenna horizontal, 6Mbps
2484.774	26.8	-1.5	240.0	3.4	3.0	20.0	H-Horn	AV	0.0	45.3	54.0	-8.7	Antenna vertical, 54Mbps
2484.814	26.8	-1.5	353.0	1.0	3.0	20.0	V-Horn	AV	0.0	45.3	54.0	-8.7	Antenna on side, 6Mbps
2484.840	26.8	-1.5	341.0	3.4	3.0	20.0	H-Horn	AV	0.0	45.3	54.0	-8.7	Antenna horizontal, 6Mbps
2484.636	40.9	-1.5	321.0	3.4	3.0	20.0	H-Horn	PK	0.0	59.4	74.0	-14.6	Antenna vertical, 6Mbps
2484.390	40.8	-1.5	339.0	1.0	3.0	20.0	V-Horn	PK	0.0	59.3	74.0	-14.7	Antenna horizontal, 6Mbps
2484.540	40.5	-1.5	341.0	3.4	3.0	20.0	H-Horn	PK	0.0	59.0	74.0	-15.0	Antenna horizontal, 6Mbps
2484.603	40.4	-1.5	98.0	3.6	3.0	20.0	V-Horn	PK	0.0	58.9	74.0	-15.1	Antenna horizontal, 54Mbps
2484.454	40.3	-1.5	353.0	1.0	3.0	20.0	V-Horn	PK	0.0	58.8	74.0	-15.2	Antenna on side, 6Mbps
2484.498	40.1	-1.5	160.0	3.4	3.0	20.0	H-Horn	PK	0.0	58.6	74.0	-15.4	Antenna on side, 6Mbps
2484.667	40.0	-1.5	231.0	3.6	3.0	20.0	V-Horn	PK	0.0	58.5	74.0	-15.5	Antenna horizontal, 11Mbps
2484.428	39.9	-1.5	247.0	1.0	3.0	20.0	V-Horn	PK	0.0	58.4	74.0	-15.6	Antenna vertical, 6Mbps

EUT: DDIB	Work Order: INMC0500
Serial Number: Proto 13	Date: 11/19/08
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Attendees: None	Humidity: 43%
Project: None	Barometric Pres.: 30.22
Tested by: David Divergigelis	Power: 3.3Vdc via host
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TEST SPECIFICATIONS		Test Method
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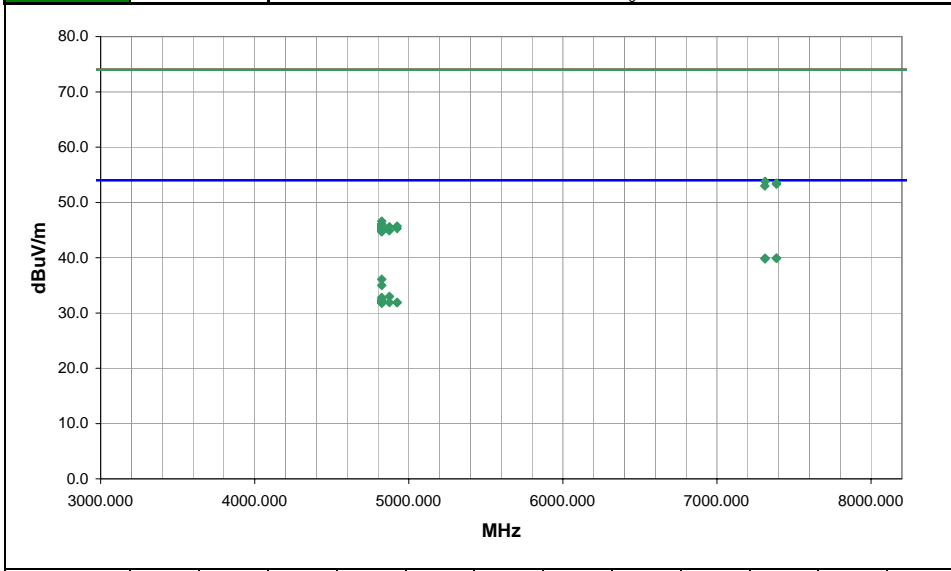
TEST PARAMETERS		
Antenna Height(s) (m)	1 - 4	Test Distance (m)
		3

COMMENTS
See comments below for channel and data rate.

EUT OPERATING MODES
Transmitting 802.11(b)

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	2	Signature <i>David Divergigelis</i>
Configuration #	1	
Results	Pass	



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
7386.023	25.7	14.2	201.0	1.0	3.0	0.0	V-Horn	AV	0.0	39.9	54.0	-14.1	Antenna On side, High channel, 6Mbps
7386.155	25.7	14.2	91.0	1.0	3.0	0.0	H-Horn	AV	0.0	39.9	54.0	-14.1	Antenna Vert, High channel, 6Mbps
7312.663	25.9	14.0	352.0	1.0	3.0	0.0	H-Horn	AV	0.0	39.9	54.0	-14.1	Antenna Vert, Mid channel, 6Mbps
7311.470	25.8	14.0	0.0	1.0	3.0	0.0	V-Horn	AV	0.0	39.8	54.0	-14.2	Antenna On side, Mid channel, 6Mbps
4824.007	29.5	6.6	42.0	1.0	3.0	0.0	V-Horn	AV	0.0	36.1	54.0	-17.9	Antenna On side, Low channel, 1Mbps
4824.040	28.4	6.6	245.0	1.0	3.0	0.0	H-Horn	AV	0.0	35.0	54.0	-19.0	Antenna Vert, Low channel, 1Mbps
7311.720	39.8	14.0	0.0	1.0	3.0	0.0	V-Horn	PK	0.0	53.8	74.0	-20.2	Antenna On side, Mid channel, 6Mbps
7386.102	39.3	14.2	201.0	1.0	3.0	0.0	V-Horn	PK	0.0	53.5	74.0	-20.5	Antenna On side, High channel, 6Mbps
7385.992	39.1	14.2	91.0	1.0	3.0	0.0	H-Horn	PK	0.0	53.3	74.0	-20.7	Antenna Vert, High channel, 6Mbps
4874.097	26.2	6.8	0.0	1.4	3.0	0.0	V-Horn	AV	0.0	33.0	54.0	-21.0	Antenna On side, Mid channel, 6Mbps
7310.400	39.0	14.0	352.0	1.0	3.0	0.0	H-Horn	PK	0.0	53.0	74.0	-21.0	Antenna Vert, Mid channel, 1Mbps
4823.863	26.2	6.6	172.0	1.0	3.0	0.0	H-Horn	AV	0.0	32.8	54.0	-21.2	Antenna On side, Low channel, 1Mbps
4824.013	25.9	6.6	282.0	1.0	3.0	0.0	V-Horn	AV	0.0	32.5	54.0	-21.5	Antenna Vert, Low channel, 1Mbps
4823.937	25.6	6.6	223.0	1.0	3.0	0.0	H-Horn	AV	0.0	32.2	54.0	-21.8	Antenna Horz, Low channel, 1Mbps
4823.913	25.5	6.6	278.0	1.0	3.0	0.0	V-Horn	AV	0.0	32.1	54.0	-21.9	Antenna Horz, Low channel, 1Mbps
4823.661	25.3	6.6	29.0	1.0	3.0	0.0	V-Horn	AV	0.0	31.9	54.0	-22.1	Antenna On side, Low channel, 36Mbps
4824.101	25.3	6.6	106.0	1.0	3.0	0.0	V-Horn	AV	0.0	31.9	54.0	-22.1	Antenna On side, Low channel, 6Mbps
4824.178	25.3	6.6	28.0	1.0	3.0	0.0	V-Horn	AV	0.0	31.9	54.0	-22.1	Antenna On side, Low channel, 54Mbps
4824.317	25.3	6.6	155.0	2.2	3.0	0.0	H-Horn	AV	0.0	31.9	54.0	-22.1	Antenna Horz, Low channel, 54Mbps
4874.557	25.1	6.8	254.0	1.0	3.0	0.0	H-Horn	AV	0.0	31.9	54.0	-22.1	Antenna Vert, Mid channel, 6Mbps

EUT: DDIB	Work Order: INMC0500
Serial Number: Proto 13	Date: 12/19/08
Customer: Intermec Technologies Corporation	Temperature: 20.6° C
Attendees: None	Humidity: 25%
Project: None	Barometric Pres.: 1020.5mb
Tested by: Dan Haas	Power: 3.3Vdc via host
	Job Site: EV12

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2008	ANSI C63.4:2003, KDB No. 558074

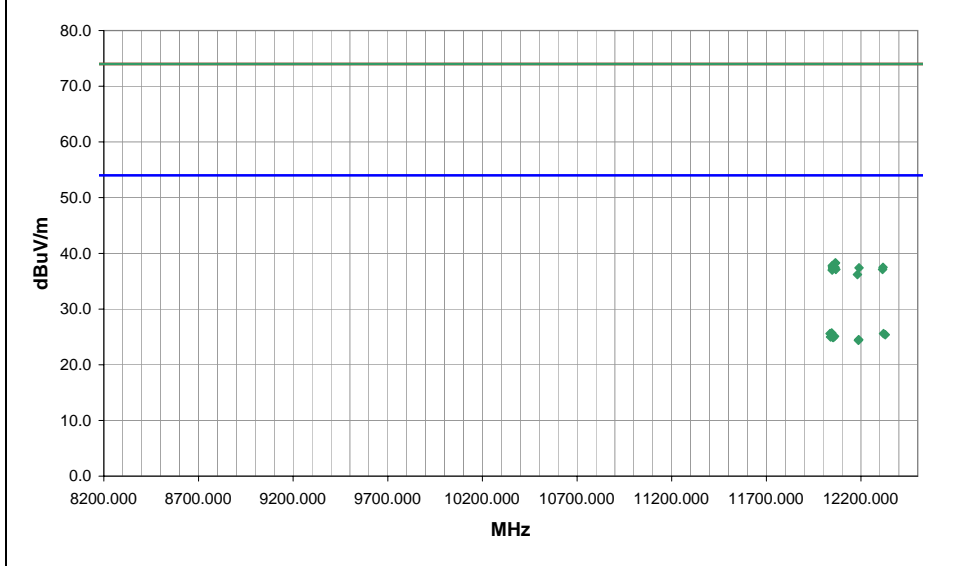
TEST PARAMETERS	
Antenna Height(s) (m) 1 - 4	Test Distance (m) 3

COMMENTS
See notes for EUT orientation, channel, and data rate.

EUT OPERATING MODES
Transmitting 802.11(b/g)

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	9	Signature 
Configuration #	1	
Results	Pass	



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
12045.650	37.0	-11.3	189.0	1.0	3.0	0.0	V-Horn	AV	0.0	25.7	54.0	-28.3	Laptop horizontal, channel 1, 1Mbps.
12036.850	36.9	-11.3	82.0	1.0	3.0	0.0	H-Horn	AV	0.0	25.6	54.0	-28.4	Laptop horizontal, channel 1, 1Mbps.
12319.150	36.3	-10.7	171.0	1.0	3.0	0.0	H-Horn	AV	0.0	25.6	54.0	-28.4	Laptop horizontal, channel 11, 1Mbps.
12328.000	36.1	-10.7	131.0	1.4	3.0	0.0	V-Horn	AV	0.0	25.4	54.0	-28.6	Laptop horizontal, channel 11, 1Mbps.
12045.100	36.6	-11.3	263.0	1.0	3.0	0.0	V-Horn	AV	0.0	25.3	54.0	-28.7	Laptop horizontal, channel 1, 11Mbps.
12047.200	36.5	-11.3	82.0	1.0	3.0	0.0	V-Horn	AV	0.0	25.2	54.0	-28.8	Laptop horizontal, channel 1, 54Mbps.
12060.250	36.4	-11.3	246.0	1.0	3.0	0.0	V-Horn	AV	0.0	25.1	54.0	-28.9	Laptop horizontal, channel 1, 6Mbps.
12039.500	36.3	-11.3	265.0	1.0	3.0	0.0	H-Horn	AV	0.0	25.0	54.0	-29.0	Laptop horizontal, channel 1, 36Mbps.
12052.000	36.3	-11.3	68.0	1.0	3.0	0.0	H-Horn	AV	0.0	25.0	54.0	-29.0	Laptop horizontal, channel 1, 6Mbps.
12053.900	36.3	-11.3	108.0	1.0	3.0	0.0	V-Horn	AV	0.0	25.0	54.0	-29.0	Laptop horizontal, channel 1, 36Mbps.
12050.750	36.2	-11.3	328.0	1.0	3.0	0.0	H-Horn	AV	0.0	24.9	54.0	-29.1	Laptop horizontal, channel 1, 11Mbps.
12054.500	36.2	-11.3	36.0	1.0	3.0	0.0	H-Horn	AV	0.0	24.9	54.0	-29.1	Laptop horizontal, channel 1, 54Mbps.
12188.250	35.6	-11.1	280.0	1.0	3.0	0.0	V-Horn	AV	0.0	24.5	54.0	-29.5	Laptop horizontal, channel 6, 1Mbps.
12186.250	35.5	-11.1	280.0	1.0	3.0	0.0	H-Horn	AV	0.0	24.4	54.0	-29.6	Laptop horizontal, channel 6, 1Mbps.
12065.150	49.6	-11.3	82.0	1.0	3.0	0.0	H-Horn	PK	0.0	38.3	74.0	-35.7	Laptop horizontal, channel 1, 1Mbps.
12062.800	49.5	-11.3	189.0	1.0	3.0	0.0	V-Horn	PK	0.0	38.2	74.0	-35.8	Laptop horizontal, channel 1, 1Mbps.
12048.850	49.1	-11.3	265.0	1.0	3.0	0.0	H-Horn	PK	0.0	37.8	74.0	-36.2	Laptop horizontal, channel 1, 36Mbps.
12049.200	48.9	-11.3	246.0	1.0	3.0	0.0	V-Horn	PK	0.0	37.6	74.0	-36.4	Laptop horizontal, channel 1, 6Mbps.
12062.700	48.8	-11.3	328.0	1.0	3.0	0.0	H-Horn	PK	0.0	37.5	74.0	-36.5	Laptop horizontal, channel 1, 11Mbps.
12316.700	48.2	-10.7	171.0	1.0	3.0	0.0	H-Horn	PK	0.0	37.5	74.0	-36.5	Laptop horizontal, channel 11, 1Mbps.

EMC **SPURIOUS RADIATED EMISSIONS DATA SHEET** PSA 2007.07.21
EMI 2008.7.3

EUT: DDIB		Work Order: INMC0500	
Serial Number: Proto 13		Date: 12/19/08	
Customer: Intermec Technologies Corporation		Temperature: 20.8° C	
Attendees: None		Humidity: 29%	
Project: None		Barometric Pres.: 1009.4mb	
Tested by: Dan Haas		Power: 3.3Vdc via host	
		Job Site: EV12	

TEST SPECIFICATIONS		Test Method	
FCC 15.247 (DTS):2008		ANSI C63.4:2003, KDB No. 558074	

TEST PARAMETERS			
Antenna Height(s) (m)	1 - 4	Test Distance (m)	3

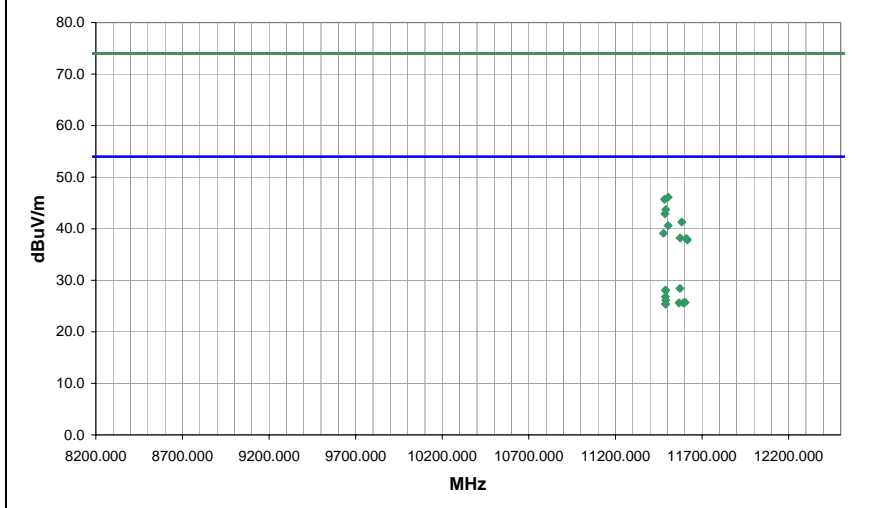
COMMENTS
See notes for EUT orientation, channel, and data rate.

EUT OPERATING MODES
Transmitting 802.11(a)

DEVIATIONS FROM TEST STANDARD

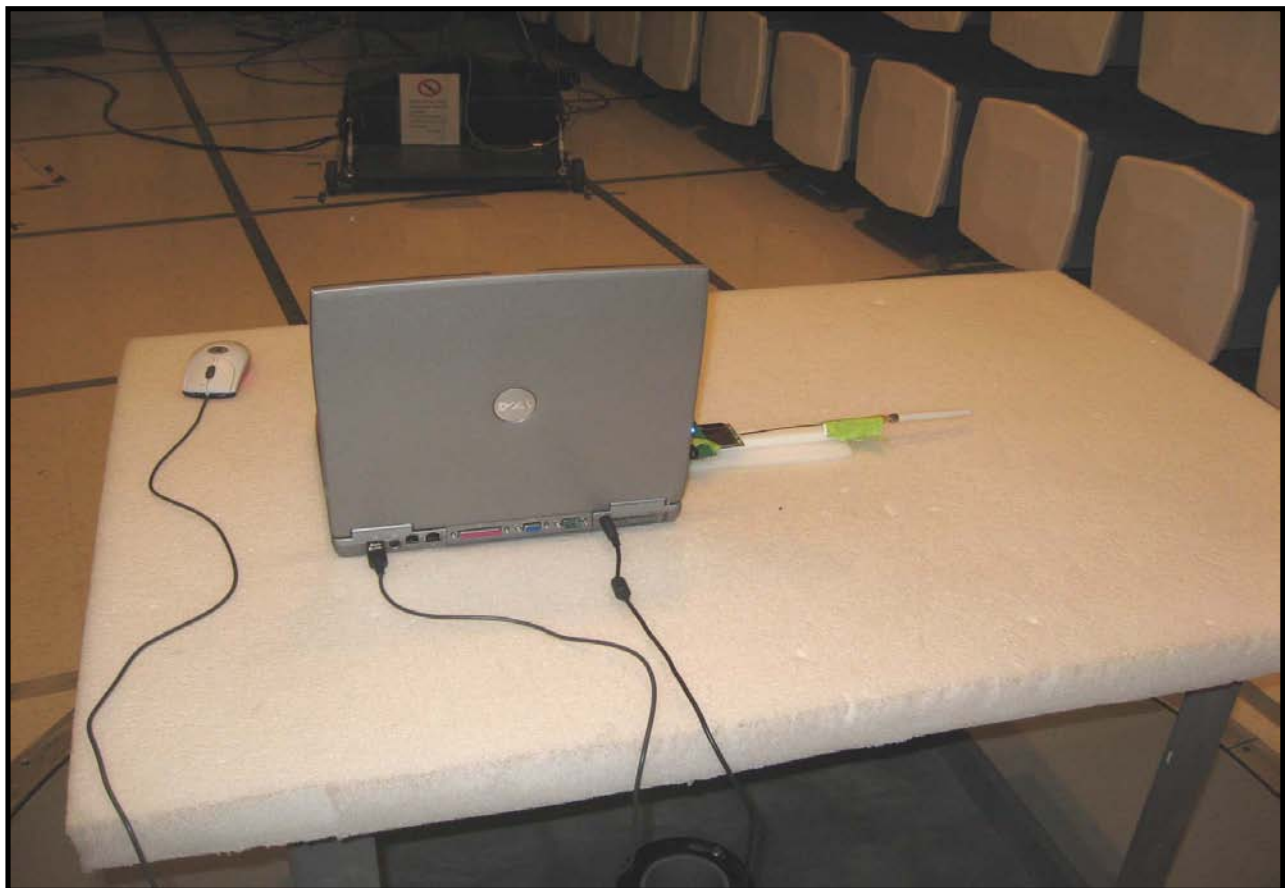
No deviations.

Run #	12	Signature 
Configuration #	1	
Results	Pass	

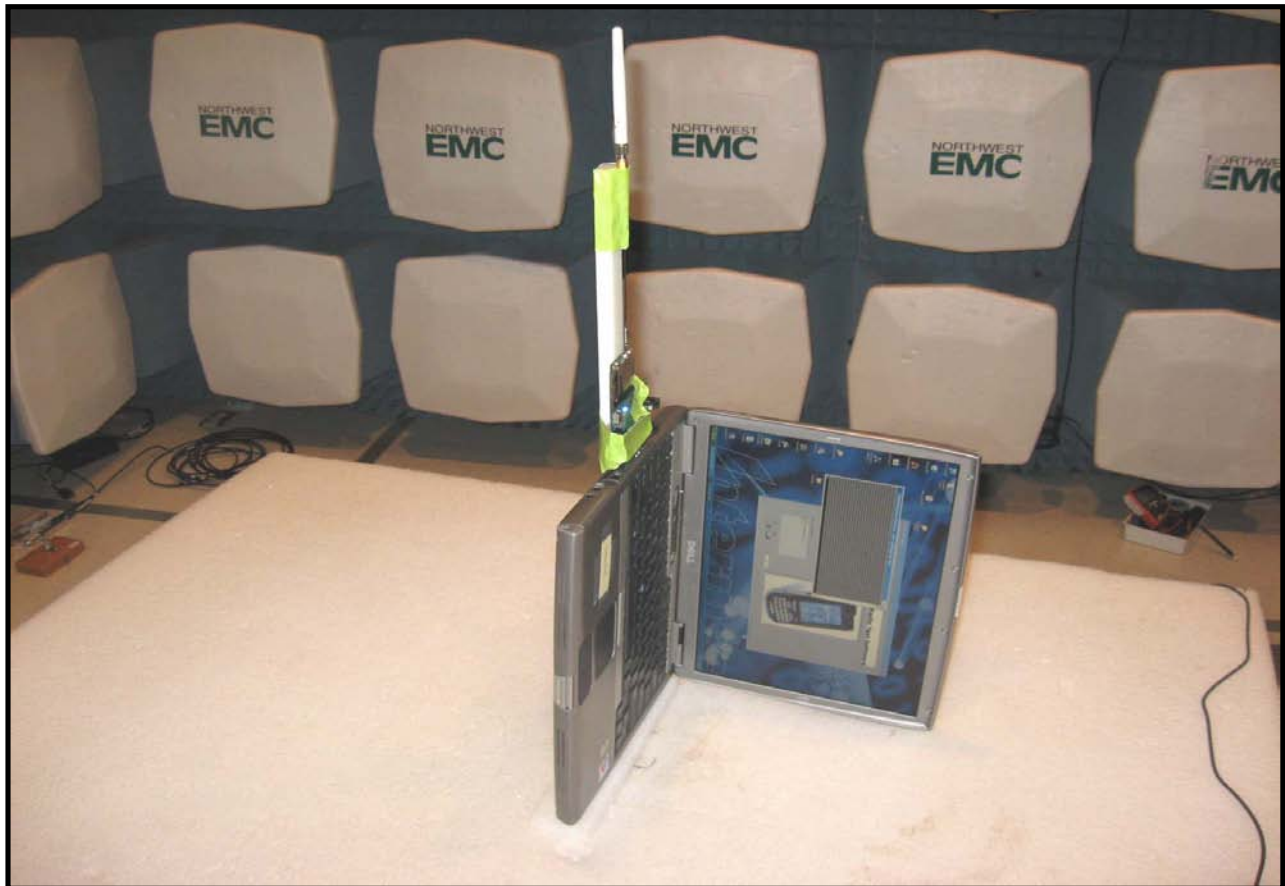


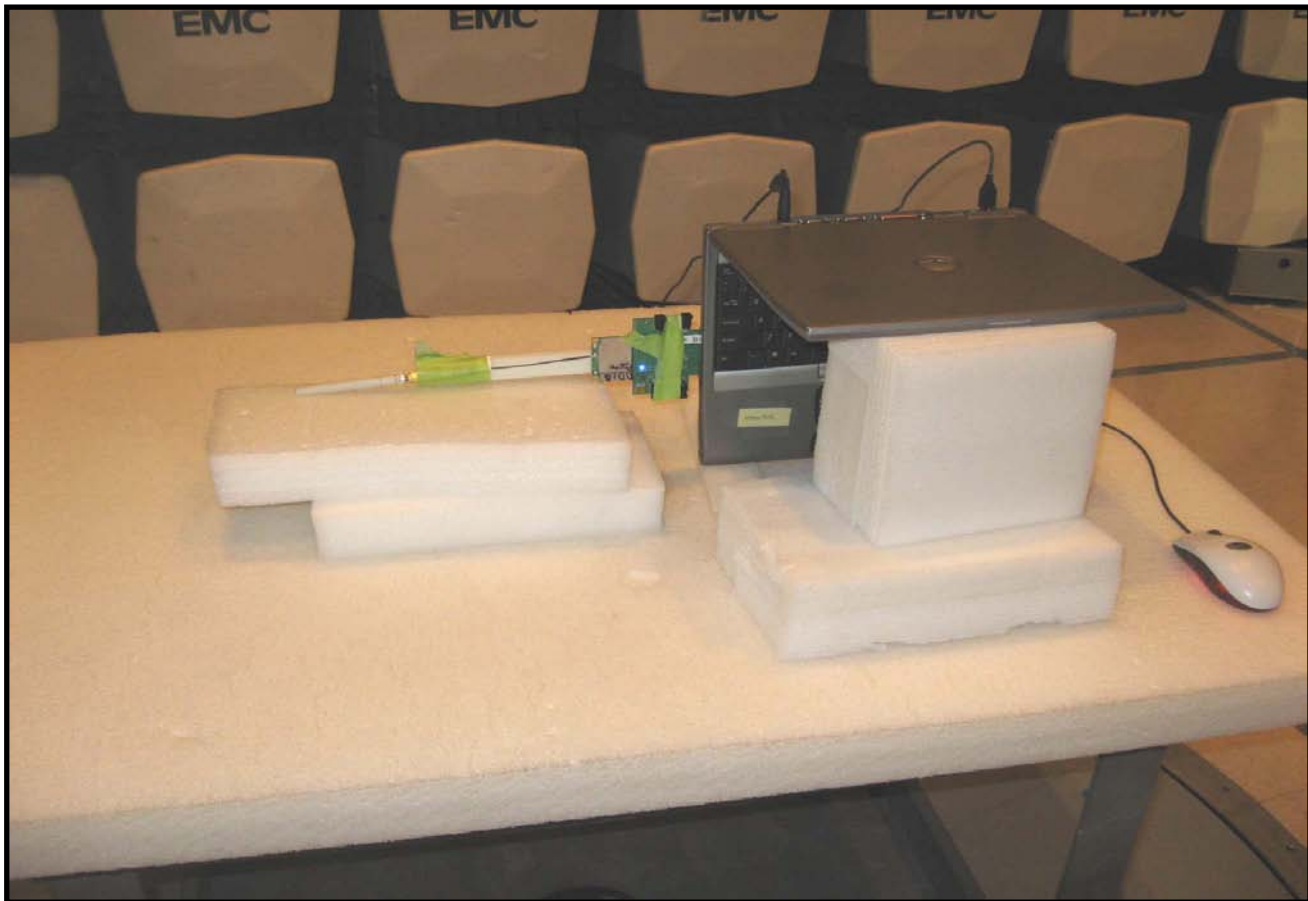
Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
11572.200	40.4	-12.0	255.0	1.0	3.0	0.0	V-Horn	AV	0.0	28.4	54.0	-25.6	Laptop horizontal, channel 157, 6Mbps.
11489.250	40.2	-12.1	254.0	1.0	3.0	0.0	V-Horn	AV	0.0	28.1	54.0	-25.9	Laptop horizontal, channel 149, 6Mbps.
11489.500	40.1	-12.1	71.0	1.3	3.0	0.0	H-Horn	AV	0.0	28.0	54.0	-26.0	Laptop on side, channel 149, 6Mbps.
11488.650	38.9	-12.1	63.0	1.0	3.0	0.0	V-Horn	AV	0.0	26.8	54.0	-27.2	Laptop on side, channel 149, 6Mbps.
11490.450	38.2	-12.1	242.0	1.0	3.0	0.0	H-Horn	AV	0.0	26.1	54.0	-27.9	Laptop horizontal, channel 149, 6Mbps.
11504.200	58.2	-12.1	71.0	1.3	3.0	0.0	H-Horn	PK	0.0	46.1	74.0	-27.9	Laptop on side, channel 149, 6Mbps.
11601.850	37.6	-11.9	221.0	1.0	3.0	0.0	V-Horn	AV	0.0	25.7	54.0	-28.3	Laptop horizontal, channel 165, 6Mbps.
11483.050	57.8	-12.1	63.0	1.0	3.0	0.0	V-Horn	PK	0.0	45.7	74.0	-28.3	Laptop on side, channel 149, 6Mbps.
11592.200	37.5	-11.9	252.0	1.0	3.0	0.0	H-Horn	AV	0.0	25.6	54.0	-28.4	Laptop horizontal, channel 165, 6Mbps.
11567.050	37.6	-12.0	318.0	1.0	3.0	0.0	H-Horn	AV	0.0	25.6	54.0	-28.4	Laptop horizontal, channel 157, 6Mbps.
11489.600	37.5	-12.1	205.0	1.0	3.0	0.0	V-Horn	AV	0.0	25.4	54.0	-28.6	Laptop vertical (screen down), channel 149, 6Mbps.
11489.700	37.5	-12.1	232.0	1.0	3.0	0.0	H-Horn	AV	0.0	25.4	54.0	-28.6	Laptop vertical (screen down), channel 149, 6Mbps.
11490.100	55.8	-12.1	254.0	1.0	3.0	0.0	V-Horn	PK	0.0	43.7	74.0	-30.3	Laptop horizontal, channel 149, 6Mbps.
11486.150	55.0	-12.1	242.0	1.0	3.0	0.0	H-Horn	PK	0.0	42.9	74.0	-31.1	Laptop horizontal, channel 149, 6Mbps.
11583.100	53.3	-12.0	255.0	1.0	3.0	0.0	V-Horn	PK	0.0	41.3	74.0	-32.7	Laptop horizontal, channel 157, 6Mbps.
11503.800	52.7	-12.1	232.0	1.0	3.0	0.0	H-Horn	PK	0.0	40.6	74.0	-33.4	Laptop vertical (screen down), channel 149, 6Mbps.
11477.700	51.2	-12.1	205.0	1.0	3.0	0.0	V-Horn	PK	0.0	39.1	74.0	-34.9	Laptop vertical (screen down), channel 149, 6Mbps.
11573.150	50.2	-12.0	318.0	1.0	3.0	0.0	H-Horn	PK	0.0	38.2	74.0	-35.8	Laptop horizontal, channel 157, 6Mbps.
11609.750	50.0	-11.9	221.0	1.0	3.0	0.0	V-Horn	PK	0.0	38.1	74.0	-35.9	Laptop horizontal, channel 165, 6Mbps.
11615.250	49.7	-11.9	252.0	1.0	3.0	0.0	H-Horn	PK	0.0	37.8	74.0	-36.2	Laptop horizontal, channel 165, 6Mbps.

Spurious Radiated Emissions



Spurious Radiated Emissions





Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4407B	AAU	12/7/2007	13
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	6/27/2008	13

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

The occupied bandwidth was measured with the EUT set to low, medium, and high transmit frequencies. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at its maximum data rate for each type of modulation.

OCCUPIED BANDWIDTH

EMC

EUT: DDIB	Work Order: INMC0500
Serial Number: Proto 13	Date: 12/08/08
Customer: Intermec Technologies Corporation	Temperature: 20°C
Attendees: None	Humidity: 34%
Project: None	Barometric Pres.: 30.22
Tested by: Rod Peloquin	Power: 3.3Vdc via Host
	Job Site: EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2008	ANSI C63.4:2003 KDB No. 558074

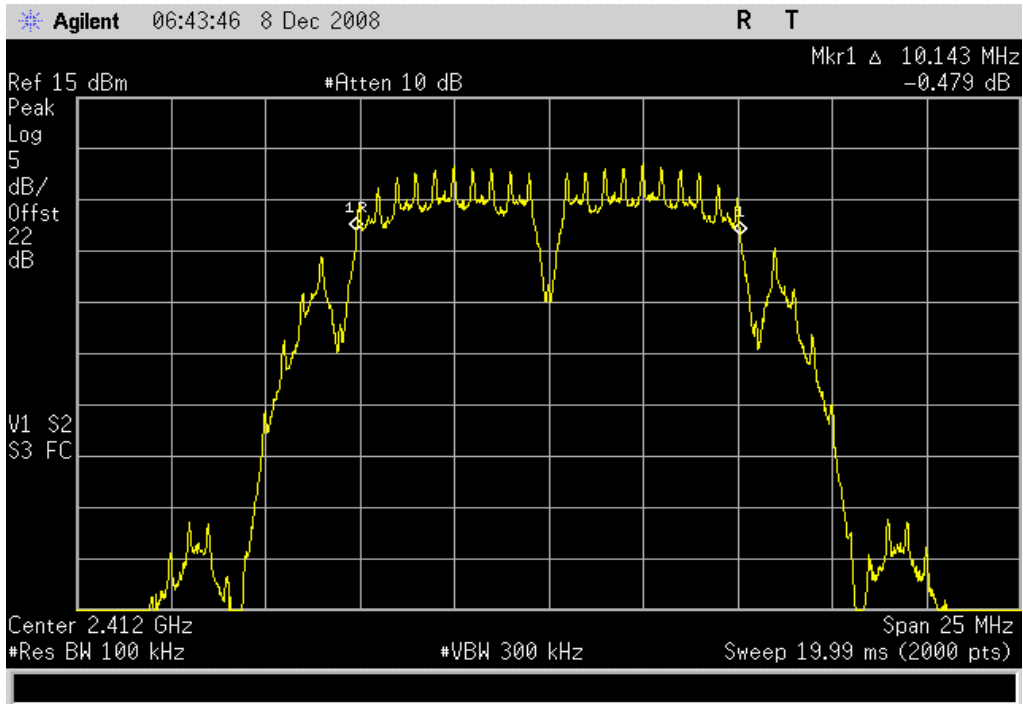
COMMENTS
None

DEVIATIONS FROM TEST STANDARD
No Deviations

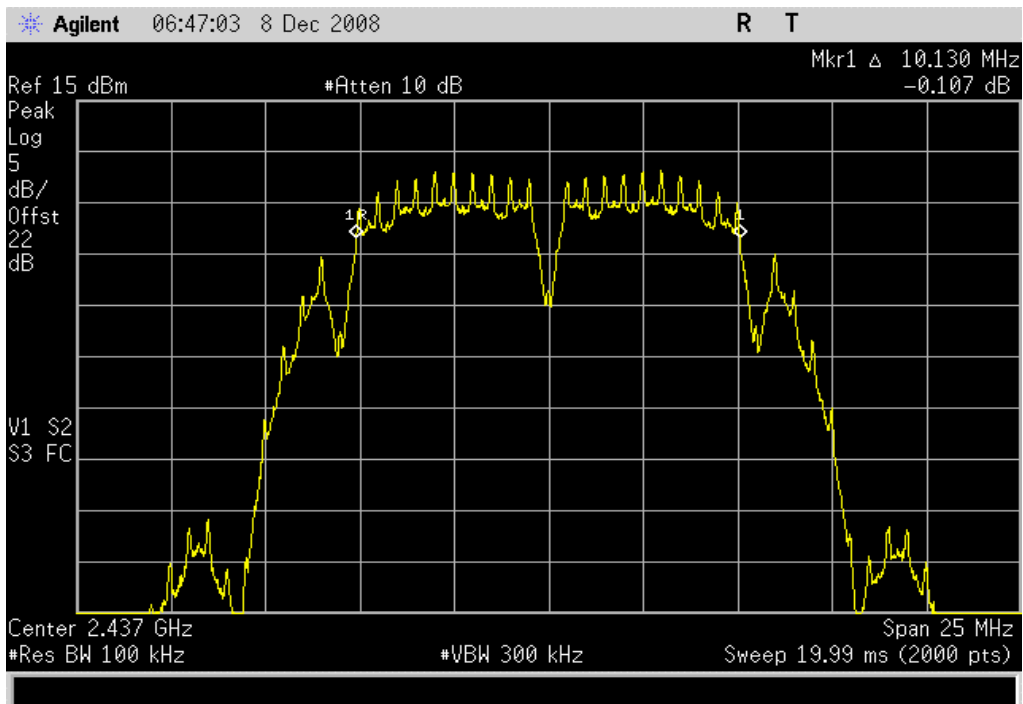
Configuration #	4	Signature 
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		Value	Limit	Results
802.11(b) 1 Mbps	Low Channel	10.143 MHz	≥ 500 kHz	Pass
	Mid Channel	10.130 MHz	≥ 500 kHz	Pass
	High Channel	10.130 MHz	≥ 500 kHz	Pass
802.11(b) 11 Mbps	Low Channel	11.081 MHz	≥ 500 kHz	Pass
	Mid Channel	11.043 MHz	≥ 500 kHz	Pass
	High Channel	11.056 MHz	≥ 500 kHz	Pass
802.11(g) 6 Mbps	Low Channel	16.358 MHz	≥ 500 kHz	Pass
	Mid Channel	16.333 MHz	≥ 500 kHz	Pass
	High Channel	16.346 MHz	≥ 500 kHz	Pass
802.11(g) 36 Mbps	Low Channel	16.483 MHz	≥ 500 kHz	Pass
	Mid Channel	16.471 MHz	≥ 500 kHz	Pass
	High Channel	16.458 MHz	≥ 500 kHz	Pass
802.11(g) 54 Mbps	Low Channel	16.496 MHz	≥ 500 kHz	Pass
	Mid Channel	16.496 MHz	≥ 500 kHz	Pass
	High Channel	16.496 MHz	≥ 500 kHz	Pass
802.11(a) 6 Mbps	Low Channel	16.358 MHz	≥ 500 kHz	Pass
	Mid Channel	16.358 MHz	≥ 500 kHz	Pass
	High Channel	16.358 MHz	≥ 500 kHz	Pass
802.11(a) 36 Mbps	Low Channel	16.483 MHz	≥ 500 kHz	Pass
	Mid Channel	16.471 MHz	≥ 500 kHz	Pass
	High Channel	16.496 MHz	≥ 500 kHz	Pass
802.11(a) 54 Mbps	Low Channel	16.496 MHz	≥ 500 kHz	Pass
	Mid Channel	16.508 MHz	≥ 500 kHz	Pass
	High Channel	16.483 MHz	≥ 500 kHz	Pass

802.11(b) 1 Mbps, Low Channel
Result: Pass **Value:** 10.143 MHz **Limit:** ≥ 500 kHz



802.11(b) 1 Mbps, Mid Channel
Result: Pass **Value:** 10.130 MHz **Limit:** ≥ 500 kHz

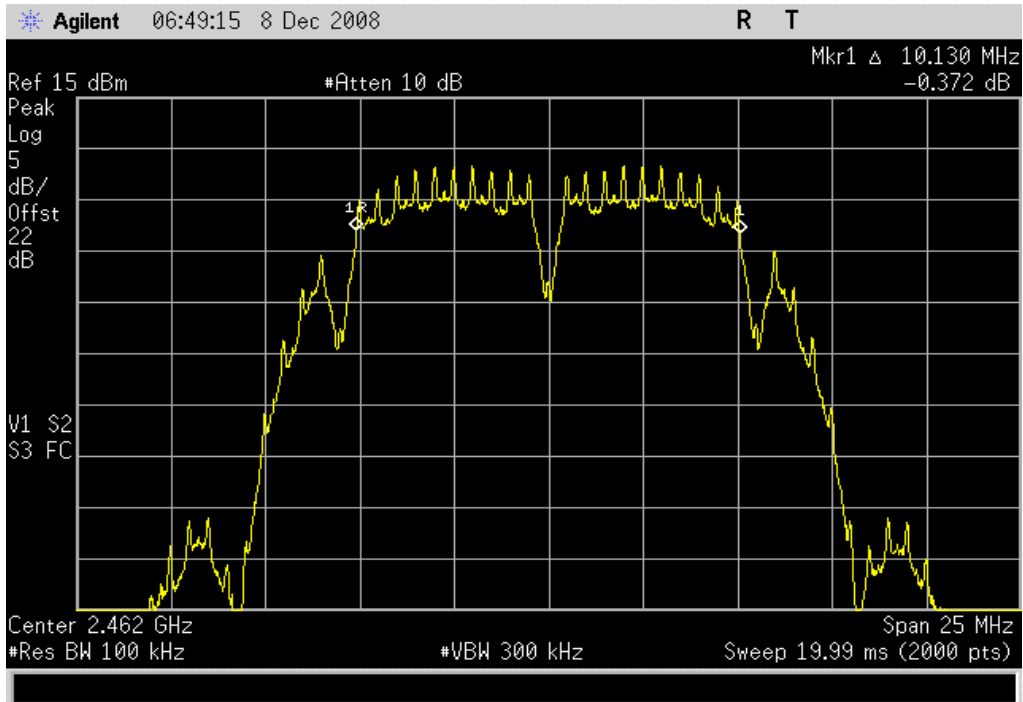


802.11(b) 1 Mbps, High Channel

Result: Pass

Value: 10.130 MHz

Limit: ≥ 500 kHz

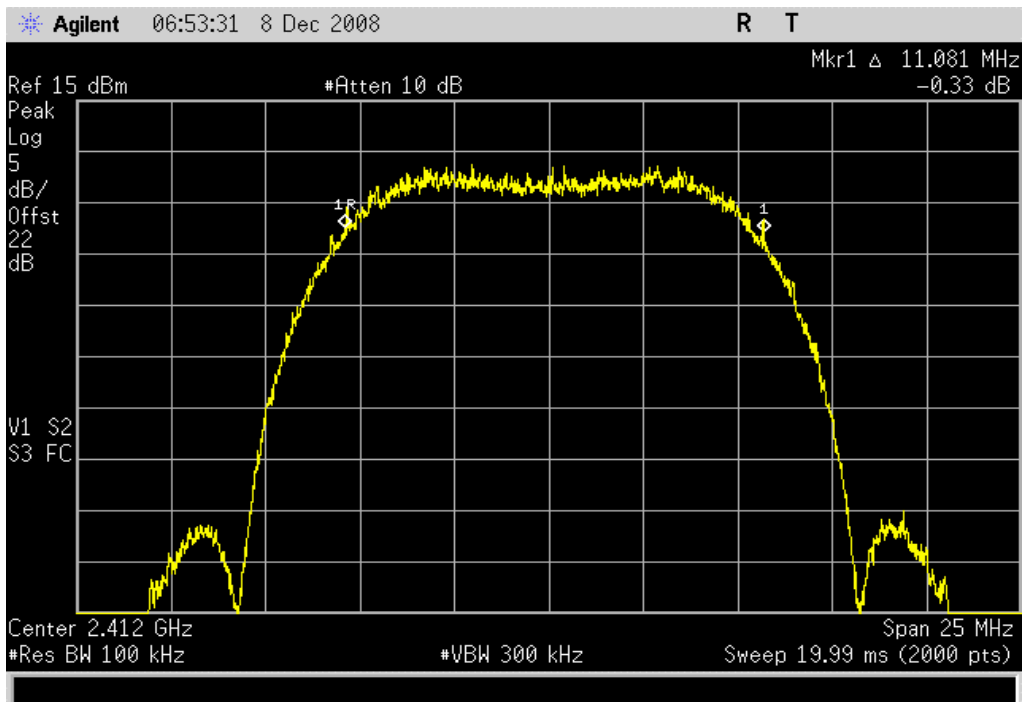


802.11(b) 11 Mbps, Low Channel

Result: Pass

Value: 11.081 MHz

Limit: ≥ 500 kHz

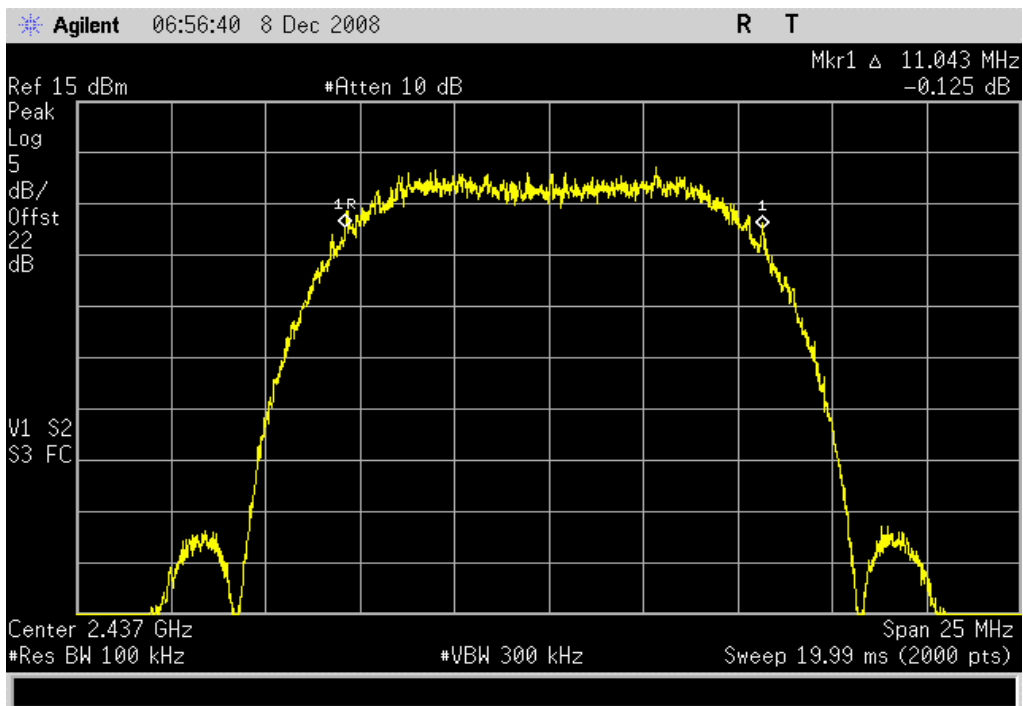


802.11(b) 11 Mbps, Mid Channel

Result: Pass

Value: 11.043 MHz

Limit: ≥ 500 kHz

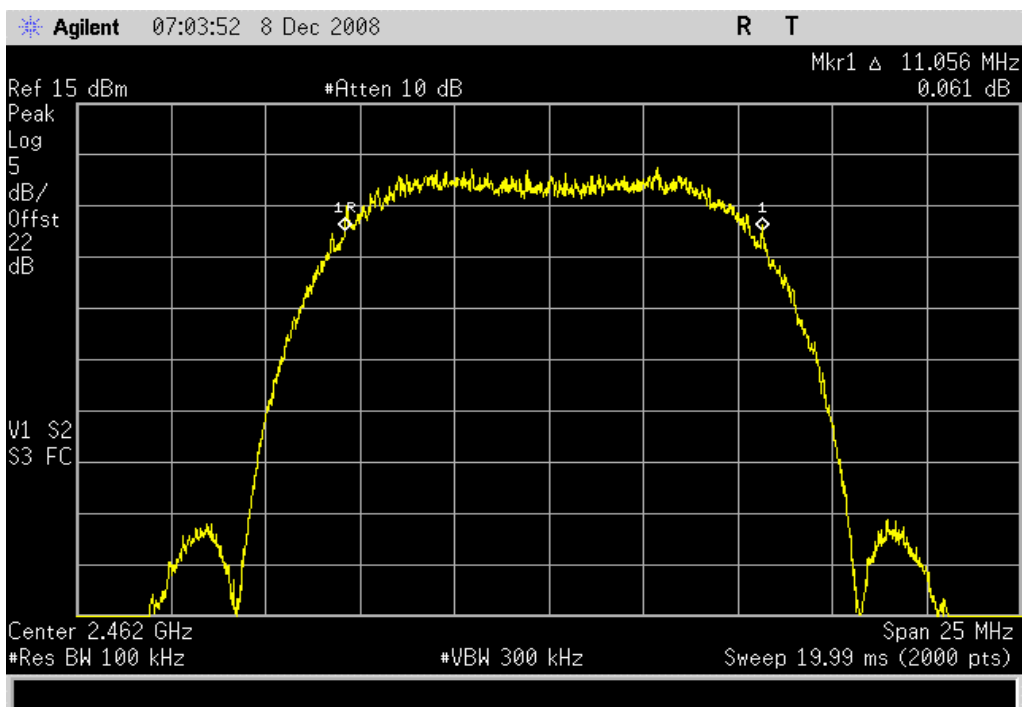


802.11(b) 11 Mbps, High Channel

Result: Pass

Value: 11.056 MHz

Limit: ≥ 500 kHz

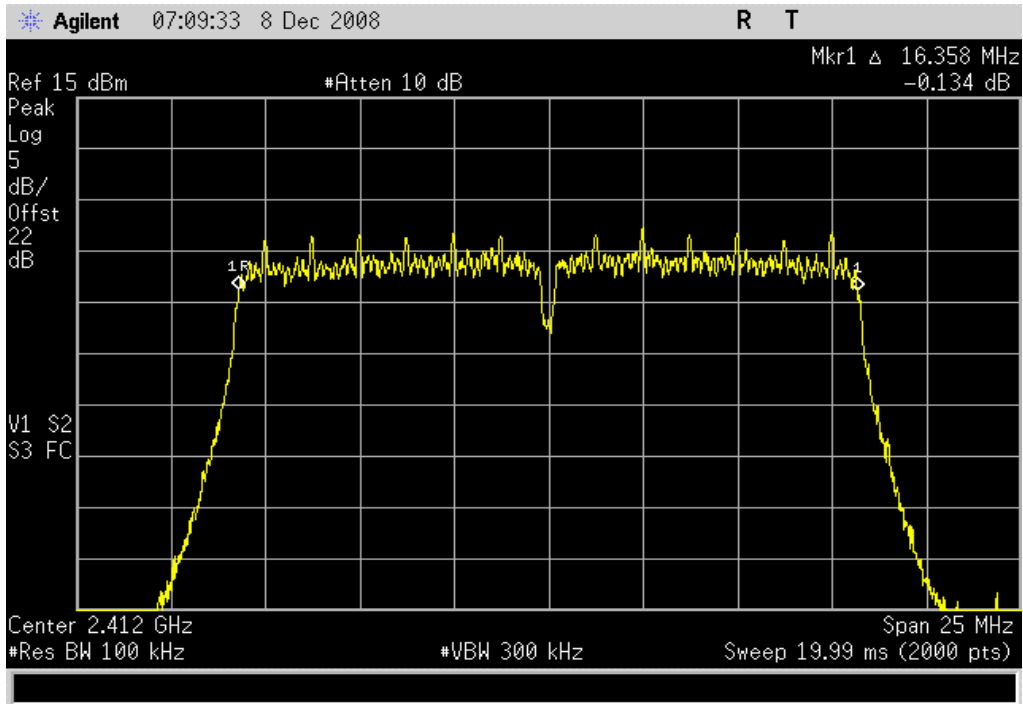


802.11(g) 6 Mbps, Low Channel

Result: Pass

Value: 16.358 MHz

Limit: ≥ 500 kHz

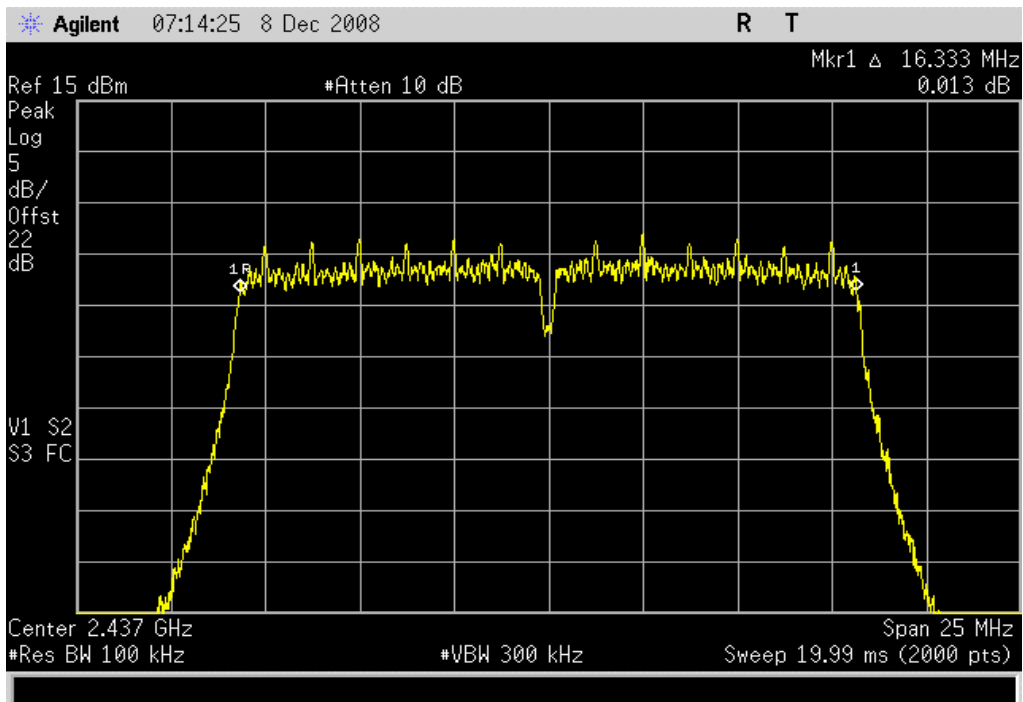


802.11(g) 6 Mbps, Mid Channel

Result: Pass

Value: 16.333 MHz

Limit: ≥ 500 kHz

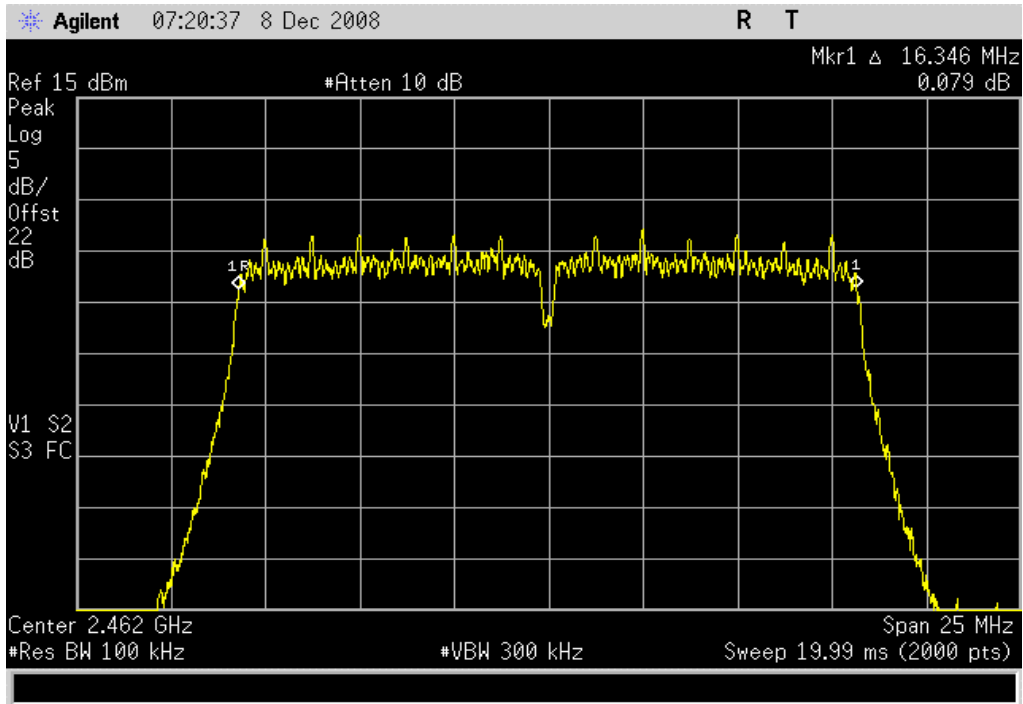


802.11(g) 6 Mbps, High Channel

Result: Pass

Value: 16.346 MHz

Limit: ≥ 500 kHz

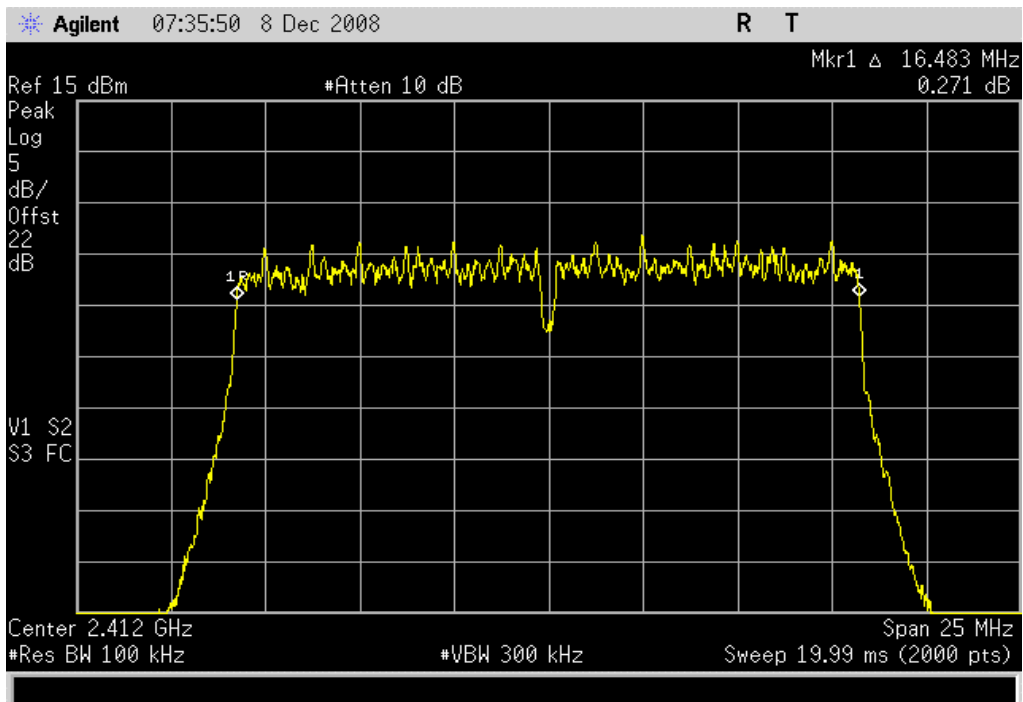


802.11(g) 36 Mbps, Low Channel

Result: Pass

Value: 16.483 MHz

Limit: ≥ 500 kHz

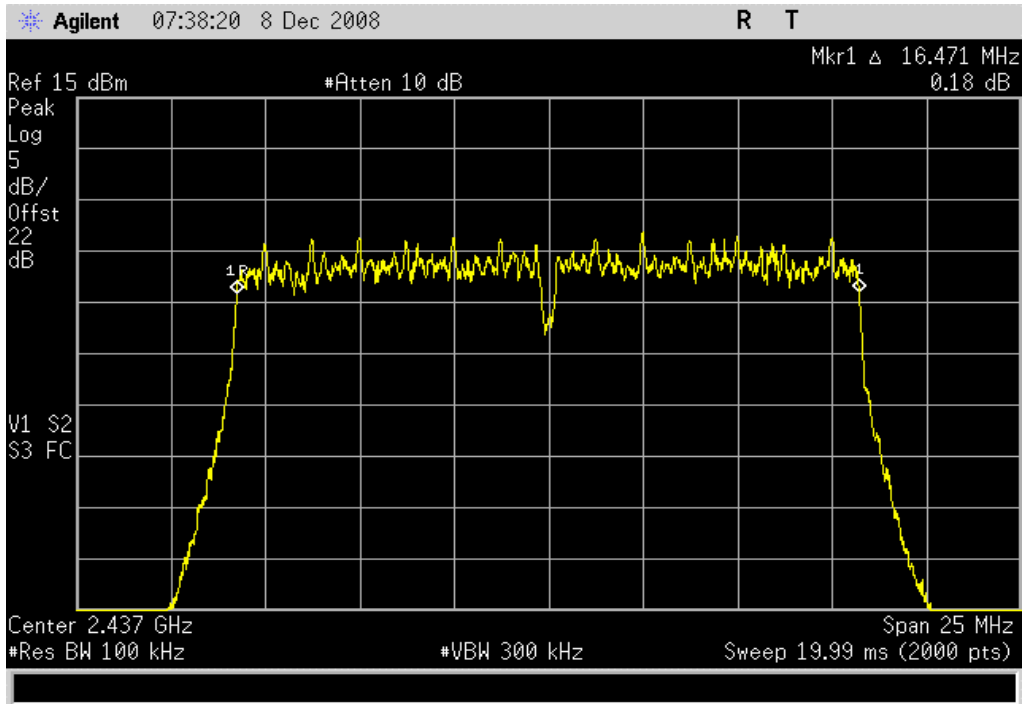


802.11(g) 36 Mbps, Mid Channel

Result: Pass

Value: 16.471 MHz

Limit: ≥ 500 kHz

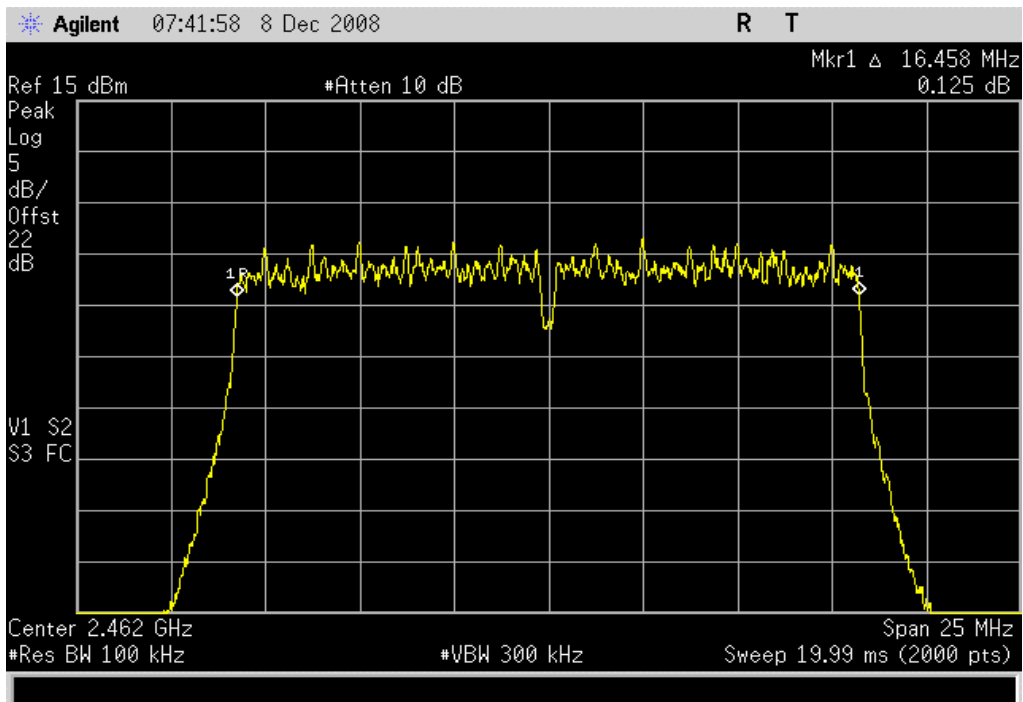


802.11(g) 36 Mbps, High Channel

Result: Pass

Value: 16.458 MHz

Limit: ≥ 500 kHz

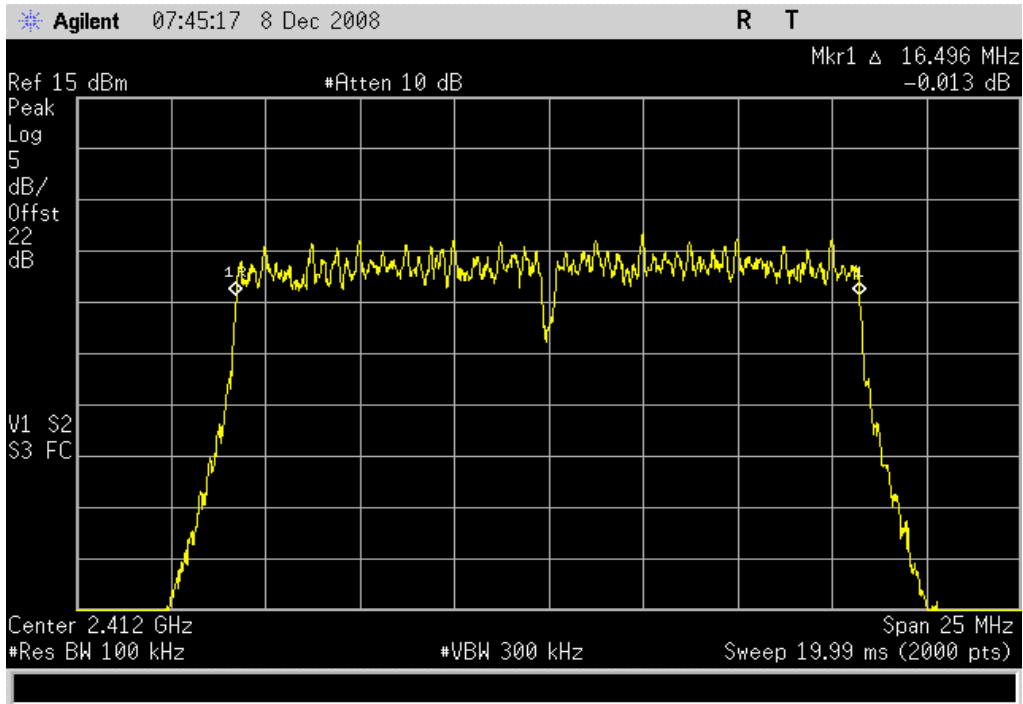


802.11(g) 54 Mbps, Low Channel

Result: Pass

Value: 16.496 MHz

Limit: ≥ 500 kHz

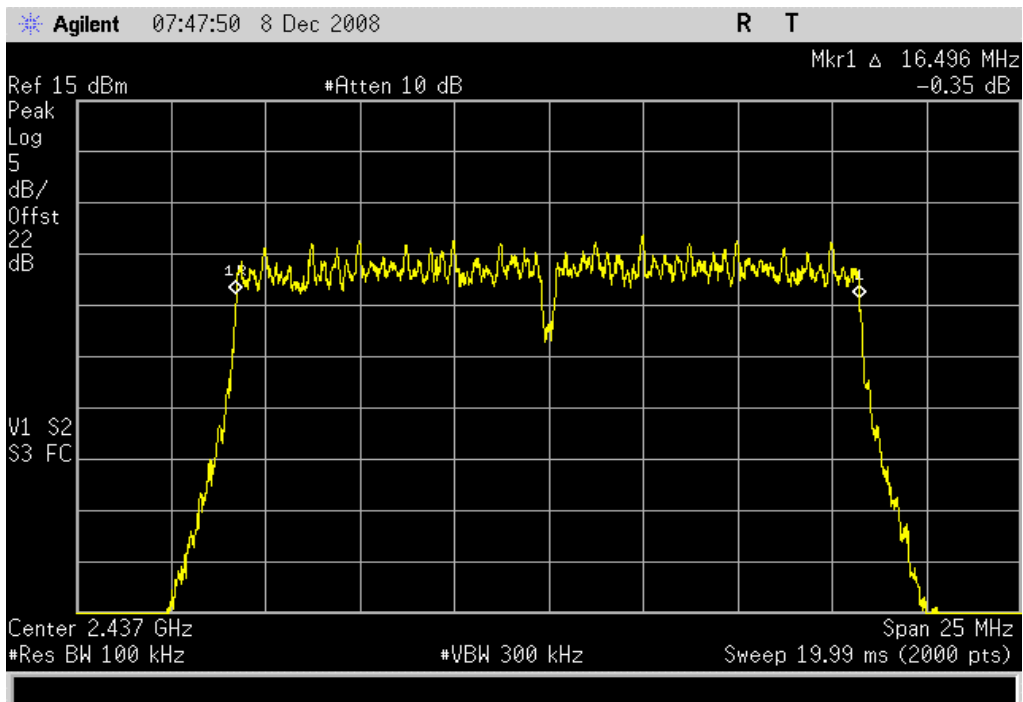


802.11(g) 54 Mbps, Mid Channel

Result: Pass

Value: 16.496 MHz

Limit: ≥ 500 kHz

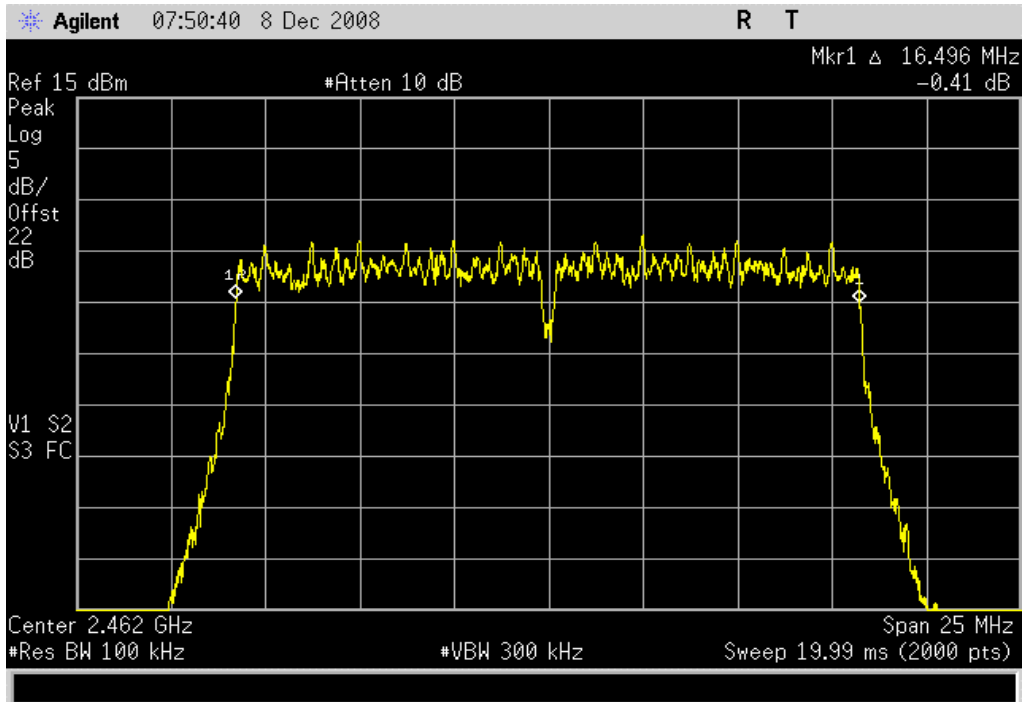


802.11(g) 54 Mbps, High Channel

Result: Pass

Value: 16.496 MHz

Limit: ≥ 500 kHz

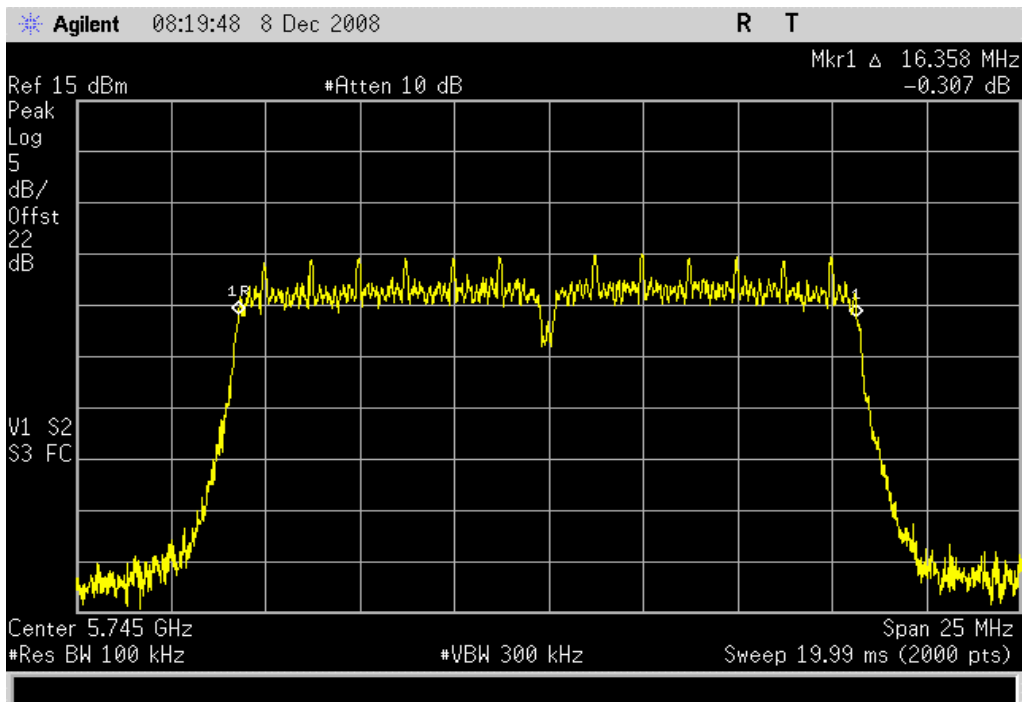


802.11(a) 6 Mbps, Low Channel

Result: Pass

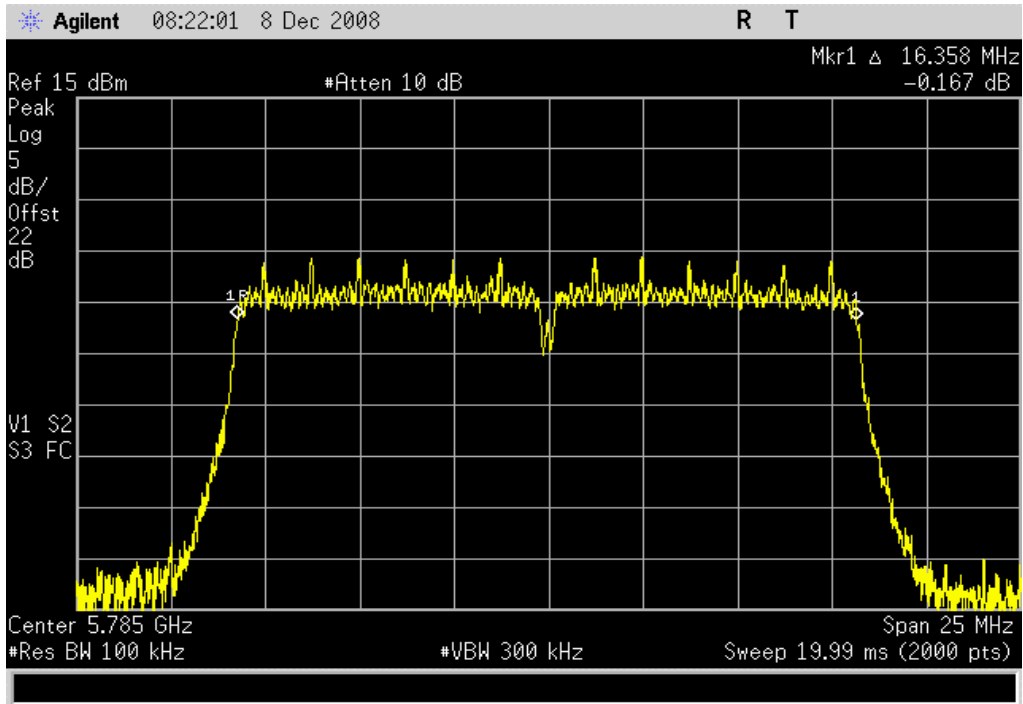
Value: 16.358 MHz

Limit: ≥ 500 kHz



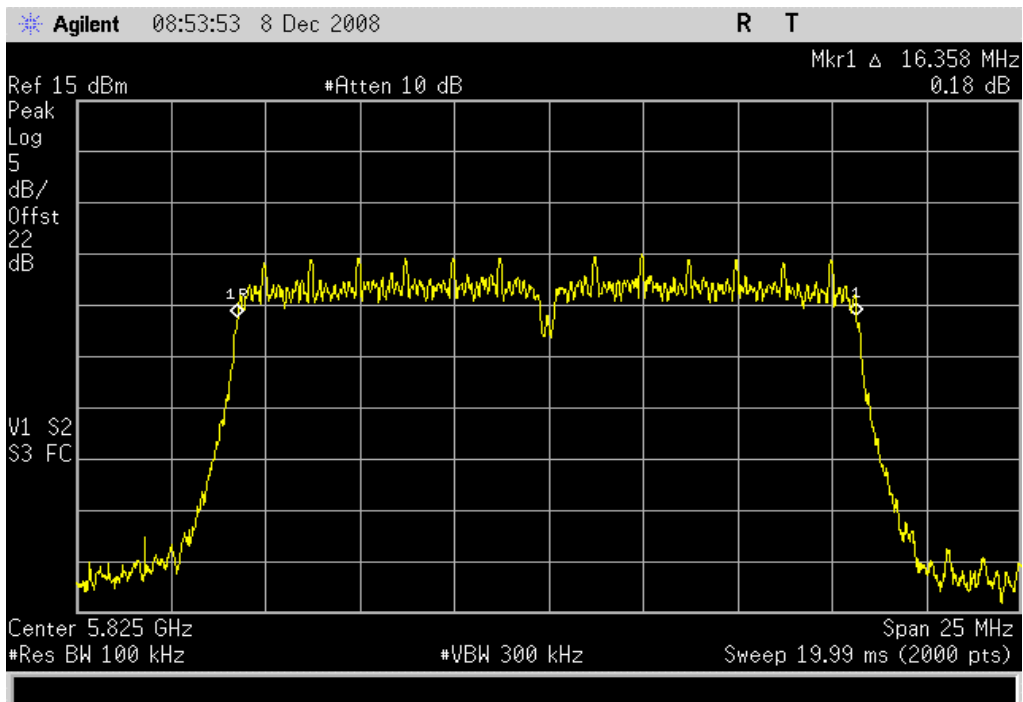
802.11(a) 6 Mbps, Mid Channel

Result: Pass **Value:** 16.358 MHz **Limit:** ≥ 500 kHz



802.11(a) 6 Mbps, High Channel

Result: Pass **Value:** 16.358 MHz **Limit:** ≥ 500 kHz

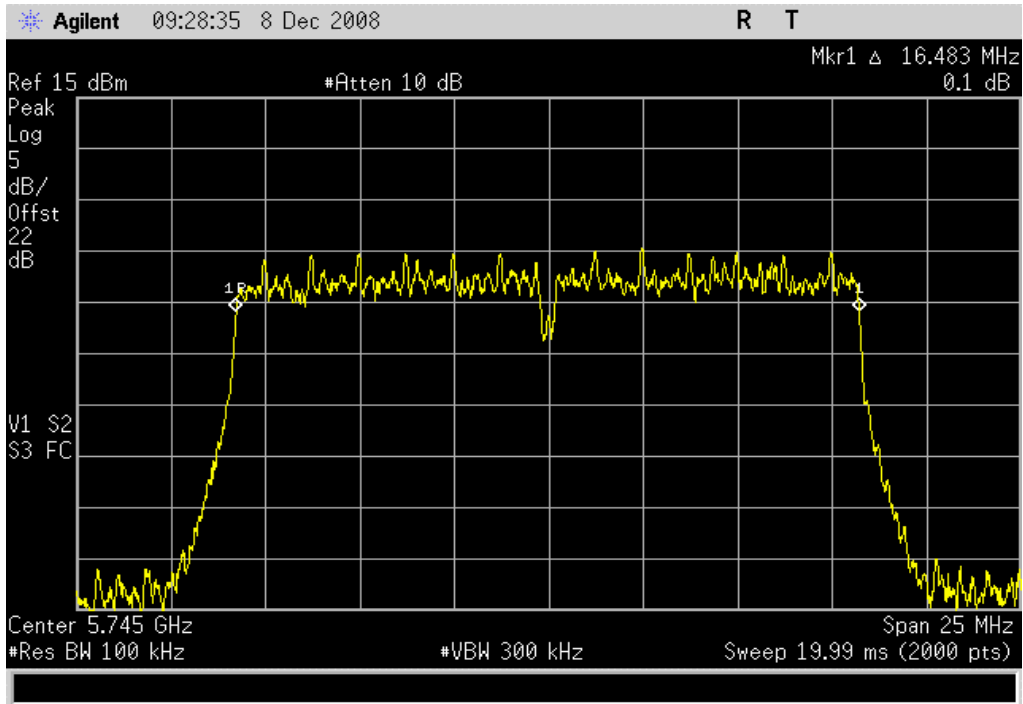


802.11(a) 36 Mbps, Low Channel

Result: Pass

Value: 16.483 MHz

Limit: ≥ 500 kHz

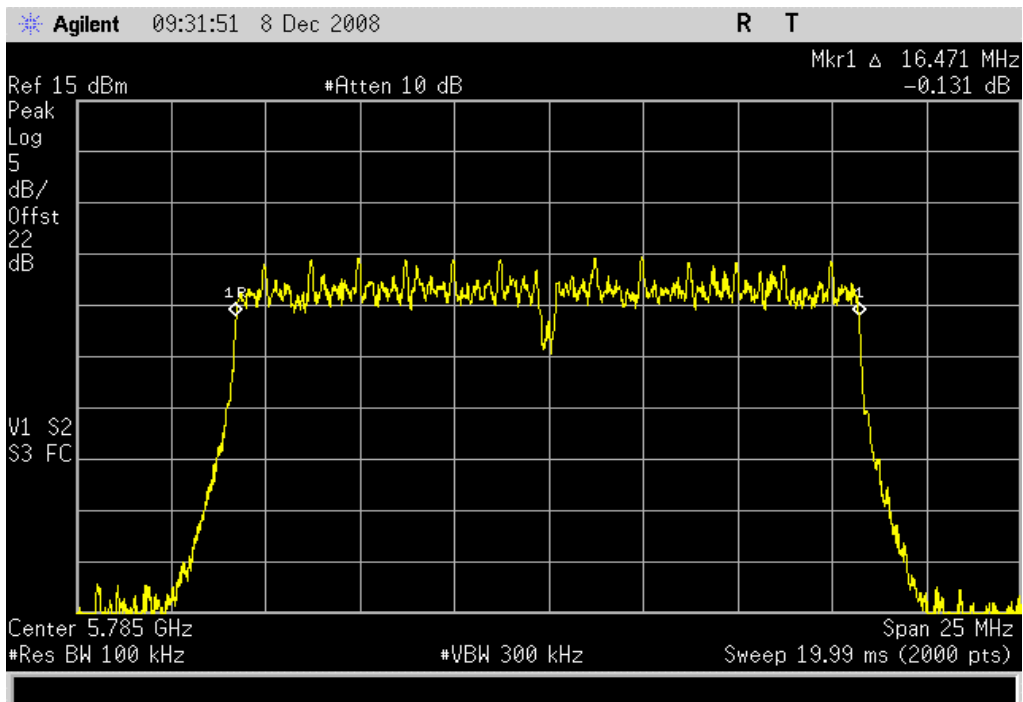


802.11(a) 36 Mbps, Mid Channel

Result: Pass

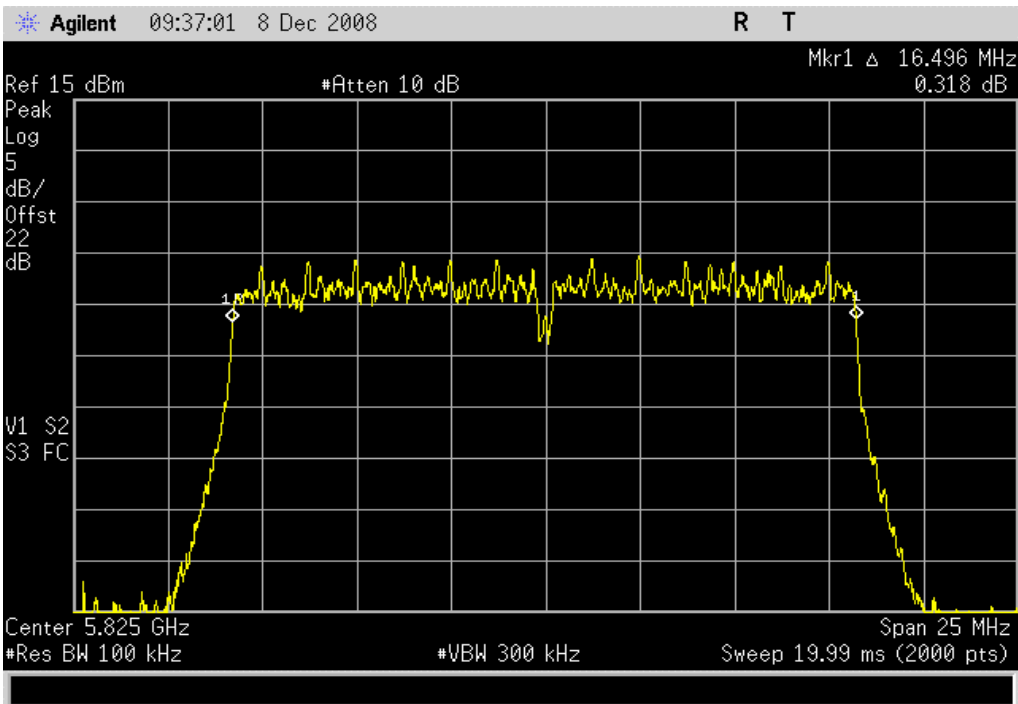
Value: 16.471 MHz

Limit: ≥ 500 kHz



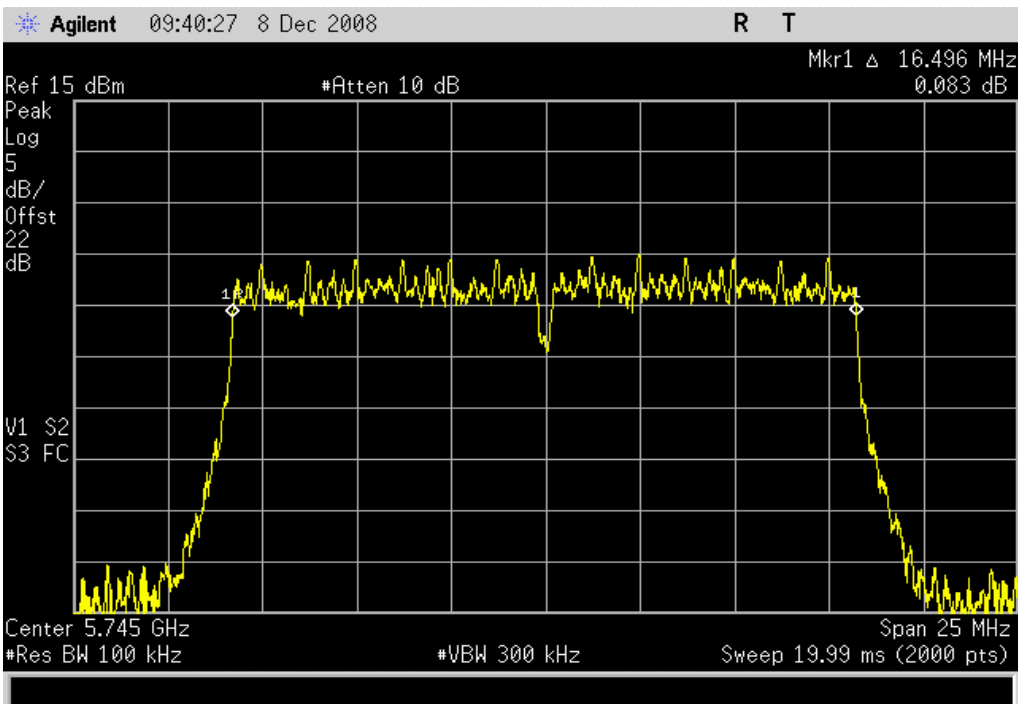
802.11(a) 36 Mbps, High Channel

Result: Pass **Value:** 16.496 MHz **Limit:** ≥ 500 kHz



802.11(a) 54 Mbps, Low Channel

Result: Pass **Value:** 16.496 MHz **Limit:** ≥ 500 kHz

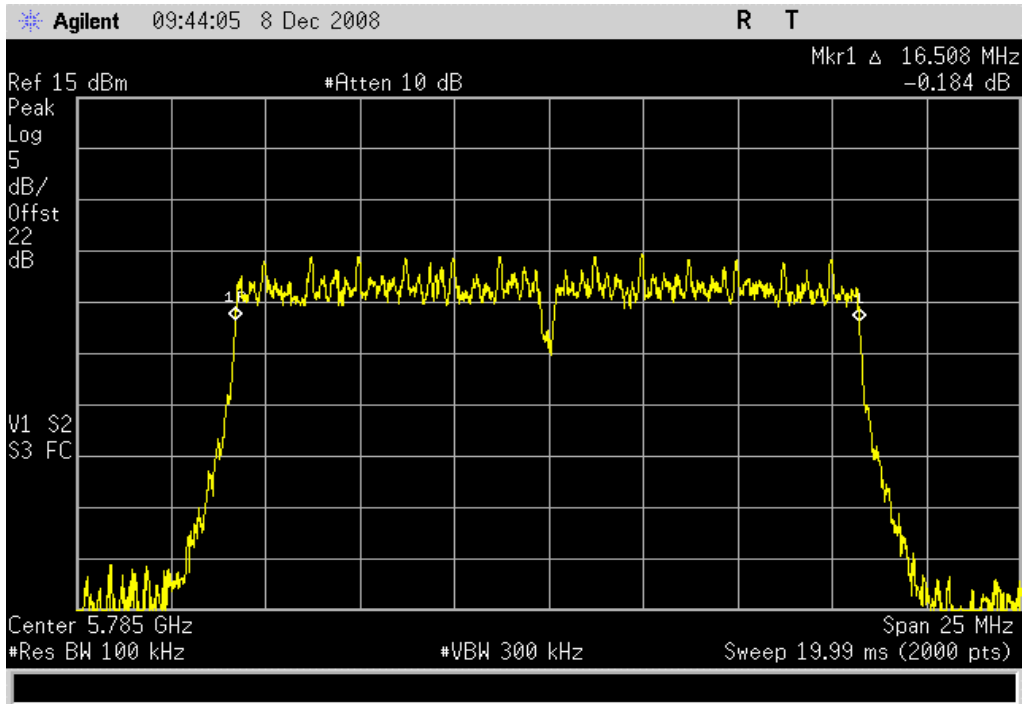


802.11(a) 54 Mbps, Mid Channel

Result: Pass

Value: 16.508 MHz

Limit: ≥ 500 kHz

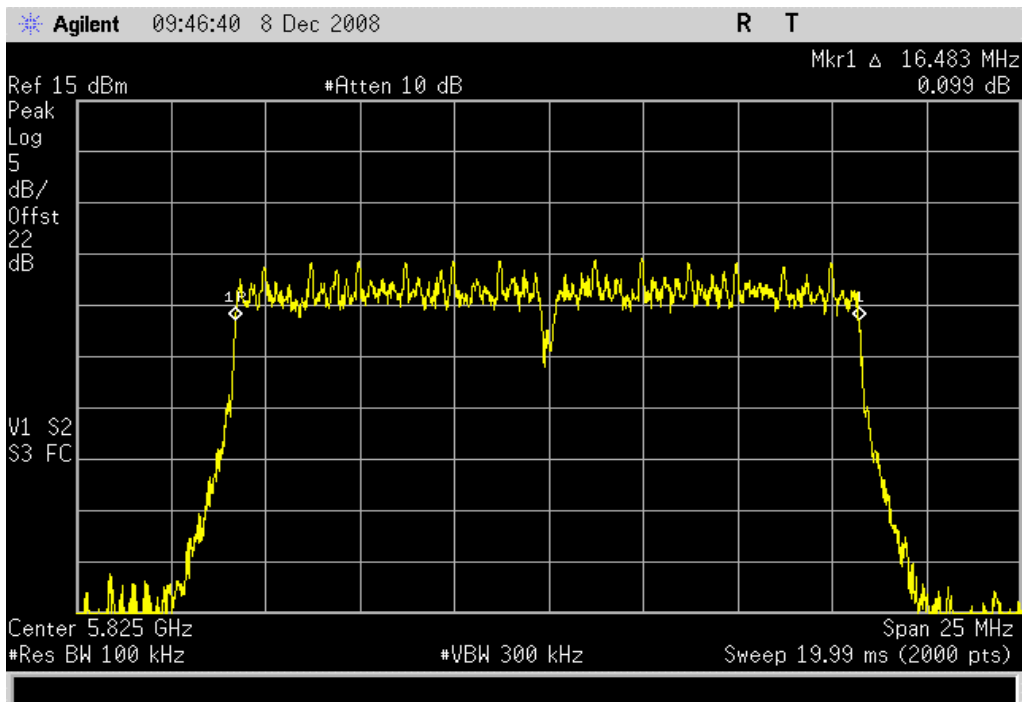


802.11(a) 54 Mbps, High Channel

Result: Pass

Value: 16.483 MHz

Limit: ≥ 500 kHz





Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Oscilloscope	Tektronix	TDS 3052	TOF	12/7/2007	13
Power Sensor	Gigatronics	80701A	SPL	12/7/2007	13
Power Meter	Gigatronics	8651A	SPM	12/7/2007	13
Attenuator	Weinschel Corp.	54A-30	RBM	9/16/2008	13
RF Detector	RLC Electronics	CR-133-R	ZZA	NCR	0
Signal Generator	Agilent	E8257D	TGX	12/7/2007	13

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

The peak output power was measured with the EUT set to low, medium, and high transmit frequencies. The EUT was transmitting at its maximum output power. The data rate of the radio was varied to determine the level that produced the highest output power.

The measurement was made using a direct connection between the RF output of the EUT and a RF detector diode. The DC output of the diode was measured with the oscilloscope. The signal generator, tuned to the transmit frequency, was then substituted for the EUT. The CW output of the signal generator was adjusted until the DC output of the RF detector diode match the peak level produced when connected to the EUT. To further reduce measurement error, the power meter and sensor were then used to measure the output power level of the signal generator.

De Facto EIRP Limit: Per 47 CFR 15.247 (b)(1-3), the EUT meets the de facto EIRP limit of +36dBm.

EMC

PEAK OUTPUT POWER

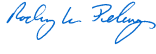
EUT: DDIB	Work Order: INMC0500
Serial Number: Proto 13	Date: 11/18/08
Customer: Intermec Technologies Corporation	Temperature: 22°C
Attendees: None	Humidity: 43%
Project: None	Barometric Pres.: 30.22
Tested by: Rod Peloquin	Power: 3.3Vdc via Host
Job Site: EV06	
TEST SPECIFICATIONS	
FCC 15.247 (DTS):2008	Test Method ANSI C63.4:2003 KDB No. 558074
COMMENTS	
Main (Primary) antenna port	
DEVIATIONS FROM TEST STANDARD	
No Deviations.	
Configuration #	1
	<i>Rod P. P. P.</i> Signature
	Value
	Limit
	Results

RF Diode Detector Method

802.11(b)		1 Mbps					
Xmit Frequency	Channel	DC on Scope	Attenuator Specific	Sig Gen Output	Power Meter	Power Meter	Limit
(MHz)		(mV)	Ref.Offset (dB)	(dBm)	(dBm)	(mW)	(mW)
2412	1	-54.0	29.0	-9.32	19.5	90.0	1000
2437	6	-52.8	29.0	-9.48	19.4	87.0	1000
2462	11	-51.2	29.0	-9.66	19.2	83.3	1000
802.11(b)		11 Mbps					
Xmit Frequency	Channel	DC on Scope	Attenuator Specific	Sig Gen Output	Power Meter	Power Meter	Limit
(MHz)		(mV)	Ref.Offset (dB)	(dBm)	(dBm)	(mW)	(mW)
2412	1	-52.4	29.0	-9.54	19.3	85.9	1000
2437	6	-51.6	29.0	-9.60	19.3	84.6	1000
2462	11	-50.4	29.0	-9.76	19.1	81.4	1000
802.11(g)		6 Mbps					
Xmit Frequency	Channel	DC on Scope	Attenuator Specific	Sig Gen Output	Power Meter	Power Meter	Limit
(MHz)		(mV)	Ref.Offset (dB)	(dBm)	(dBm)	(mW)	(mW)
2412	1	-54.8	29.0	-9.20	19.7	92.8	1000
2437	6	-52.4	29.0	-9.52	19.4	86.1	1000
2462	11	-52.8	29.0	-9.50	19.4	86.4	1000
802.11(g)		36 Mbps					
Xmit Frequency	Channel	DC on Scope	Attenuator Specific	Sig Gen Output	Power Meter	Power Meter	Limit
(MHz)		(mV)	Ref.Offset (dB)	(dBm)	(dBm)	(mW)	(mW)
2412	1	-44.8	29.0	-10.46	18.4	69.5	1000
2437	6	-41.6	29.0	-10.92	18.0	62.6	1000
2462	11	-44.4	29.0	-10.50	18.4	68.8	1000
802.11(g)		54 Mbps					
Xmit Frequency	Channel	DC on Scope	Attenuator Specific	Sig Gen Output	Power Meter	Power Meter	Limit
(MHz)		(mV)	Ref.Offset (dB)	(dBm)	(dBm)	(mW)	(mW)
2412	1	-44.0	29.0	-10.56	18.3	68.0	1000
2437	6	-42.8	29.0	-10.70	18.2	65.8	1000
2462	11	-42.0	29.0	-10.82	18.1	63.9	1000
802.11(a)		6 Mbps					
Xmit Frequency	Channel	DC on Scope	Attenuator Specific	Sig Gen Output	Power Meter	Power Meter	Limit
(MHz)		(mV)	Ref.Offset (dB)	(dBm)	(dBm)	(mW)	(mW)
5745	149	-30.4	29.3	-12.40	16.8	48.1	1000
5785	157	-30.8	29.3	-12.30	16.9	49.2	1000
5825	165	-29.6	29.3	-12.54	16.7	46.5	1000
802.11(a)		36 Mbps					
Xmit Frequency	Channel	DC on Scope	Attenuator Specific	Sig Gen Output	Power Meter	Power Meter	Limit
(MHz)		(mV)	Ref.Offset (dB)	(dBm)	(dBm)	(mW)	(mW)
5745	149	-28.0	29.3	-12.82	16.4	43.6	1000
5785	157	-26.0	29.3	-13.22	16.0	39.8	1000
5825	165	-26.4	29.3	-13.18	16.0	40.2	1000
802.11(a)		54 Mbps					
Xmit Frequency	Channel	DC on Scope	Attenuator Specific	Sig Gen Output	Power Meter	Power Meter	Limit
(MHz)		(mV)	Ref.Offset (dB)	(dBm)	(dBm)	(mW)	(mW)
5745	149	-31.7	29.3	-12.16	17.1	50.8	1000
5785	157	-30.4	29.3	-12.36	16.9	48.5	1000
5825	165	-29.2	29.3	-12.62	16.6	45.6	1000

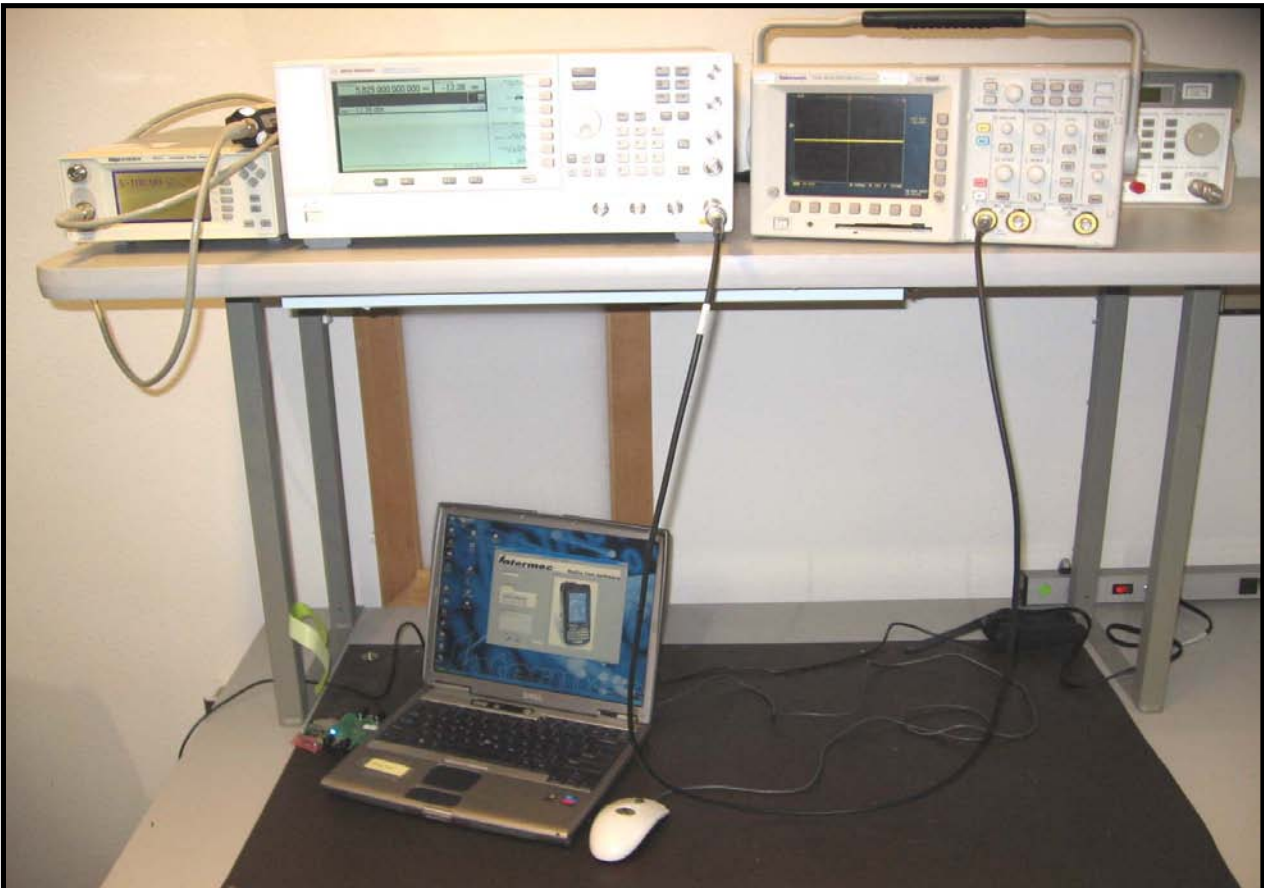
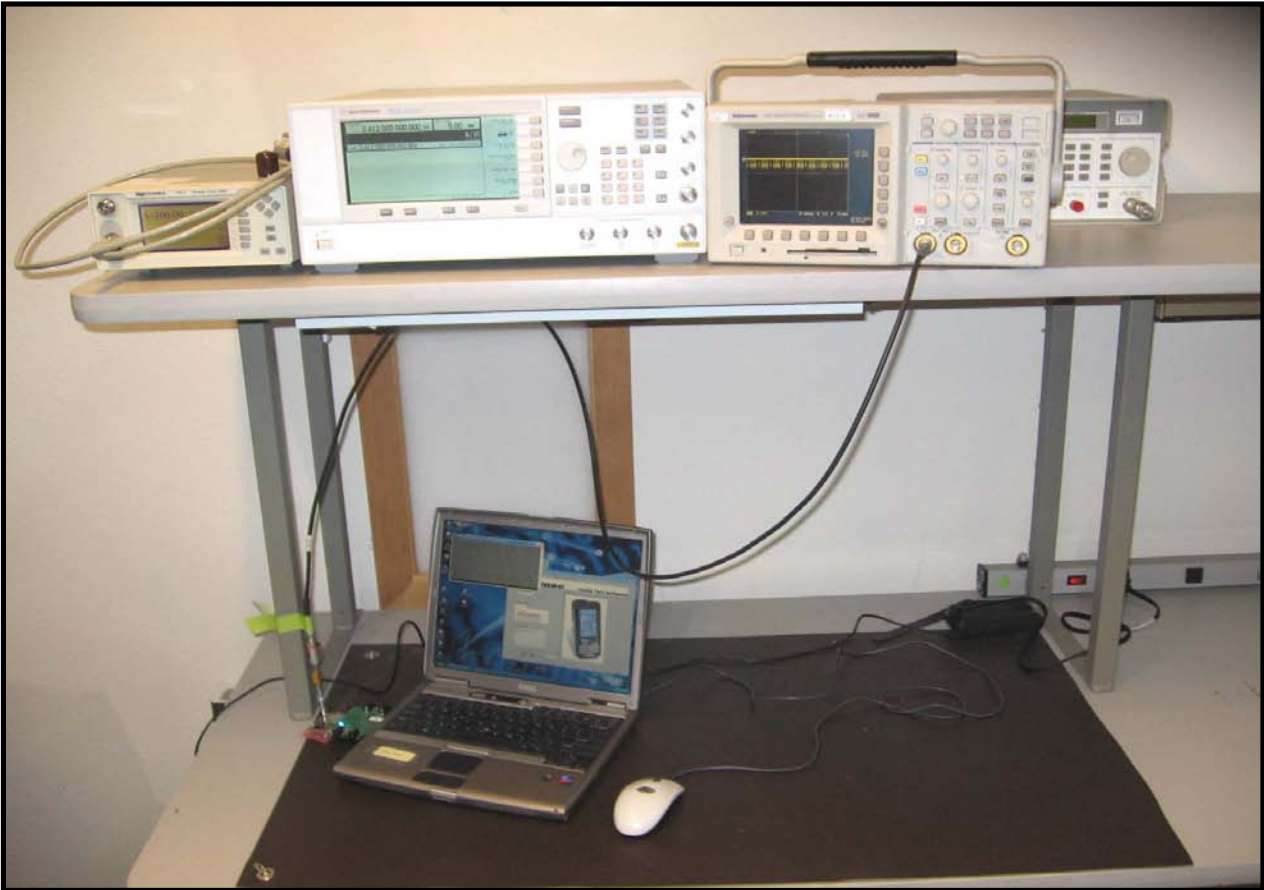
PEAK OUTPUT POWER

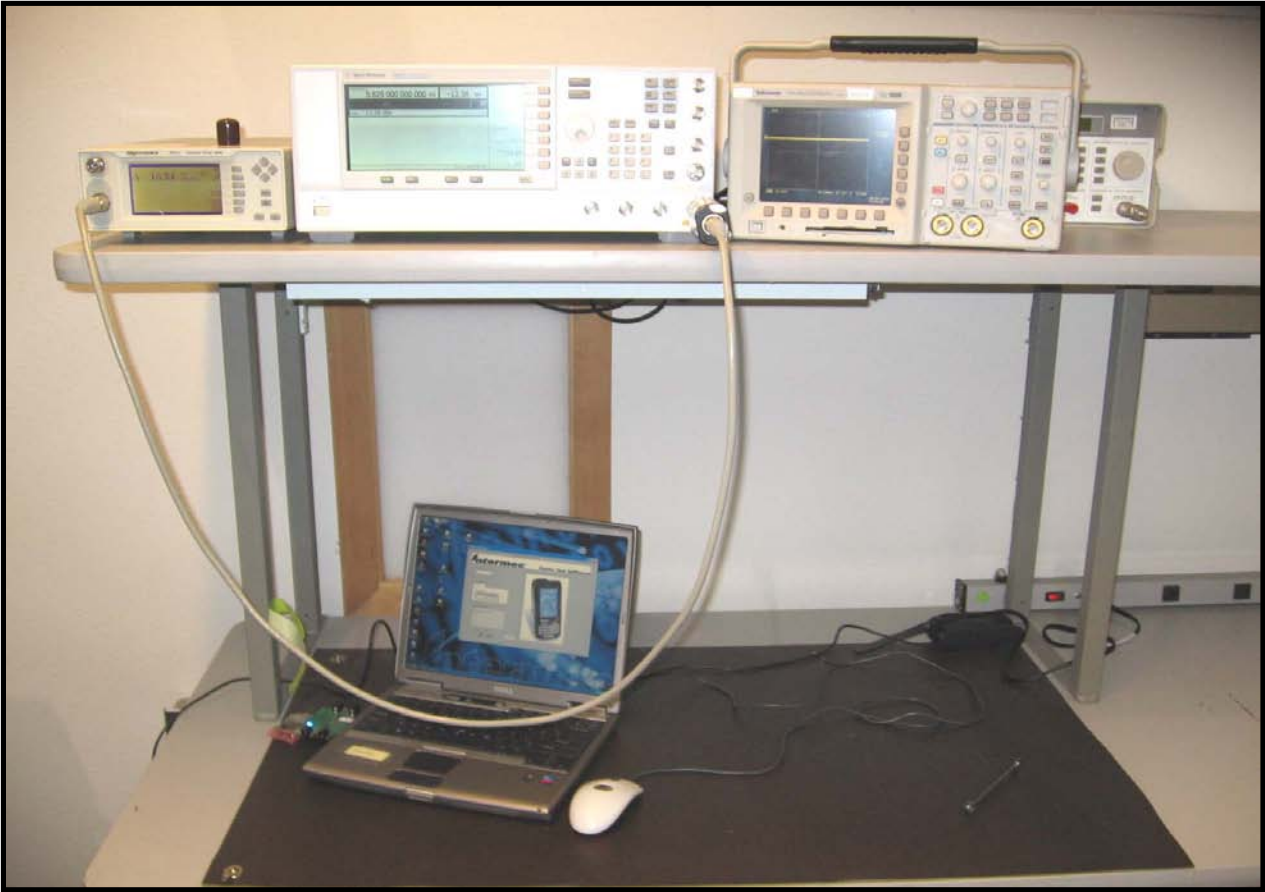
EMC

EUT:	DDIB	Work Order:	INMC0500
Serial Number:	Proto 13	Date:	11/18/08
Customer:	Intermec Technologies Corporation	Temperature:	22°C
Attendees:	None	Humidity:	43%
Project:	None	Barometric Pres.:	30.22
Tested by:	Rod Peloquin	Power:	3.3Vdc via Host
			Job Site: EV06
TEST SPECIFICATIONS		Test Method	
FCC 15.247 (DTS):2008		ANSI C63.4:2003 KDB No. 558074	
COMMENTS			
Aux (Secondary) antenna port			
DEVIATIONS FROM TEST STANDARD			
No Deviations.			
Configuration #	1	Signature 	
		Value	Limit Results

RF Diode Detector Method

802.11(b)	1 Mbps						
Xmit Frequency	Channel	DC on Scope	Attenuator Specific	Sig Gen Output	Power Meter	Power Meter	Limit
(MHz)		(mV)	Ref.Offset (dB)	(dBm)	(dBm)	(mW)	(mW)
2412	1	-48.4	29.0	-9.98	18.9	77.6	1000
2437	6	-45.6	29.0	-10.36	18.5	71.1	1000
2462	11	-44.8	29.0	-10.48	18.4	69.1	1000
802.11(b)	11 Mbps						
Xmit Frequency	Channel	DC on Scope	Attenuator Specific	Sig Gen Output	Power Meter	Power Meter	Limit
(MHz)		(mV)	Ref.Offset (dB)	(dBm)	(dBm)	(mW)	(mW)
2412	1	-42.8	29.0	-10.76	18.1	64.9	1000
2437	6	-46.8	29.0	-10.22	18.7	73.3	1000
2462	11	-43.6	29.0	-10.64	18.2	66.6	1000
802.11(g)	6 Mbps						
Xmit Frequency	Channel	DC on Scope	Attenuator Specific	Sig Gen Output	Power Meter	Power Meter	Limit
(MHz)		(mV)	Ref.Offset (dB)	(dBm)	(dBm)	(mW)	(mW)
2412	1	-47.6	29.0	-10.10	18.8	75.5	1000
2437	6	-44.0	29.0	-10.60	18.3	67.2	1000
2462	11	-44.8	29.0	-10.48	18.4	69.1	1000
802.11(g)	36 Mbps						
Xmit Frequency	Channel	DC on Scope	Attenuator Specific	Sig Gen Output	Power Meter	Power Meter	Limit
(MHz)		(mV)	Ref.Offset (dB)	(dBm)	(dBm)	(mW)	(mW)
2412	1	-36.8	29.0	-11.62	17.3	53.2	1000
2437	6	-36.4	29.0	-11.66	17.2	52.6	1000
2462	11	-32.8	29.0	-12.32	16.6	45.2	1000
802.11(g)	54 Mbps						
Xmit Frequency	Channel	DC on Scope	Attenuator Specific	Sig Gen Output	Power Meter	Power Meter	Limit
(MHz)		(mV)	Ref.Offset (dB)	(dBm)	(dBm)	(mW)	(mW)
2412	1	-40.4	29.0	-11.08	17.8	60.3	1000
2437	6	-38.8	29.0	-11.34	17.5	56.7	1000
2462	11	-36.8	29.0	-11.64	17.2	52.8	1000
802.11(a)	6 Mbps						
Xmit Frequency	Channel	DC on Scope	Attenuator Specific	Sig Gen Output	Power Meter	Power Meter	Limit
(MHz)		(mV)	Ref.Offset (dB)	(dBm)	(dBm)	(mW)	(mW)
5745	149	-30.0	29.3	-12.48	16.7	47.2	1000
5785	157	-30.0	29.3	-12.46	16.8	47.4	1000
5825	165	-30.0	29.3	-12.46	16.8	47.4	1000
802.11(a)	36 Mbps						
Xmit Frequency	Channel	DC on Scope	Attenuator Specific	Sig Gen Output	Power Meter	Power Meter	Limit
(MHz)		(mV)	Ref.Offset (dB)	(dBm)	(dBm)	(mW)	(mW)
5745	149	-28.0	29.3	-12.88	16.3	43.0	1000
5785	157	-28.8	29.3	-12.68	16.5	45.1	1000
5825	165	-28.0	29.3	-12.82	16.4	43.6	1000
802.11(a)	54 Mbps						
Xmit Frequency	Channel	DC on Scope	Attenuator Specific	Sig Gen Output	Power Meter	Power Meter	Limit
(MHz)		(mV)	Ref.Offset (dB)	(dBm)	(dBm)	(mW)	(mW)
5745	149	-28.4	29.3	-12.82	16.4	43.6	1000
5785	157	-29.6	29.3	-12.54	16.7	46.5	1000
5825	165	-30.4	29.3	-12.38	16.8	48.3	1000





Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4407B	AAU	12/7/2007	13
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	6/27/2008	13

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

The spurious RF conducted emissions at the edges of the authorized bands were measured with the EUT set to low and high transmit frequencies in each available band. The channels closest to the band edges were selected. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at its lowest, middle, and maximum data rate available.

The spectrum was scanned across each band edge from at least 25 MHz below the band edge to 25 MHz above the band edge.

EMC

BAND EDGE COMPLIANCE

EUT: DDIB	Work Order: INMC0500
Serial Number: Proto 13	Date: 12/08/08
Customer: Intermec Technologies Corporation	Temperature: 20°C
Attendees: None	Humidity: 34%
Project: None	Barometric Pres.: 30.22
Tested by: Rod Peloquin	Power: 3.3Vdc via Host
	Job Site: EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2008	ANSI C63.4:2003 KDB No. 558074

COMMENTS
None

DEVIATIONS FROM TEST STANDARD
No Deviations.

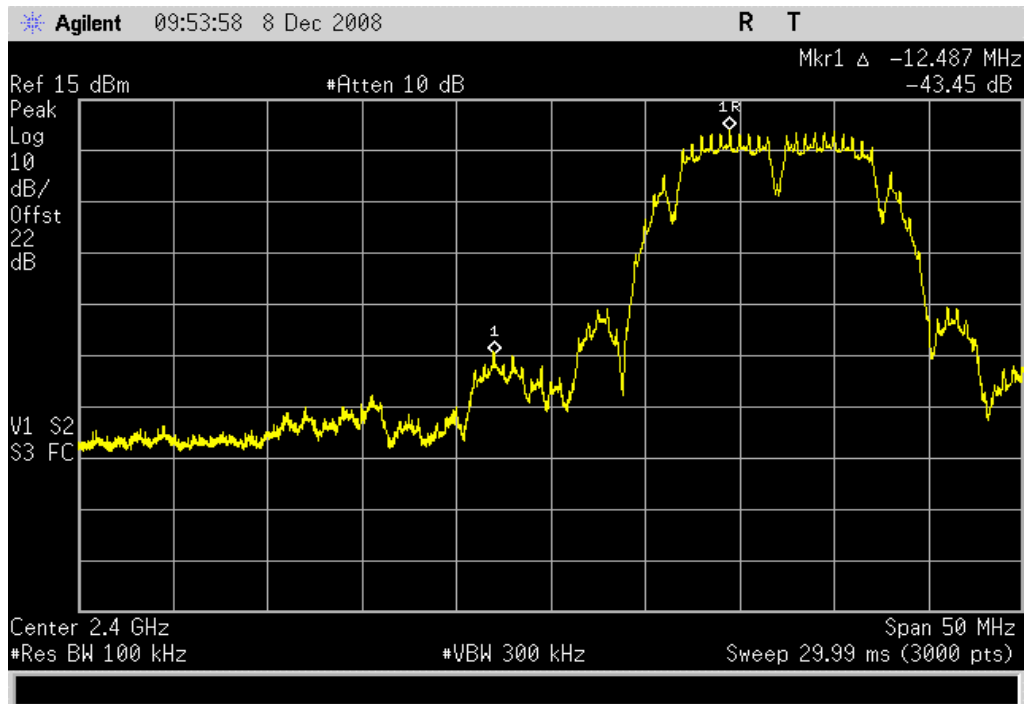
Configuration #	4	Signature 
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		Value	Limit	Results
802.11(b) 1 Mbps	Low Channel	-43.5 dBc	≤ -20 dBc	Pass
	High Channel	-53.0 dBc	≤ -20 dBc	Pass
802.11(b) 11 Mbps	Low Channel	-44.4 dBc	≤ -20 dBc	Pass
	High Channel		≤ -20 dBc	
802.11(g) 6 Mbps	Low Channel	-39.2 dBc	≤ -20 dBc	Pass
	High Channel	-47.2 dBc	≤ -20 dBc	Pass
802.11(g) 36 Mbps	Low Channel	-37.7 dBc	≤ -20 dBc	Pass
	High Channel	-49.9 dBc	≤ -20 dBc	Pass
802.11(g) 54 Mbps	Low Channel	-39.3 dBc	≤ -20 dBc	Pass
	High Channel	-49.9 dBc	≤ -20 dBc	Pass
802.11(a) 6 Mbps	Low Channel	-35.9 dBc	≤ -20 dBc	Pass
	High Channel	-43.4 dBc	≤ -20 dBc	Pass
802.11(a) 36 Mbps	Low Channel	-38.9 dBc	≤ -20 dBc	Pass
	High Channel	-44.8 dBc	≤ -20 dBc	Pass
802.11(a) 54 Mbps	Low Channel	-36.7 dBc	≤ -20 dBc	Pass
	High Channel	-43.8 dBc	≤ -20 dBc	Pass

802.11(b) 1 Mbps, Low Channel

Result: Pass

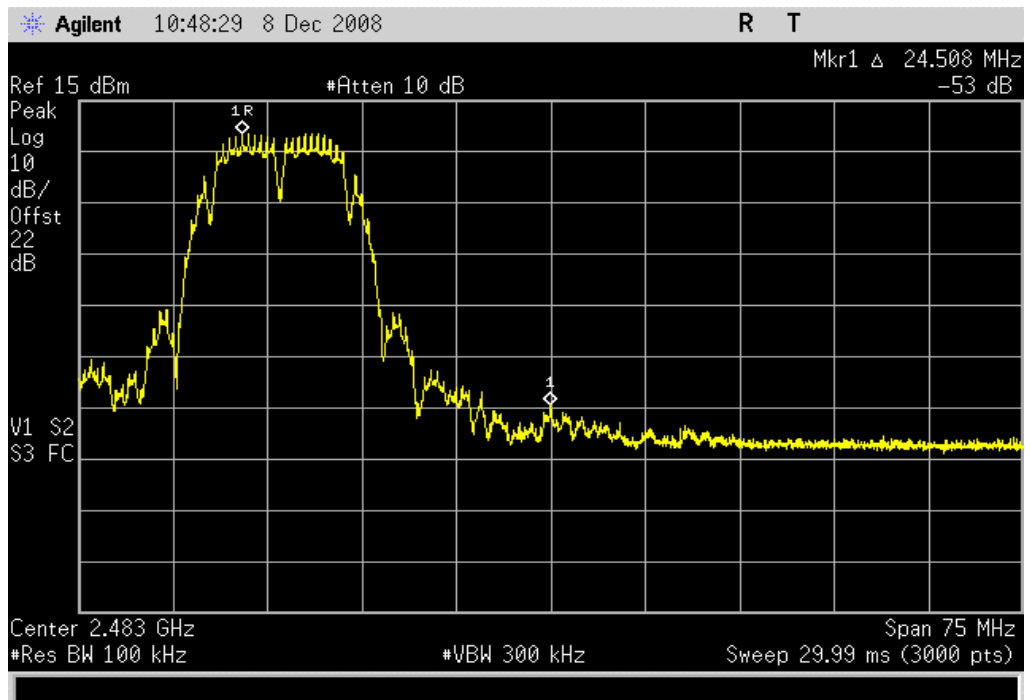
Value: -43.5 dBc

Limit: ≤ -20 dBc

802.11(b) 1 Mbps, High Channel

Result: Pass

Value: -53.0 dBc

Limit: ≤ -20 dBc

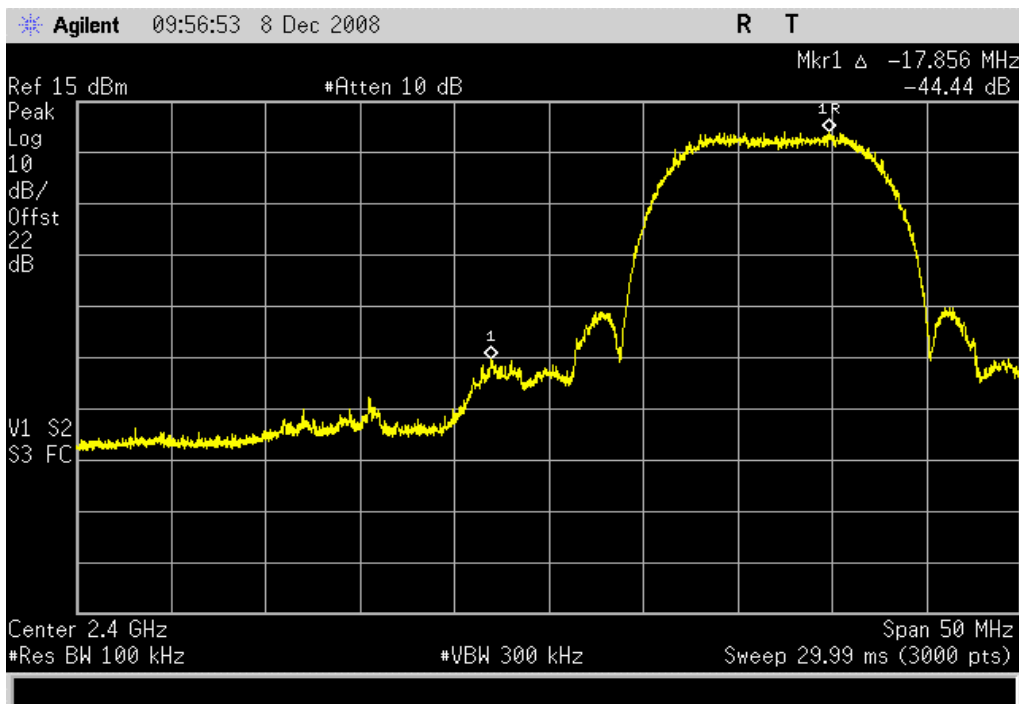
BAND EDGE COMPLIANCE

802.11(b) 11 Mbps, Low Channel

Result: Pass

Value: -44.4 dBc

Limit: ≤ -20 dBc

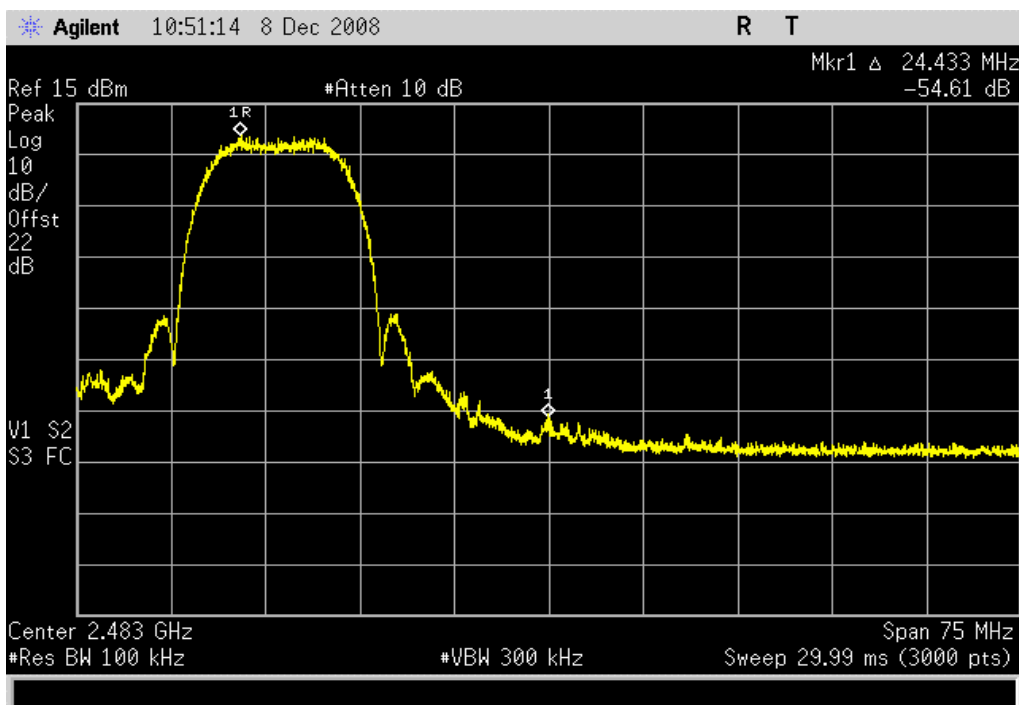


802.11(b) 11 Mbps, High Channel

Result:

Value:

Limit: ≤ -20 dBc

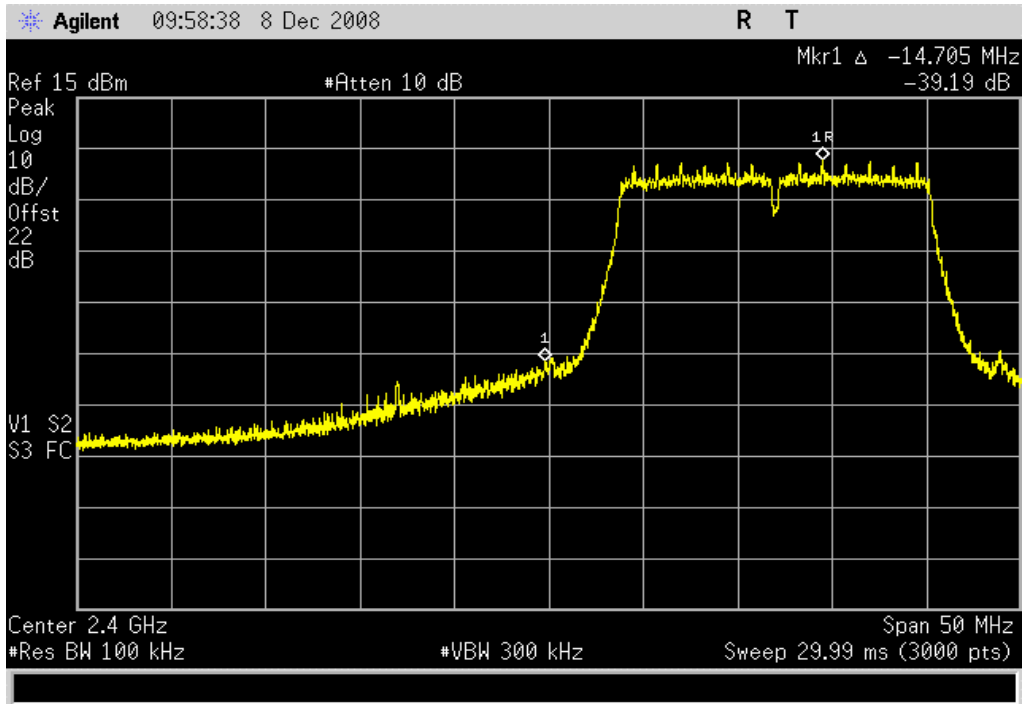


802.11(g) 6 Mbps, Low Channel

Result: Pass

Value: -39.2 dBc

Limit: ≤ -20 dBc

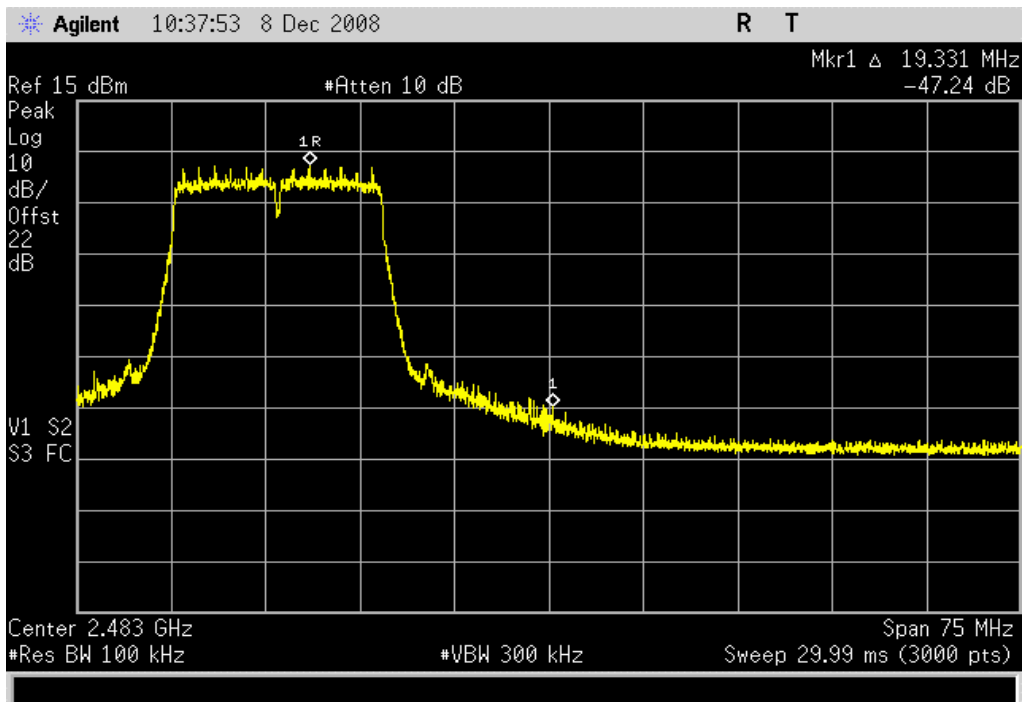


802.11(g) 6 Mbps, High Channel

Result: Pass

Value: -47.2 dBc

Limit: ≤ -20 dBc

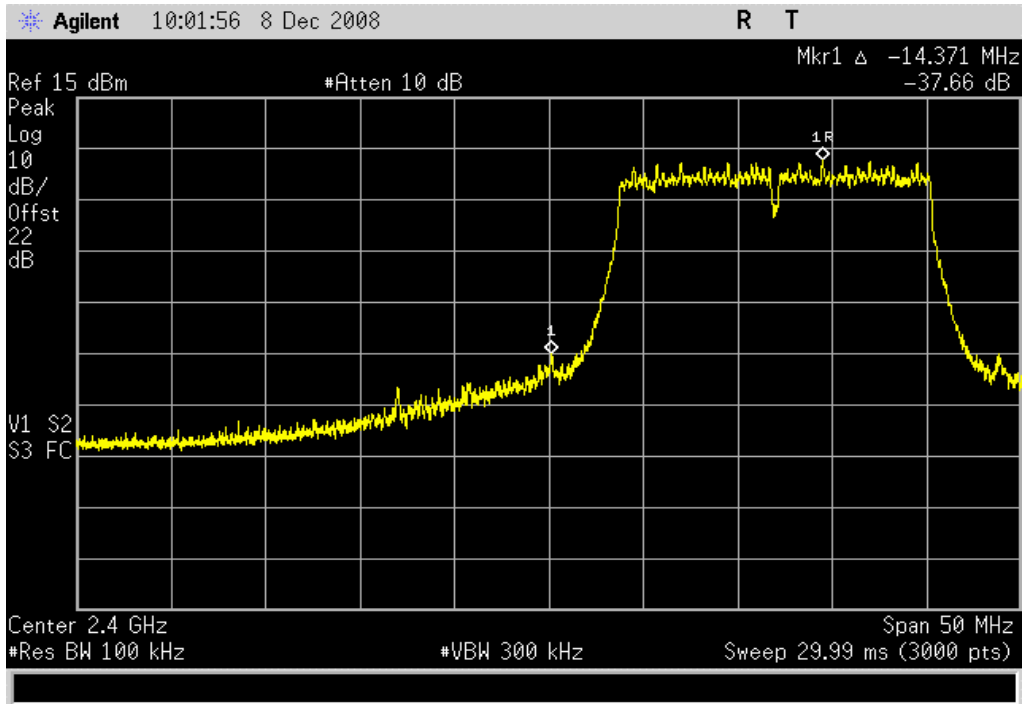


802.11(g) 36 Mbps, Low Channel

Result: Pass

Value: -37.7 dBc

Limit: ≤ -20 dBc

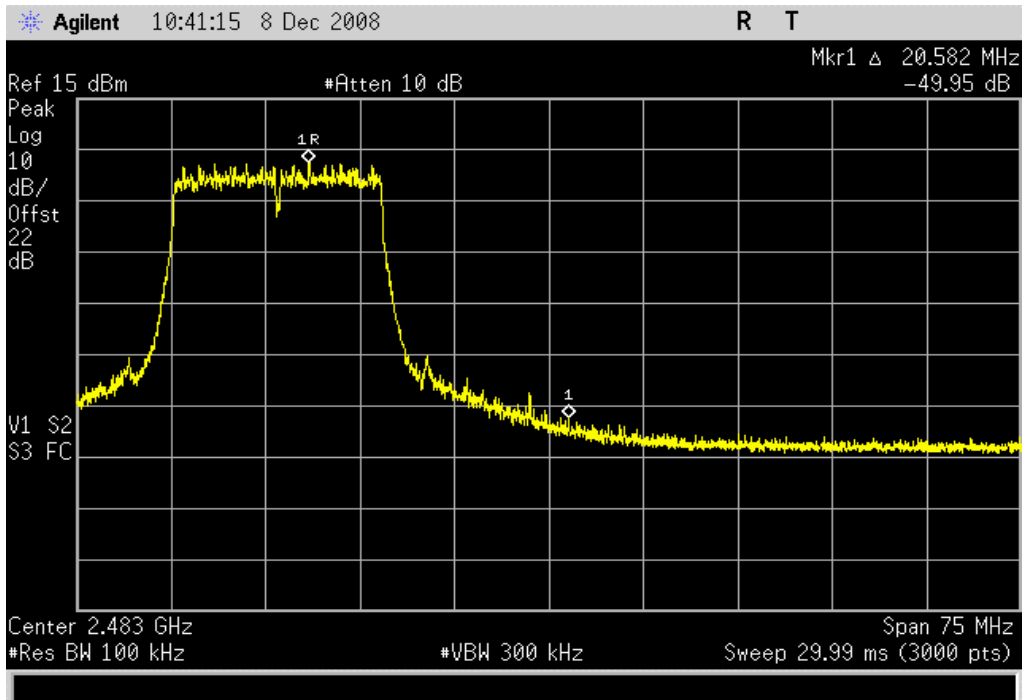


802.11(g) 36 Mbps, High Channel

Result: Pass

Value: -49.9 dBc

Limit: ≤ -20 dBc

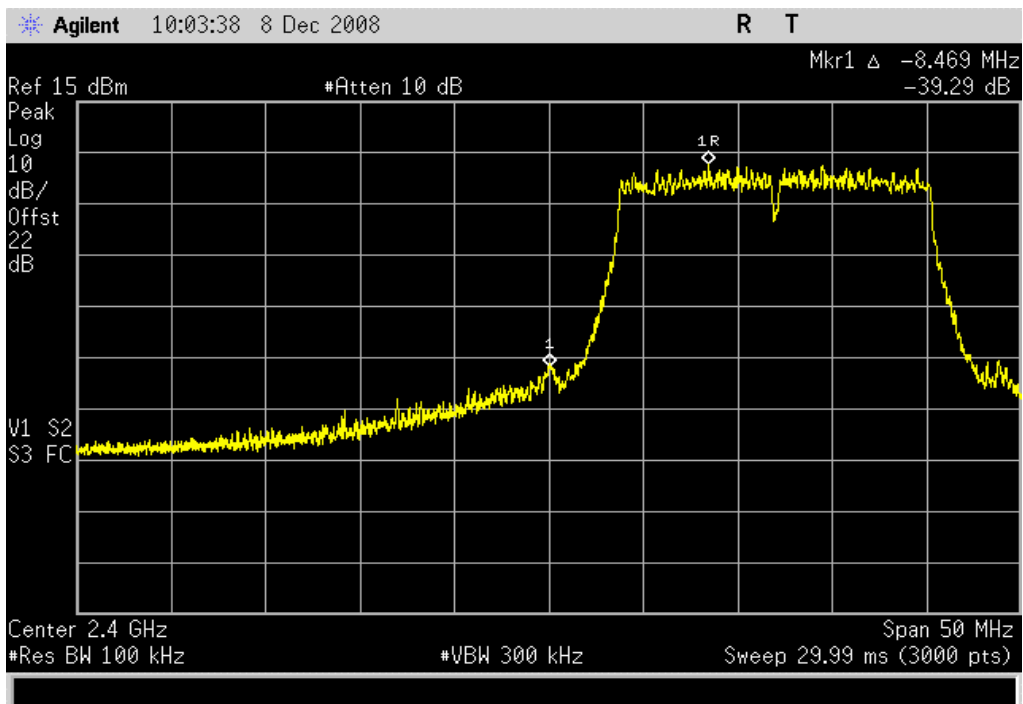


802.11(g) 54 Mbps, Low Channel

Result: Pass

Value: -39.3 dBc

Limit: ≤ -20 dBc

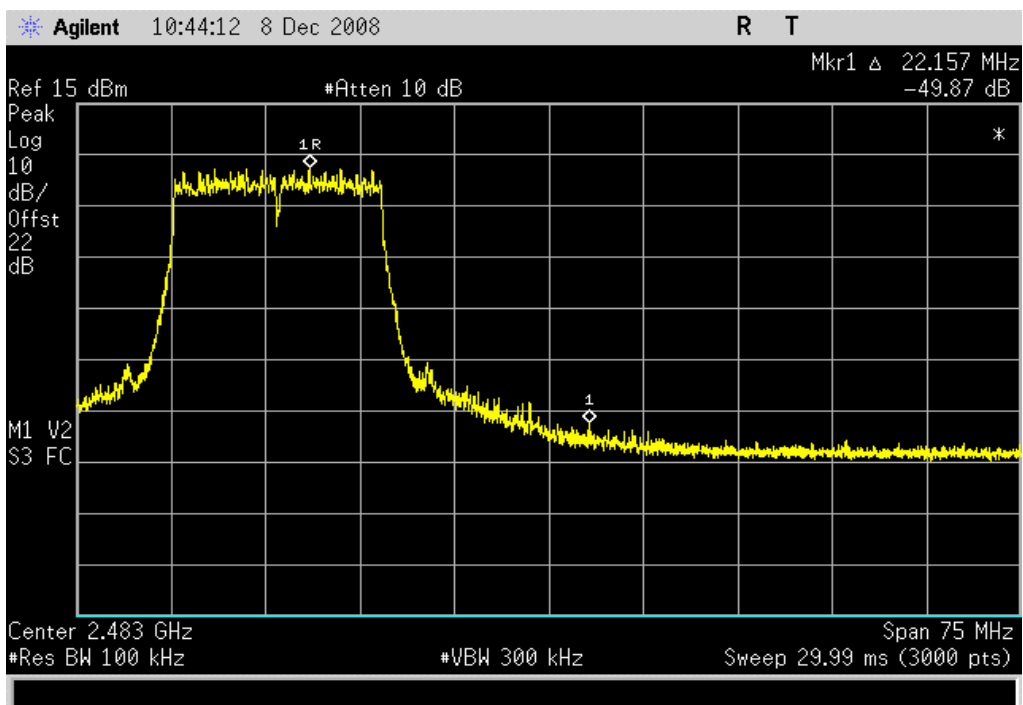


802.11(g) 54 Mbps, High Channel

Result: Pass

Value: -49.9 dBc

Limit: ≤ -20 dBc

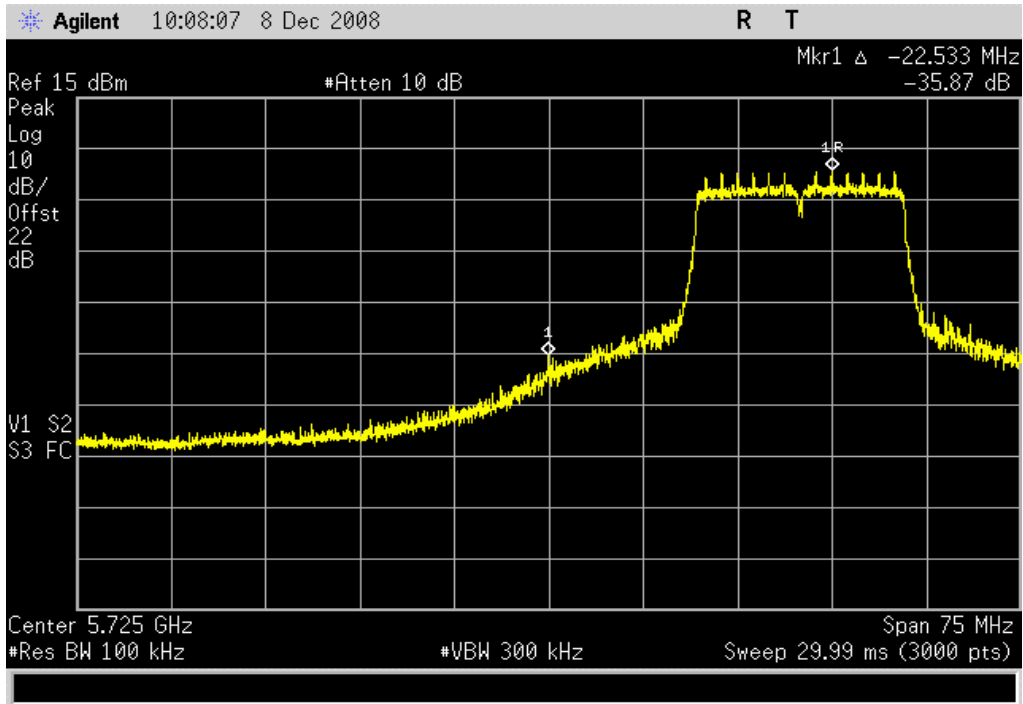


802.11(a) 6 Mbps, Low Channel

Result: Pass

Value: -35.9 dBc

Limit: ≤ -20 dBc

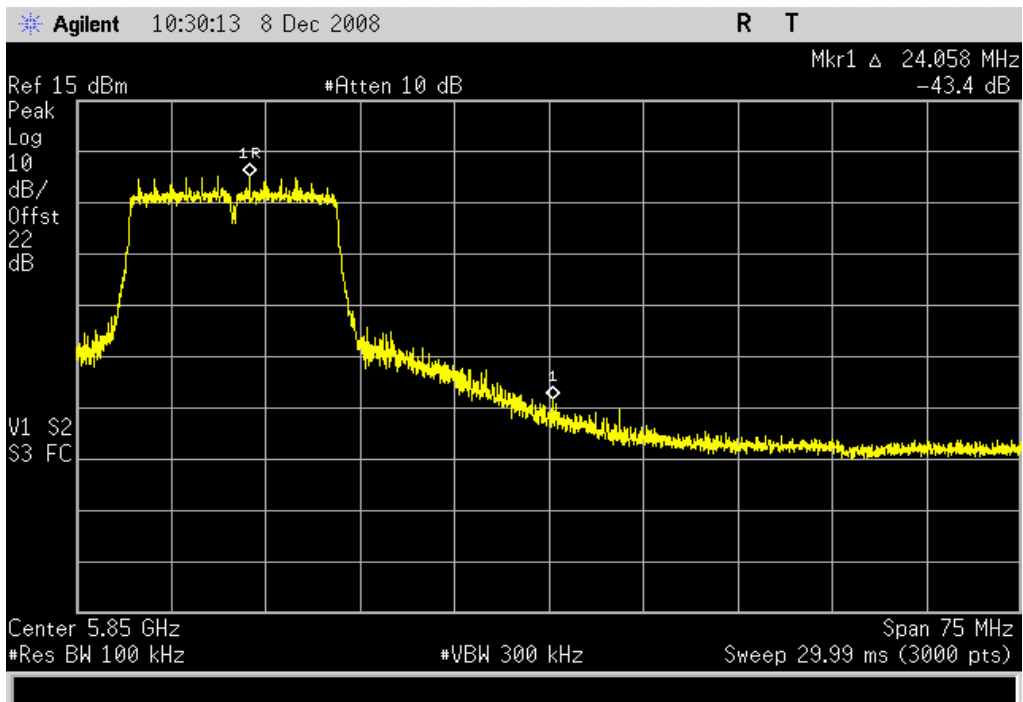


802.11(a) 6 Mbps, High Channel

Result: Pass

Value: -43.4 dBc

Limit: ≤ -20 dBc

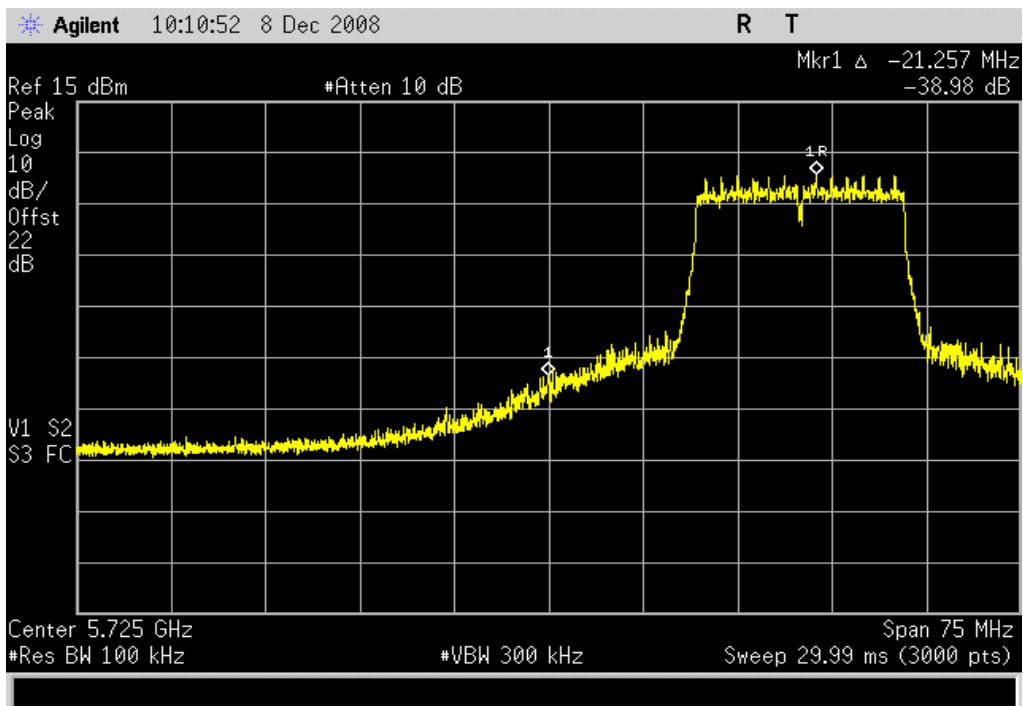


802.11(a) 36 Mbps, Low Channel

Result: Pass

Value: -38.9 dBc

Limit: ≤ -20 dBc

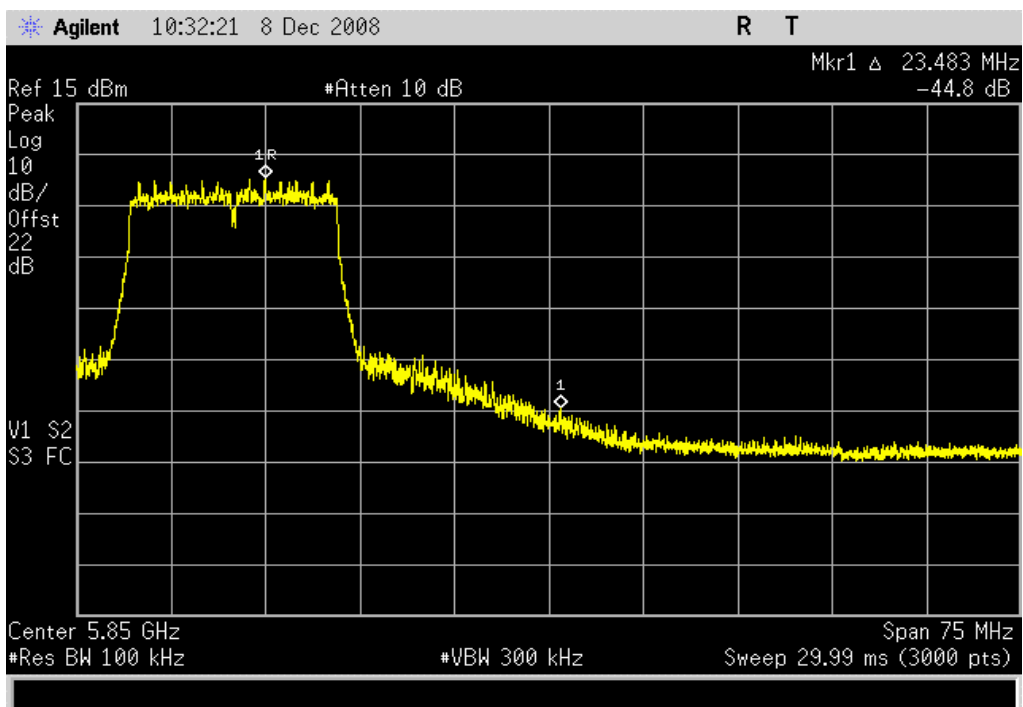


802.11(a) 36 Mbps, High Channel

Result: Pass

Value: -44.8 dBc

Limit: ≤ -20 dBc

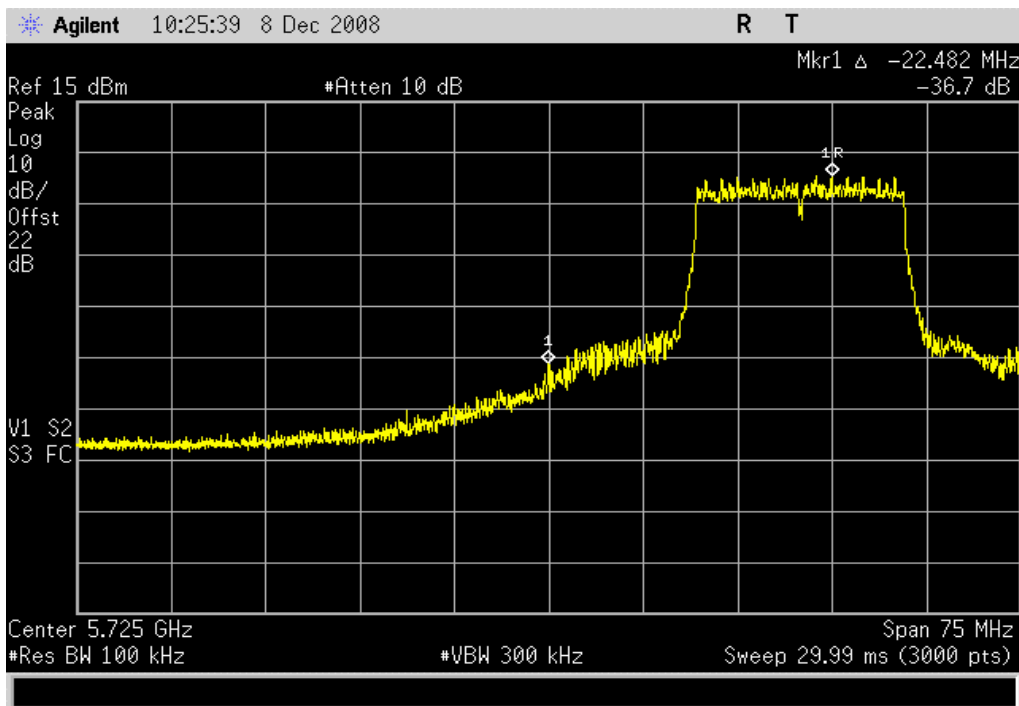


802.11(a) 54 Mbps, Low Channel

Result: Pass

Value: -36.7 dBc

Limit: ≤ -20 dBc

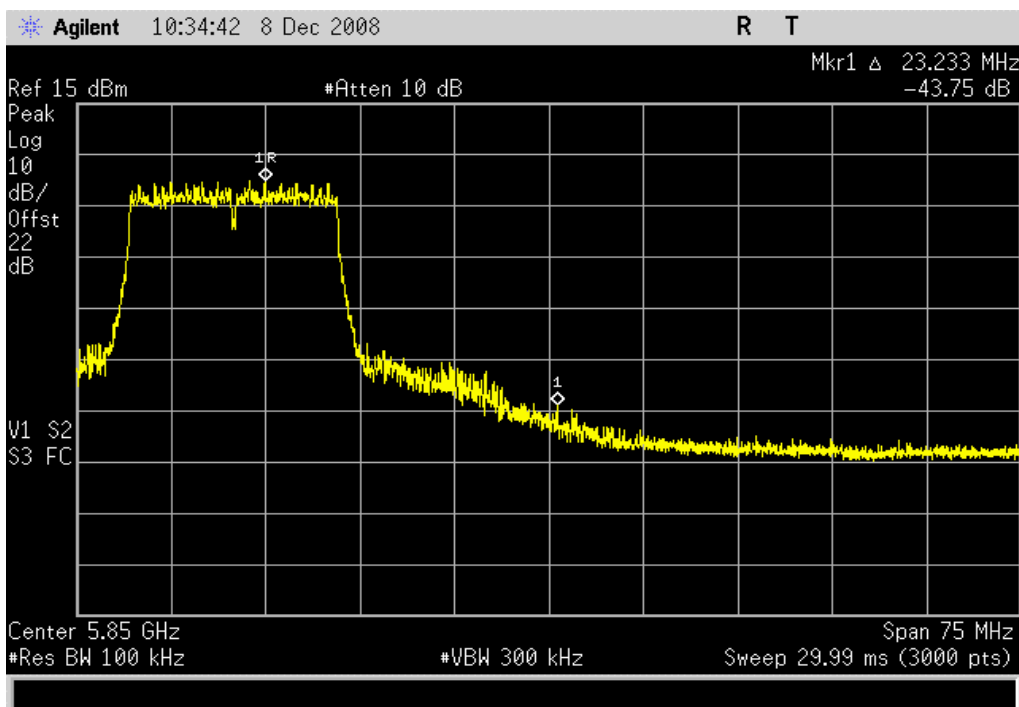


802.11(a) 54 Mbps, High Channel

Result: Pass

Value: -43.8 dBc

Limit: ≤ -20 dBc





Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4446A	AAY	12/18/2007	12
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	6/27/2008	13

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

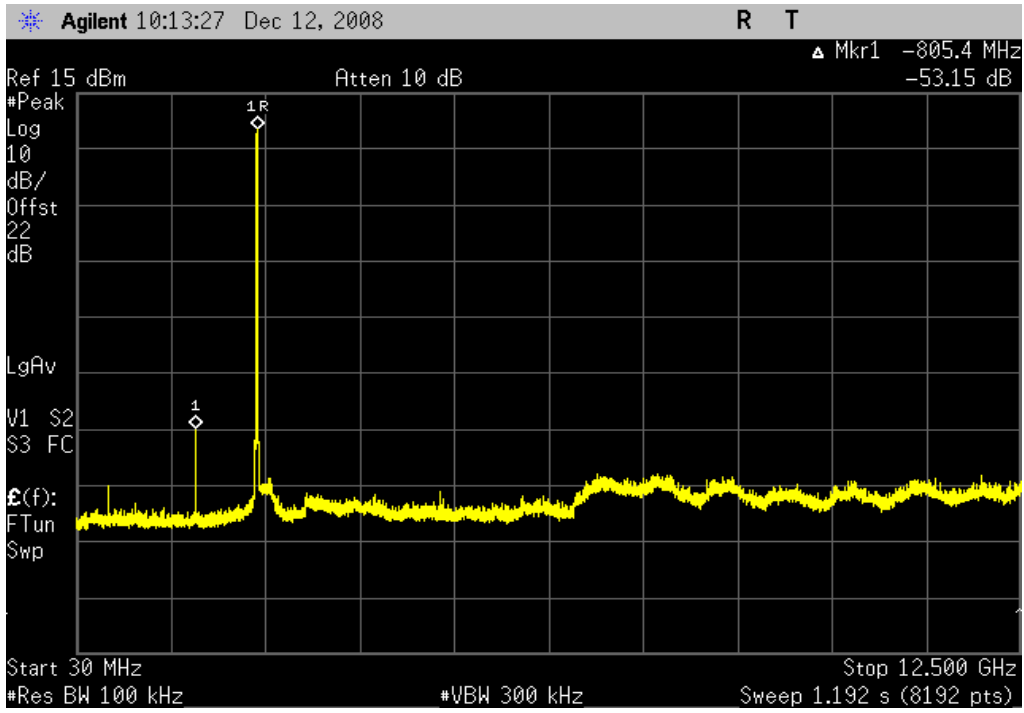
The spurious RF conducted emissions were measured with the EUT set to low, medium, and high transmit frequencies. The measurements were made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at its maximum data rate using direct sequence modulation. For each transmit frequency, the spectrum was scanned throughout the specified frequency range.

NORTHWEST EMC		SPURIOUS CONDUCTED EMISSIONS		XML 2007.06.13	
EUT:	DDIB	Work Order:	INMC0500		
Serial Number:	Proto 13	Date:	12/1/08		
Customer:	Intermec Technologies Corporation	Temperature:	21°C		
Attendees:	None	Humidity:	37%		
Project:	None	Barometric Pres.:	30.22		
Tested by:	Rod Peloquin	Power:	3.3Vdc via Host		
TEST SPECIFICATIONS		Test Method			
FCC 15.247 (DTS):2008		ANSI C63.4:2003 KDB No. 558074			
COMMENTS					
Transmitting in the modes listed below					
DEVIATIONS FROM TEST STANDARD					
No Deviations.					
Configuration #	4	Signature <i>Rod Peloquin</i>		Value	Limit
802.11(b) 1 Mbps					
Low Channel					
30 MHz - 12.5 GHz		< -40 dBc	< -20 dBc	Pass	
12.5 GHz - 25 GHz		< -40 dBc	< -20 dBc	Pass	
Mid Channel					
30 MHz - 12.5 GHz		< -40 dBc	< -20 dBc	Pass	
12.5 GHz - 25 GHz		< -40 dBc	< -20 dBc	Pass	
High Channel					
30 MHz - 12.5 GHz		< -40 dBc	< -20 dBc	Pass	
12.5 GHz - 25 GHz		< -40 dBc	< -20 dBc	Pass	
802.11(b) 11 Mbps					
Low Channel					
30 MHz - 12.5 GHz		< -40 dBc	< -20 dBc	Pass	
12.5 GHz - 25 GHz		< -40 dBc	< -20 dBc	Pass	
Mid Channel					
30 MHz - 12.5 GHz		< -40 dBc	< -20 dBc	Pass	
12.5 GHz - 25 GHz		< -40 dBc	< -20 dBc	Pass	
High Channel					
30 MHz - 12.5 GHz		< -40 dBc	< -20 dBc	Pass	
12.5 GHz - 25 GHz		< -40 dBc	< -20 dBc	Pass	
802.11(g) 6 Mbps					
Low Channel					
30 MHz - 12.5 GHz		< -40 dBc	< -20 dBc	Pass	
12.5 GHz - 25 GHz		< -40 dBc	< -20 dBc	Pass	
Mid Channel					
30 MHz - 12.5 GHz		< -40 dBc	< -20 dBc	Pass	
12.5 GHz - 25 GHz		< -40 dBc	< -20 dBc	Pass	
High Channel					
30 MHz - 12.5 GHz		< -40 dBc	< -20 dBc	Pass	
12.5 GHz - 25 GHz		< -40 dBc	< -20 dBc	Pass	
802.11(g) 36 Mbps					
Low Channel					
30 MHz - 12.5 GHz		< -40 dBc	< -20 dBc	Pass	
12.5 GHz - 25 GHz		< -40 dBc	< -20 dBc	Pass	
Mid Channel					
30 MHz - 12.5 GHz		< -40 dBc	< -20 dBc	Pass	
12.5 GHz - 25 GHz		< -40 dBc	< -20 dBc	Pass	
High Channel					
30 MHz - 12.5 GHz		< -40 dBc	< -20 dBc	Pass	
12.5 GHz - 25 GHz		< -40 dBc	< -20 dBc	Pass	
802.11(g) 54 Mbps					
Low Channel					
30 MHz - 12.5 GHz		< -40 dBc	< -20 dBc	Pass	
12.5 GHz - 25 GHz		< -40 dBc	< -20 dBc	Pass	
Mid Channel					
30 MHz - 12.5 GHz		< -40 dBc	< -20 dBc	Pass	
12.5 GHz - 25 GHz		< -40 dBc	< -20 dBc	Pass	
High Channel					
30 MHz - 12.5 GHz		< -40 dBc	< -20 dBc	Pass	
12.5 GHz - 25 GHz		< -40 dBc	< -20 dBc	Pass	
802.11(a) 6 Mbps					
Low Channel					
30 MHz - 12.5 GHz		< -40 dBc	< -20 dBc	Pass	
12.5 GHz - 26.5 GHz		< -40 dBc	< -20 dBc	Pass	
26.5 GHz - 31 GHz		< -40 dBc	< -20 dBc	Pass	
31 GHz - 40 GHz		< -40 dBc	< -20 dBc	Pass	
Mid Channel					
30 MHz - 12.5 GHz		< -40 dBc	< -20 dBc	Pass	
12.5 GHz - 26.5 GHz		< -40 dBc	< -20 dBc	Pass	
26.5 GHz - 31 GHz		< -40 dBc	< -20 dBc	Pass	
31 GHz - 40 GHz		< -40 dBc	< -20 dBc	Pass	
High Channel					
30 MHz - 12.5 GHz		< -40 dBc	< -20 dBc	Pass	
12.5 GHz - 26.5 GHz		< -40 dBc	< -20 dBc	Pass	
26.5 GHz - 31 GHz		< -40 dBc	< -20 dBc	Pass	
31 GHz - 40 GHz		< -40 dBc	< -20 dBc	Pass	
802.11(a) 36 Mbps					
Low Channel					
30 MHz - 12.5 GHz		< -40 dBc	< -20 dBc	Pass	
12.5 GHz - 26.5 GHz		< -40 dBc	< -20 dBc	Pass	
26.5 GHz - 31 GHz		< -40 dBc	< -20 dBc	Pass	
31 GHz - 40 GHz		< -40 dBc	< -20 dBc	Pass	
Mid Channel					
30 MHz - 12.5 GHz		< -40 dBc	< -20 dBc	Pass	
12.5 GHz - 26.5 GHz		< -40 dBc	< -20 dBc	Pass	
26.5 GHz - 31 GHz		< -40 dBc	< -20 dBc	Pass	
31 GHz - 40 GHz		< -40 dBc	< -20 dBc	Pass	
High Channel					
30 MHz - 12.5 GHz		< -40 dBc	< -20 dBc	Pass	
12.5 GHz - 26.5 GHz		< -40 dBc	< -20 dBc	Pass	
26.5 GHz - 31 GHz		< -40 dBc	< -20 dBc	Pass	
31 GHz - 40 GHz		< -40 dBc	< -20 dBc	Pass	
802.11(a) 54 Mbps					
Low Channel					
30 MHz - 12.5 GHz		< -40 dBc	< -20 dBc	Pass	
12.5 GHz - 26.5 GHz		< -40 dBc	< -20 dBc	Pass	
26.5 GHz - 31 GHz		< -40 dBc	< -20 dBc	Pass	
31 GHz - 40 GHz		< -40 dBc	< -20 dBc	Pass	
Mid Channel					
30 MHz - 12.5 GHz		< -40 dBc	< -20 dBc	Pass	
12.5 GHz - 26.5 GHz		< -40 dBc	< -20 dBc	Pass	
26.5 GHz - 31 GHz		< -40 dBc	< -20 dBc	Pass	
31 GHz - 40 GHz		< -40 dBc	< -20 dBc	Pass	
High Channel					
30 MHz - 12.5 GHz		< -40 dBc	< -20 dBc	Pass	
12.5 GHz - 26.5 GHz		< -40 dBc	< -20 dBc	Pass	
26.5 GHz - 31 GHz		< -40 dBc	< -20 dBc	Pass	
31 GHz - 40 GHz		< -40 dBc	< -20 dBc	Pass	

SPURIOUS CONDUCTED EMISSIONS

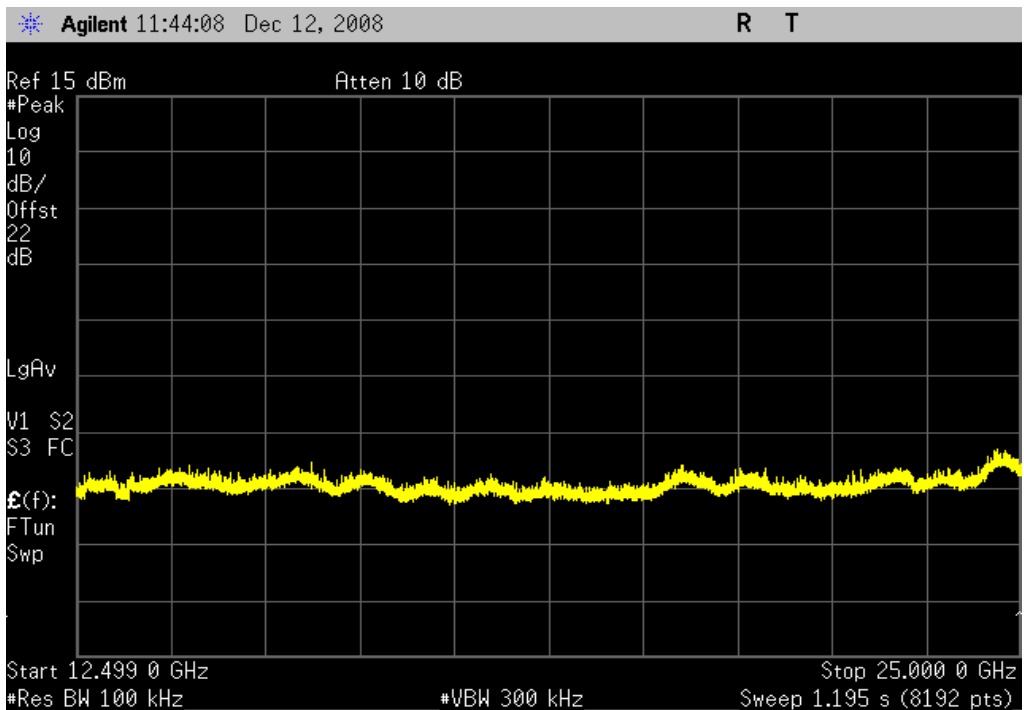
802.11(b) 1 Mbps, Low Channel, 30 MHz - 12.5 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



802.11(b) 1 Mbps, Low Channel, 12.5 GHz - 25 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc

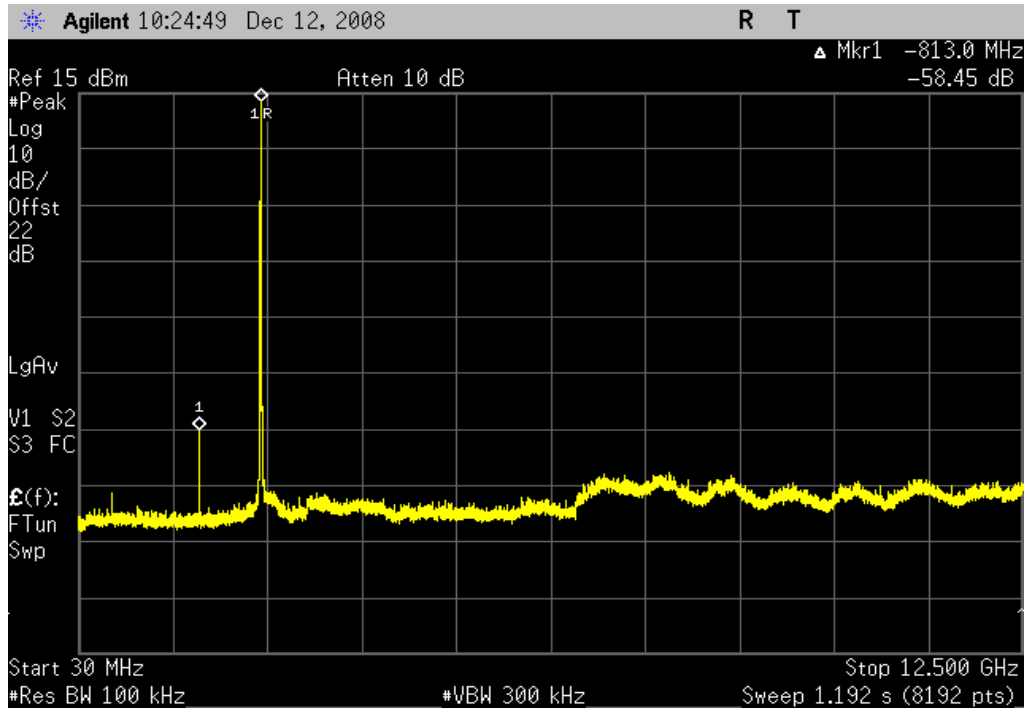


802.11(b) 1 Mbps, Mid Channel, 30 MHz - 12.5 GHz

Result: Pass

Value: < -40 dBc

Limit: ≤ -20 dBc

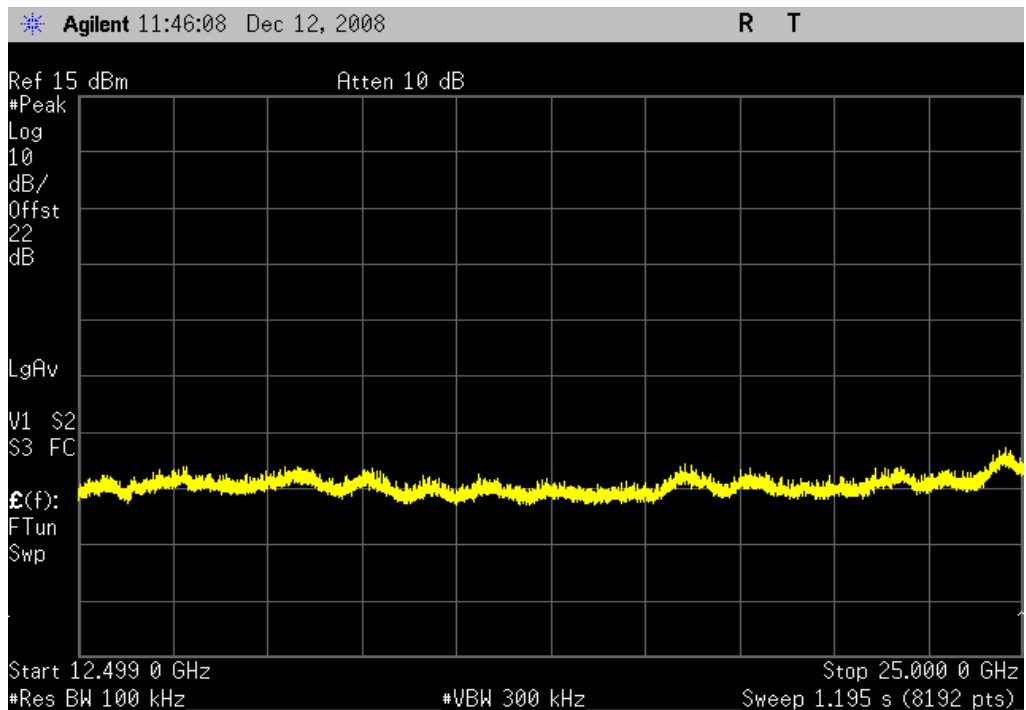


802.11(b) 1 Mbps, Mid Channel, 12.5 GHz - 25 GHz

Result: Pass

Value: < -40 dBc

Limit: ≤ -20 dBc



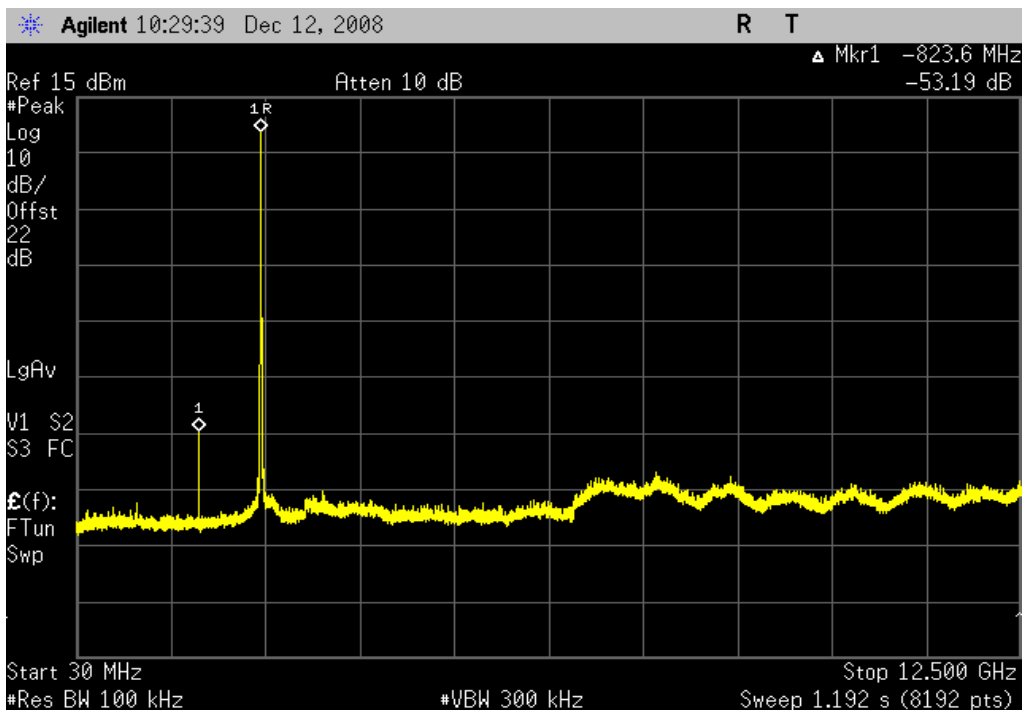
SPURIOUS CONDUCTED EMISSIONS

802.11(b) 1 Mbps, High Channel, 30 MHz - 12.5 GHz

Result: Pass

Value: < -40 dBc

Limit: ≤ -20 dBc

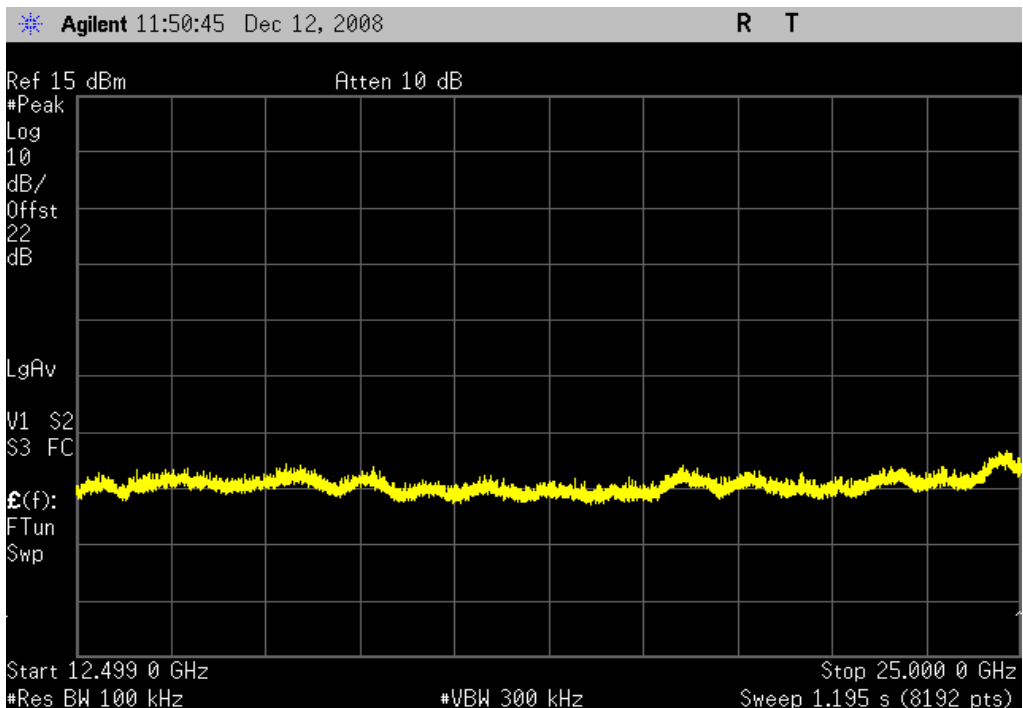


802.11(b) 1 Mbps, High Channel, 12.5 GHz - 25 GHz

Result: Pass

Value: < -40 dBc

Limit: ≤ -20 dBc

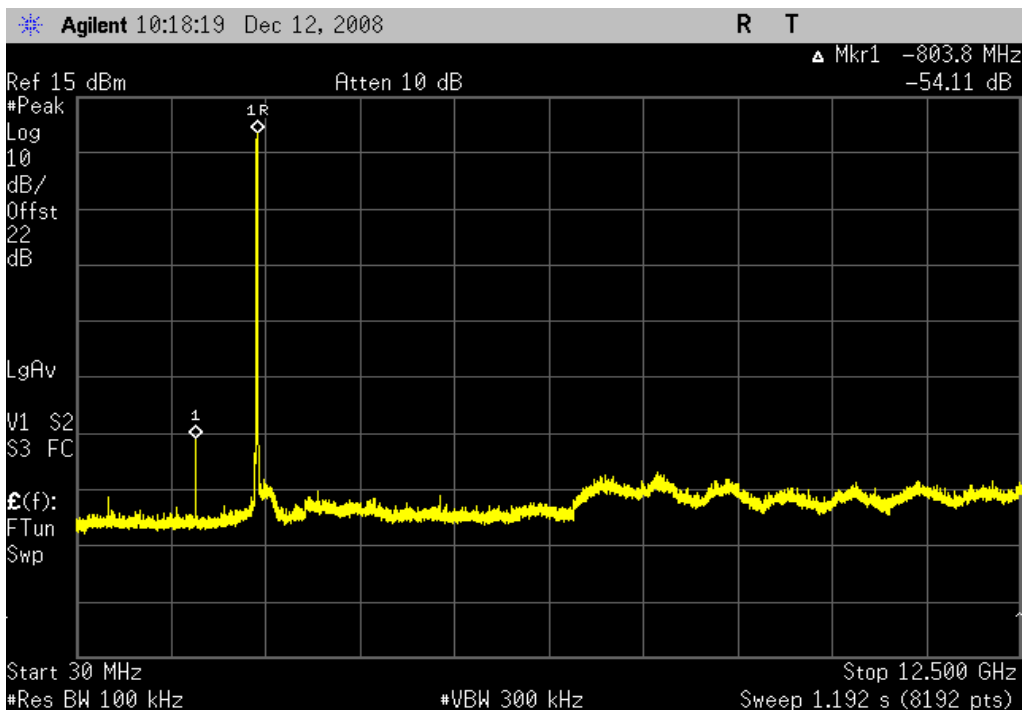


802.11(b) 11 Mbps, Low Channel, 30 MHz - 12.5 GHz

Result: Pass

Value: < -40 dBc

Limit: ≤ -20 dBc

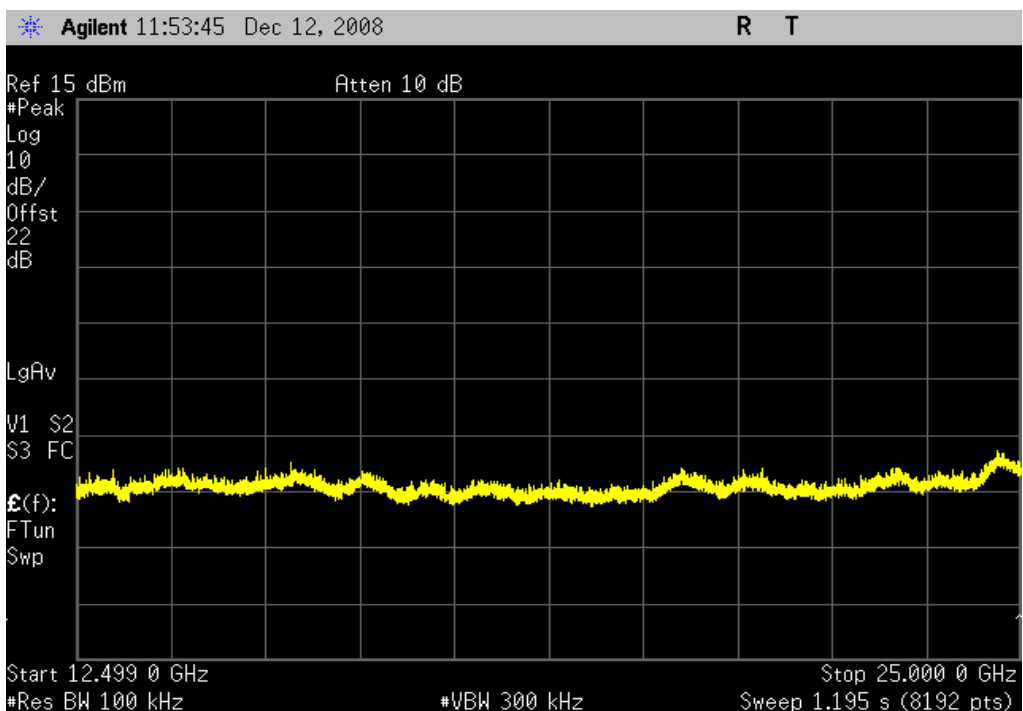


802.11(b) 11 Mbps, Low Channel, 12.5 GHz - 25 GHz

Result: Pass

Value: < -40 dBc

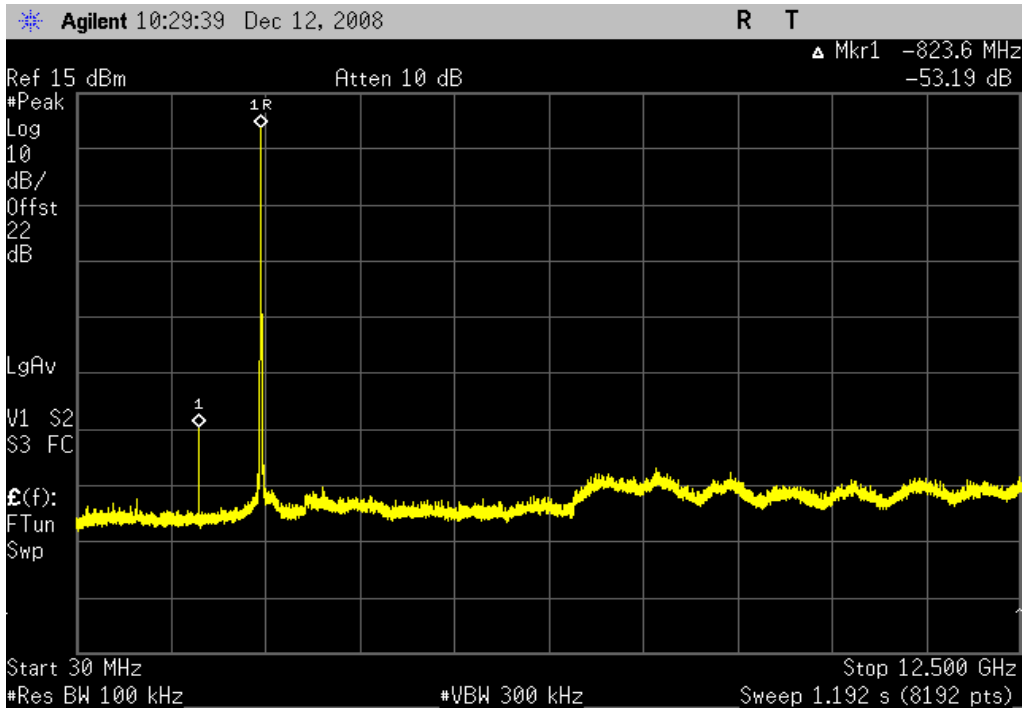
Limit: ≤ -20 dBc



SPURIOUS CONDUCTED EMISSIONS

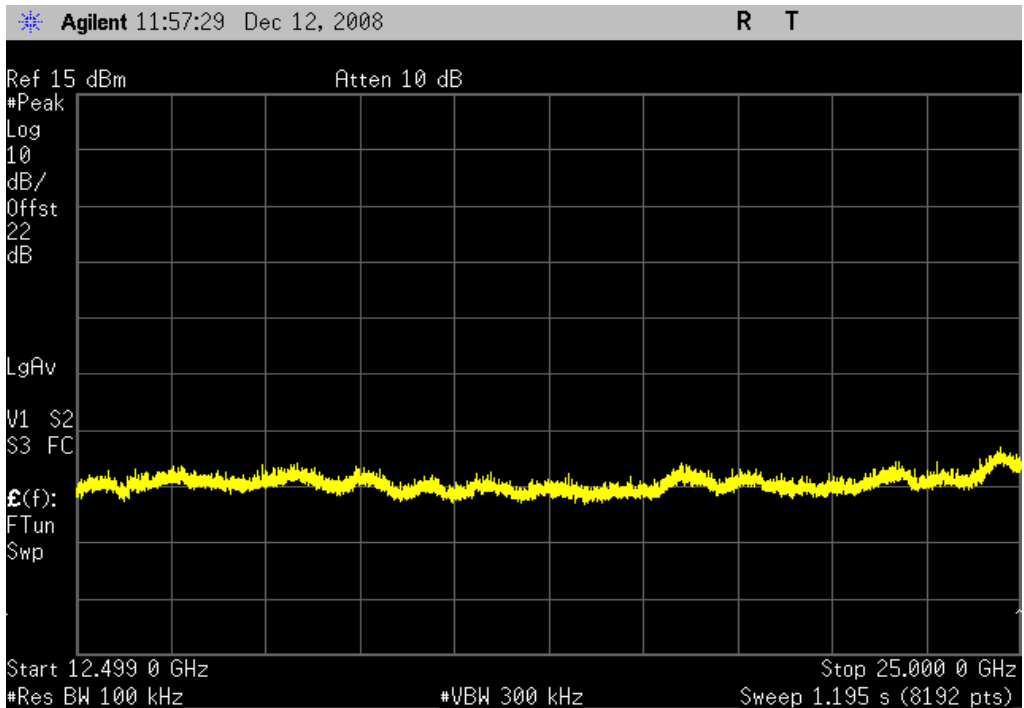
802.11(b) 11 Mbps, Mid Channel, 30 MHz - 12.5 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



802.11(b) 11 Mbps, Mid Channel, 12.5 GHz - 25 GHz

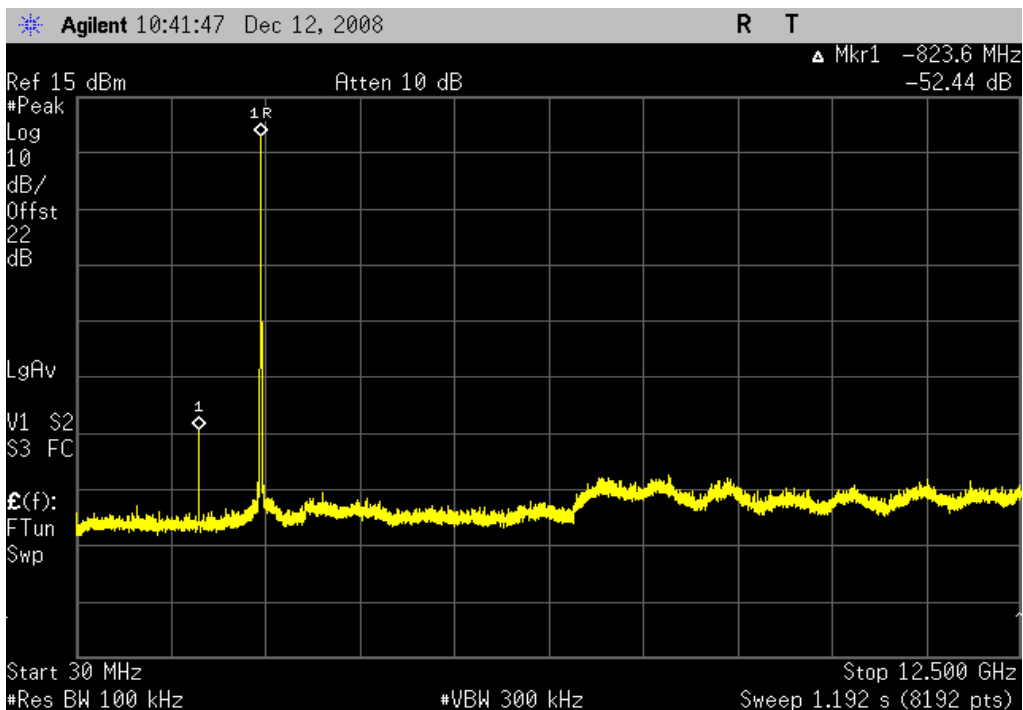
Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



SPURIOUS CONDUCTED EMISSIONS

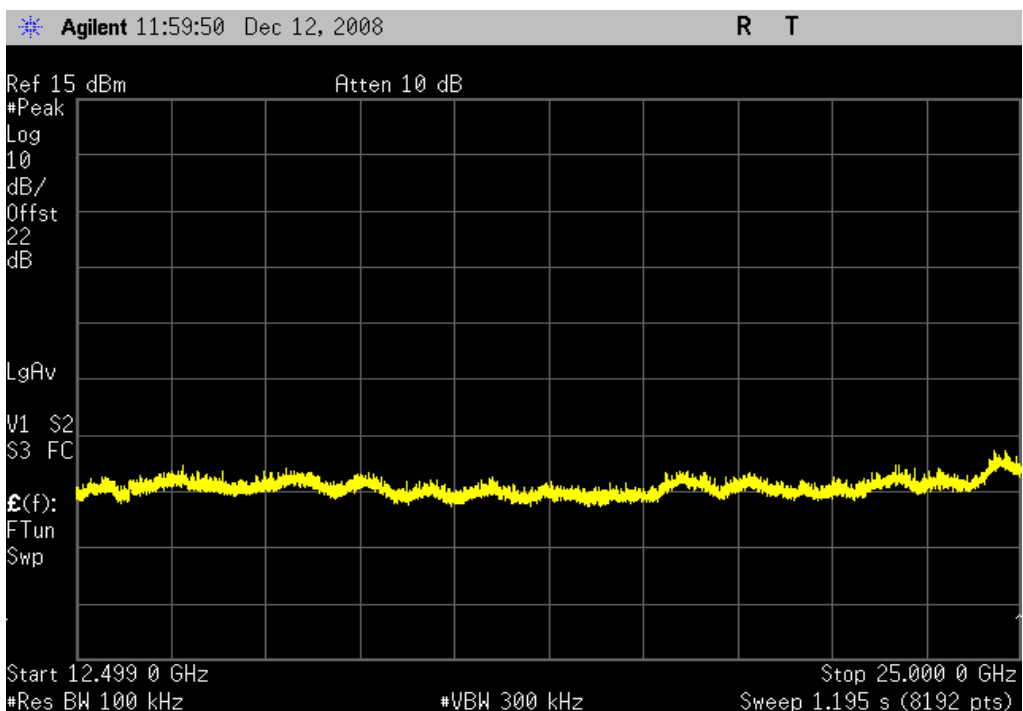
802.11(b) 11 Mbps, High Channel, 30 MHz - 12.5 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



802.11(b) 11 Mbps, High Channel, 12.5 GHz - 25 GHz

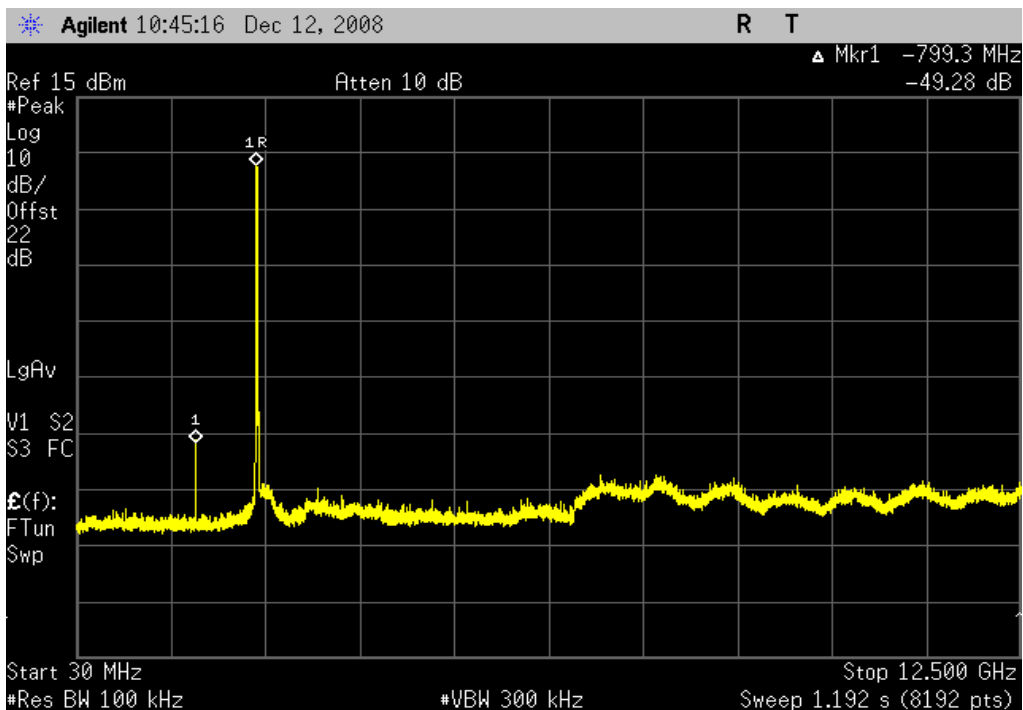
Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



SPURIOUS CONDUCTED EMISSIONS

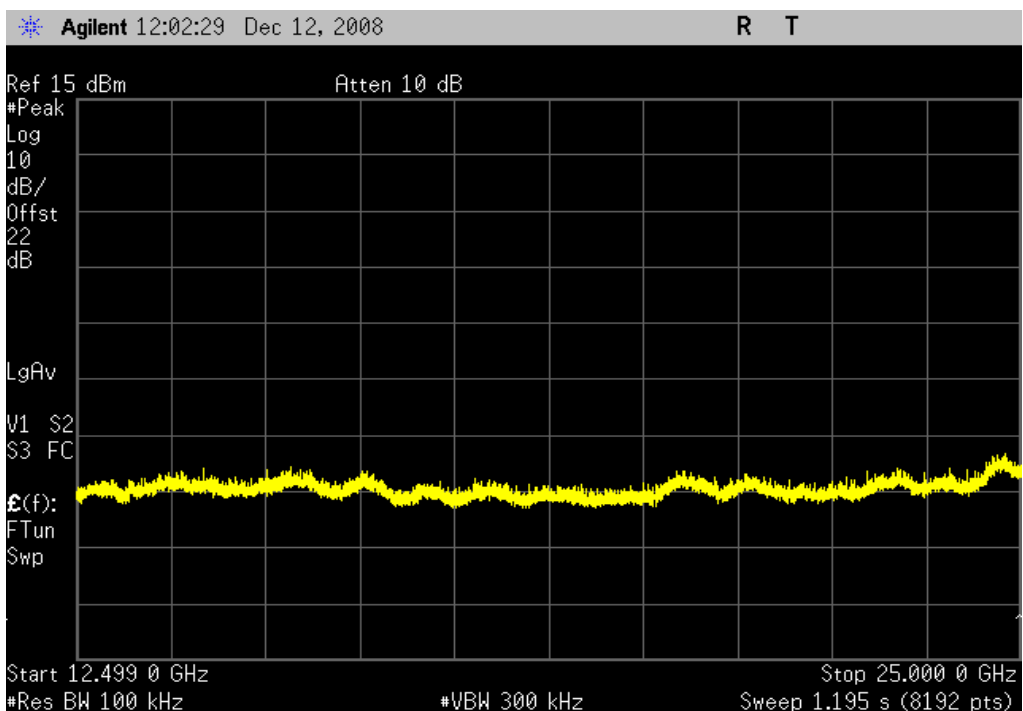
802.11(g) 6 Mbps, Low Channel, 30 MHz - 12.5 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



802.11(g) 6 Mbps, Low Channel, 12.5 GHz - 25 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc

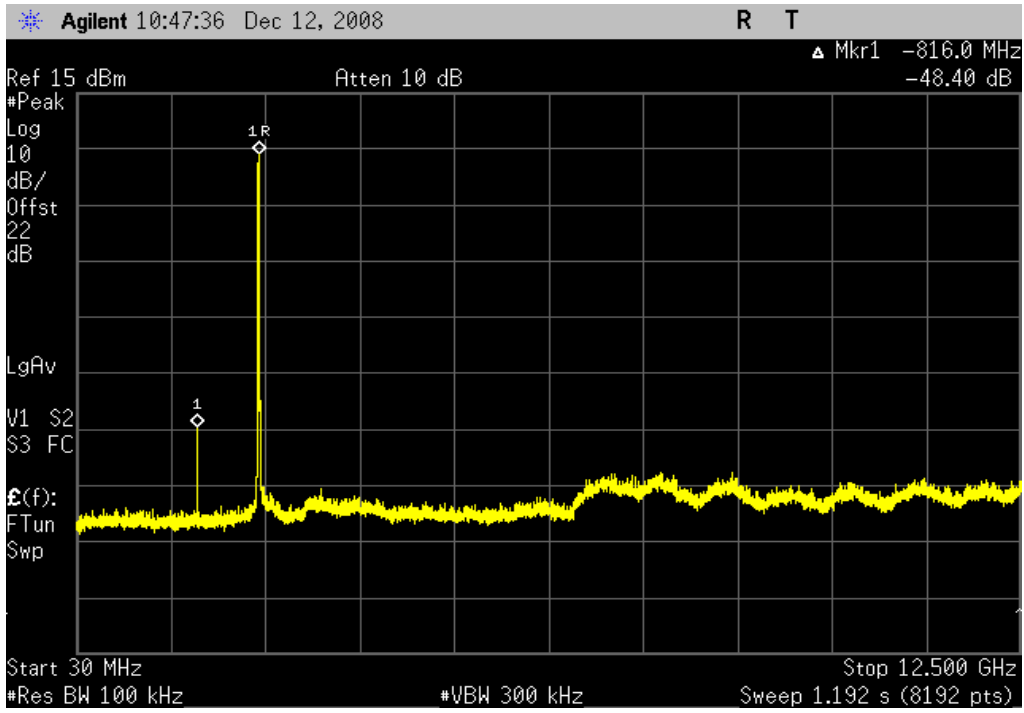


802.11(g) 6 Mbps, Mid Channel, 30 MHz - 12.5 GHz

Result: Pass

Value: < -40 dBc

Limit: ≤ -20 dBc

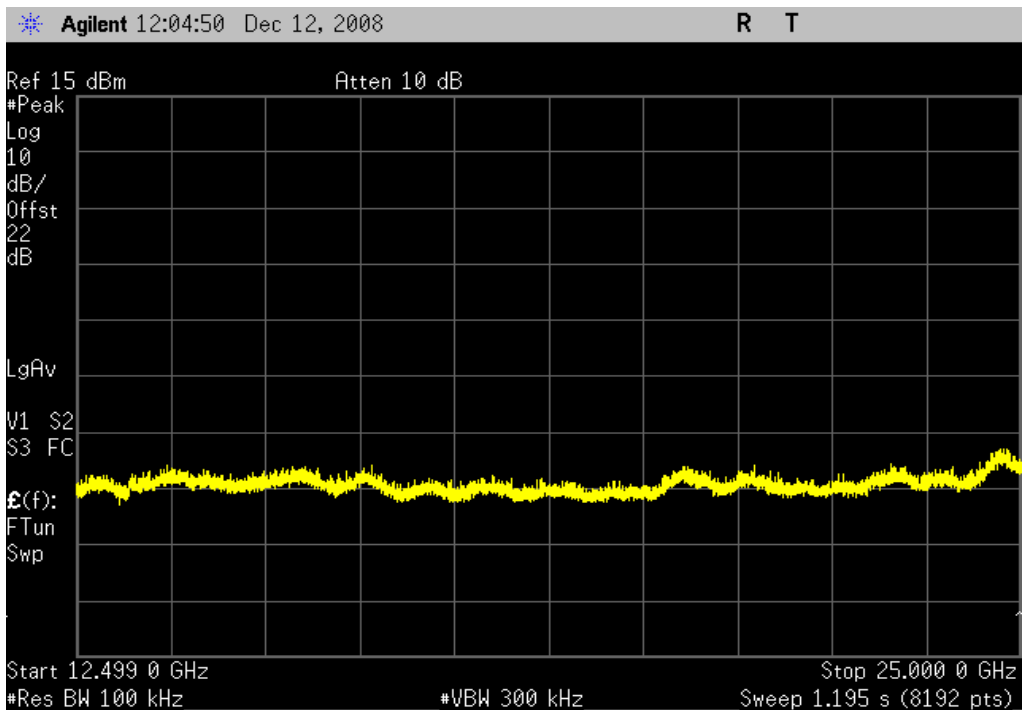


802.11(g) 6 Mbps, Mid Channel, 12.5 GHz - 25 GHz

Result: Pass

Value: < -40 dBc

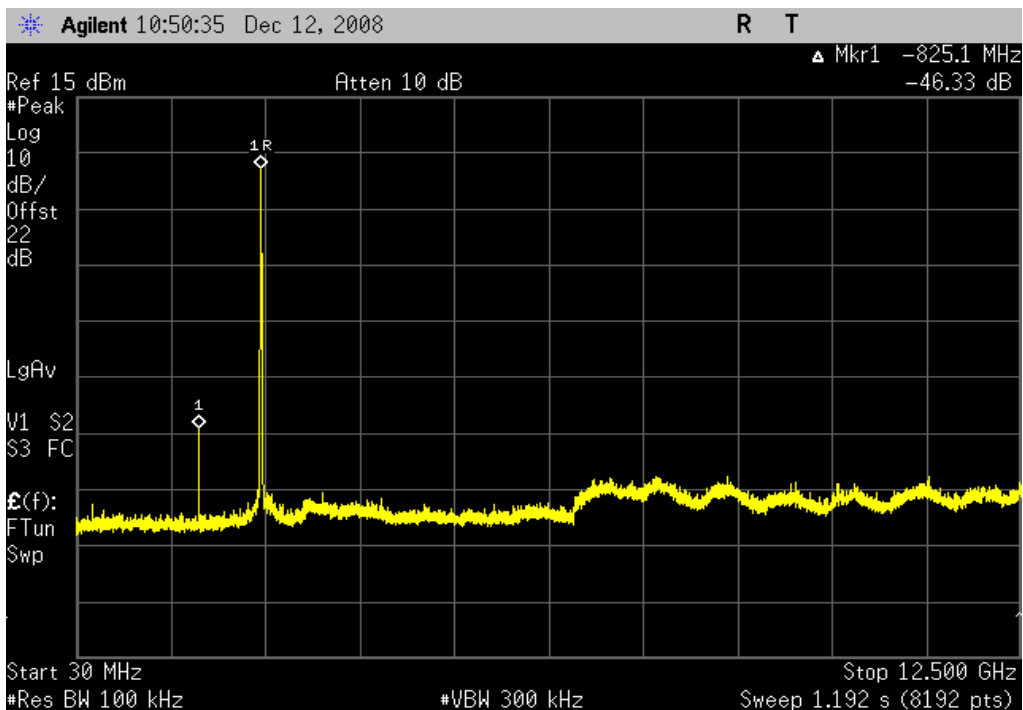
Limit: ≤ -20 dBc



SPURIOUS CONDUCTED EMISSIONS

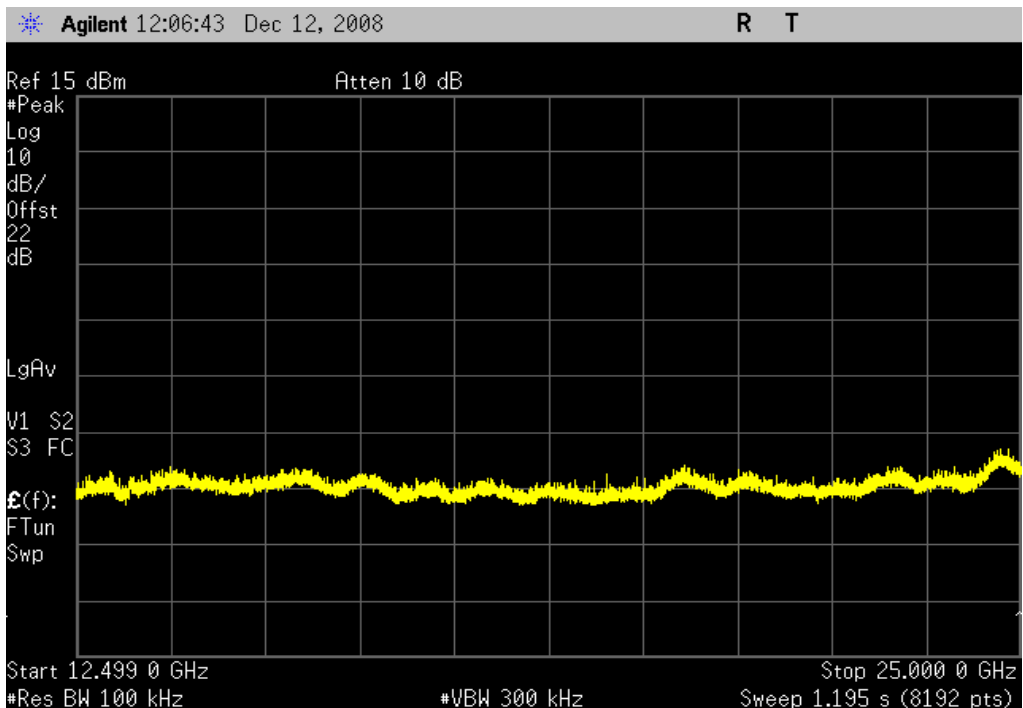
802.11(g) 6 Mbps, High Channel, 30 MHz - 12.5 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



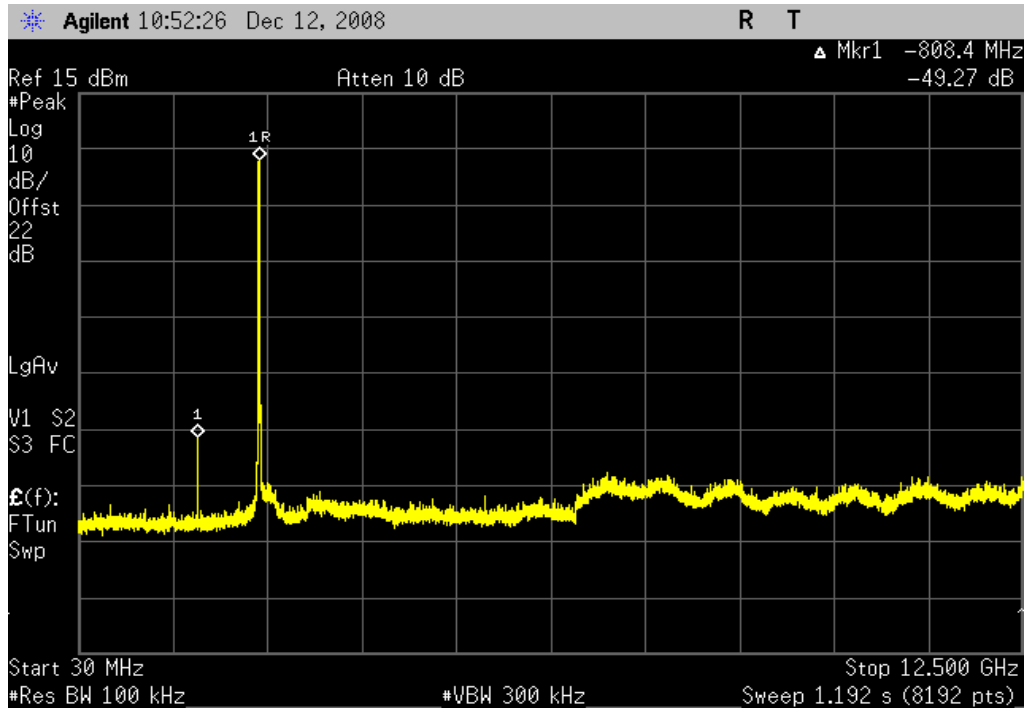
802.11(g) 6 Mbps, High Channel, 12.5 GHz - 25 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



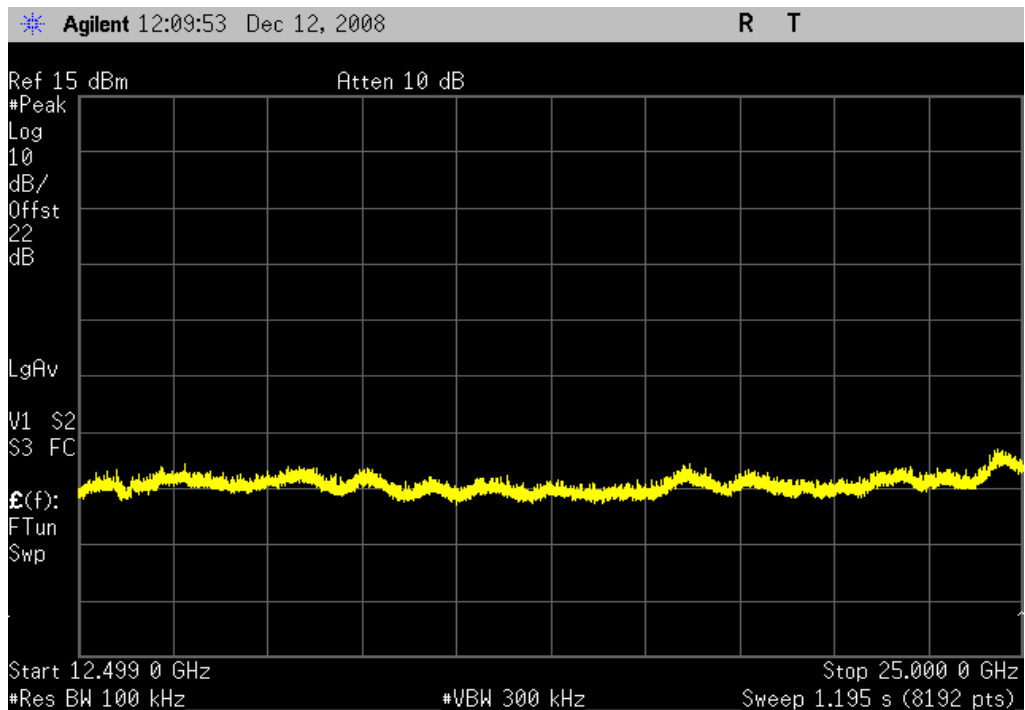
802.11(g) 36 Mbps, Low Channel, 30 MHz - 12.5 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



802.11(g) 36 Mbps, Low Channel, 12.5 GHz - 25 GHz

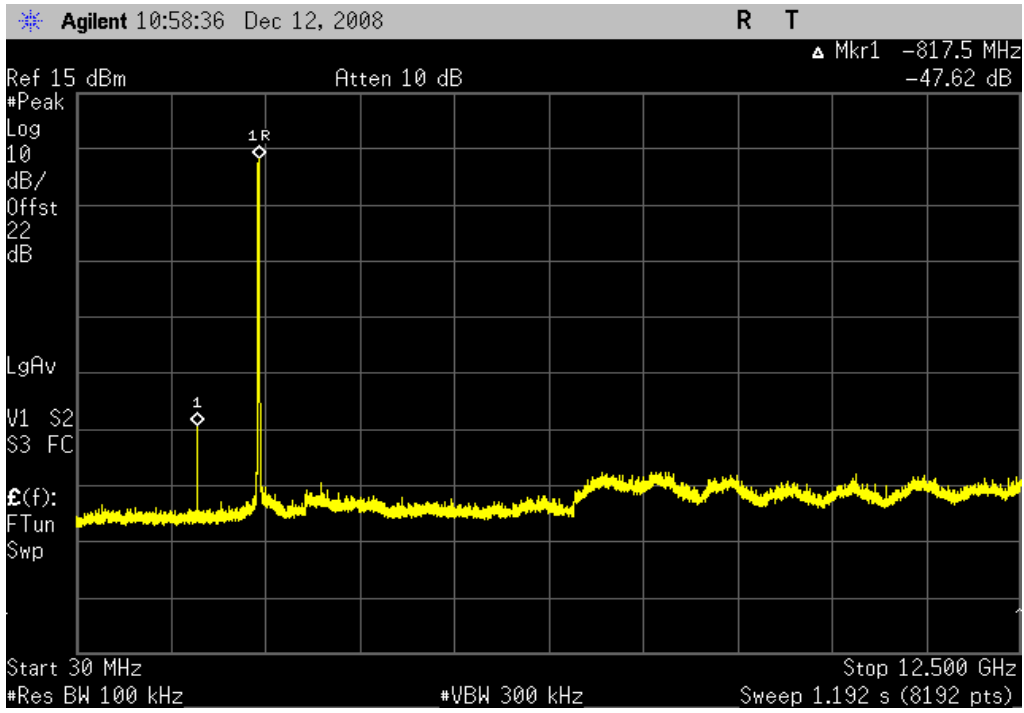
Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



SPURIOUS CONDUCTED EMISSIONS

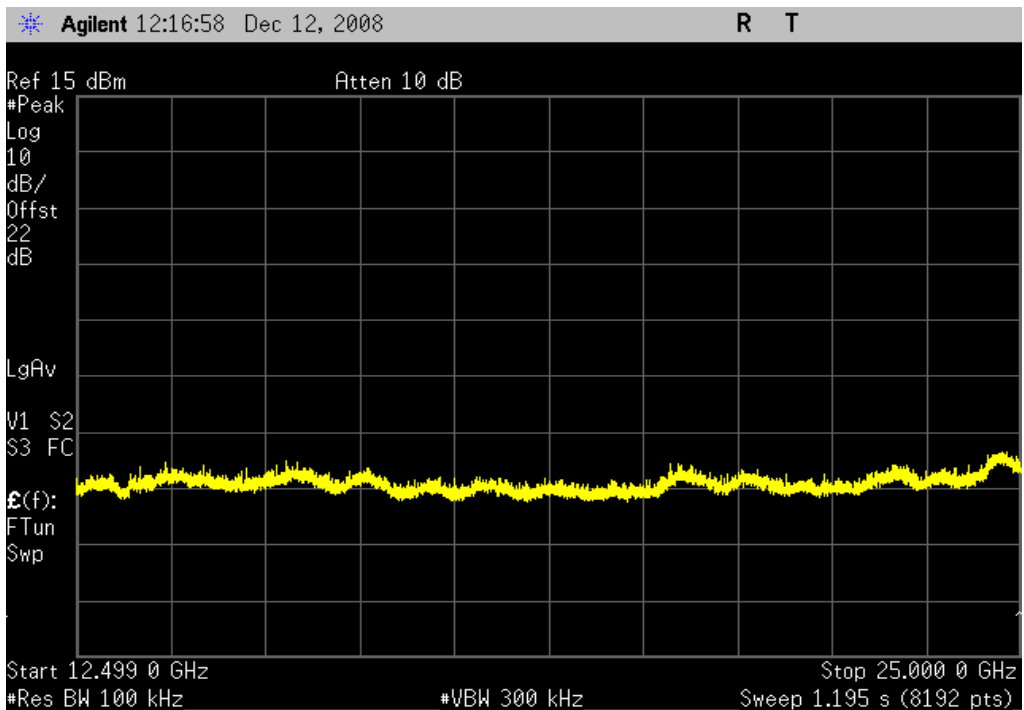
802.11(g) 36 Mbps, Mid Channel, 30 MHz - 12.5 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



802.11(g) 36 Mbps, Mid Channel, 12.5 GHz - 25 GHz

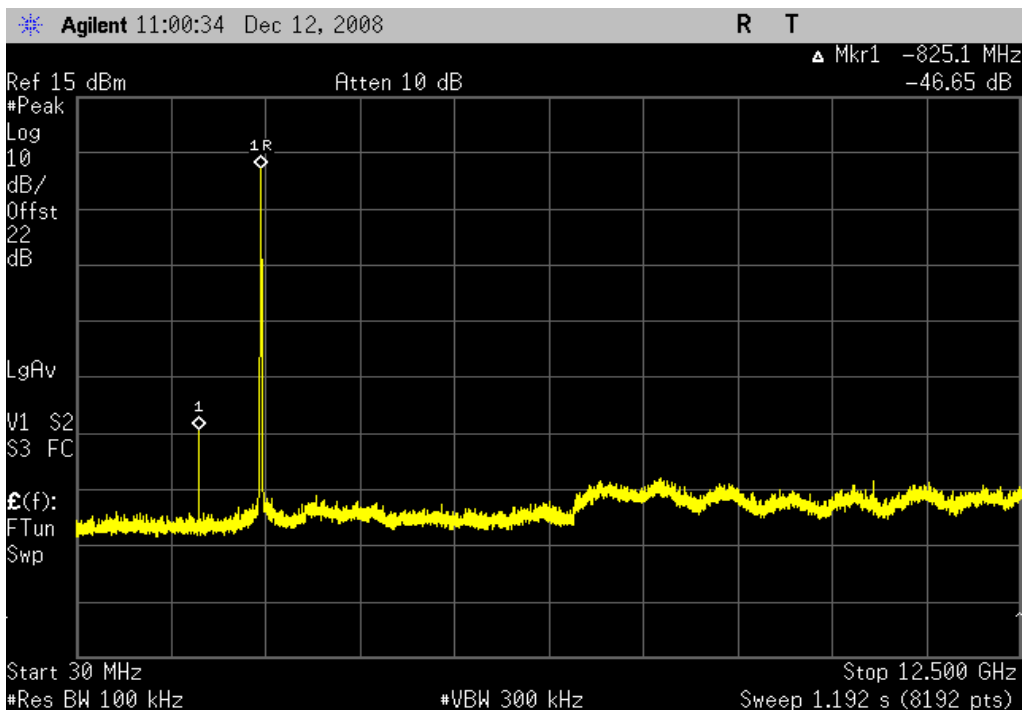
Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



SPURIOUS CONDUCTED EMISSIONS

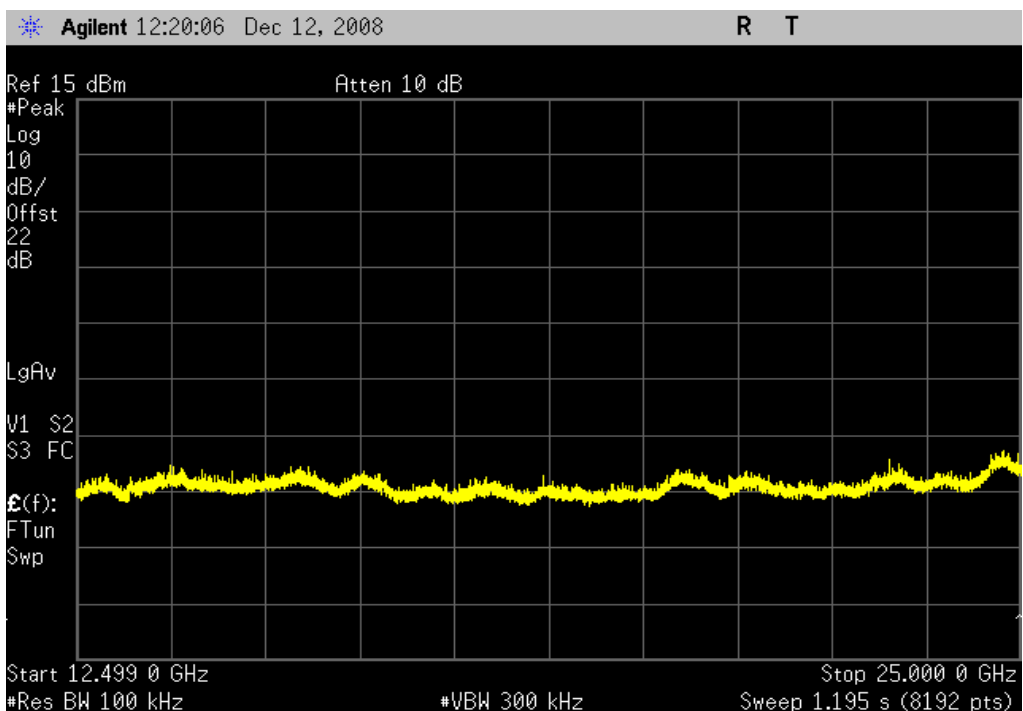
802.11(g) 36 Mbps, High Channel, 30 MHz - 12.5 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



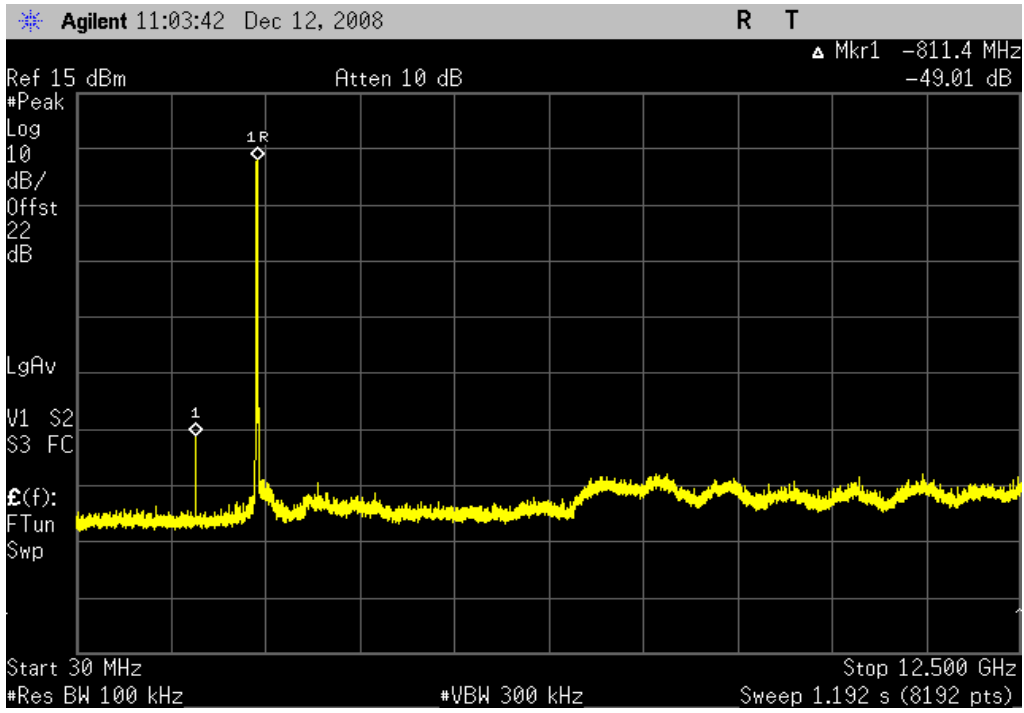
802.11(g) 36 Mbps, High Channel, 12.5 GHz - 25 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



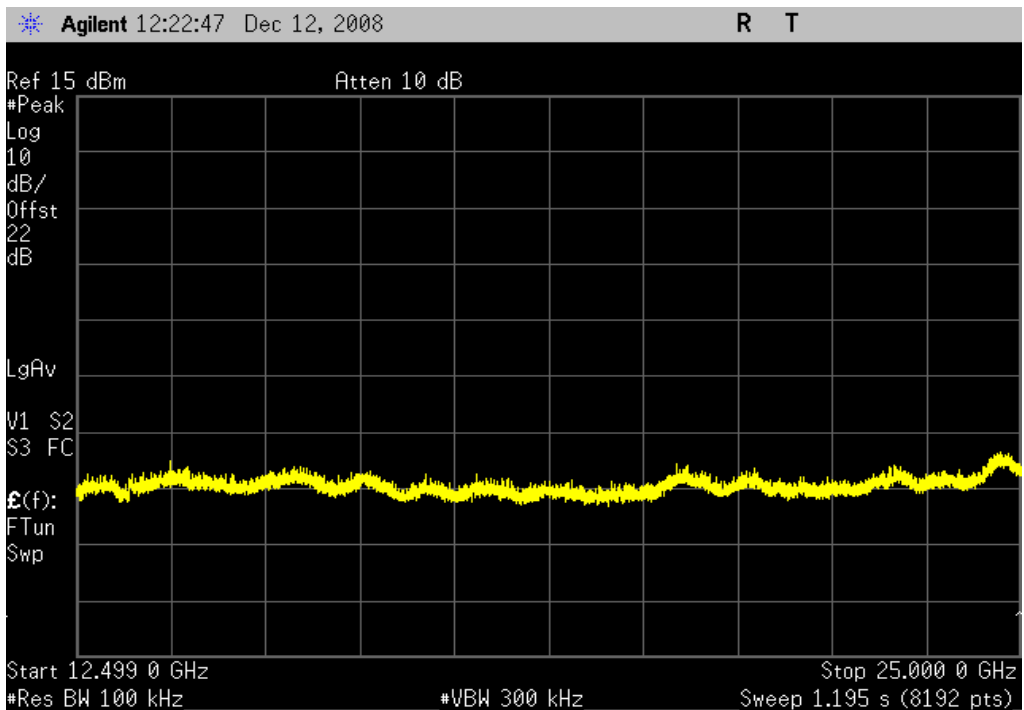
802.11(g) 54 Mbps, Low Channel, 30 MHz - 12.5 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



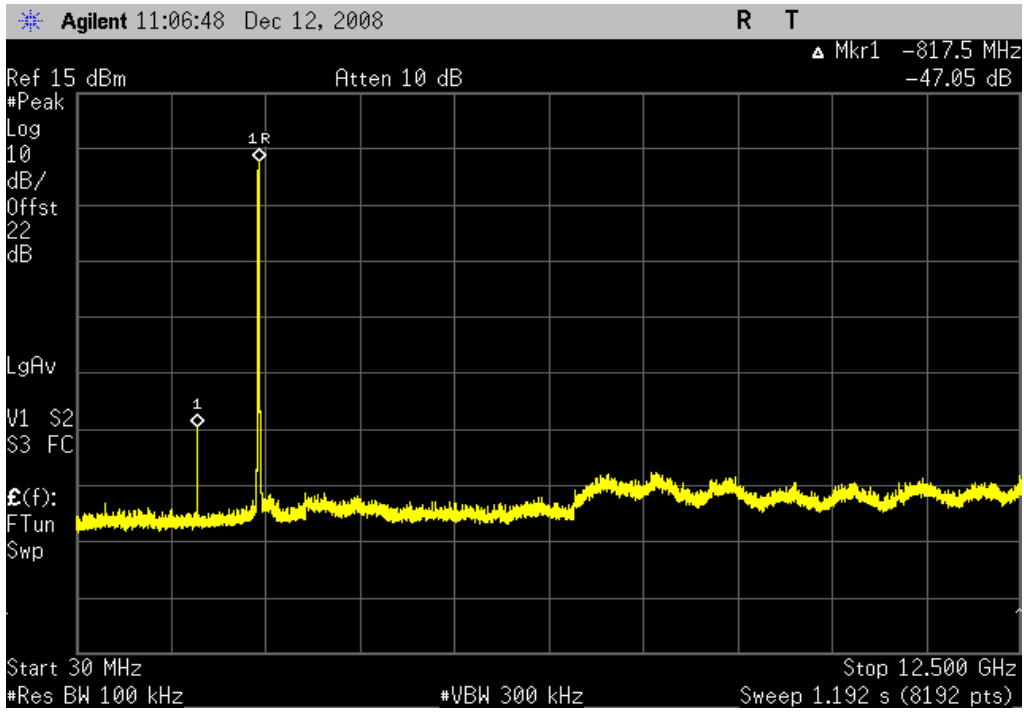
802.11(g) 54 Mbps, Low Channel, 12.5 GHz - 25 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



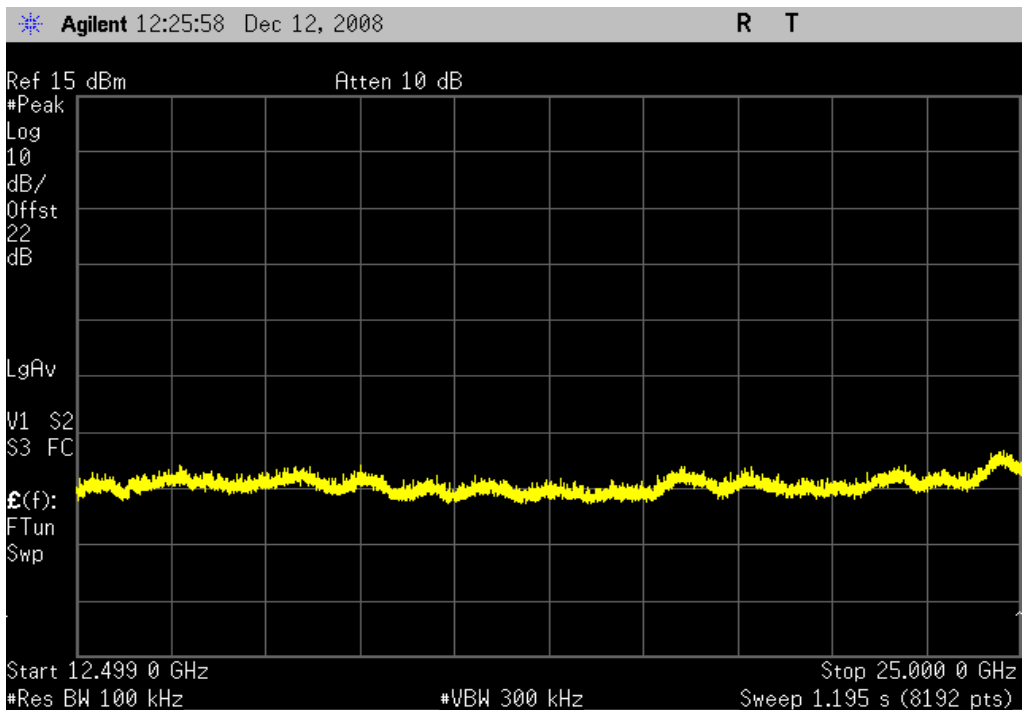
802.11(g) 54 Mbps, Mid Channel, 30 MHz - 12.5 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



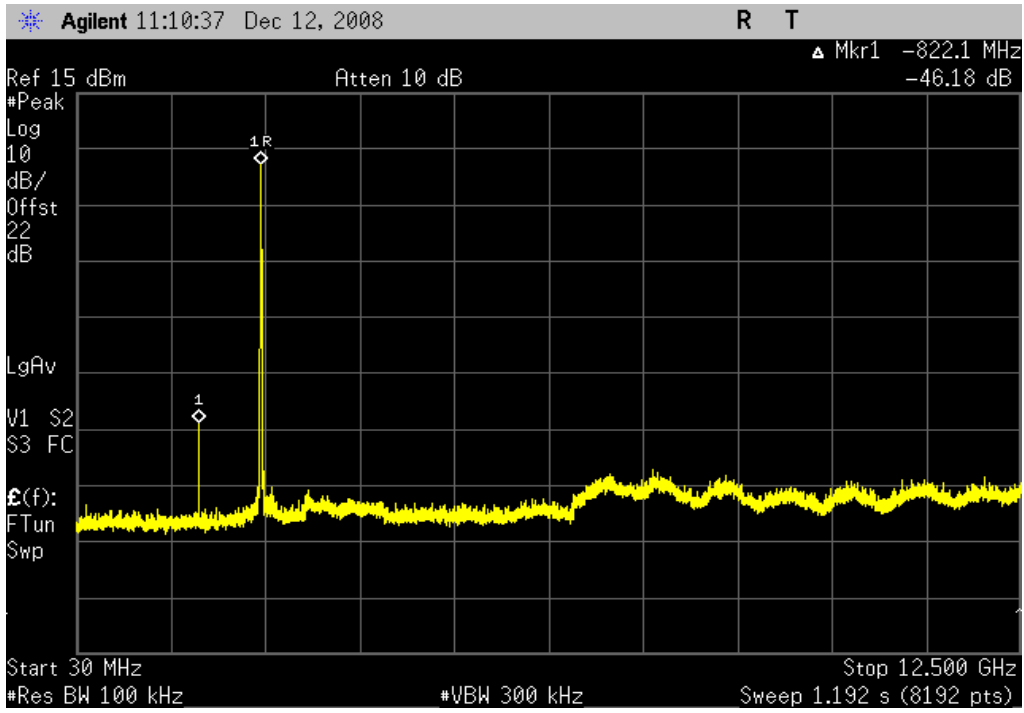
802.11(g) 54 Mbps, Mid Channel, 12.5 GHz - 25 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



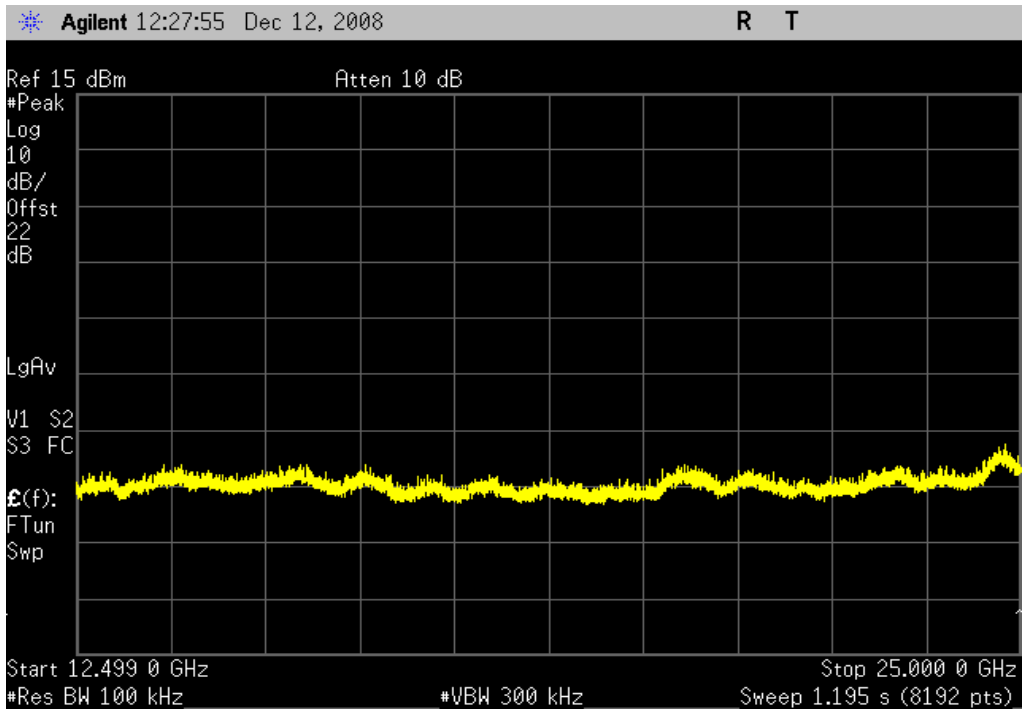
802.11(g) 54 Mbps, High Channel, 30 MHz - 12.5 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



802.11(g) 54 Mbps, High Channel, 12.5 GHz - 25 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc

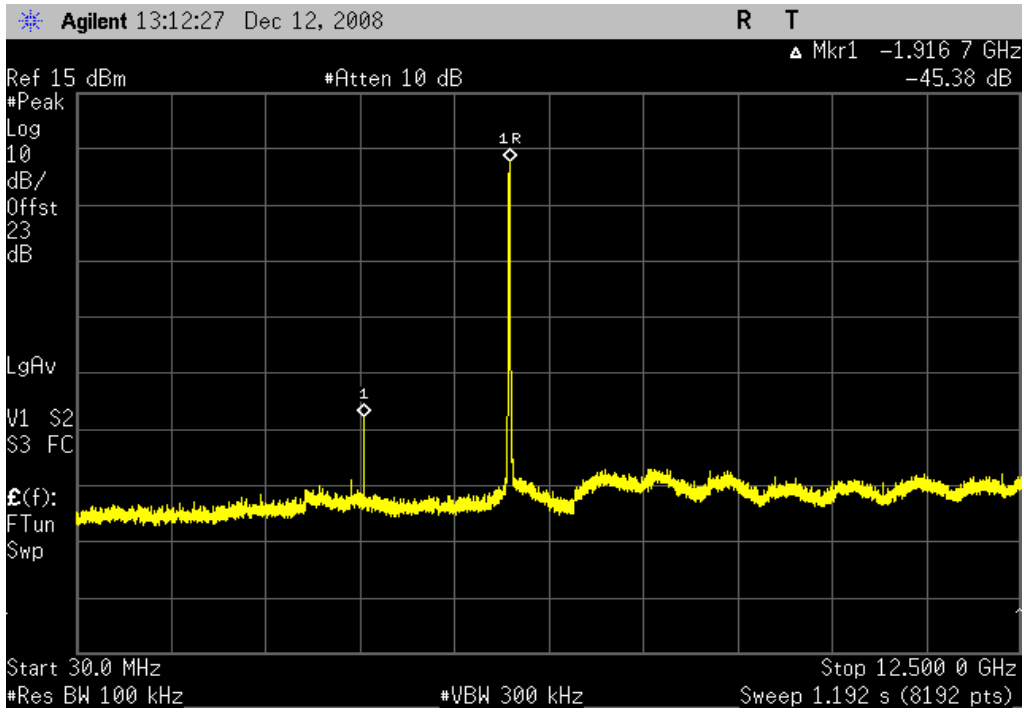


802.11(a) 6 Mbps, Low Channel, 30 MHz - 12.5 GHz

Result: Pass

Value: < -40 dBc

Limit: ≤ -20 dBc

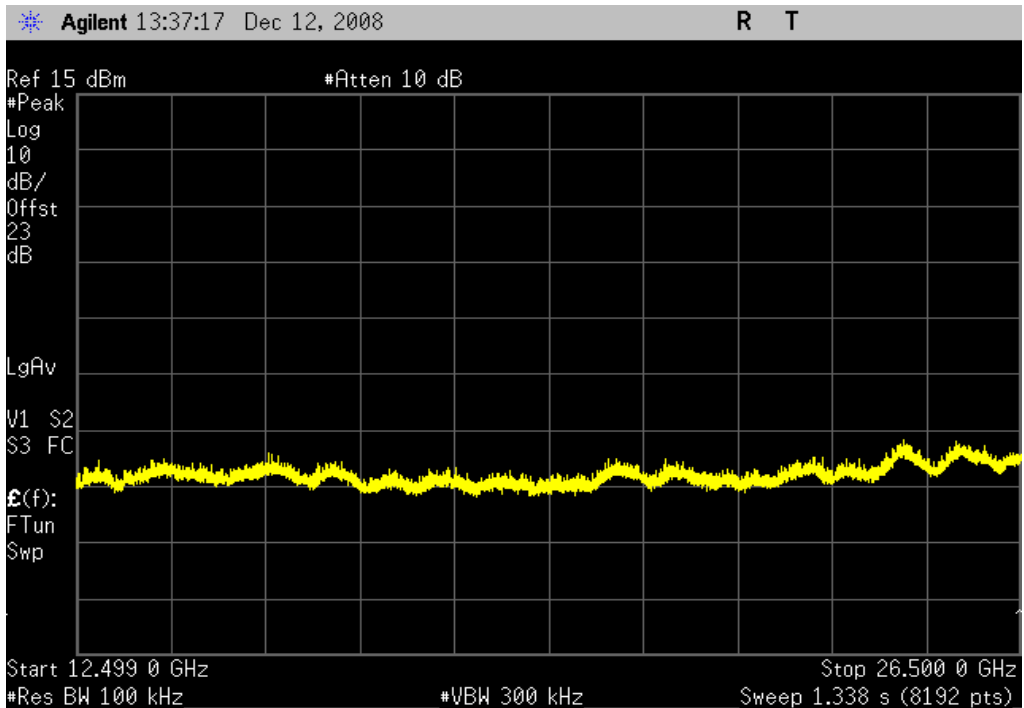


802.11(a) 6 Mbps, Low Channel, 12.5 GHz - 26.5 GHz

Result: Pass

Value: < -40 dBc

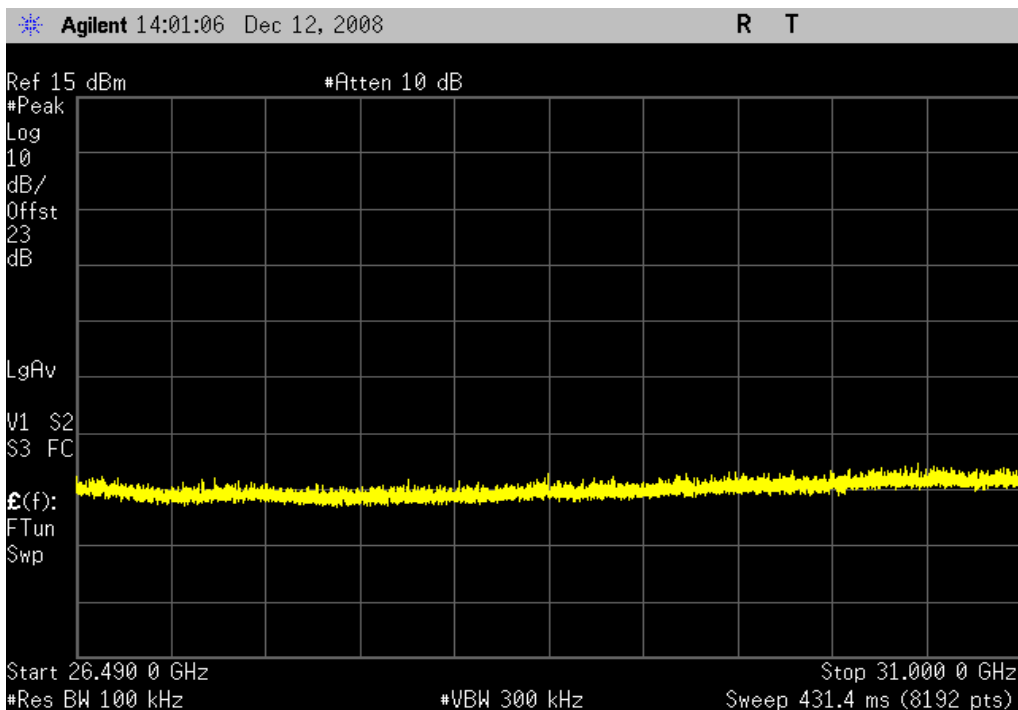
Limit: ≤ -20 dBc



SPURIOUS CONDUCTED EMISSIONS

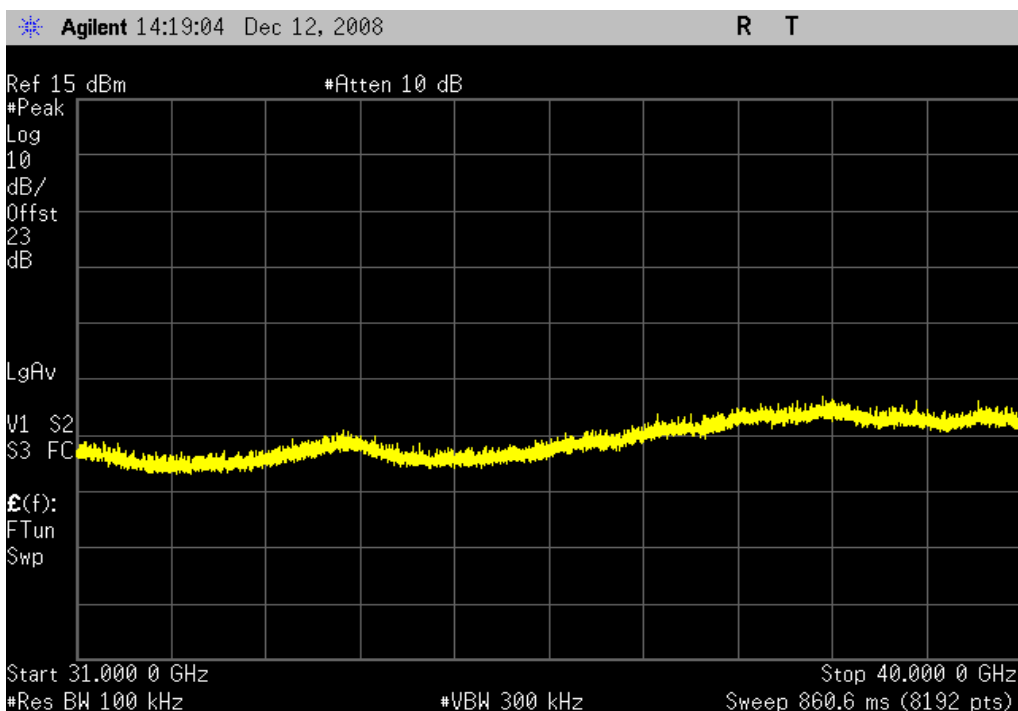
802.11(a) 6 Mbps, Low Channel, 26.5 GHz - 31 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



802.11(a) 6 Mbps, Low Channel, 31 GHz - 40 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



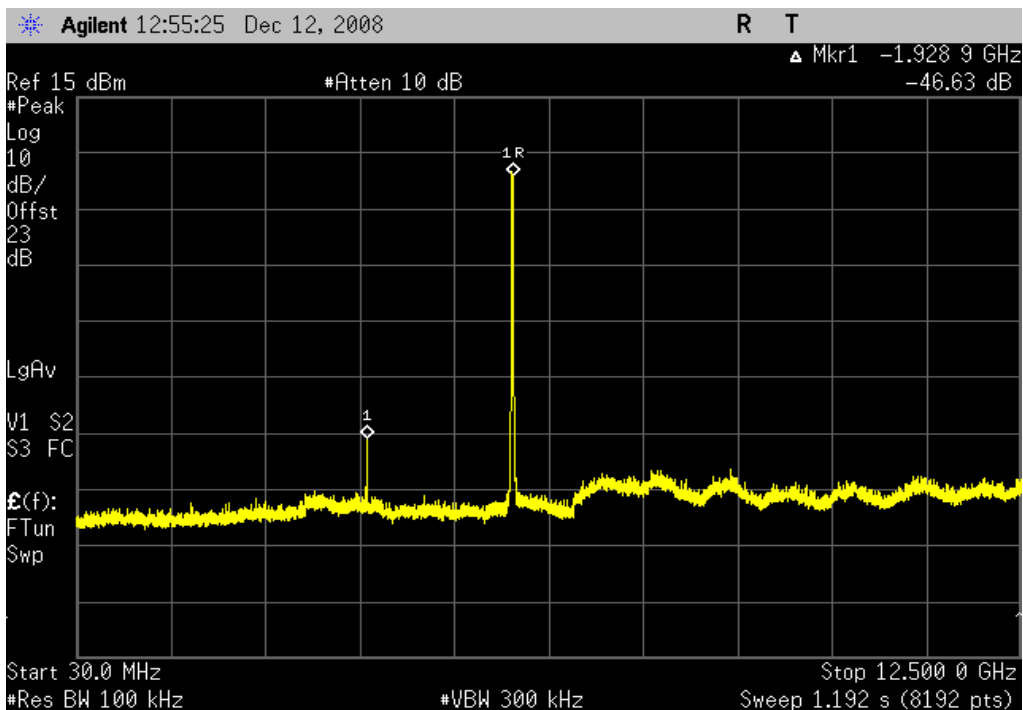
SPURIOUS CONDUCTED EMISSIONS

802.11(a) 6 Mbps, Mid Channel, 30 MHz - 12.5 GHz

Result: Pass

Value: < -40 dBc

Limit: ≤ -20 dBc

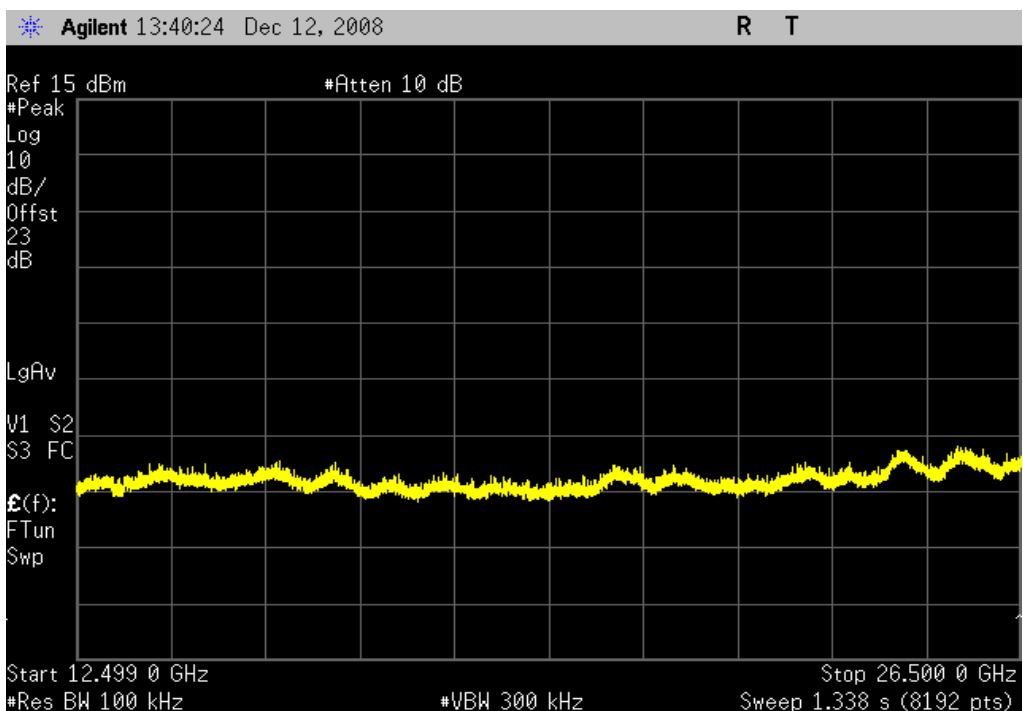


802.11(a) 6 Mbps, Mid Channel, 12.5 GHz - 26.5 GHz

Result: Pass

Value: < -40 dBc

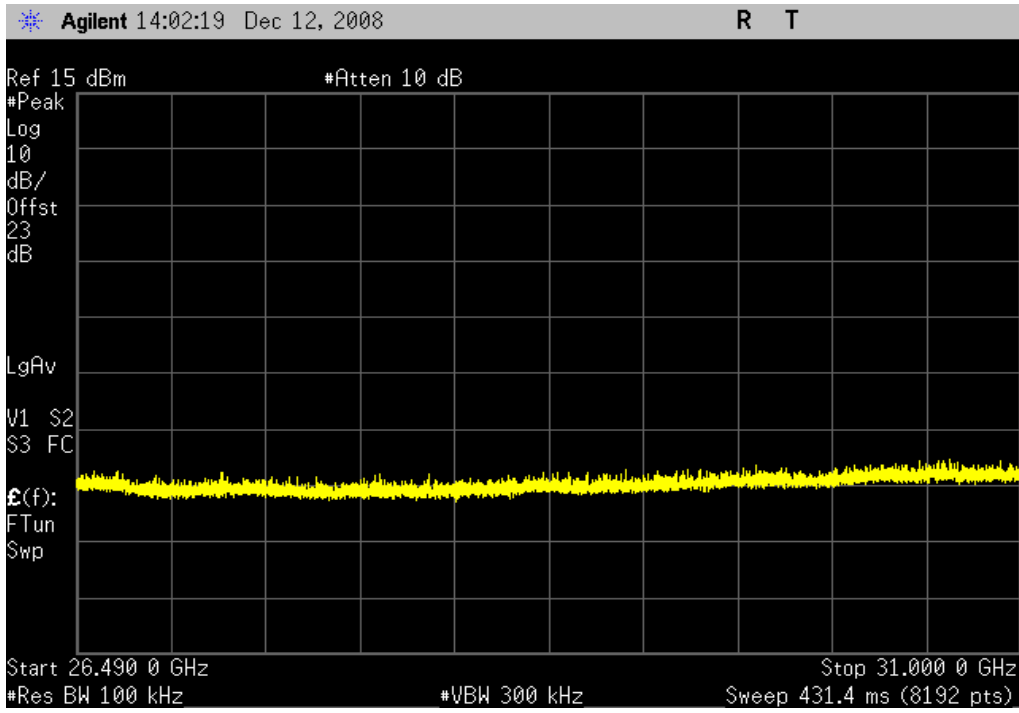
Limit: ≤ -20 dBc



SPURIOUS CONDUCTED EMISSIONS

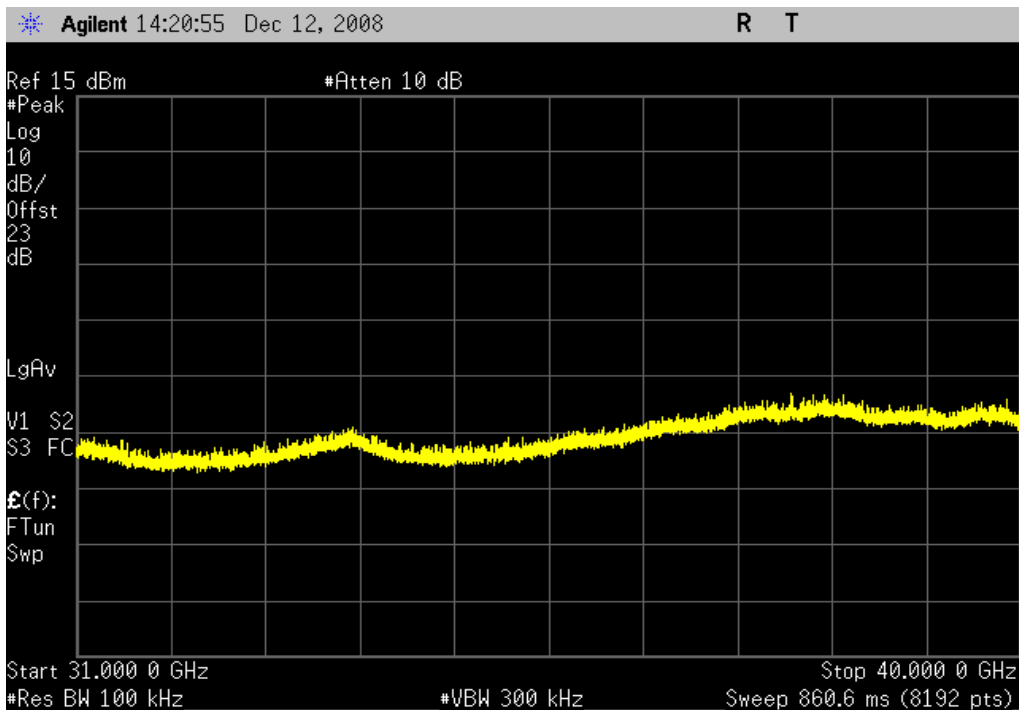
802.11(a) 6 Mbps, Mid Channel, 26.5 GHz - 31 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



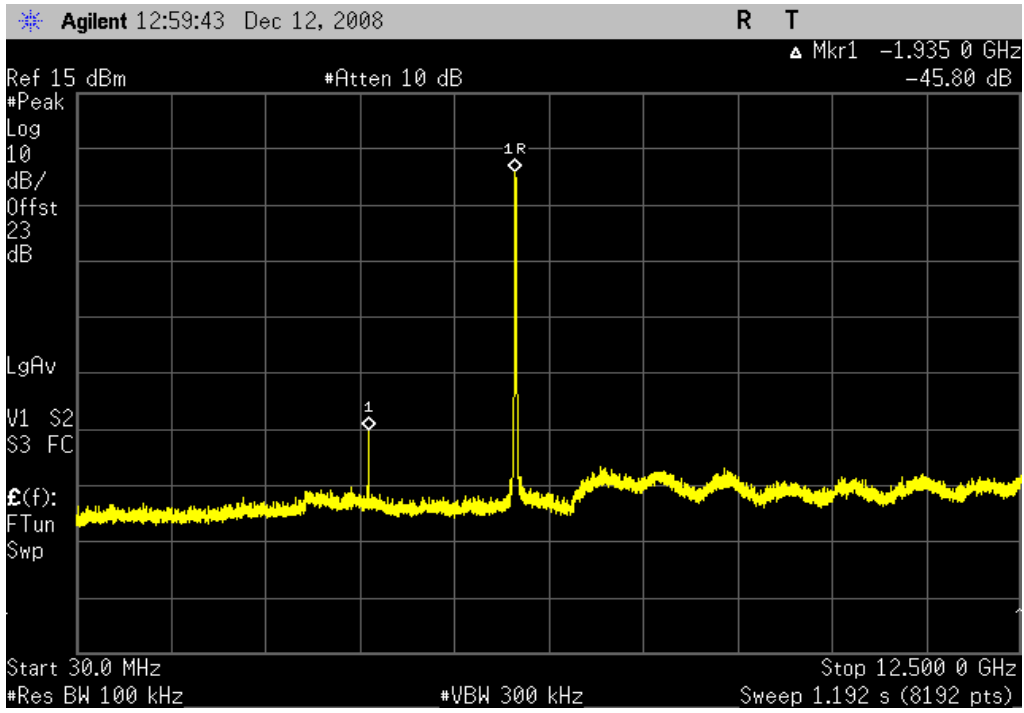
802.11(a) 6 Mbps, Mid Channel, 31 GHz - 40 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



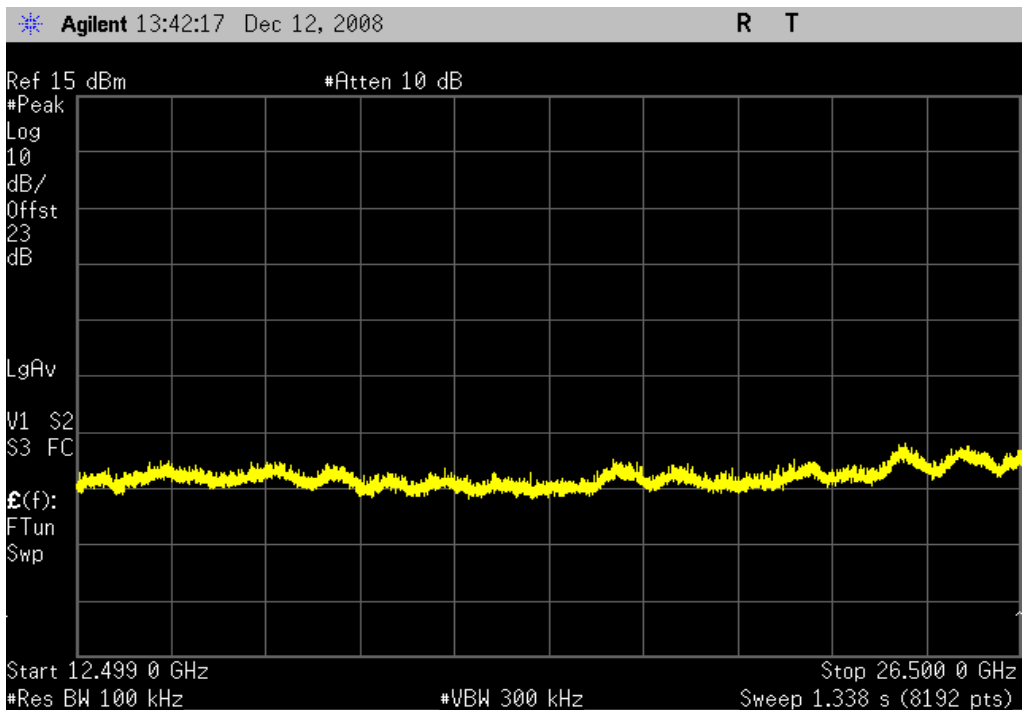
802.11(a) 6 Mbps, High Channel, 30 MHz - 12.5 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



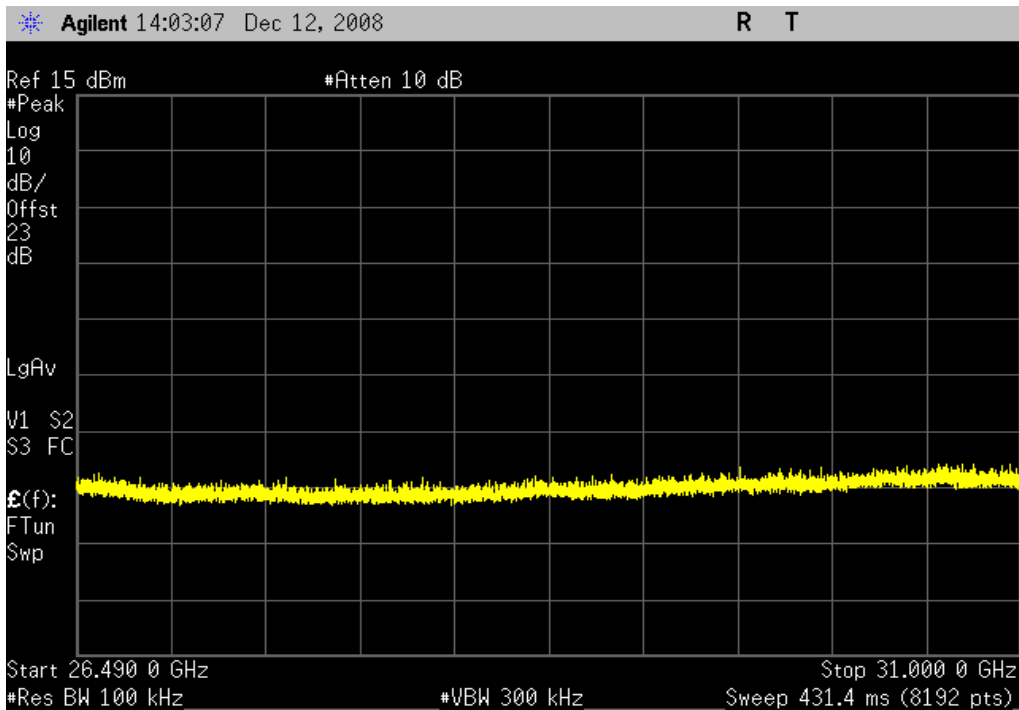
802.11(a) 6 Mbps, High Channel, 12.5 GHz - 26.5 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



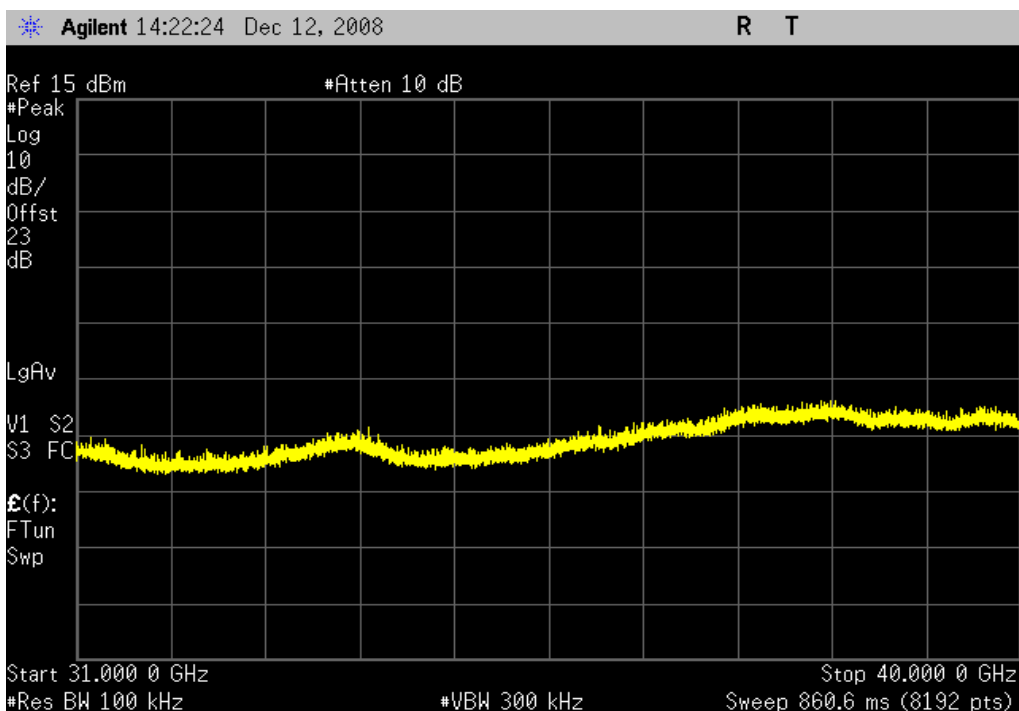
802.11(a) 6 Mbps, High Channel, 26.5 GHz - 31 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



802.11(a) 6 Mbps, High Channel, 31 GHz - 40 GHz

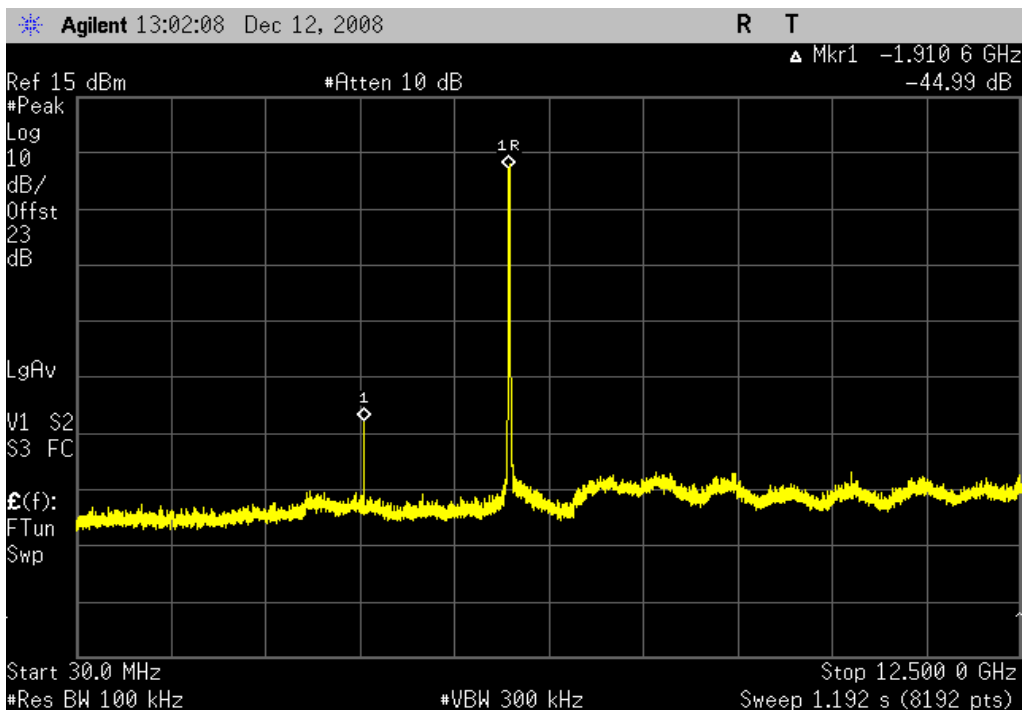
Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



SPURIOUS CONDUCTED EMISSIONS

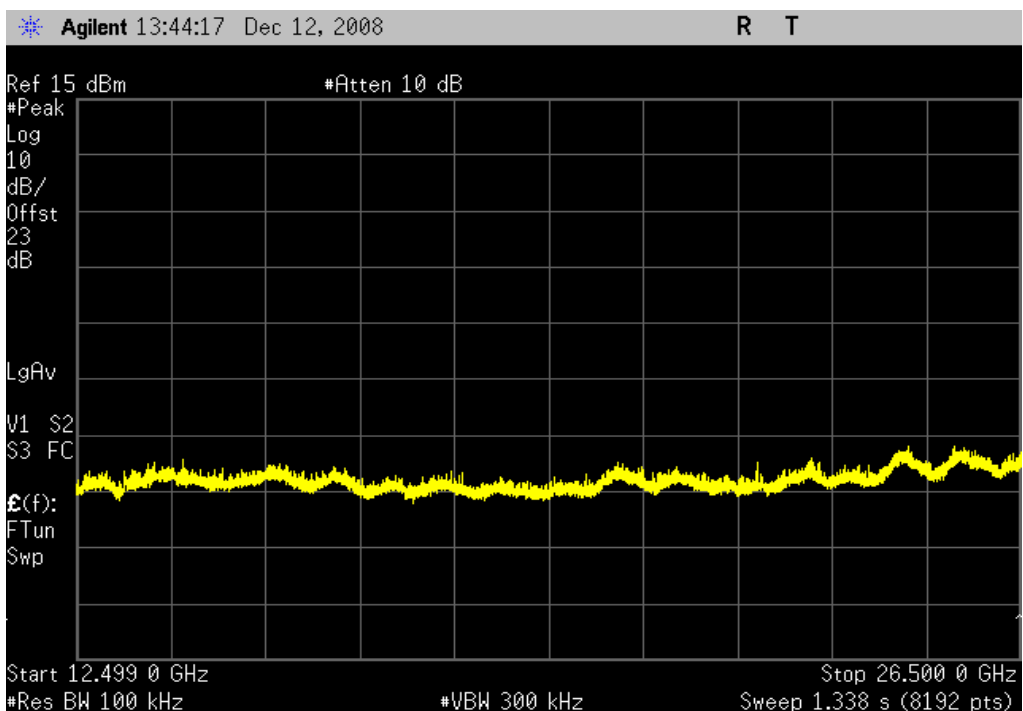
802.11(a) 36 Mbps, Low Channel, 30 MHz - 12.5 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



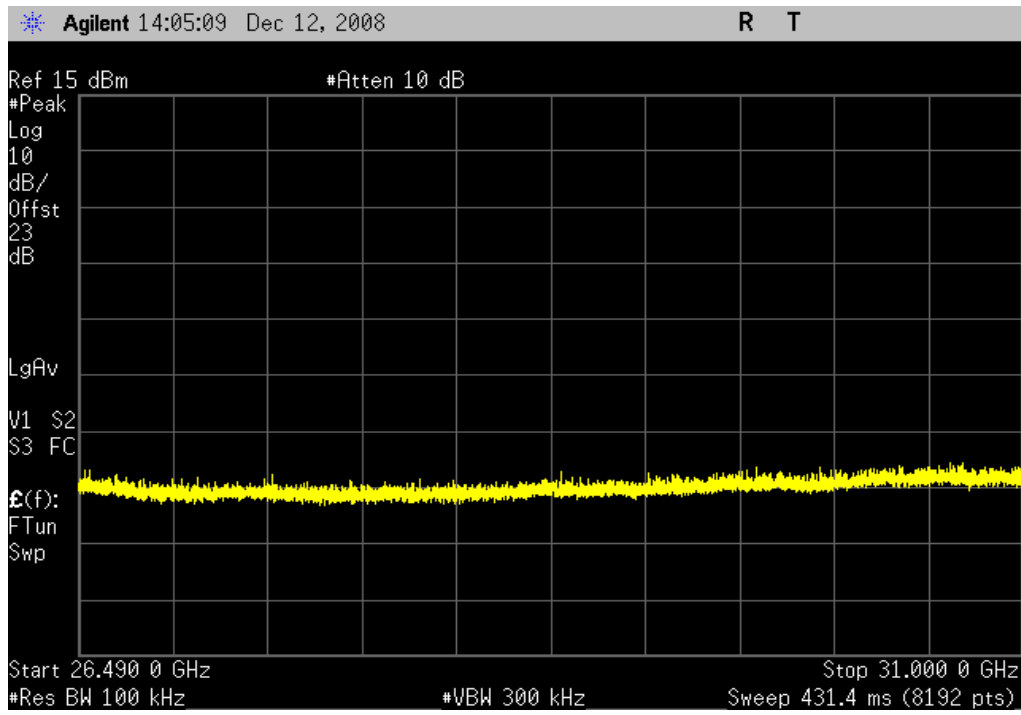
802.11(a) 36 Mbps, Low Channel, 12.5 GHz - 26.5 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



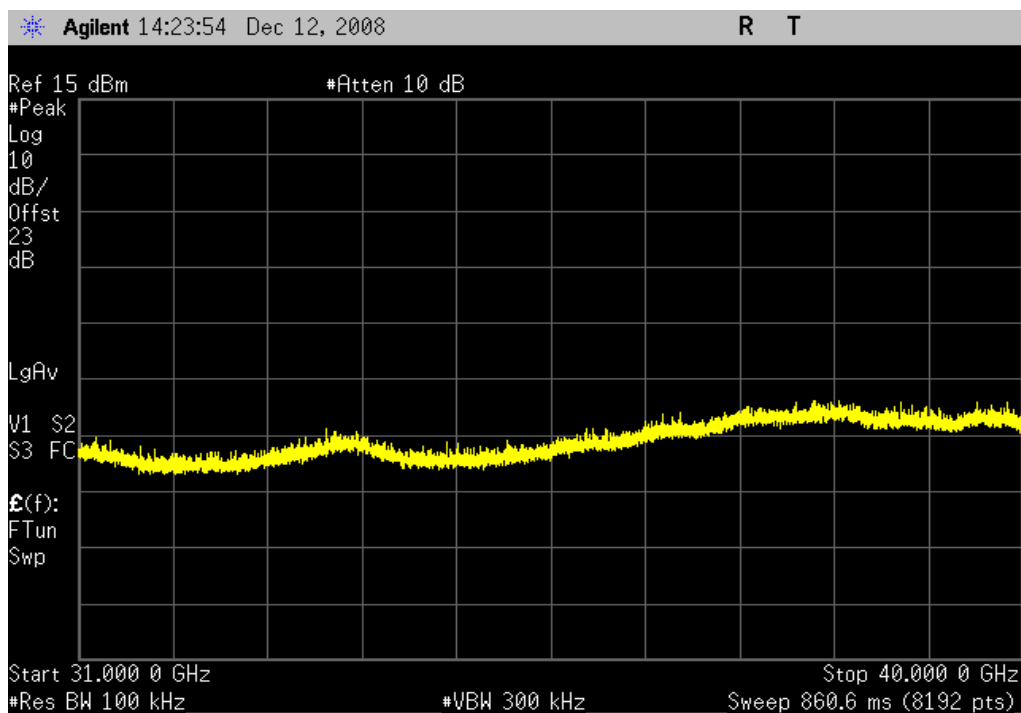
802.11(a) 36 Mbps, Low Channel, 26.5 GHz - 31 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



802.11(a) 36 Mbps, Low Channel, 31 GHz - 40 GHz

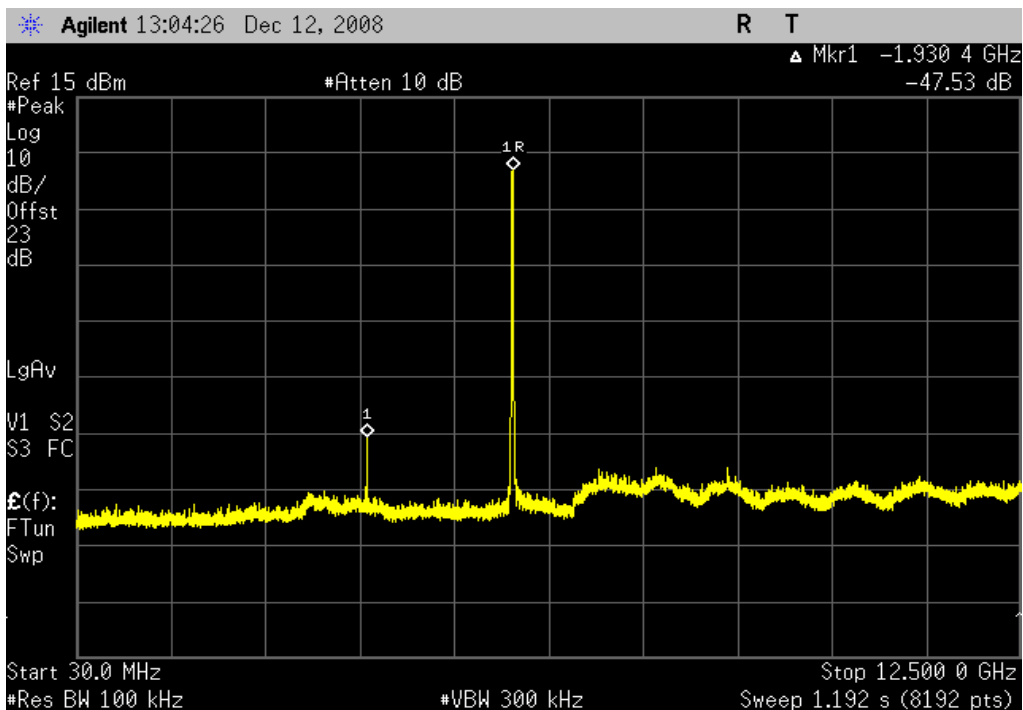
Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



SPURIOUS CONDUCTED EMISSIONS

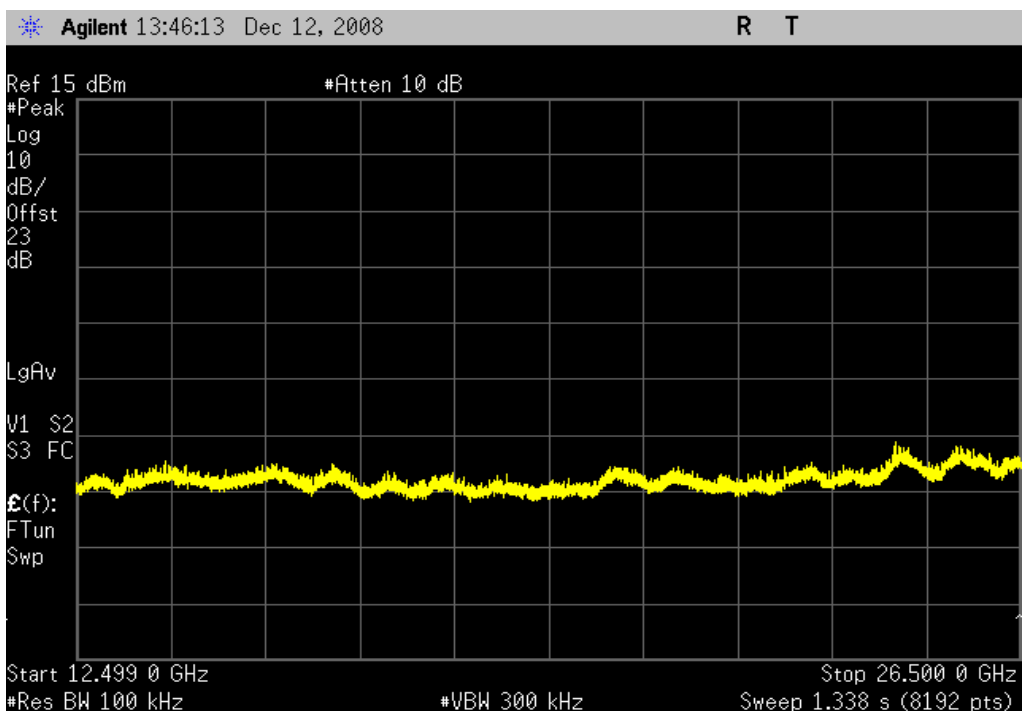
802.11(a) 36 Mbps, Mid Channel, 30 MHz - 12.5 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



802.11(a) 36 Mbps, Mid Channel, 12.5 GHz - 26.5 GHz

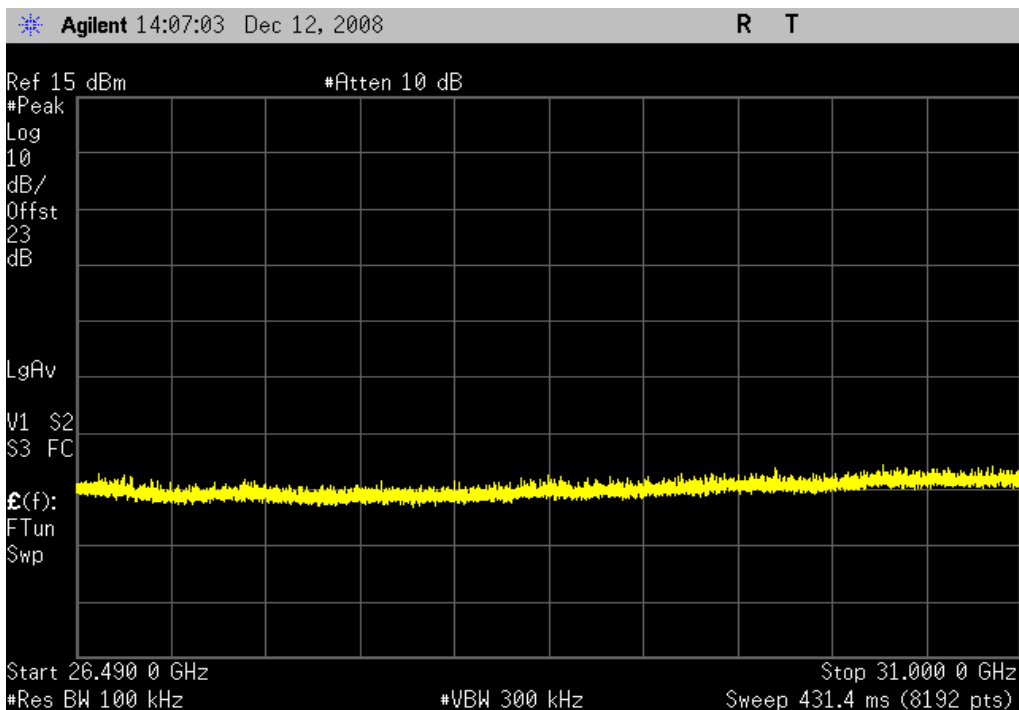
Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



SPURIOUS CONDUCTED EMISSIONS

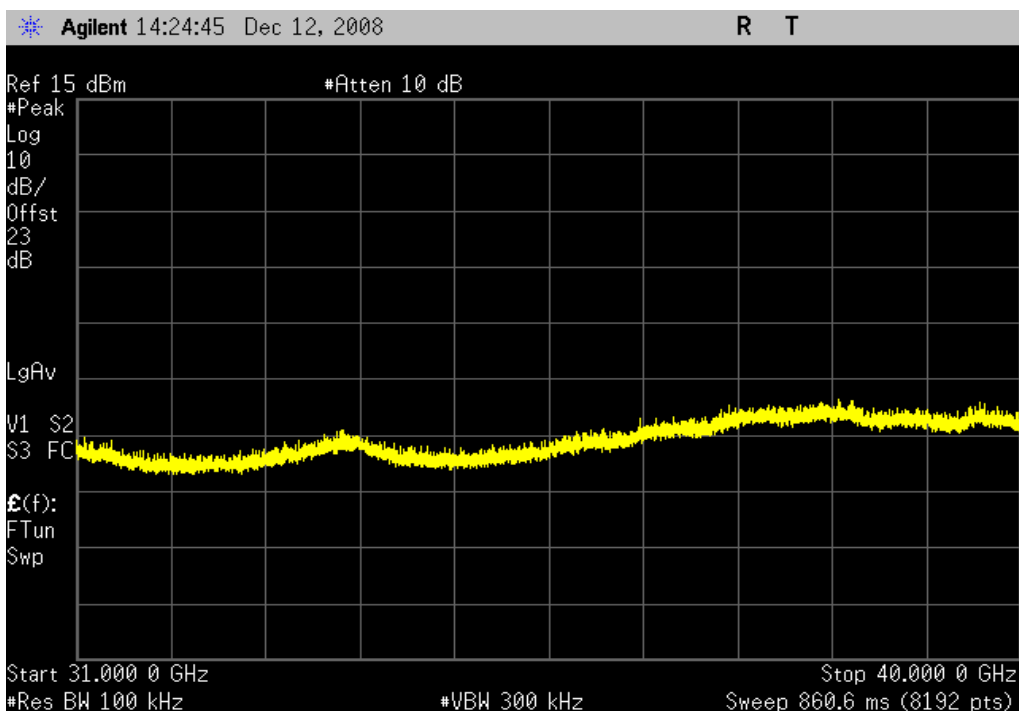
802.11(a) 36 Mbps, Mid Channel, 26.5 GHz - 31 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



802.11(a) 36 Mbps, Mid Channel, 31 GHz - 40 GHz

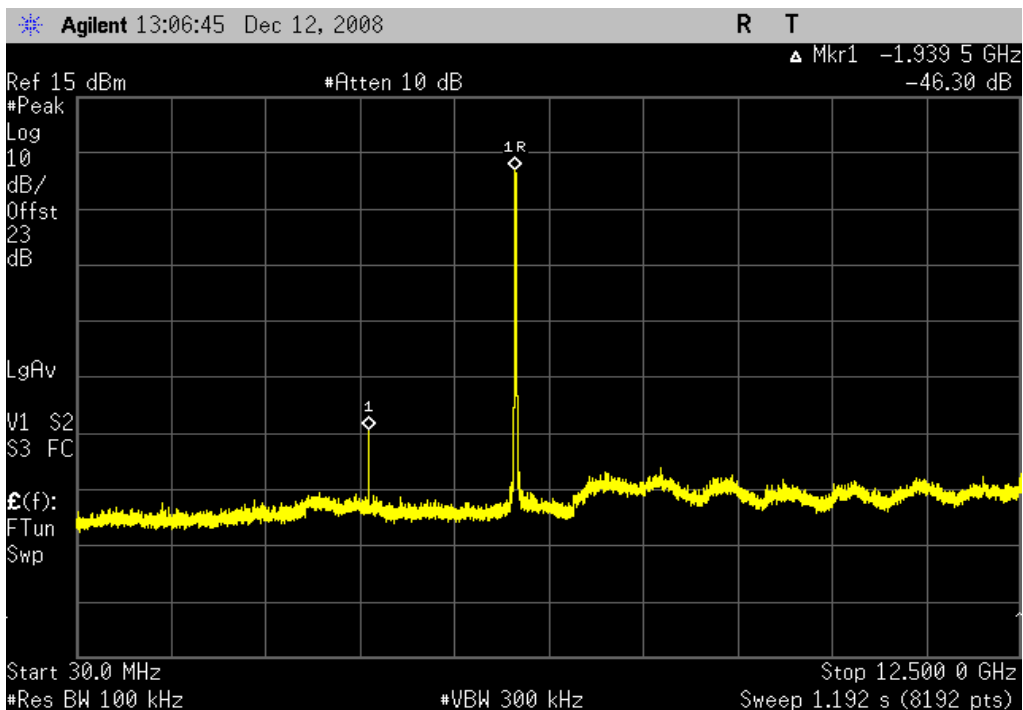
Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



SPURIOUS CONDUCTED EMISSIONS

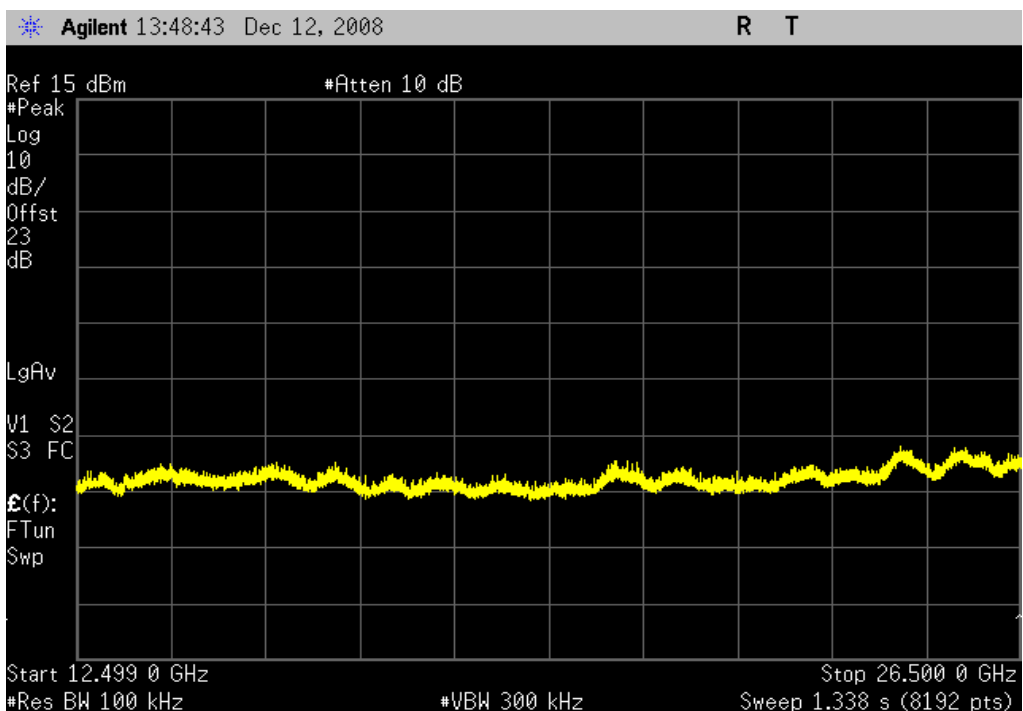
802.11(a) 36 Mbps, High Channel, 30 MHz - 12.5 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



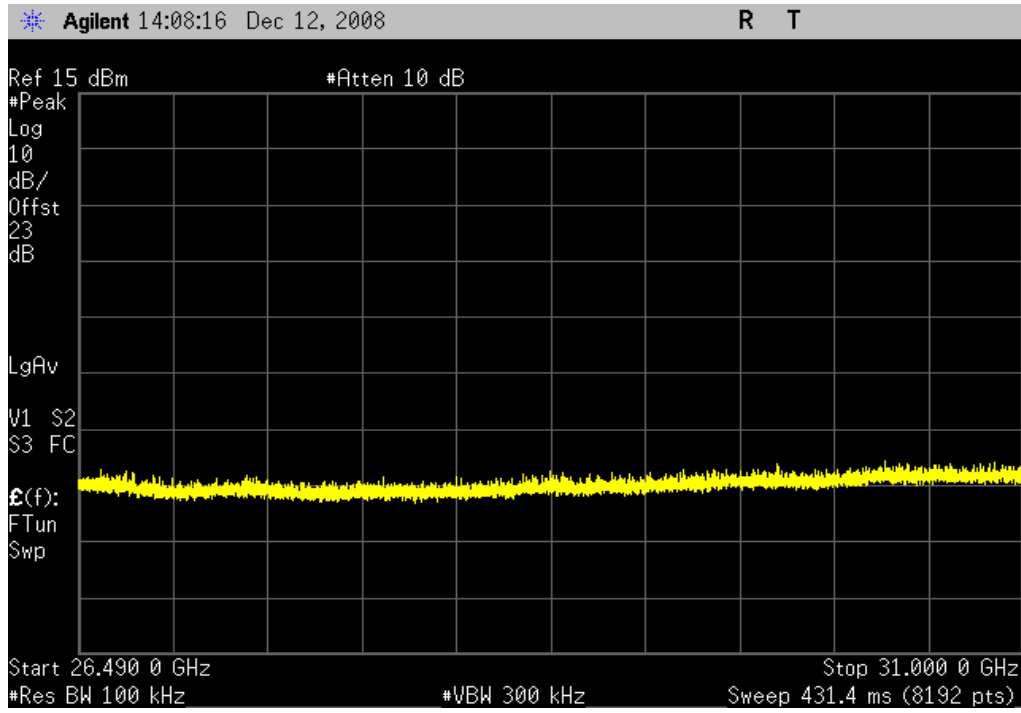
802.11(a) 36 Mbps, High Channel, 12.5 GHz - 26.5 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



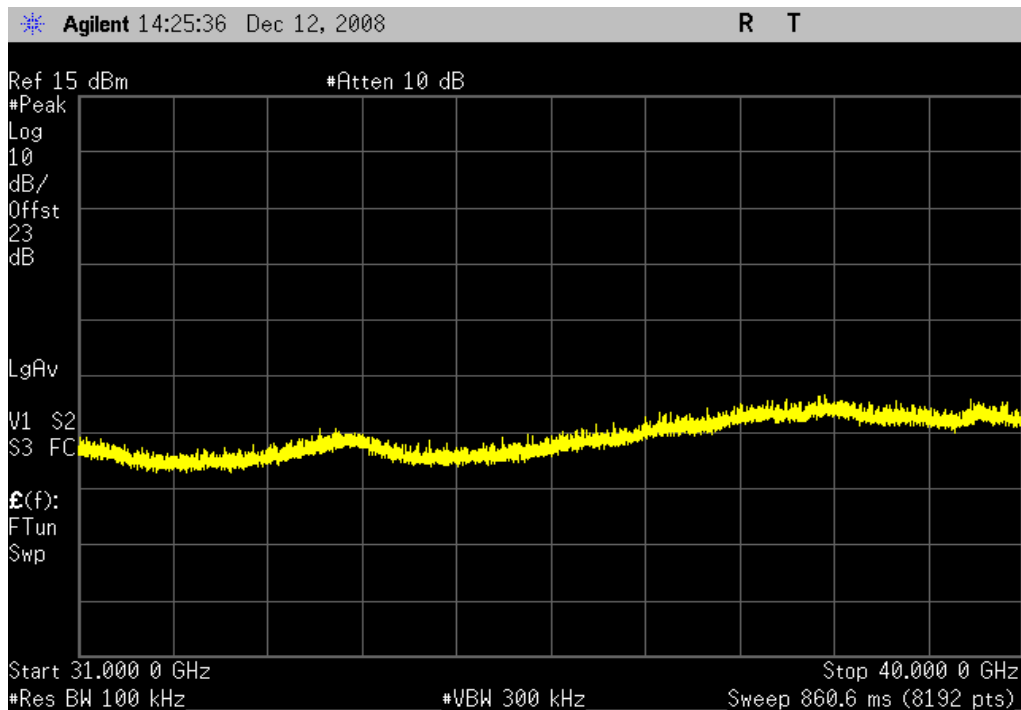
802.11(a) 36 Mbps, High Channel, 26.5 GHz - 31 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



802.11(a) 36 Mbps, High Channel, 31 GHz - 40 GHz

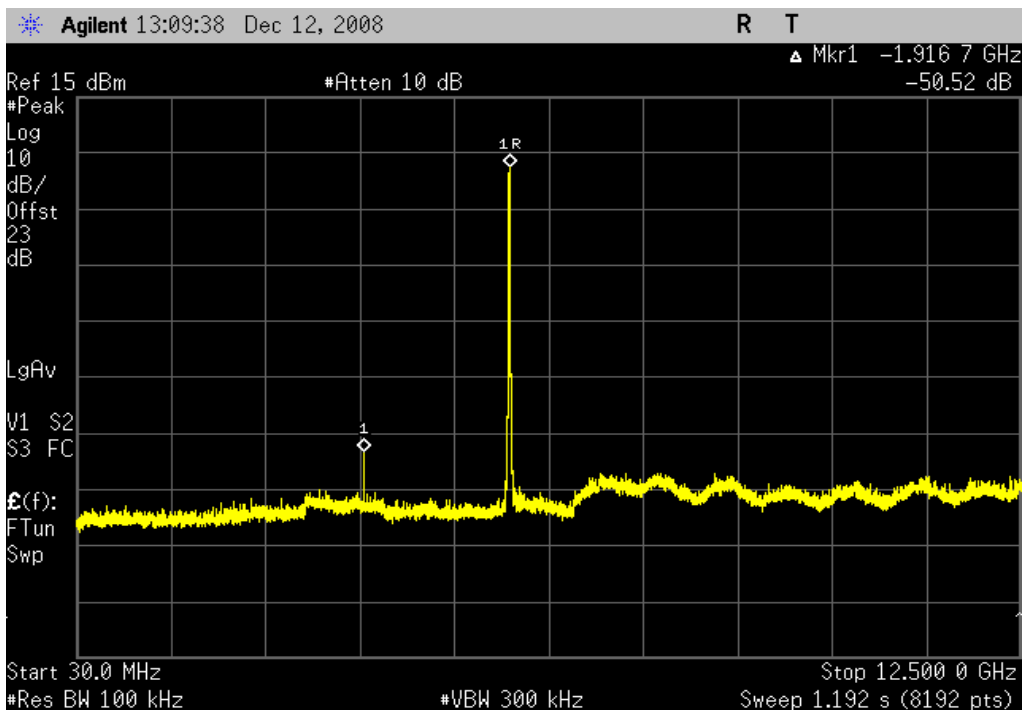
Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



SPURIOUS CONDUCTED EMISSIONS

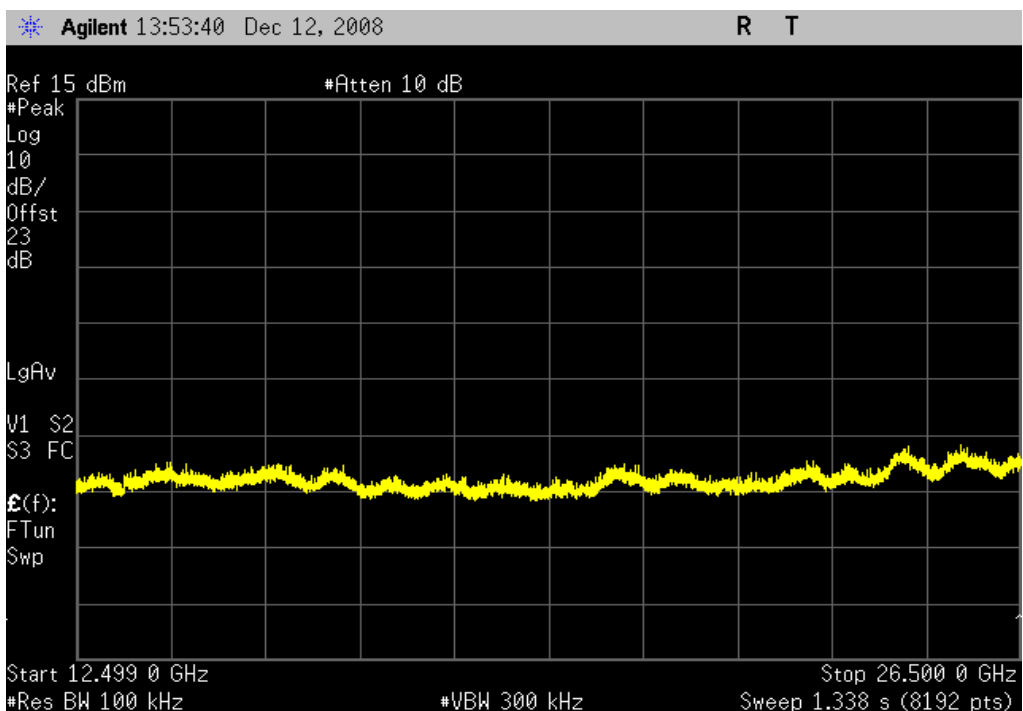
802.11(a) 54 Mbps, Low Channel, 30 MHz - 12.5 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



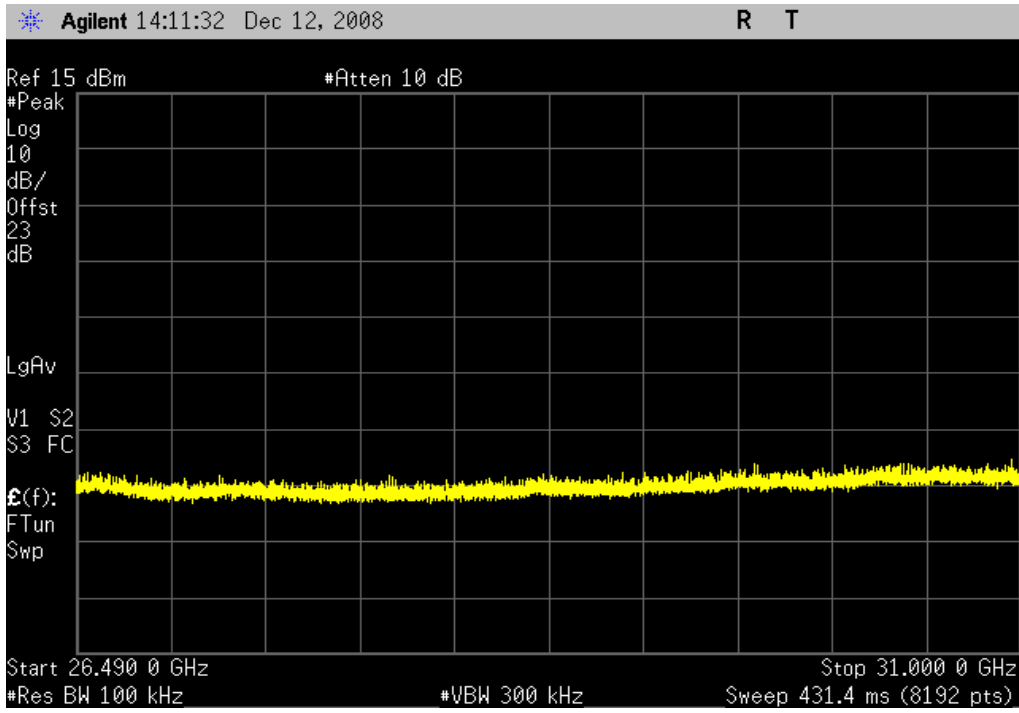
802.11(a) 54 Mbps, Low Channel, 12.5 GHz - 26.5 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



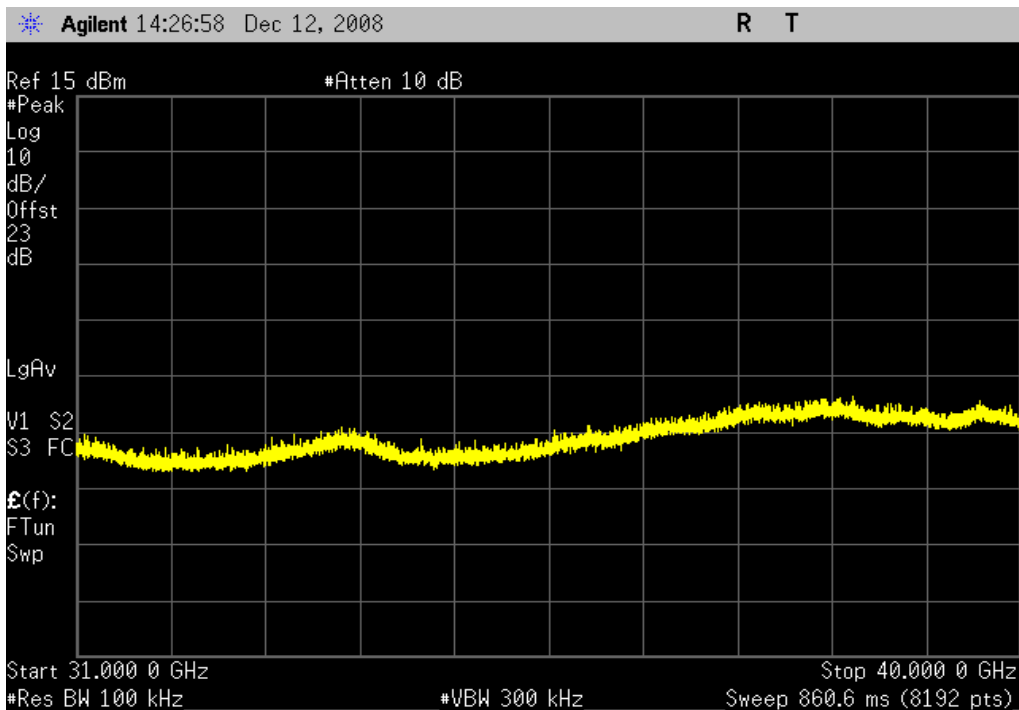
802.11(a) 54 Mbps, Low Channel, 26.5 GHz - 31 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



802.11(a) 54 Mbps, Low Channel, 31 GHz - 40 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc

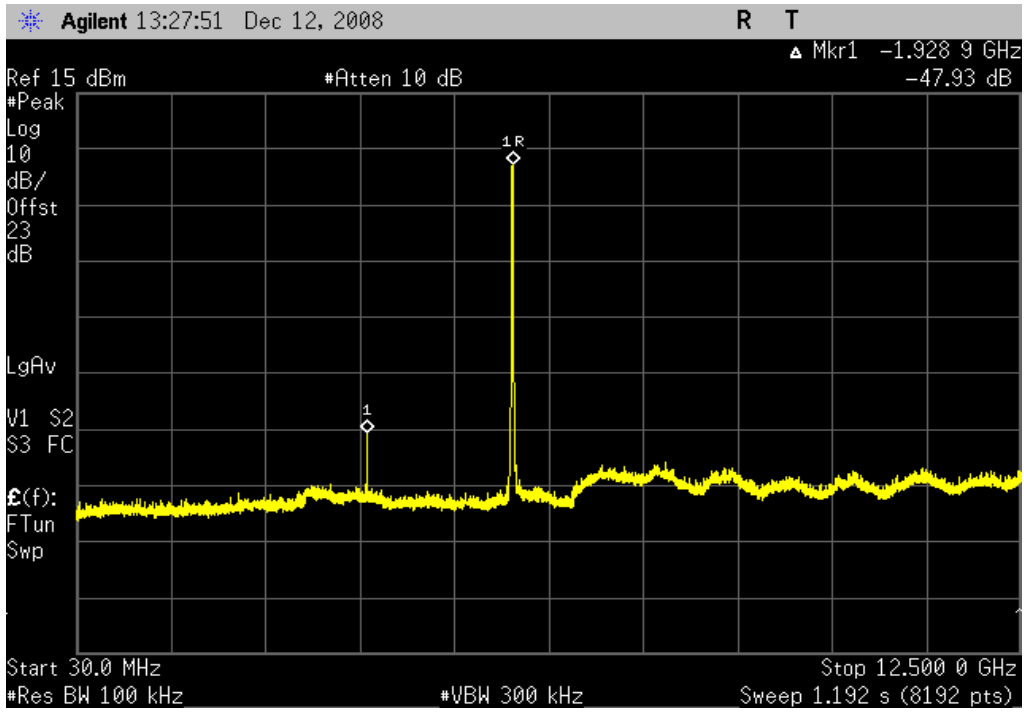


802.11(a) 54 Mbps, Mid Channel, 30 MHz - 12.5 GHz

Result: Pass

Value: < -40 dBc

Limit: ≤ -20 dBc

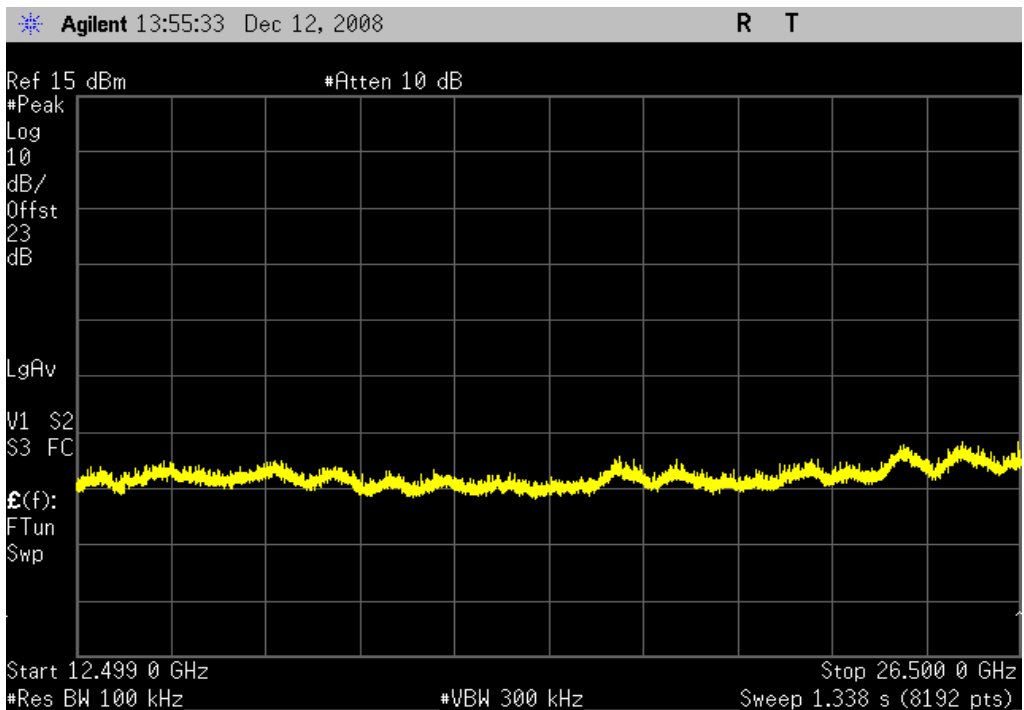


802.11(a) 54 Mbps, Mid Channel, 12.5 GHz - 26.5 GHz

Result: Pass

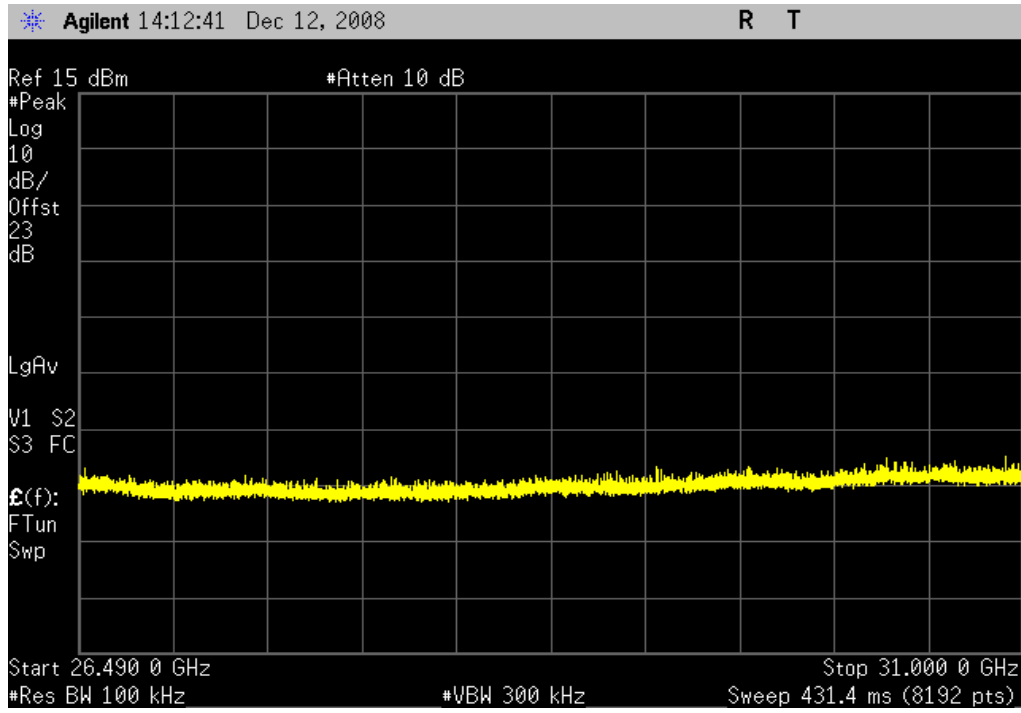
Value: < -40 dBc

Limit: ≤ -20 dBc



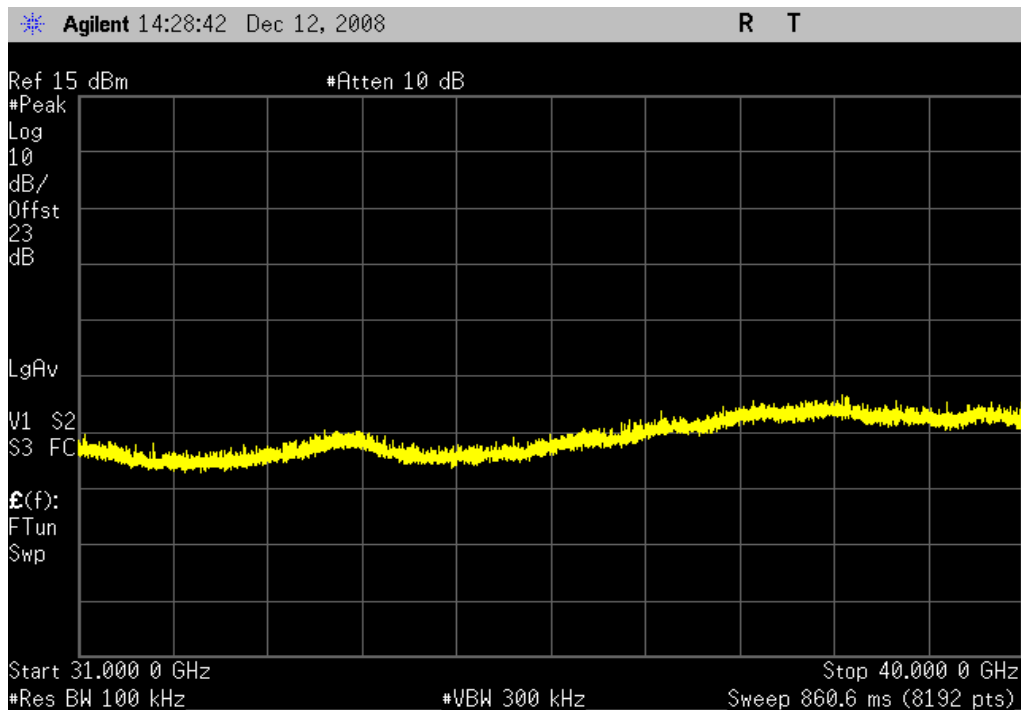
802.11(a) 54 Mbps, Mid Channel, 26.5 GHz - 31 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



802.11(a) 54 Mbps, Mid Channel, 31 GHz - 40 GHz

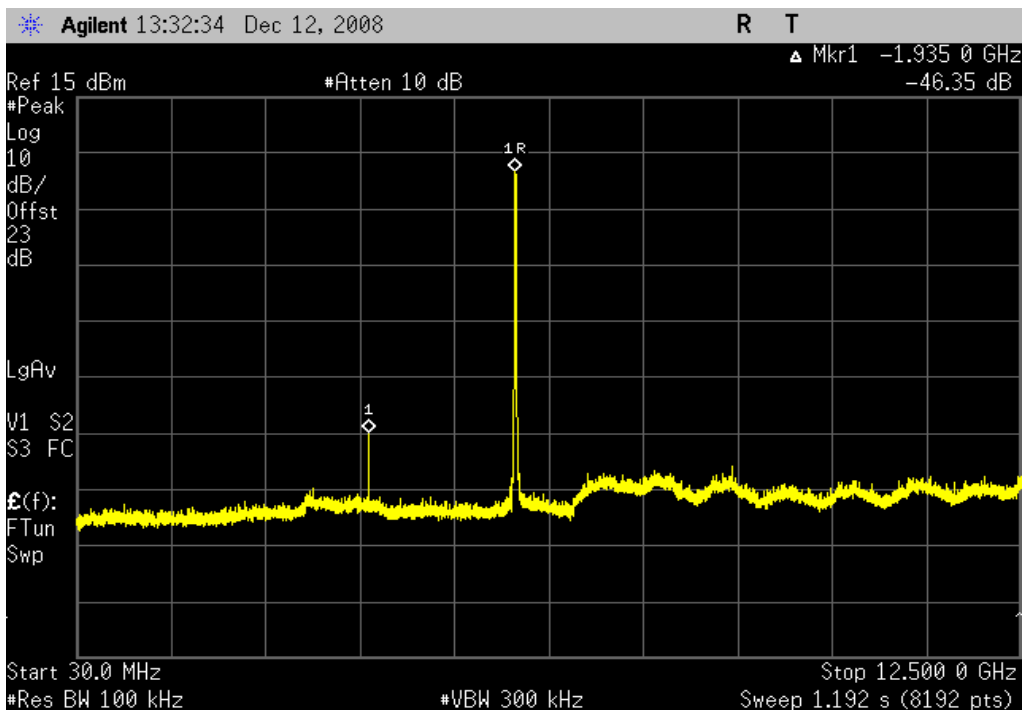
Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



SPURIOUS CONDUCTED EMISSIONS

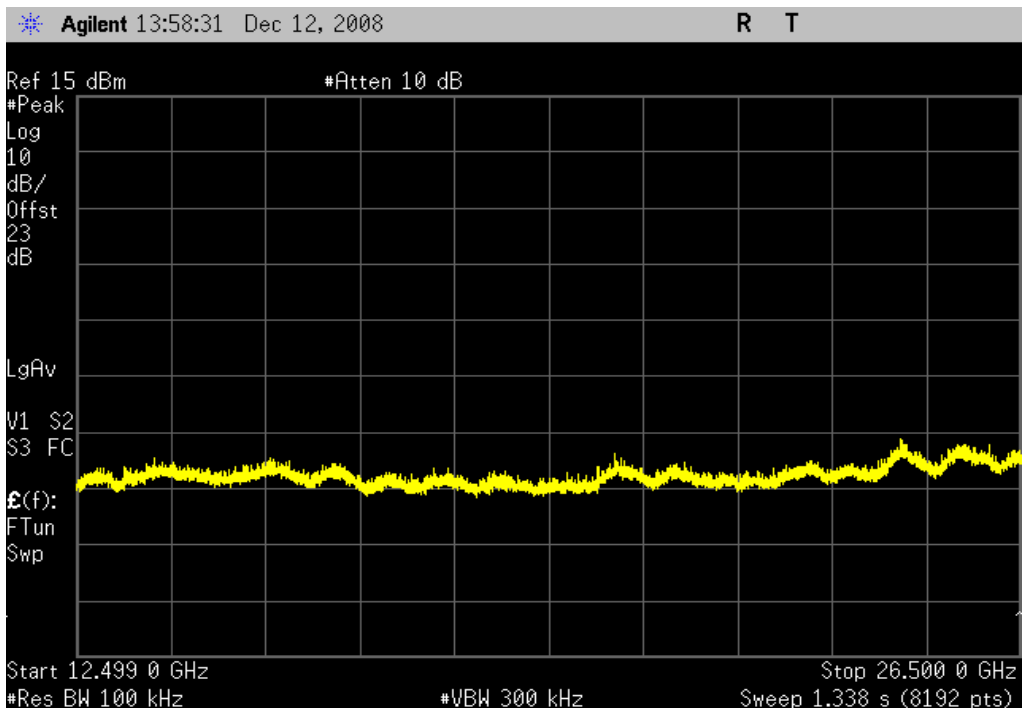
802.11(a) 54 Mbps, High Channel, 30 MHz - 12.5 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



802.11(a) 54 Mbps, High Channel, 12.5 GHz - 26.5 GHz

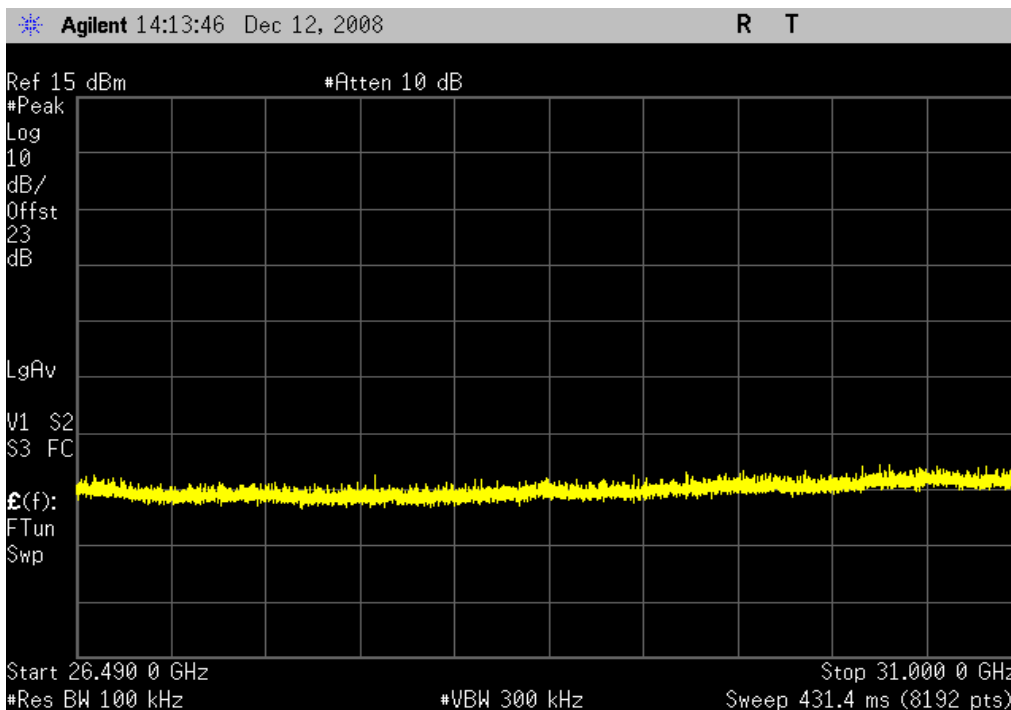
Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



SPURIOUS CONDUCTED EMISSIONS

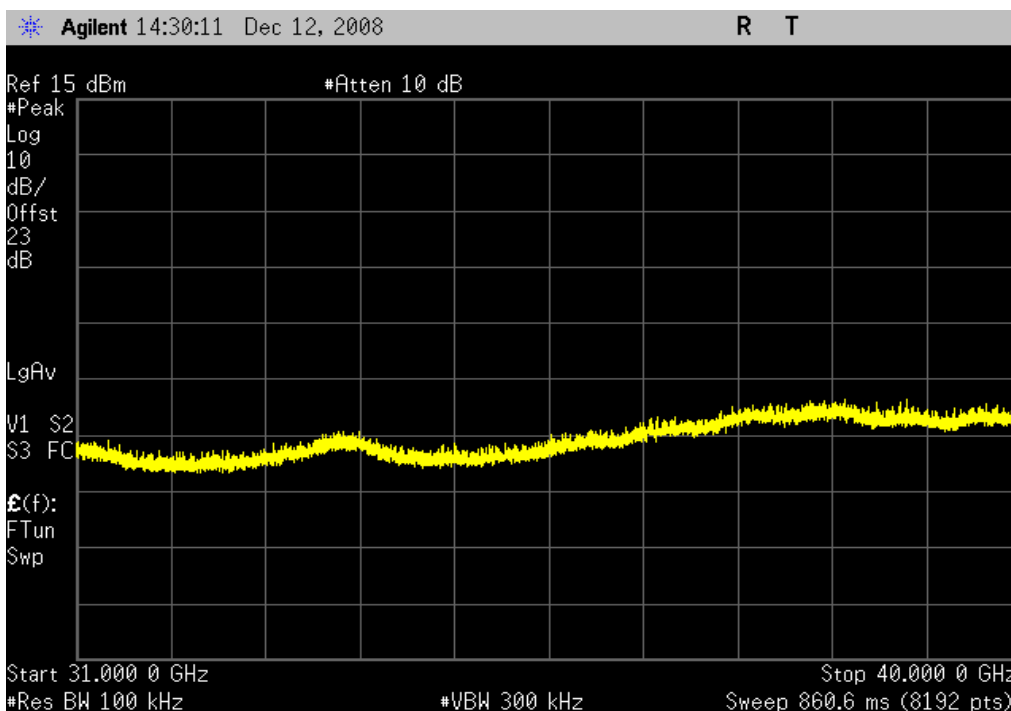
802.11(a) 54 Mbps, High Channel, 26.5 GHz - 31 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc



802.11(a) 54 Mbps, High Channel, 31 GHz - 40 GHz

Result: Pass **Value:** < -40 dBc **Limit:** ≤ -20 dBc





Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4407B	AAU	12/7/2007	13
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	6/27/2008	13
Power Meter	Gigatronics	8651A	SPM	12/7/2007	13
Power Sensor	Gigatronics	80701A	SPL	12/7/2007	13
Signal Generator	Hewlett-Packard	8648D	TGC	12/7/2007	13

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

The peak power spectral density measurements were measured with the EUT set the required transmit frequencies in each band. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at the lowest, middle, and maximum data rate for each modulation type available. Per the procedure outlined in FCC KDB 558074, March 23, 2005, the spectrum analyzer was used as follows:

The emission peak(s) were located and zoom in on within the passband. The resolution bandwidth was set to 3 kHz, the video bandwidth was set to greater than or equal to the resolution bandwidth. The sweep speed was set equal to the span divided by 3 kHz (sweep = (SPAN/3 kHz)). For example, given a span of 1.5 MHz, the sweep should be $1.5 \times 10^6 \div 3 \times 10^3 = 500$ seconds. External attenuation was used and added to the reading. The following FCC procedure was used for modifying the power spectral density measurements:

"If the spectrum line spacing cannot be resolved on the available spectrum analyzer, the noise density function on most modern conventional spectrum analyzers will directly measure the noise power density normalized to a 1 Hz noise power bandwidth. Add 34.8 dB for correction to 3 kHz."

EMC

POWER SPECTRAL DENSITY

EUT: DDIB	Work Order: INMC0500
Serial Number: Proto 13	Date: 12/01/08
Customer: Intermec Technologies Corporation	Temperature: 22°C
Attendees: None	Humidity: 43%
Project: None	Barometric Pres.: 30.22
Tested by: Rod Peloquin	Power: 3.3Vdc via Host
	Job Site: EV06

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2008	ANSI C63.4:2003 KDB No. 558074

COMMENTS
None

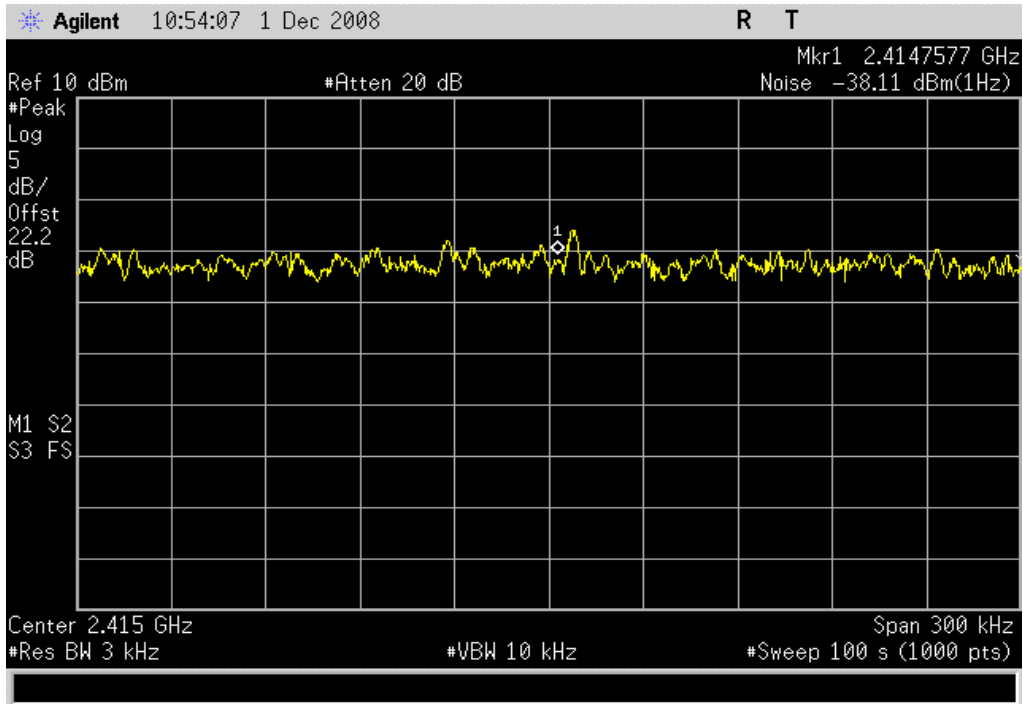
DEVIATIONS FROM TEST STANDARD
No Deviations.

Configuration #	4	Signature 
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		Value	Limit	Results
802.11(b) 1 Mbps	Low Channel	-3.3 dBm / 3 kHz	8 dBm / 3 kHz	Pass
	Mid Channel	-3.2 dBm / 3 kHz	8 dBm / 3 kHz	Pass
	High Channel	-3.4 dBm / 3 kHz	8 dBm / 3 kHz	Pass
802.11(b) 11 Mbps	Low Channel	-3.8 dBm / 3 kHz	8 dBm / 3 kHz	Pass
	Mid Channel	-4.2 dBm / 3 kHz	8 dBm / 3 kHz	Pass
	High Channel	-4.2 dBm / 3 kHz	8 dBm / 3 kHz	Pass
802.11(g) 6 Mbps	Low Channel	-10.7 dBm / 3 kHz	8 dBm / 3 kHz	Pass
	Mid Channel	-10.9 dBm / 3 kHz	8 dBm / 3 kHz	Pass
	High Channel	-10.7 dBm / 3 kHz	8 dBm / 3 kHz	Pass
802.11(g) 36 Mbps	Low Channel	-11.1 dBm / 3 kHz	8 dBm / 3 kHz	Pass
	Mid Channel	-11.5 dBm / 3 kHz	8 dBm / 3 kHz	Pass
	High Channel	-11.7 dBm / 3 kHz	8 dBm / 3 kHz	Pass
802.11(g) 54 Mbps	Low Channel	-12.0 dBm / 3 kHz	8 dBm / 3 kHz	Pass
	Mid Channel	-11.9 dBm / 3 kHz	8 dBm / 3 kHz	Pass
	High Channel	-12.1 dBm / 3 kHz	8 dBm / 3 kHz	Pass
802.11(a) 6 Mbps	Low Channel	-11.6 dBm / 3 kHz	8 dBm / 3 kHz	Pass
	Mid Channel	-11.7 dBm / 3 kHz	8 dBm / 3 kHz	Pass
	High Channel	-11.8 dBm / 3 kHz	8 dBm / 3 kHz	Pass
802.11(a) 36 Mbps	Low Channel	-13.8 dBm / 3 kHz	8 dBm / 3 kHz	Pass
	Mid Channel	-13.7 dBm / 3 kHz	8 dBm / 3 kHz	Pass
	High Channel	-13.8 dBm / 3 kHz	8 dBm / 3 kHz	Pass
802.11(a) 54 Mbps	Low Channel	-13.0 dBm / 3 kHz	8 dBm / 3 kHz	Pass
	Mid Channel	-13.4 dBm / 3 kHz	8 dBm / 3 kHz	Pass
	High Channel	-13.4 dBm / 3 kHz	8 dBm / 3 kHz	Pass

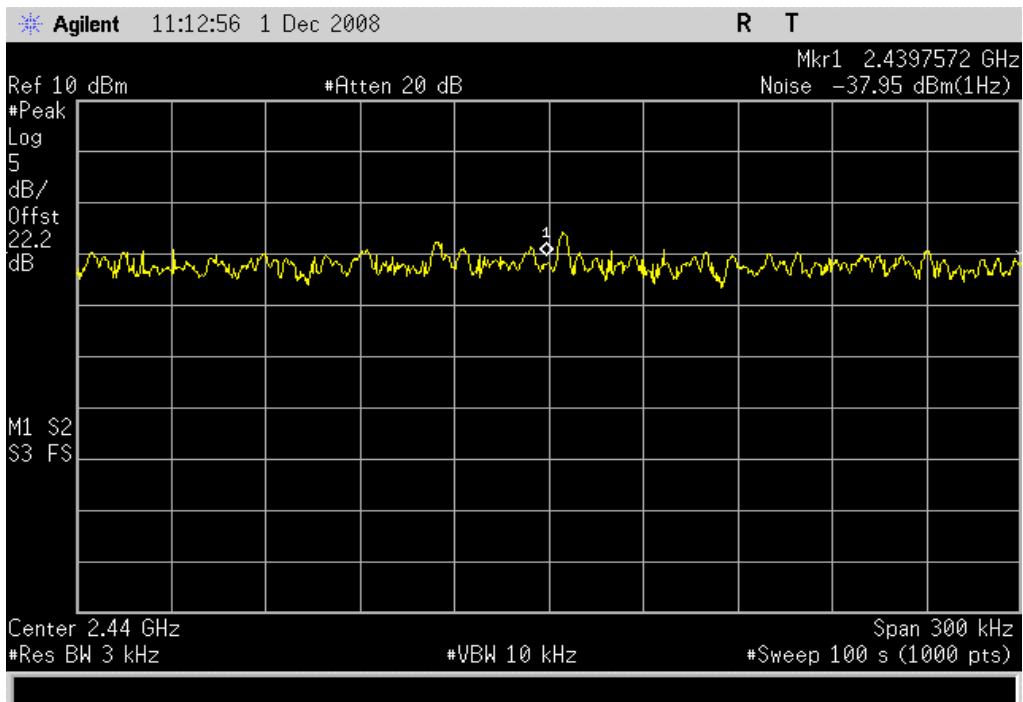
802.11(b) 1 Mbps, Low Channel

Result: Pass **Value:** -3.3 dBm / 3 kHz **Limit:** 8 dBm / 3 kHz



802.11(b) 1 Mbps, Mid Channel

Result: Pass **Value:** -3.2 dBm / 3 kHz **Limit:** 8 dBm / 3 kHz

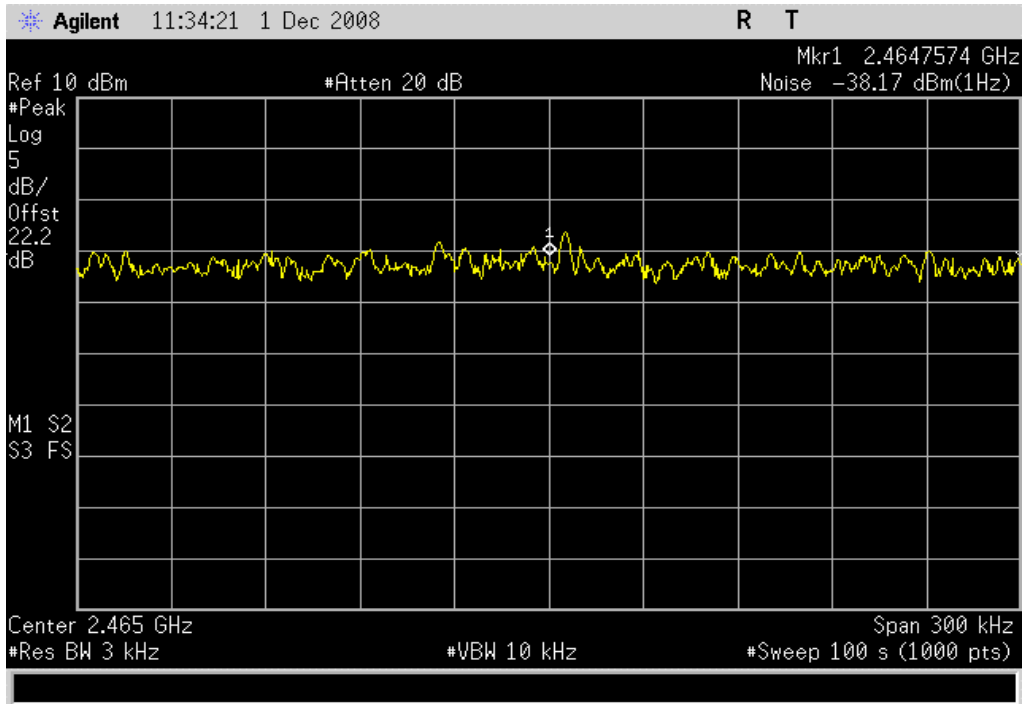


802.11(b) 1 Mbps, High Channel

Result: Pass

Value: -3.4 dBm / 3 kHz

Limit: 8 dBm / 3 kHz

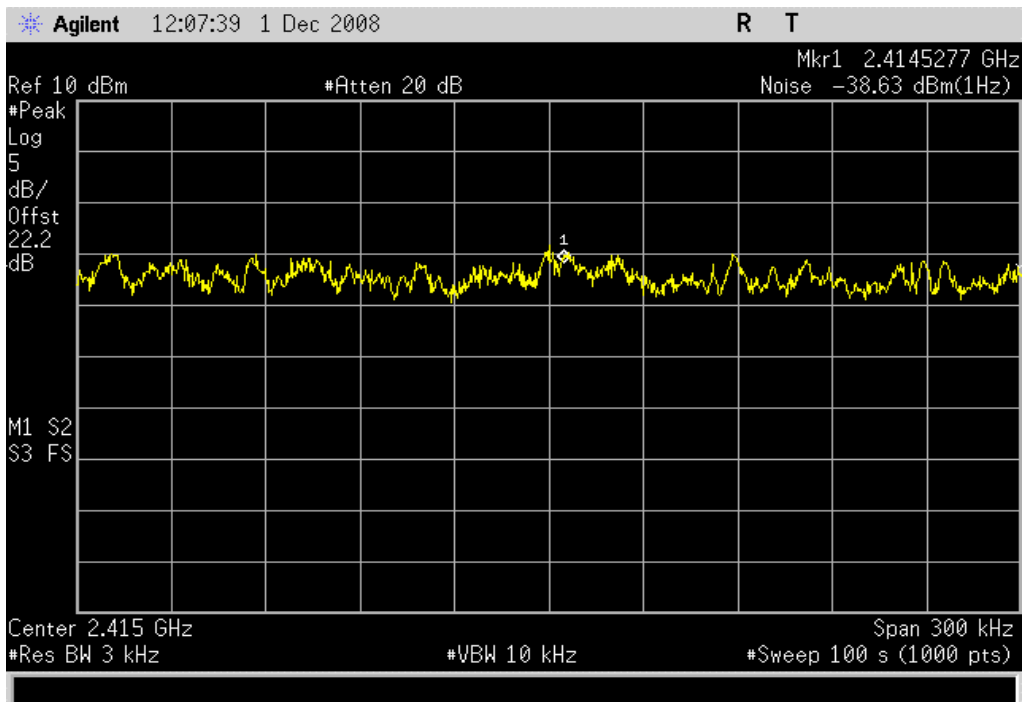


802.11(b) 11 Mbps, Low Channel

Result: Pass

Value: -3.8 dBm / 3 kHz

Limit: 8 dBm / 3 kHz

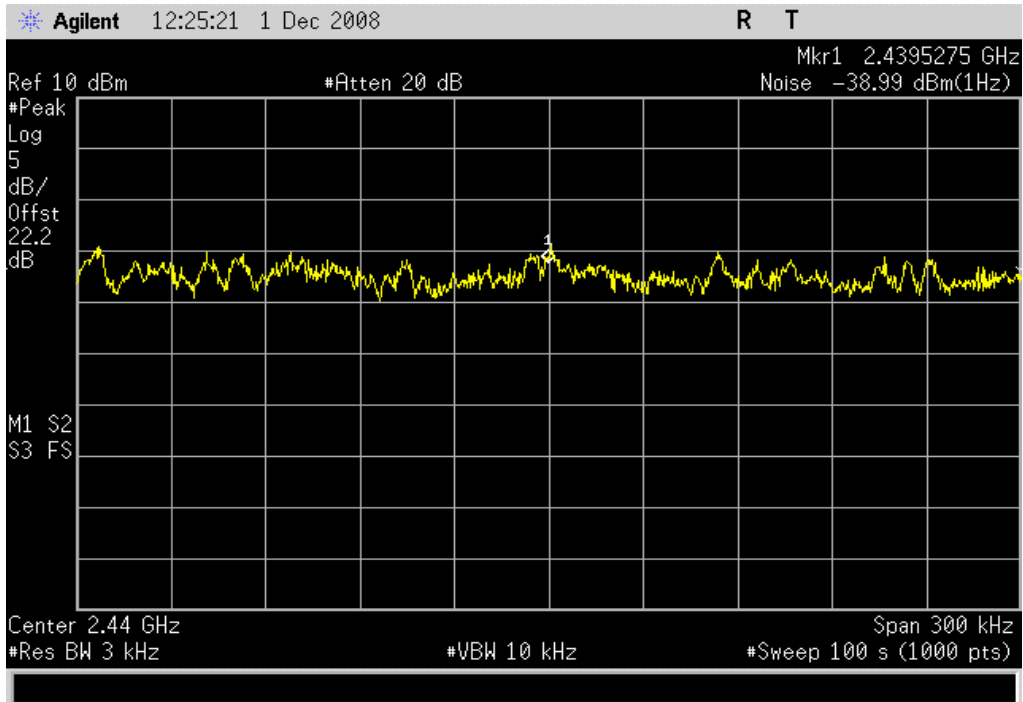


802.11(b) 11 Mbps, Mid Channel

Result: Pass

Value: -4.2 dBm / 3 kHz

Limit: 8 dBm / 3 kHz

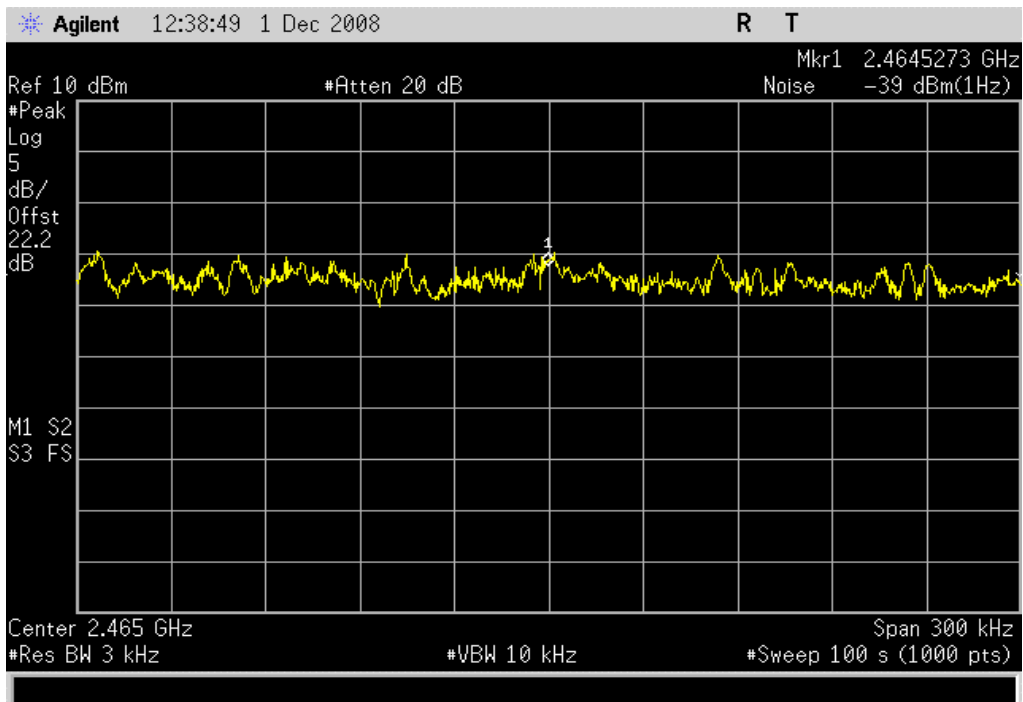


802.11(b) 11 Mbps, High Channel

Result: Pass

Value: -4.2 dBm / 3 kHz

Limit: 8 dBm / 3 kHz

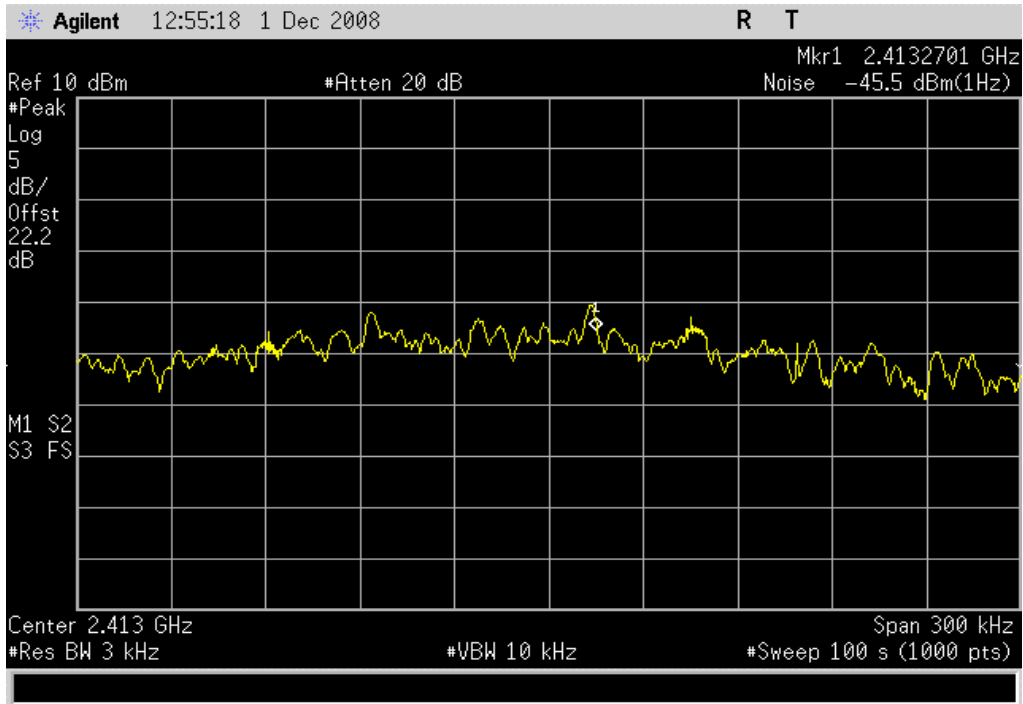


802.11(g) 6 Mbps, Low Channel

Result: Pass

Value: -10.7 dBm / 3 kHz

Limit: 8 dBm / 3 kHz

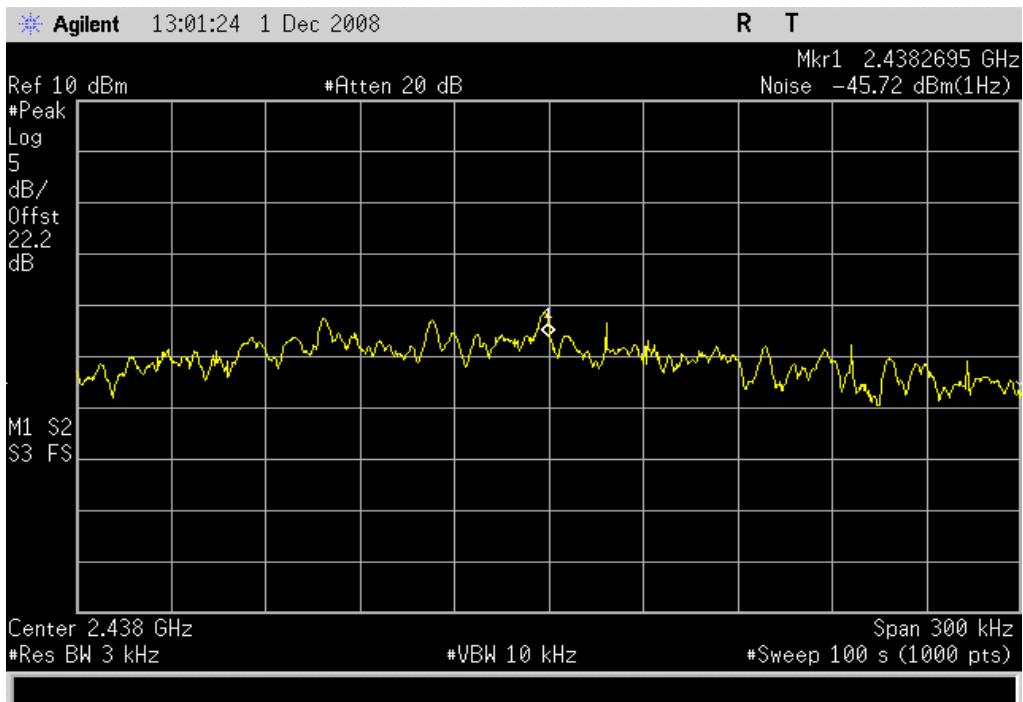


802.11(g) 6 Mbps, Mid Channel

Result: Pass

Value: -10.9 dBm / 3 kHz

Limit: 8 dBm / 3 kHz

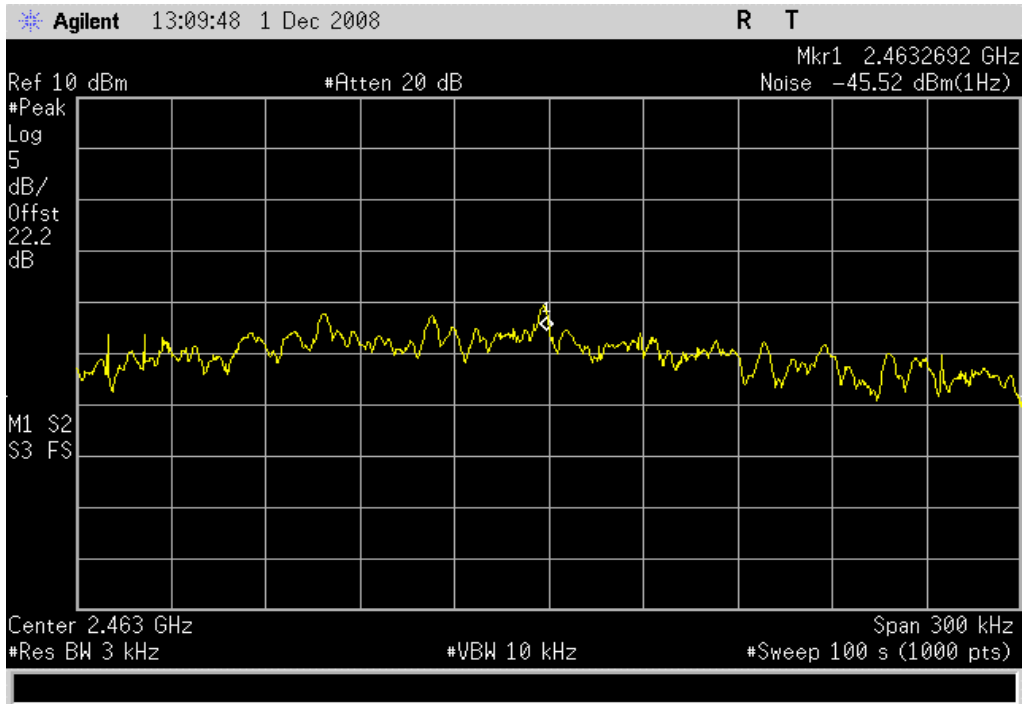


802.11(g) 6 Mbps, High Channel

Result: Pass

Value: -10.7 dBm / 3 kHz

Limit: 8 dBm / 3 kHz

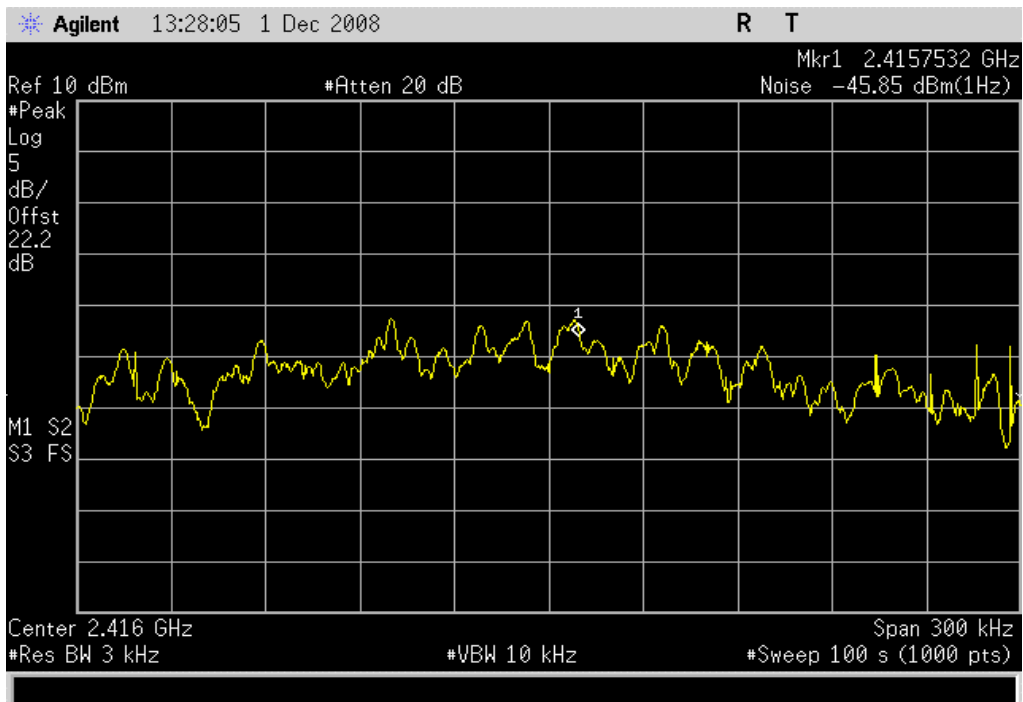


802.11(g) 36 Mbps, Low Channel

Result: Pass

Value: -11.1 dBm / 3 kHz

Limit: 8 dBm / 3 kHz

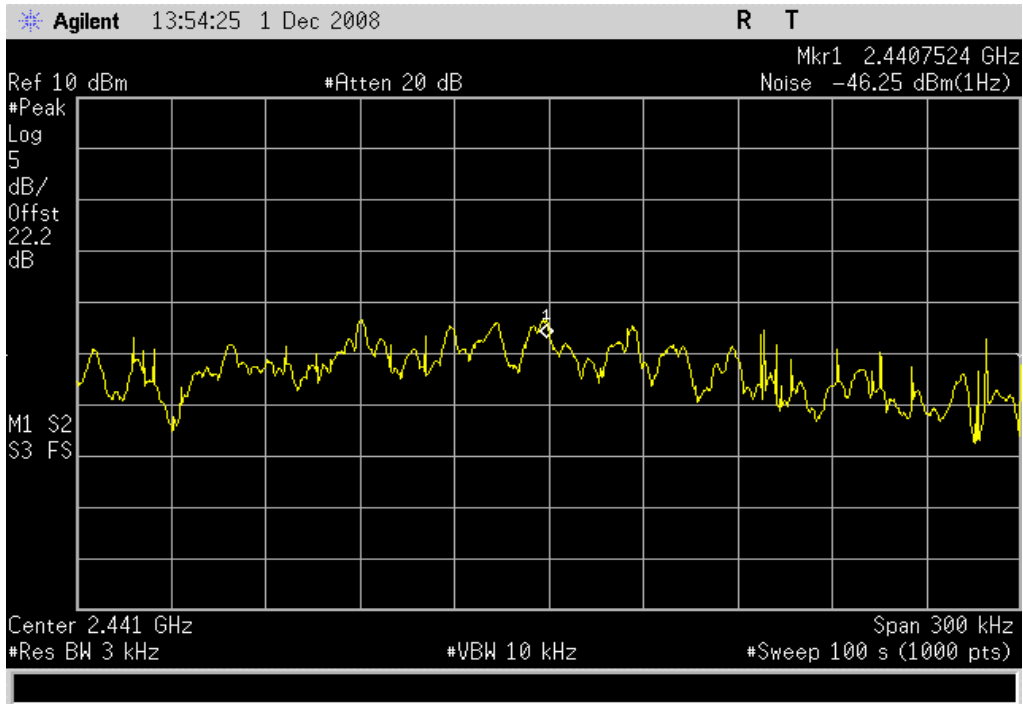


802.11(g) 36 Mbps, Mid Channel

Result: Pass

Value: -11.5 dBm / 3 kHz

Limit: 8 dBm / 3 kHz

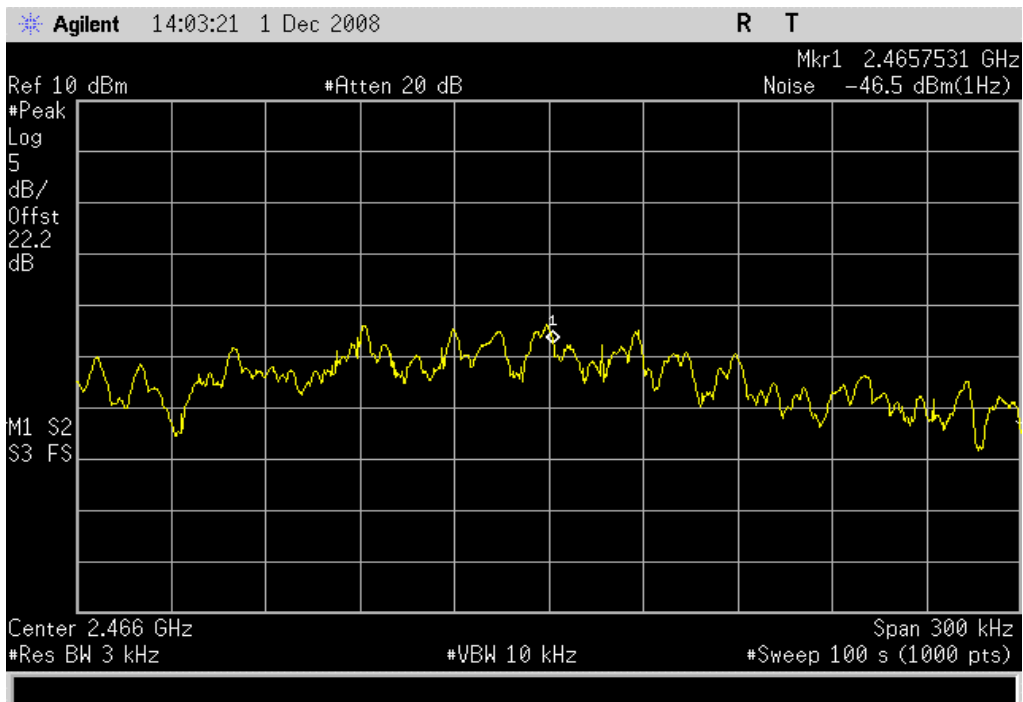


802.11(g) 36 Mbps, High Channel

Result: Pass

Value: -11.7 dBm / 3 kHz

Limit: 8 dBm / 3 kHz

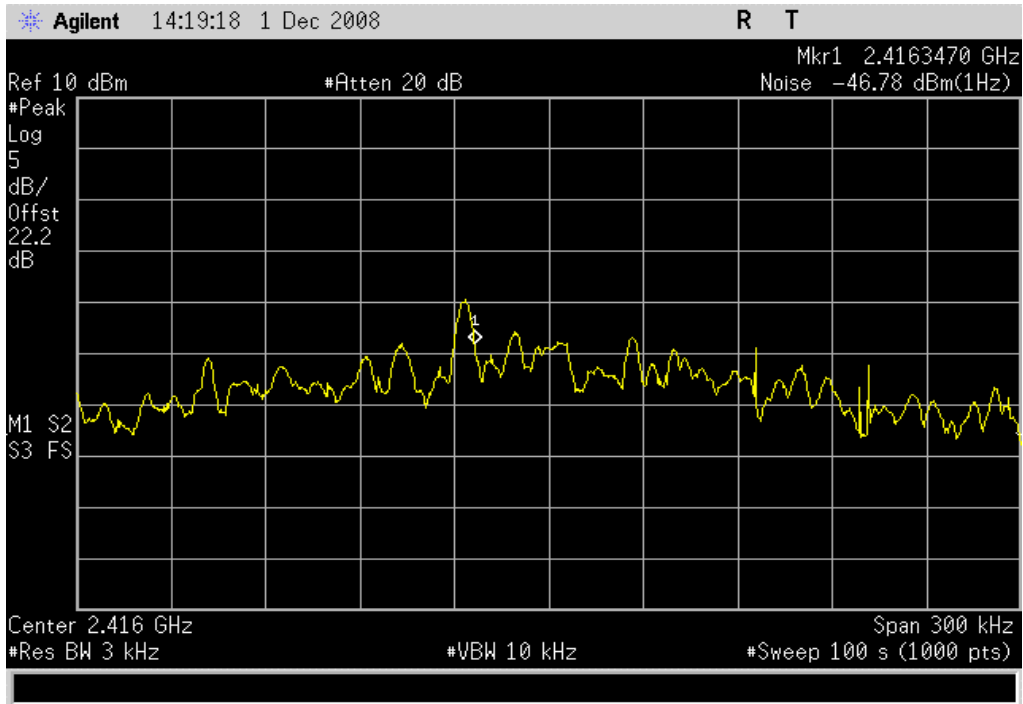


802.11(g) 54 Mbps, Low Channel

Result: Pass

Value: -12.0 dBm / 3 kHz

Limit: 8 dBm / 3 kHz

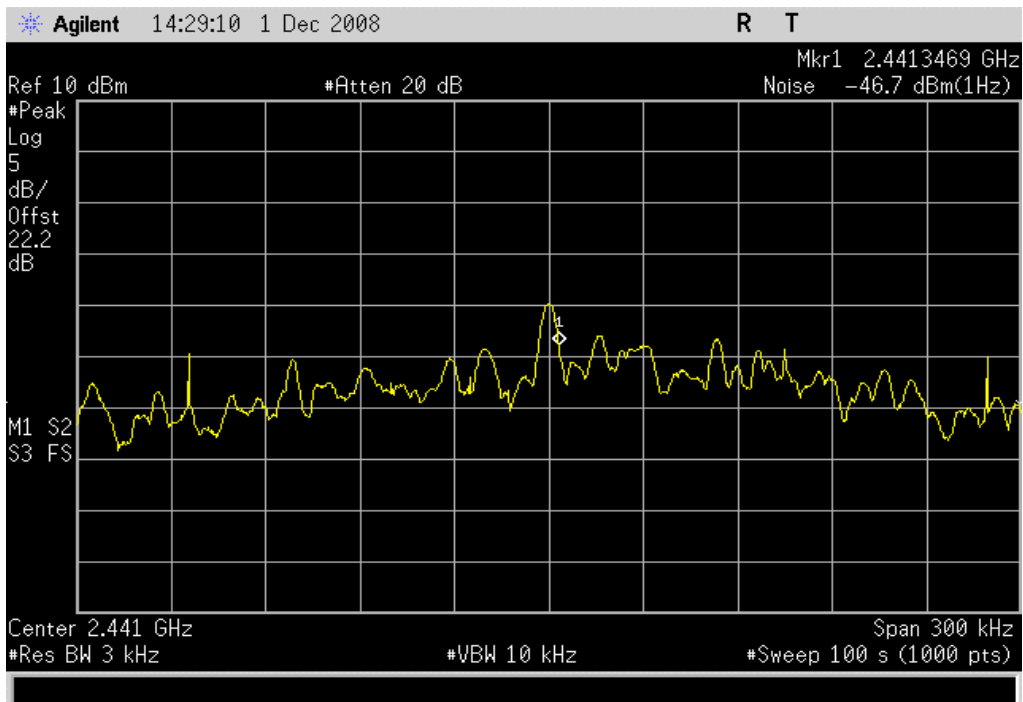


802.11(g) 54 Mbps, Mid Channel

Result: Pass

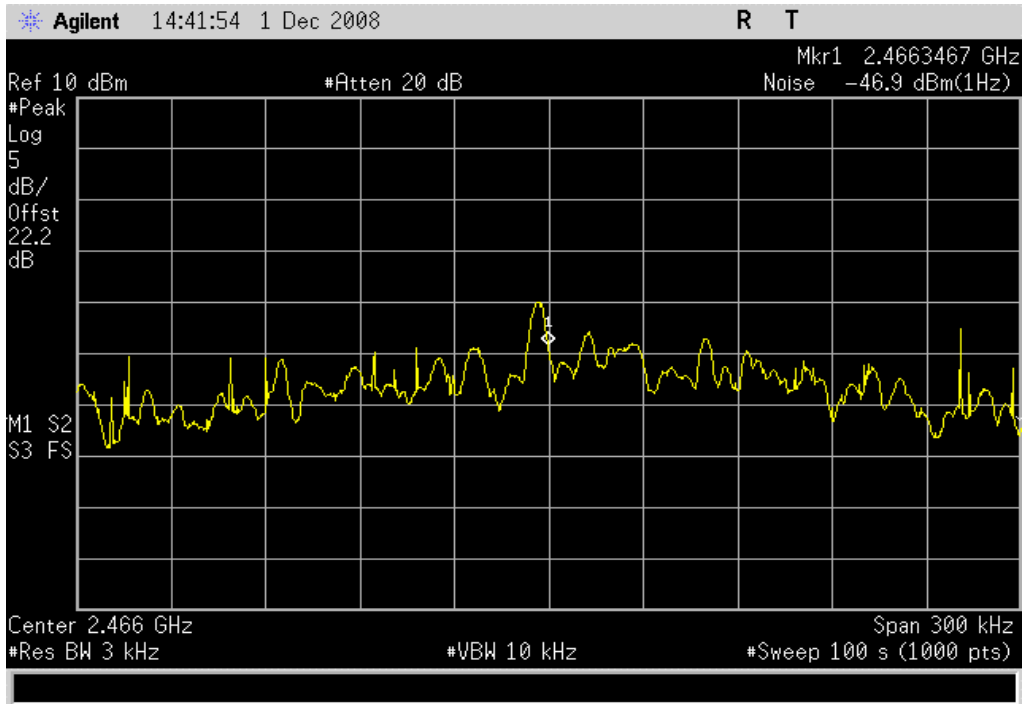
Value: -11.9 dBm / 3 kHz

Limit: 8 dBm / 3 kHz



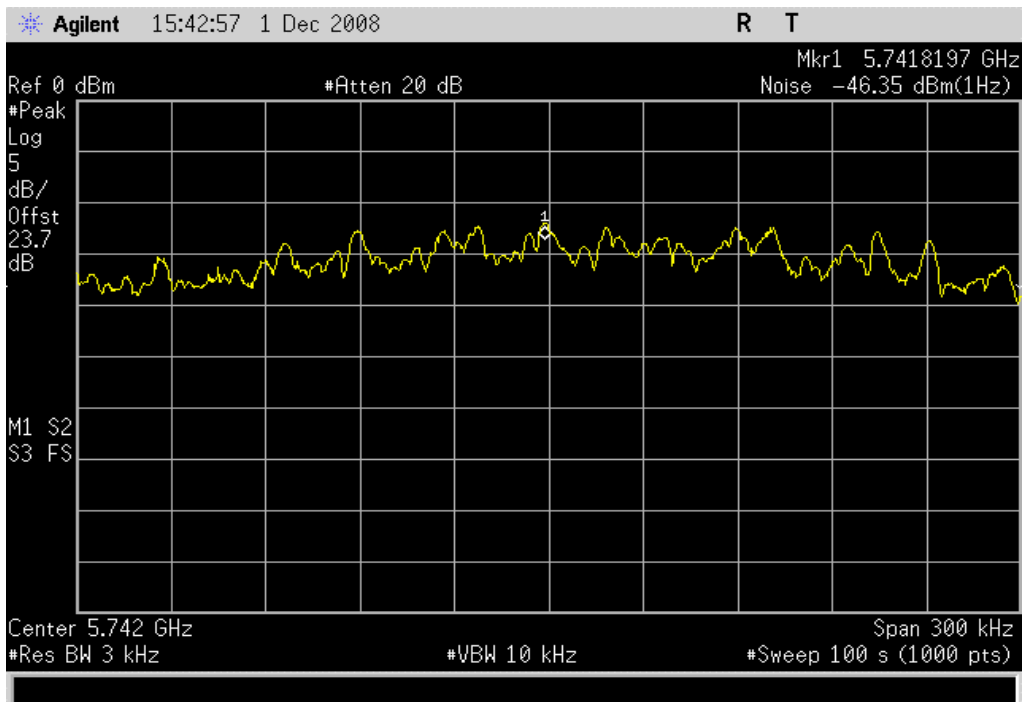
802.11(g) 54 Mbps, High Channel

Result: Pass **Value:** -12.1 dBm / 3 kHz **Limit:** 8 dBm / 3 kHz



802.11(a) 6 Mbps, Low Channel

Result: Pass **Value:** -11.6 dBm / 3 kHz **Limit:** 8 dBm / 3 kHz

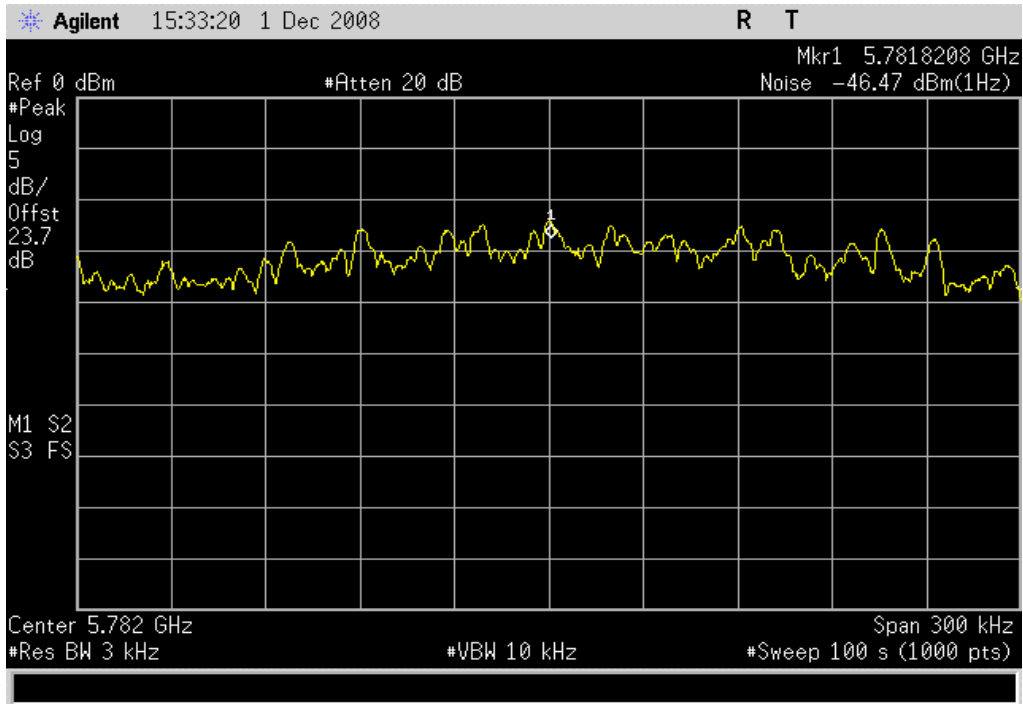


802.11(a) 6 Mbps, Mid Channel

Result: Pass

Value: -11.7 dBm / 3 kHz

Limit: 8 dBm / 3 kHz

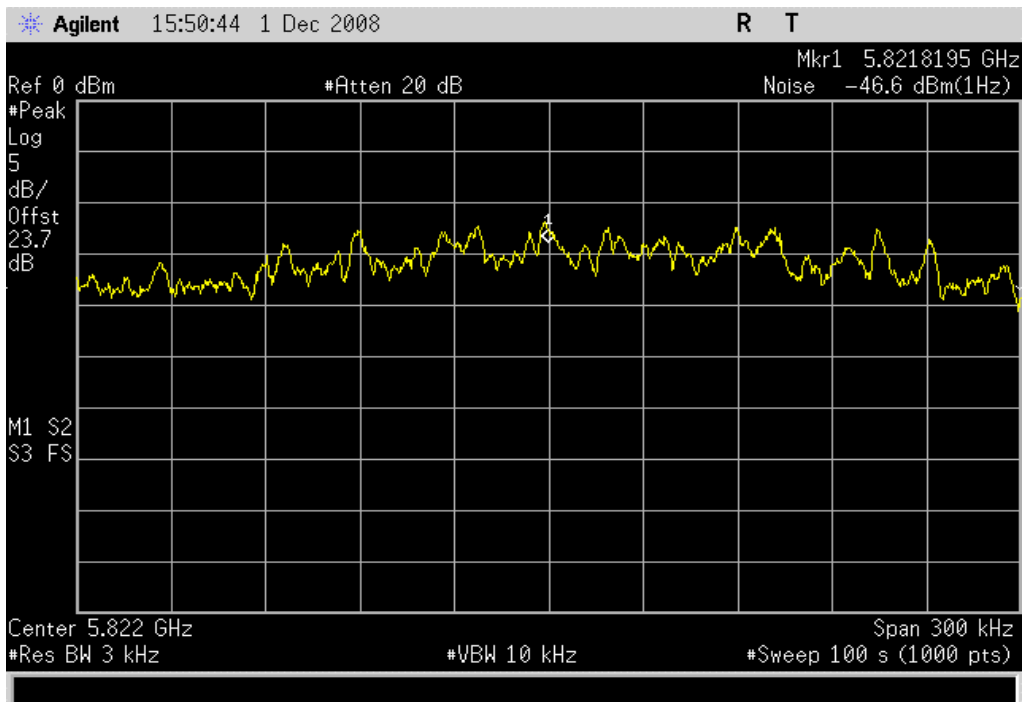


802.11(a) 6 Mbps, High Channel

Result: Pass

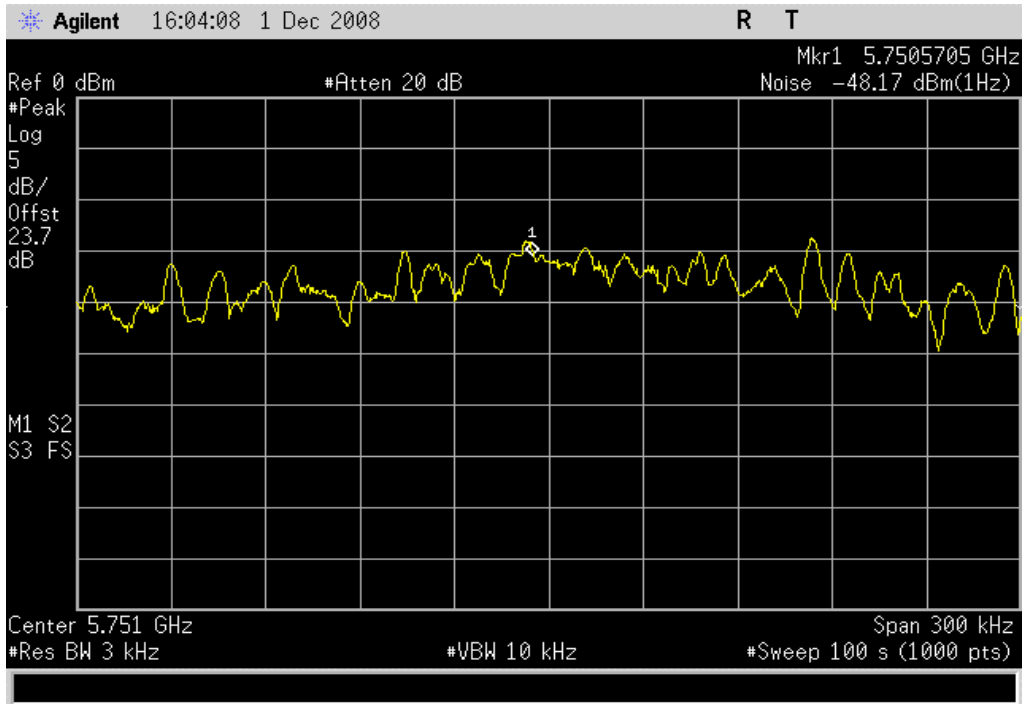
Value: -11.8 dBm / 3 kHz

Limit: 8 dBm / 3 kHz



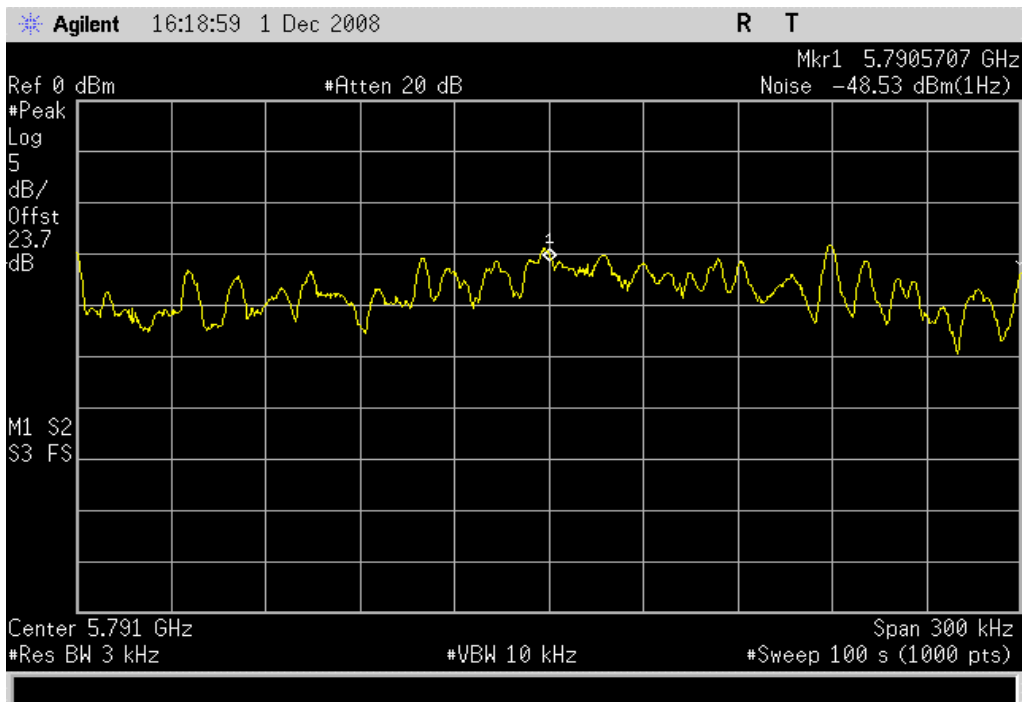
802.11(a) 36 Mbps, Low Channel

Result: Pass **Value:** -13.8 dBm / 3 kHz **Limit:** 8 dBm / 3 kHz



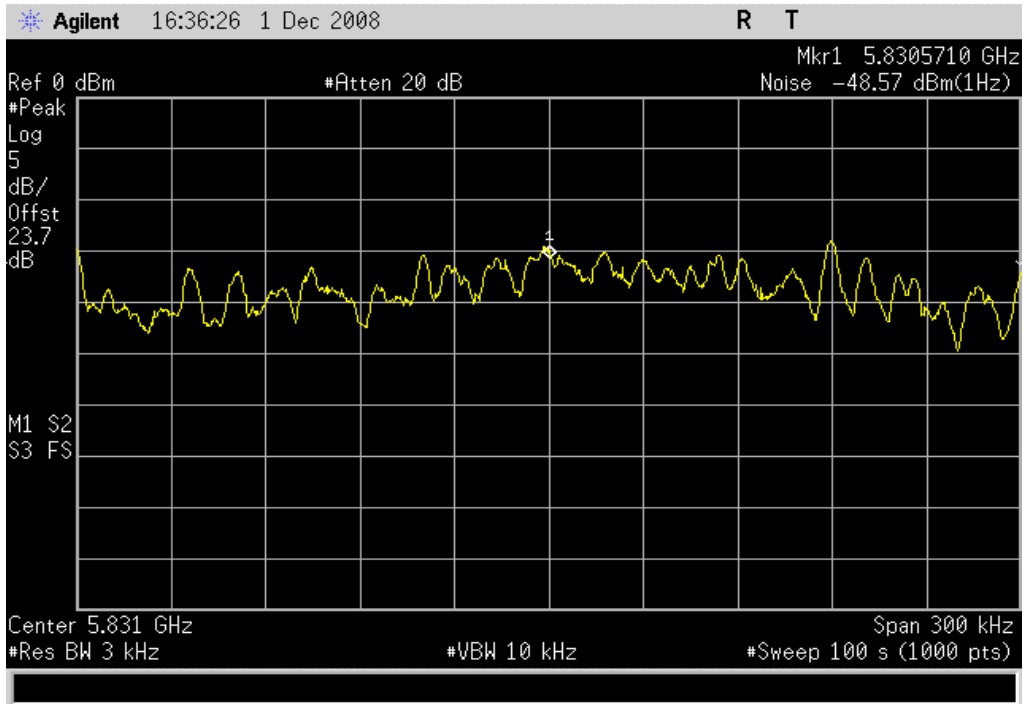
802.11(a) 36 Mbps, Mid Channel

Result: Pass **Value:** -13.7 dBm / 3 kHz **Limit:** 8 dBm / 3 kHz



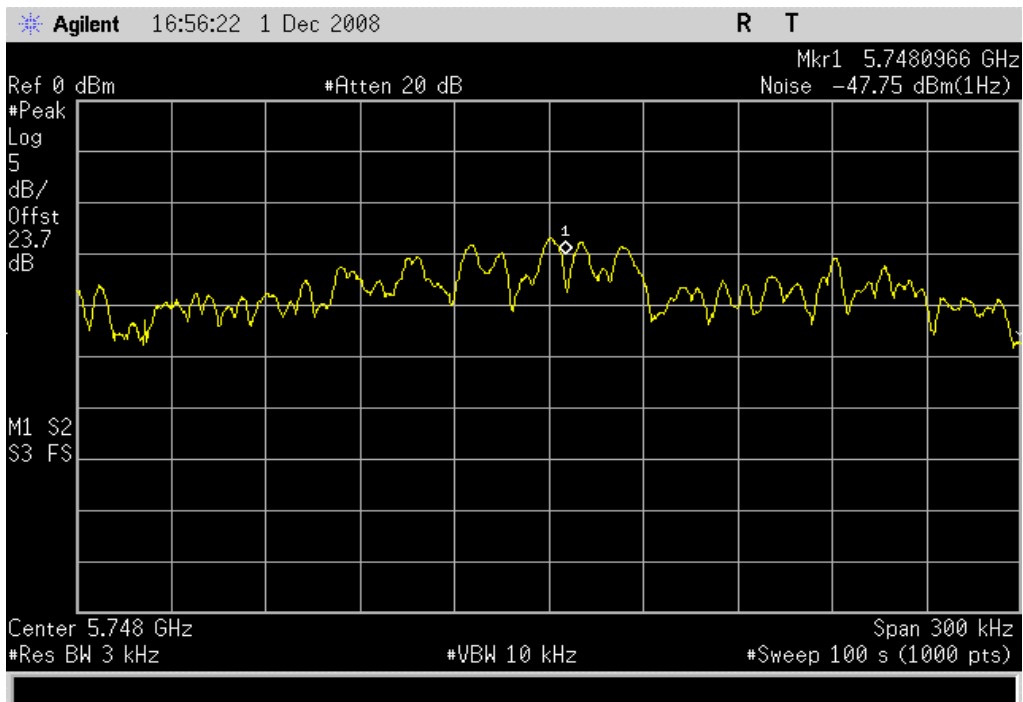
802.11(a) 36 Mbps, High Channel

Result: Pass **Value:** -13.8 dBm / 3 kHz **Limit:** 8 dBm / 3 kHz

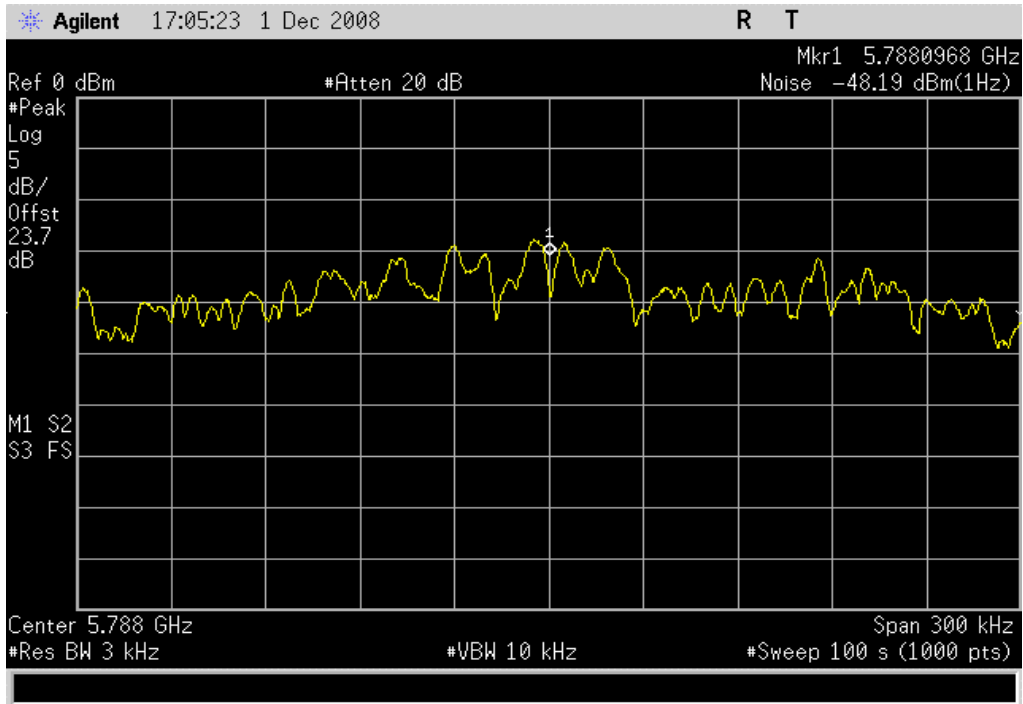


802.11(a) 54 Mbps, Low Channel

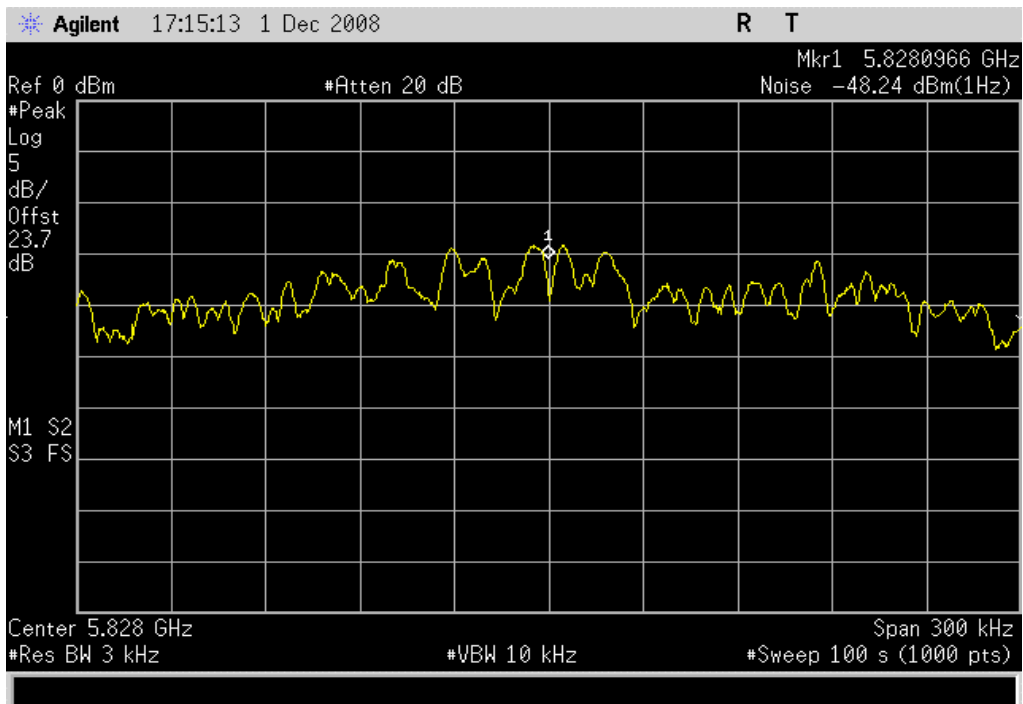
Result: Pass **Value:** -13.0 dBm / 3 kHz **Limit:** 8 dBm / 3 kHz



802.11(a) 54 Mbps, Mid Channel
Result: Pass **Value:** -13.4 dBm / 3 kHz **Limit:** 8 dBm / 3 kHz



802.11(a) 54 Mbps, High Channel
Result: Pass **Value:** -13.4 dBm / 3 kHz **Limit:** 8 dBm / 3 kHz





Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

MODES OF OPERATION

Transmitting 802.11(a), 6 Mbps, high channel
Transmitting 802.11(a), 6 Mbps, mid channel
Transmitting 802.11(a), 6 Mbps, low channel
Transmitting 802.11(b), 1 Mbps, high channel
Transmitting 802.11(b), 1 Mbps, mid channel
Transmitting 802.11(b), 1 Mbps, low channel

POWER SETTINGS INVESTIGATED

3.7 VDC via 120V/60Hz

CONFIGURATIONS INVESTIGATED

INMC0500 - 6

SAMPLE CALCULATIONS

Conducted Emissions: Adjusted Level = Measured Level + Transducer Factor + Cable Attenuation Factor + External Attenuator

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
LISN	Solar	9252-50-R-24-BNC	LIR	1/4/2008	13 mo
Receiver	Rohde & Schwarz	ESCI	ARH	8/28/2008	12 mo
High Pass Filter	T.T.E.	7766	HFG	2/5/2008	13 mo
Attenuator	Coaxicom	66702 2910-20	ATO	6/30/2008	13 mo
EV07 Cables		Conducted Cables	EVG	5/2/2008	13 mo

MEASUREMENT BANDWIDTHS

Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (kHz)
0.01 - 0.15	1.0	0.2	0.2
0.15 - 30.0	10.0	9.0	9.0
30.0 - 1000	100.0	120.0	120.0
Above 1000	1000.0	N/A	1000.0

Measurements were made using the bandwidths and detectors specified. No video filter was used.

MEASUREMENT UNCERTAINTY

Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated by calibration to provide at least a 95% confidence that it complies with the test specification requirements. The measurement uncertainty for any test is available upon request.

TEST DESCRIPTION

Using the mode of operation and configuration noted within this report, conducted emissions tests were performed. The frequency range investigated (scanned), is also noted in this report. Conducted power line measurements are made, unless otherwise specified, over the frequency range from 150 kHz to 30 MHz to determine the line-to-ground radio-noise voltage that is conducted from the EUT power-input terminals that are directly (or indirectly via separate transformer or power supplies) connected to a public power network. Equipment is tested with power cords that are normally used or that have electrical or shielding characteristics that are the same as those cords normally used. Typically those measurements are made using a LISN (Line Impedance Stabilization Network), the 50ohm measuring port is terminated by a 50ohm EMI meter or a 50ohm resistive load. All 50ohm measuring ports of the LISN are terminated by 50ohm.

EMC

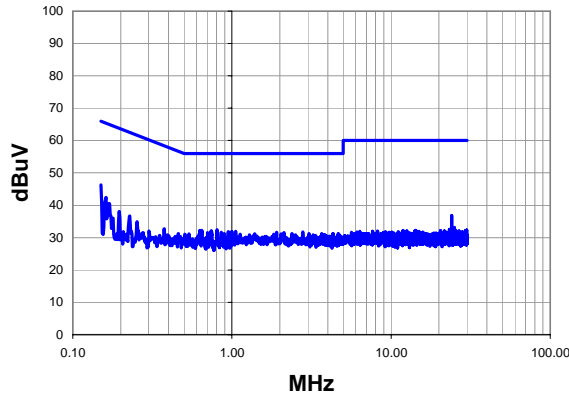
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	INMC0500	Date:	12/13/08	<i>Dan Haas</i> Tested by: Dan Haas
Project:	None	Temperature:	20.3°C	
Job Site:	EV07	Humidity:	33.3	
Serial Number:	000B6B8D3470	Barometric Pres.:	1000.9mb	
EUT:	DDIB			
Configuration:	6 - AC Powerline Conducted Emissions			
Customer:	Intermec Technologies Corporation			
Attendees:	None			
EUT Power:	3.7 VDC via 120V/60Hz			
Operating Mode:	Transmitting 802.11(b), 1 Mbps, low channel			
Deviations:	No deviations.			
Comments:	Radio module in host hand held computer powered via linear power supply.			

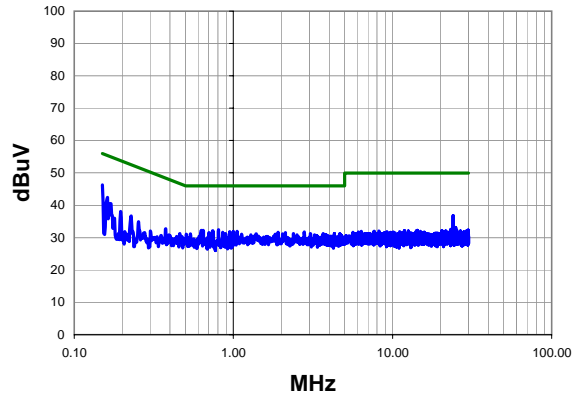
Test Specifications	Class B	Test Method
FCC 15.207:2008		ANSI C63.4:2003

Run #	3	Line:	High Line	Ext. Attenuation:	20	Results	Pass
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Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.150	24.2	22.1	46.3	66.0	-19.7
0.162	20.6	21.8	42.4	65.4	-22.9
24.020	16.0	20.8	36.8	60.0	-23.2
0.806	11.7	20.7	32.4	56.0	-23.6
0.628	11.4	20.8	32.2	56.0	-23.8
0.646	11.4	20.8	32.2	56.0	-23.8
0.742	11.4	20.7	32.1	56.0	-23.9
1.056	11.4	20.6	32.0	56.0	-24.0
1.000	11.3	20.6	31.9	56.0	-24.1
0.947	11.2	20.6	31.8	56.0	-24.2
2.792	11.1	20.6	31.7	56.0	-24.3
1.912	11.1	20.6	31.7	56.0	-24.3
0.855	11.0	20.7	31.7	56.0	-24.3
2.120	11.0	20.6	31.6	56.0	-24.4
0.703	10.8	20.8	31.6	56.0	-24.4
0.169	18.9	21.7	40.6	65.0	-24.4
0.895	10.6	20.6	31.2	56.0	-24.8
4.312	10.6	20.6	31.2	56.0	-24.8
3.664	10.6	20.6	31.2	56.0	-24.8
3.048	10.6	20.6	31.2	56.0	-24.8

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.150	24.2	22.1	46.3	56.0	-9.7
0.162	20.6	21.8	42.4	55.4	-12.9
24.020	16.0	20.8	36.8	50.0	-13.2
0.806	11.7	20.7	32.4	46.0	-13.6
0.628	11.4	20.8	32.2	46.0	-13.8
0.646	11.4	20.8	32.2	46.0	-13.8
0.742	11.4	20.7	32.1	46.0	-13.9
1.056	11.4	20.6	32.0	46.0	-14.0
1.000	11.3	20.6	31.9	46.0	-14.1
0.947	11.2	20.6	31.8	46.0	-14.2
2.792	11.1	20.6	31.7	46.0	-14.3
1.912	11.1	20.6	31.7	46.0	-14.3
0.855	11.0	20.7	31.7	46.0	-14.3
2.120	11.0	20.6	31.6	46.0	-14.4
0.703	10.8	20.8	31.6	46.0	-14.4
0.169	18.9	21.7	40.6	55.0	-14.4
0.895	10.6	20.6	31.2	46.0	-14.8
4.312	10.6	20.6	31.2	46.0	-14.8
3.664	10.6	20.6	31.2	46.0	-14.8
3.048	10.6	20.6	31.2	46.0	-14.8

EMC

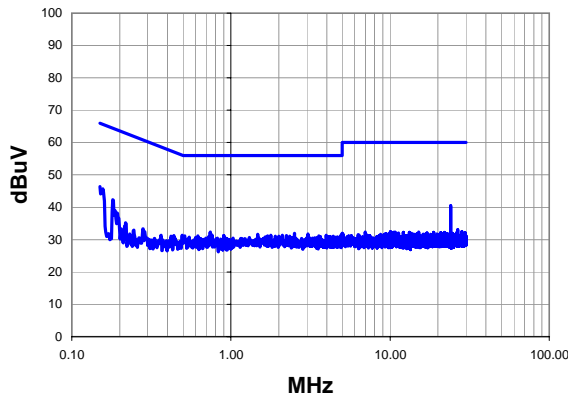
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	INMC0500	Date:	12/13/08	<i>Dan Haas</i> Tested by: Dan Haas
Project:	None	Temperature:	20.3°C	
Job Site:	EV07	Humidity:	33.3	
Serial Number:	000B6B8D3470	Barometric Pres.:	1000.9mb	
EUT:	DDIB			
Configuration:	6 - AC Powerline Conducted Emissions			
Customer:	Intermec Technologies Corporation			
Attendees:	None			
EUT Power:	3.7 VDC via 120V/60Hz			
Operating Mode:	Transmitting 802.11(b), 1 Mbps, low channel			
Deviations:	No deviations.			
Comments:	Radio module in host hand held computer powered via linear power supply.			

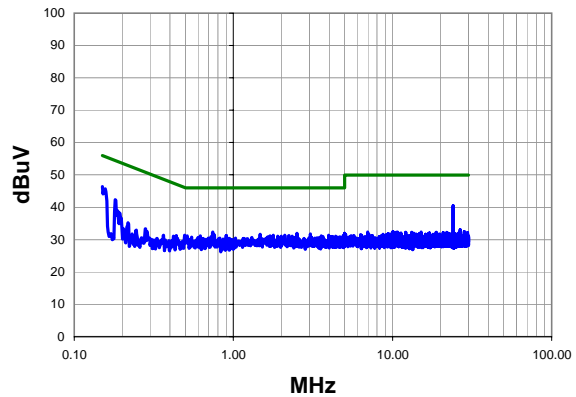
Test Specifications FCC 15.207:2008	Class B	Test Method ANSI C63.4:2003
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Run #	4	Line:	Neutral	Ext. Attenuation:	20	Results	Pass
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Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
24.020	19.6	20.8	40.4	60.0	-19.6
0.150	24.3	22.1	46.4	66.0	-19.6
0.181	20.9	21.4	42.3	64.5	-22.1
0.742	11.6	20.7	32.3	56.0	-23.7
5.000	11.3	20.7	32.0	56.0	-24.0
2.504	11.3	20.6	31.9	56.0	-24.1
3.048	11.1	20.6	31.7	56.0	-24.3
1.472	11.1	20.6	31.7	56.0	-24.3
1.784	10.8	20.6	31.4	56.0	-24.6
2.104	10.8	20.6	31.4	56.0	-24.6
4.904	10.7	20.6	31.3	56.0	-24.7
3.976	10.7	20.6	31.3	56.0	-24.7
2.232	10.7	20.6	31.3	56.0	-24.7
0.493	10.5	20.9	31.4	56.1	-24.7
0.901	10.6	20.6	31.2	56.0	-24.8
1.704	10.6	20.6	31.2	56.0	-24.8
3.568	10.5	20.6	31.1	56.0	-24.9
0.619	10.3	20.8	31.1	56.0	-24.9
2.344	10.5	20.6	31.1	56.0	-24.9
1.904	10.5	20.6	31.1	56.0	-24.9

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
24.020	19.6	20.8	40.4	50.0	-9.6
0.150	24.3	22.1	46.4	56.0	-9.6
0.181	20.9	21.4	42.3	54.5	-12.1
0.742	11.6	20.7	32.3	46.0	-13.7
5.000	11.3	20.7	32.0	46.0	-14.0
2.504	11.3	20.6	31.9	46.0	-14.1
3.048	11.1	20.6	31.7	46.0	-14.3
1.472	11.1	20.6	31.7	46.0	-14.3
1.784	10.8	20.6	31.4	46.0	-14.6
2.104	10.8	20.6	31.4	46.0	-14.6
4.904	10.7	20.6	31.3	46.0	-14.7
3.976	10.7	20.6	31.3	46.0	-14.7
2.232	10.7	20.6	31.3	46.0	-14.7
0.493	10.5	20.9	31.4	46.1	-14.7
0.901	10.6	20.6	31.2	46.0	-14.8
1.704	10.6	20.6	31.2	46.0	-14.8
3.568	10.5	20.6	31.1	46.0	-14.9
0.619	10.3	20.8	31.1	46.0	-14.9
2.344	10.5	20.6	31.1	46.0	-14.9
1.904	10.5	20.6	31.1	46.0	-14.9

EMC

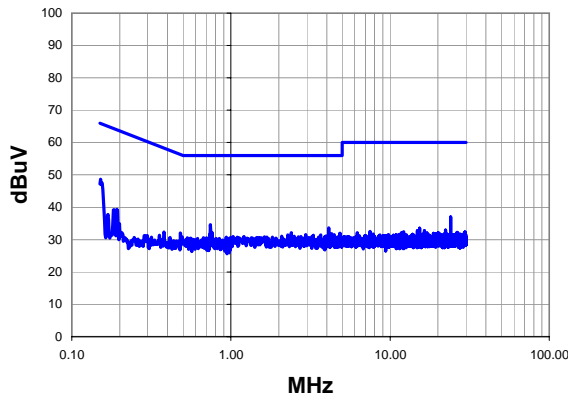
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	INMC0500	Date:	12/13/08	<i>Relay to Relays</i> Tested by: Dan Haas
Project:	None	Temperature:	20.3°C	
Job Site:	EV07	Humidity:	33.3	
Serial Number:	000B6B8D3470	Barometric Pres.:	1000.9mb	
EUT:	DDIB			
Configuration:	6 - AC Powerline Conducted Emissions			
Customer:	Intermec Technologies Corporation			
Attendees:	None			
EUT Power:	3.7 VDC via 120V/60Hz			
Operating Mode:	Transmitting 802.11(b), 1 Mbps, mid channel			
Deviations:	No deviations.			
Comments:	Radio module in host hand held computer powered via linear power supply.			

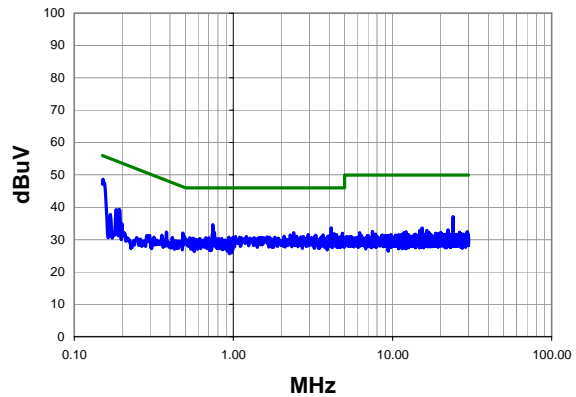
Test Specifications FCC 15.207:2008	Class B	Test Method ANSI C63.4:2003
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Run #	5	Line: High Line	Ext. Attenuation: 20	Results	Pass
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Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.152	26.6	22.0	48.6	65.9	-17.3
0.743	13.9	20.7	34.6	56.0	-21.4
4.112	13.0	20.6	33.6	56.0	-22.4
24.020	16.2	20.8	37.0	60.0	-23.0
0.760	11.5	20.7	32.2	56.0	-23.8
2.392	11.5	20.6	32.1	56.0	-23.9
4.840	11.3	20.6	31.9	56.0	-24.1
4.288	11.2	20.6	31.8	56.0	-24.2
0.482	11.2	20.9	32.1	56.3	-24.2
2.952	10.9	20.6	31.5	56.0	-24.5
2.280	10.9	20.6	31.5	56.0	-24.5
0.193	18.2	21.2	39.4	63.9	-24.5
4.464	10.8	20.6	31.4	56.0	-24.6
3.664	10.8	20.6	31.4	56.0	-24.6
3.296	10.7	20.6	31.3	56.0	-24.7
4.256	10.6	20.6	31.2	56.0	-24.8
3.976	10.5	20.6	31.1	56.0	-24.9
2.080	10.5	20.6	31.1	56.0	-24.9
2.752	10.4	20.6	31.0	56.0	-25.0
1.208	10.4	20.6	31.0	56.0	-25.0

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.152	26.6	22.0	48.6	55.9	-7.3
0.743	13.9	20.7	34.6	46.0	-11.4
4.112	13.0	20.6	33.6	46.0	-12.4
24.020	16.2	20.8	37.0	50.0	-13.0
0.760	11.5	20.7	32.2	46.0	-13.8
2.392	11.5	20.6	32.1	46.0	-13.9
4.840	11.3	20.6	31.9	46.0	-14.1
4.288	11.2	20.6	31.8	46.0	-14.2
0.482	11.2	20.9	32.1	46.3	-14.2
2.952	10.9	20.6	31.5	46.0	-14.5
2.280	10.9	20.6	31.5	46.0	-14.5
0.193	18.2	21.2	39.4	53.9	-14.5
4.464	10.8	20.6	31.4	46.0	-14.6
3.664	10.8	20.6	31.4	46.0	-14.6
3.296	10.7	20.6	31.3	46.0	-14.7
4.256	10.6	20.6	31.2	46.0	-14.8
3.976	10.5	20.6	31.1	46.0	-14.9
2.080	10.5	20.6	31.1	46.0	-14.9
2.752	10.4	20.6	31.0	46.0	-15.0
1.208	10.4	20.6	31.0	46.0	-15.0

EMC

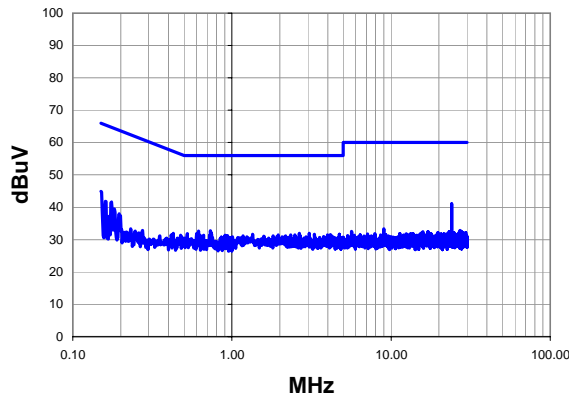
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	INMC0500	Date:	12/13/08	<i>Dan Haas</i> Tested by: Dan Haas
Project:	None	Temperature:	20.3°C	
Job Site:	EV07	Humidity:	33.3	
Serial Number:	000B6B8D3470	Barometric Pres.:	1000.9mb	
EUT:	DDIB			
Configuration:	6 - AC Powerline Conducted Emissions			
Customer:	Intermec Technologies Corporation			
Attendees:	None			
EUT Power:	3.7 VDC via 120V/60Hz			
Operating Mode:	Transmitting 802.11(b), 1 Mbps, mid channel			
Deviations:	No deviations.			
Comments:	Radio module in host hand held computer powered via linear power supply.			

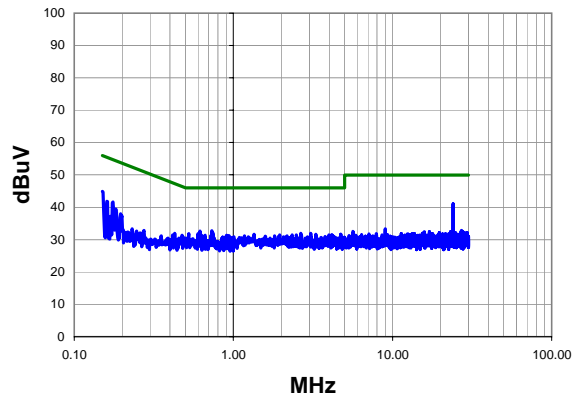
Test Specifications FCC 15.207:2008	Class B	Test Method ANSI C63.4:2003
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Run #	6	Line:	Neutral	Ext. Attenuation:	20	Results	Pass
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Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
24.020	20.2	20.8	41.0	60.0	-19.0
0.150	22.8	22.1	44.9	66.0	-21.1
0.176	20.1	21.6	41.7	64.7	-23.0
0.733	12.0	20.7	32.7	56.0	-23.3
0.616	11.8	20.8	32.6	56.0	-23.4
0.160	20.0	21.9	41.9	65.5	-23.6
3.064	11.3	20.6	31.9	56.0	-24.1
2.648	11.3	20.6	31.9	56.0	-24.1
0.524	11.0	20.9	31.9	56.0	-24.1
0.599	11.0	20.8	31.8	56.0	-24.2
1.352	11.1	20.6	31.7	56.0	-24.3
4.728	11.0	20.6	31.6	56.0	-24.4
3.304	11.0	20.6	31.6	56.0	-24.4
4.160	10.9	20.6	31.5	56.0	-24.5
1.952	10.9	20.6	31.5	56.0	-24.5
3.984	10.8	20.6	31.4	56.0	-24.6
2.488	10.8	20.6	31.4	56.0	-24.6
2.336	10.8	20.6	31.4	56.0	-24.6
0.663	10.6	20.8	31.4	56.0	-24.6
0.725	10.6	20.8	31.4	56.0	-24.6

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
24.020	20.2	20.8	41.0	50.0	-9.0
0.150	22.8	22.1	44.9	56.0	-11.1
0.176	20.1	21.6	41.7	54.7	-13.0
0.733	12.0	20.7	32.7	46.0	-13.3
0.616	11.8	20.8	32.6	46.0	-13.4
0.160	20.0	21.9	41.9	55.5	-13.6
3.064	11.3	20.6	31.9	46.0	-14.1
2.648	11.3	20.6	31.9	46.0	-14.1
0.524	11.0	20.9	31.9	46.0	-14.1
0.599	11.0	20.8	31.8	46.0	-14.2
1.352	11.1	20.6	31.7	46.0	-14.3
4.728	11.0	20.6	31.6	46.0	-14.4
3.304	11.0	20.6	31.6	46.0	-14.4
4.160	10.9	20.6	31.5	46.0	-14.5
1.952	10.9	20.6	31.5	46.0	-14.5
3.984	10.8	20.6	31.4	46.0	-14.6
2.488	10.8	20.6	31.4	46.0	-14.6
2.336	10.8	20.6	31.4	46.0	-14.6
0.663	10.6	20.8	31.4	46.0	-14.6
0.725	10.6	20.8	31.4	46.0	-14.6

EMC

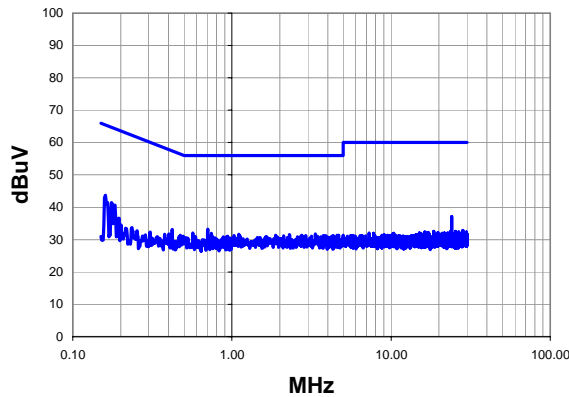
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	INMC0500	Date:	12/13/08	<i>Rocky Le Poling</i> Tested by: Dan Haas
Project:	None	Temperature:	20.3°C	
Job Site:	EV07	Humidity:	33.3	
Serial Number:	000B6B8D3470	Barometric Pres.:	1000.9mb	
EUT:	DDIB			
Configuration:	6 - AC Powerline Conducted Emissions			
Customer:	Intermec Technologies Corporation			
Attendees:	None			
EUT Power:	3.7 VDC via 120V/60Hz			
Operating Mode:	Transmitting 802.11(b), 1 Mbps, high channel			
Deviations:	No deviations.			
Comments:	Radio module in host hand held computer powered via linear power supply.			

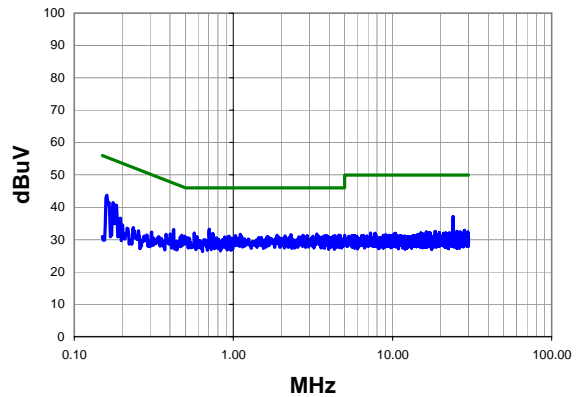
Test Specifications FCC 15.207:2008	Class B	Test Method ANSI C63.4:2003
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Run #	7	Line: High Line	Ext. Attenuation: 20	Results	Pass
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Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.160	21.9	21.9	43.8	65.5	-21.7
0.704	12.5	20.8	33.3	56.0	-22.7
24.020	16.3	20.8	37.1	60.0	-22.9
0.176	19.9	21.6	41.5	64.7	-23.2
0.184	19.3	21.4	40.7	64.3	-23.6
0.568	11.2	20.8	32.0	56.0	-24.0
0.742	11.2	20.7	31.9	56.0	-24.1
0.422	12.2	20.9	33.1	57.4	-24.3
3.344	11.1	20.6	31.7	56.0	-24.3
1.104	11.1	20.6	31.7	56.0	-24.3
2.296	11.0	20.6	31.6	56.0	-24.4
1.880	10.8	20.6	31.4	56.0	-24.6
4.584	10.7	20.6	31.3	56.0	-24.7
4.680	10.7	20.6	31.3	56.0	-24.7
2.744	10.7	20.6	31.3	56.0	-24.7
1.032	10.7	20.6	31.3	56.0	-24.7
4.328	10.6	20.6	31.2	56.0	-24.8
3.872	10.6	20.6	31.2	56.0	-24.8
3.760	10.6	20.6	31.2	56.0	-24.8
2.904	10.6	20.6	31.2	56.0	-24.8

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.160	21.9	21.9	43.8	55.5	-11.7
0.704	12.5	20.8	33.3	46.0	-12.7
24.020	16.3	20.8	37.1	50.0	-12.9
0.176	19.9	21.6	41.5	54.7	-13.2
0.184	19.3	21.4	40.7	54.3	-13.6
0.568	11.2	20.8	32.0	46.0	-14.0
0.742	11.2	20.7	31.9	46.0	-14.1
0.422	12.2	20.9	33.1	47.4	-14.3
3.344	11.1	20.6	31.7	46.0	-14.3
1.104	11.1	20.6	31.7	46.0	-14.3
2.296	11.0	20.6	31.6	46.0	-14.4
1.880	10.8	20.6	31.4	46.0	-14.6
4.584	10.7	20.6	31.3	46.0	-14.7
4.680	10.7	20.6	31.3	46.0	-14.7
2.744	10.7	20.6	31.3	46.0	-14.7
1.032	10.7	20.6	31.3	46.0	-14.7
4.328	10.6	20.6	31.2	46.0	-14.8
3.872	10.6	20.6	31.2	46.0	-14.8
3.760	10.6	20.6	31.2	46.0	-14.8
2.904	10.6	20.6	31.2	46.0	-14.8

EMC

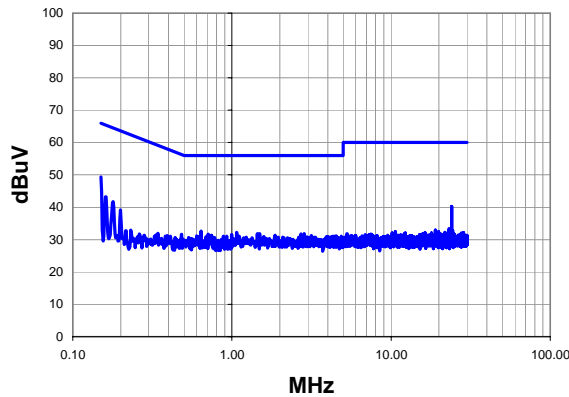
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	INMC0500	Date:	12/13/08	<i>Dan Haas</i> Tested by: Dan Haas
Project:	None	Temperature:	20.3°C	
Job Site:	EV07	Humidity:	33.3	
Serial Number:	000B6B8D3470	Barometric Pres.:	1000.9mb	
EUT:	DDIB			
Configuration:	6 - AC Powerline Conducted Emissions			
Customer:	Intermec Technologies Corporation			
Attendees:	None			
EUT Power:	3.7 VDC via 120V/60Hz			
Operating Mode:	Transmitting 802.11(b), 1 Mbps, high channel			
Deviations:	No deviations.			
Comments:	Radio module in host hand held computer powered via linear power supply.			

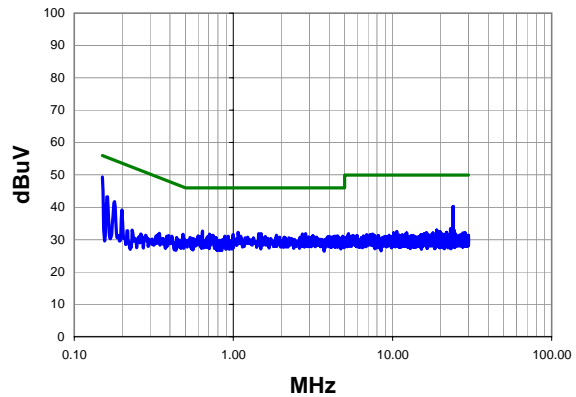
Test Specifications FCC 15.207:2008	Class B	Test Method ANSI C63.4:2003
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Run #	8	Line:	Neutral	Ext. Attenuation:	20	Results	Pass
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Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.150	27.3	22.1	49.4	66.0	-16.6
24.020	19.4	20.8	40.2	60.0	-19.8
0.160	21.4	21.9	43.3	65.5	-22.2
0.179	20.3	21.5	41.8	64.5	-22.8
0.640	11.8	20.8	32.6	56.0	-23.4
1.072	11.7	20.6	32.3	56.0	-23.7
1.448	11.3	20.6	31.9	56.0	-24.1
1.496	11.3	20.6	31.9	56.0	-24.1
2.840	11.2	20.6	31.8	56.0	-24.2
2.720	11.1	20.6	31.7	56.0	-24.3
0.708	10.9	20.8	31.7	56.0	-24.3
0.995	11.0	20.6	31.6	56.0	-24.4
0.199	18.1	21.1	39.2	63.6	-24.5
0.483	10.8	20.9	31.7	56.3	-24.6
1.864	10.8	20.6	31.4	56.0	-24.6
0.742	10.6	20.7	31.3	56.0	-24.7
4.520	10.5	20.6	31.1	56.0	-24.9
0.601	10.3	20.8	31.1	56.0	-24.9
3.152	10.5	20.6	31.1	56.0	-24.9
0.884	10.4	20.7	31.1	56.0	-24.9

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.150	27.3	22.1	49.4	56.0	-6.6
24.020	19.4	20.8	40.2	50.0	-9.8
0.160	21.4	21.9	43.3	55.5	-12.2
0.179	20.3	21.5	41.8	54.5	-12.8
0.640	11.8	20.8	32.6	46.0	-13.4
1.072	11.7	20.6	32.3	46.0	-13.7
1.448	11.3	20.6	31.9	46.0	-14.1
1.496	11.3	20.6	31.9	46.0	-14.1
2.840	11.2	20.6	31.8	46.0	-14.2
2.720	11.1	20.6	31.7	46.0	-14.3
0.708	10.9	20.8	31.7	46.0	-14.3
0.995	11.0	20.6	31.6	46.0	-14.4
0.199	18.1	21.1	39.2	53.6	-14.5
0.483	10.8	20.9	31.7	46.3	-14.6
1.864	10.8	20.6	31.4	46.0	-14.6
0.742	10.6	20.7	31.3	46.0	-14.7
4.520	10.5	20.6	31.1	46.0	-14.9
0.601	10.3	20.8	31.1	46.0	-14.9
3.152	10.5	20.6	31.1	46.0	-14.9
0.884	10.4	20.7	31.1	46.0	-14.9

EMC

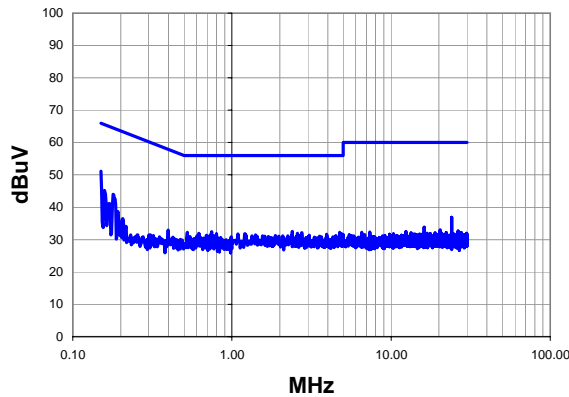
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	INMC0500	Date:	12/13/08	<i>Dan Haas</i> Tested by: Dan Haas
Project:	None	Temperature:	20.3°C	
Job Site:	EV07	Humidity:	33.3	
Serial Number:	000B6B8D3470	Barometric Pres.:	1000.9mb	
EUT:	DDIB			
Configuration:	6 - AC Powerline Conducted Emissions			
Customer:	Intermec Technologies Corporation			
Attendees:	None			
EUT Power:	3.7 VDC via 120V/60Hz			
Operating Mode:	Transmitting 802.11(a), 6 Mbps, low channel			
Deviations:	No deviations.			
Comments:	Radio module in host hand held computer powered via linear power supply.			

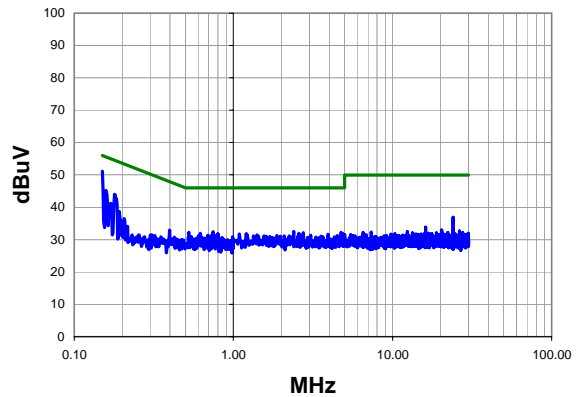
Test Specifications FCC 15.207:2008	Class B	Test Method ANSI C63.4:2003
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Run #	9	Line: High Line	Ext. Attenuation: 20	Results	Pass
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Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.150	29.1	22.1	51.2	66.0	-14.8
0.159	23.3	21.9	45.2	65.5	-20.4
0.179	22.5	21.5	44.0	64.5	-20.6
24.020	16.1	20.8	36.9	60.0	-23.1
2.392	11.9	20.6	32.5	56.0	-23.5
0.745	11.7	20.7	32.4	56.0	-23.6
0.524	11.4	20.9	32.3	56.0	-23.7
4.760	11.6	20.6	32.2	56.0	-23.8
0.169	19.5	21.7	41.2	65.0	-23.8
2.752	11.5	20.6	32.1	56.0	-23.9
0.621	11.1	20.8	31.9	56.0	-24.1
2.584	11.3	20.6	31.9	56.0	-24.1
1.208	11.3	20.6	31.9	56.0	-24.1
1.088	11.2	20.6	31.8	56.0	-24.2
4.888	11.1	20.6	31.7	56.0	-24.3
0.799	11.0	20.7	31.7	56.0	-24.3
3.936	11.0	20.6	31.6	56.0	-24.4
1.408	10.9	20.6	31.5	56.0	-24.5
0.692	10.6	20.8	31.4	56.0	-24.6
3.056	10.7	20.6	31.3	56.0	-24.7

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.150	29.1	22.1	51.2	56.0	-4.8
0.159	23.3	21.9	45.2	55.5	-10.4
0.179	22.5	21.5	44.0	54.5	-10.6
24.020	16.1	20.8	36.9	50.0	-13.1
2.392	11.9	20.6	32.5	46.0	-13.5
0.745	11.7	20.7	32.4	46.0	-13.6
0.524	11.4	20.9	32.3	46.0	-13.7
4.760	11.6	20.6	32.2	46.0	-13.8
0.169	19.5	21.7	41.2	55.0	-13.8
2.752	11.5	20.6	32.1	46.0	-13.9
0.621	11.1	20.8	31.9	46.0	-14.1
2.584	11.3	20.6	31.9	46.0	-14.1
1.208	11.3	20.6	31.9	46.0	-14.1
1.088	11.2	20.6	31.8	46.0	-14.2
4.888	11.1	20.6	31.7	46.0	-14.3
0.799	11.0	20.7	31.7	46.0	-14.3
3.936	11.0	20.6	31.6	46.0	-14.4
1.408	10.9	20.6	31.5	46.0	-14.5
0.692	10.6	20.8	31.4	46.0	-14.6
3.056	10.7	20.6	31.3	46.0	-14.7

EMC

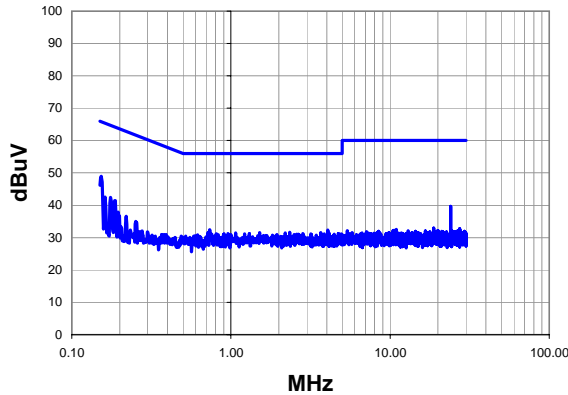
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	INMC0500	Date:	12/13/08	<i>Dan Haas</i> Tested by: Dan Haas
Project:	None	Temperature:	20.3°C	
Job Site:	EV07	Humidity:	33.3	
Serial Number:	000B6B8D3470	Barometric Pres.:	1000.9mb	
EUT:	DDIB			
Configuration:	6 - AC Powerline Conducted Emissions			
Customer:	Intermec Technologies Corporation			
Attendees:	None			
EUT Power:	3.7 VDC via 120V/60Hz			
Operating Mode:	Transmitting 802.11(a), 6 Mbps, low channel			
Deviations:	No deviations.			
Comments:	Radio module in host hand held computer powered via linear power supply.			

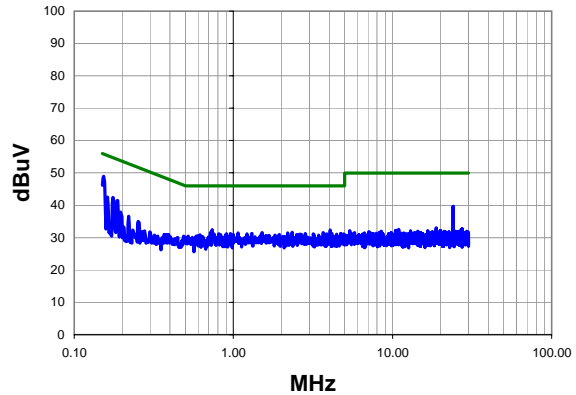
Test Specifications FCC 15.207:2008	Class B	Test Method ANSI C63.4:2003
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Run #	10	Line:	Neutral	Ext. Attenuation:	20	Results	Pass
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Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.153	27.0	22.0	49.0	65.8	-16.8
24.020	18.8	20.8	39.6	60.0	-20.4
0.176	20.9	21.6	42.5	64.7	-22.2
0.186	20.1	21.3	41.4	64.2	-22.8
0.162	20.7	21.8	42.5	65.4	-22.8
0.736	11.7	20.7	32.4	56.0	-23.6
4.056	11.7	20.6	32.3	56.0	-23.7
2.336	11.0	20.6	31.6	56.0	-24.4
1.512	11.0	20.6	31.6	56.0	-24.4
0.718	10.8	20.8	31.6	56.0	-24.4
3.672	10.9	20.6	31.5	56.0	-24.5
2.192	10.9	20.6	31.5	56.0	-24.5
1.072	10.9	20.6	31.5	56.0	-24.5
4.144	10.7	20.6	31.3	56.0	-24.7
1.304	10.7	20.6	31.3	56.0	-24.7
4.728	10.6	20.6	31.2	56.0	-24.8
2.832	10.6	20.6	31.2	56.0	-24.8
0.959	10.6	20.6	31.2	56.0	-24.8
0.808	10.5	20.7	31.2	56.0	-24.8
4.928	10.5	20.6	31.1	56.0	-24.9

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.153	27.0	22.0	49.0	55.8	-6.8
24.020	18.8	20.8	39.6	50.0	-10.4
0.176	20.9	21.6	42.5	54.7	-12.2
0.186	20.1	21.3	41.4	54.2	-12.8
0.162	20.7	21.8	42.5	55.4	-12.8
0.736	11.7	20.7	32.4	46.0	-13.6
4.056	11.7	20.6	32.3	46.0	-13.7
2.336	11.0	20.6	31.6	46.0	-14.4
1.512	11.0	20.6	31.6	46.0	-14.4
0.718	10.8	20.8	31.6	46.0	-14.4
3.672	10.9	20.6	31.5	46.0	-14.5
2.192	10.9	20.6	31.5	46.0	-14.5
1.072	10.9	20.6	31.5	46.0	-14.5
4.144	10.7	20.6	31.3	46.0	-14.7
1.304	10.7	20.6	31.3	46.0	-14.7
4.728	10.6	20.6	31.2	46.0	-14.8
2.832	10.6	20.6	31.2	46.0	-14.8
0.959	10.6	20.6	31.2	46.0	-14.8
0.808	10.5	20.7	31.2	46.0	-14.8
4.928	10.5	20.6	31.1	46.0	-14.9

EMC

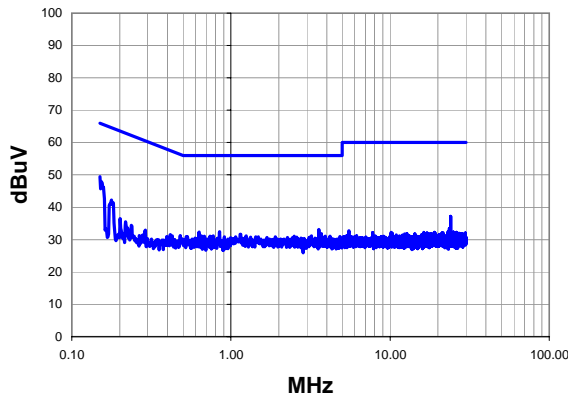
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	INMC0500	Date:	12/13/08	<i>Andy Le Felings</i> Tested by: Dan Haas
Project:	None	Temperature:	20.3°C	
Job Site:	EV07	Humidity:	33.3	
Serial Number:	000B6B8D3470	Barometric Pres.:	1000.9mb	
EUT:	DDIB			
Configuration:	6 - AC Powerline Conducted Emissions			
Customer:	Intermec Technologies Corporation			
Attendees:	None			
EUT Power:	3.7 VDC via 120V/60Hz			
Operating Mode:	Transmitting 802.11(a), 6 Mbps, mid channel			
Deviations:	No deviations.			
Comments:	Radio module in host hand held computer powered via linear power supply.			

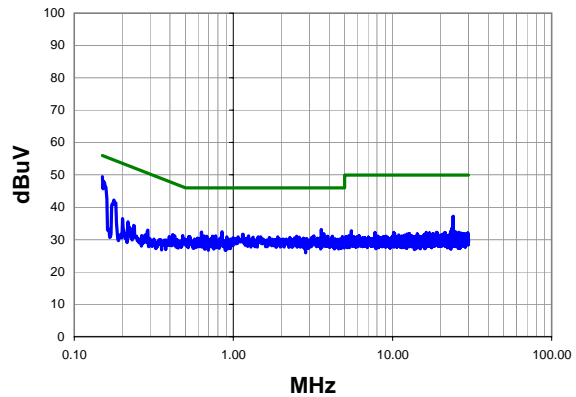
Test Specifications FCC 15.207:2008	Class B	Test Method ANSI C63.4:2003
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Run #	11	Line: High Line	Ext. Attenuation: 20	Results	Pass
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Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.150	27.4	22.1	49.5	66.0	-16.5
0.177	20.7	21.5	42.2	64.6	-22.4
24.020	16.4	20.8	37.2	60.0	-22.8
3.568	12.5	20.6	33.1	56.0	-22.9
0.849	11.8	20.7	32.5	56.0	-23.5
0.631	11.5	20.8	32.3	56.0	-23.7
3.696	11.2	20.6	31.8	56.0	-24.2
1.144	11.1	20.6	31.7	56.0	-24.3
0.653	10.4	20.8	31.2	56.0	-24.8
1.248	10.6	20.6	31.2	56.0	-24.8
0.774	10.4	20.7	31.1	56.0	-24.9
3.200	10.5	20.6	31.1	56.0	-24.9
2.496	10.5	20.6	31.1	56.0	-24.9
0.680	10.3	20.8	31.1	56.0	-24.9
0.740	10.3	20.7	31.0	56.0	-25.0
4.192	10.4	20.6	31.0	56.0	-25.0
3.920	10.4	20.6	31.0	56.0	-25.0
0.524	10.1	20.9	31.0	56.0	-25.0
0.480	10.4	20.9	31.3	56.3	-25.0
4.848	10.3	20.6	30.9	56.0	-25.1

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.150	27.4	22.1	49.5	56.0	-6.5
0.177	20.7	21.5	42.2	54.6	-12.4
24.020	16.4	20.8	37.2	50.0	-12.8
3.568	12.5	20.6	33.1	46.0	-12.9
0.849	11.8	20.7	32.5	46.0	-13.5
0.631	11.5	20.8	32.3	46.0	-13.7
3.696	11.2	20.6	31.8	46.0	-14.2
1.144	11.1	20.6	31.7	46.0	-14.3
0.653	10.4	20.8	31.2	46.0	-14.8
1.248	10.6	20.6	31.2	46.0	-14.8
0.774	10.4	20.7	31.1	46.0	-14.9
3.200	10.5	20.6	31.1	46.0	-14.9
2.496	10.5	20.6	31.1	46.0	-14.9
0.680	10.3	20.8	31.1	46.0	-14.9
0.740	10.3	20.7	31.0	46.0	-15.0
4.192	10.4	20.6	31.0	46.0	-15.0
3.920	10.4	20.6	31.0	46.0	-15.0
0.524	10.1	20.9	31.0	46.0	-15.0
0.480	10.4	20.9	31.3	46.3	-15.0
4.848	10.3	20.6	30.9	46.0	-15.1

EMC

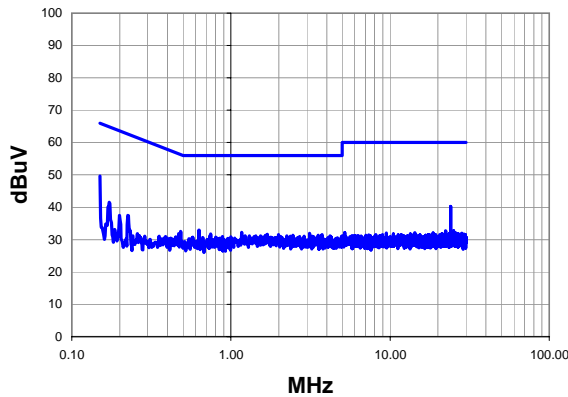
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	INMC0500	Date:	12/13/08	<i>Bohly Le Relays</i> Tested by: Dan Haas
Project:	None	Temperature:	20.3°C	
Job Site:	EV07	Humidity:	33.3	
Serial Number:	000B6B8D3470	Barometric Pres.:	1000.9mb	
EUT:	DDIB			
Configuration:	6 - AC Powerline Conducted Emissions			
Customer:	Intermec Technologies Corporation			
Attendees:	None			
EUT Power:	3.7 VDC via 120V/60Hz			
Operating Mode:	Transmitting 802.11(a), 6 Mbps, mid channel			
Deviations:	No deviations.			
Comments:	Radio module in host hand held computer powered via linear power supply.			

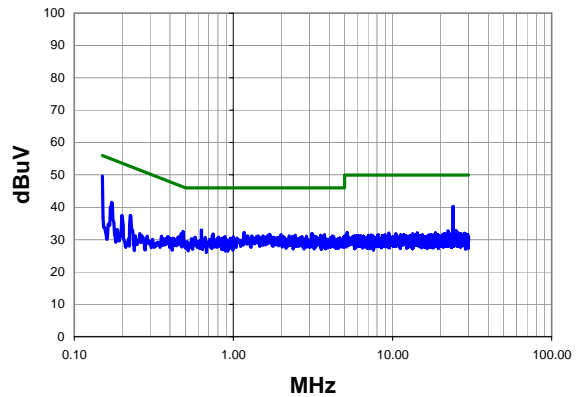
Test Specifications FCC 15.207:2008	Class B	Test Method ANSI C63.4:2003
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Run #	12	Line:	Neutral	Ext. Attenuation:	20	Results	Pass
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Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.150	27.6	22.1	49.7	66.0	-16.3
24.020	19.4	20.8	40.2	60.0	-19.8
0.629	12.1	20.8	32.9	56.0	-23.1
0.172	19.9	21.6	41.5	64.9	-23.3
1.168	11.7	20.6	32.3	56.0	-23.7
0.483	11.6	20.9	32.5	56.3	-23.8
3.120	11.3	20.6	31.9	56.0	-24.1
0.745	11.0	20.7	31.7	56.0	-24.3
1.696	11.1	20.6	31.7	56.0	-24.3
1.992	11.0	20.6	31.6	56.0	-24.4
3.728	10.9	20.6	31.5	56.0	-24.5
3.528	10.7	20.6	31.3	56.0	-24.7
2.456	10.7	20.6	31.3	56.0	-24.7
0.470	10.9	20.9	31.8	56.5	-24.7
2.240	10.6	20.6	31.2	56.0	-24.8
1.304	10.6	20.6	31.2	56.0	-24.8
4.192	10.5	20.6	31.1	56.0	-24.9
3.232	10.4	20.6	31.0	56.0	-25.0
2.888	10.4	20.6	31.0	56.0	-25.0
2.696	10.4	20.6	31.0	56.0	-25.0

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.150	27.6	22.1	49.7	56.0	-6.3
24.020	19.4	20.8	40.2	50.0	-9.8
0.629	12.1	20.8	32.9	46.0	-13.1
0.172	19.9	21.6	41.5	54.9	-13.3
1.168	11.7	20.6	32.3	46.0	-13.7
0.483	11.6	20.9	32.5	46.3	-13.8
3.120	11.3	20.6	31.9	46.0	-14.1
0.745	11.0	20.7	31.7	46.0	-14.3
1.696	11.1	20.6	31.7	46.0	-14.3
1.992	11.0	20.6	31.6	46.0	-14.4
3.728	10.9	20.6	31.5	46.0	-14.5
3.528	10.7	20.6	31.3	46.0	-14.7
2.456	10.7	20.6	31.3	46.0	-14.7
0.470	10.9	20.9	31.8	46.5	-14.7
2.240	10.6	20.6	31.2	46.0	-14.8
1.304	10.6	20.6	31.2	46.0	-14.8
4.192	10.5	20.6	31.1	46.0	-14.9
3.232	10.4	20.6	31.0	46.0	-15.0
2.888	10.4	20.6	31.0	46.0	-15.0
2.696	10.4	20.6	31.0	46.0	-15.0

EMC

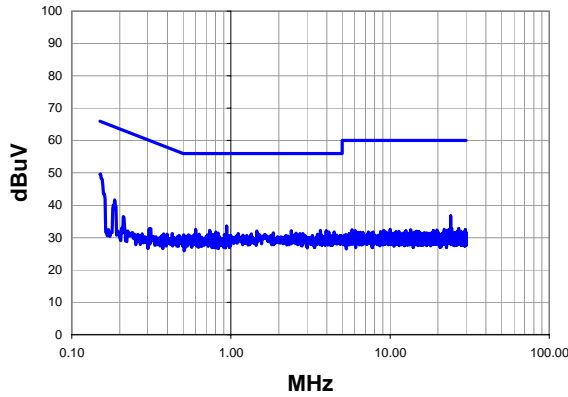
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	INMC0500	Date:	12/13/08	<i>Polynomial Relays</i> Tested by: Dan Haas
Project:	None	Temperature:	20.3°C	
Job Site:	EV07	Humidity:	33.3	
Serial Number:	000B6B8D3470	Barometric Pres.:	1000.9mb	
EUT:	DDIB			
Configuration:	6 - AC Powerline Conducted Emissions			
Customer:	Intermec Technologies Corporation			
Attendees:	None			
EUT Power:	3.7 VDC via 120V/60Hz			
Operating Mode:	Transmitting 802.11(a), 6 Mbps, high channel			
Deviations:	No deviations.			
Comments:	Radio module in host hand held computer powered via linear power supply.			

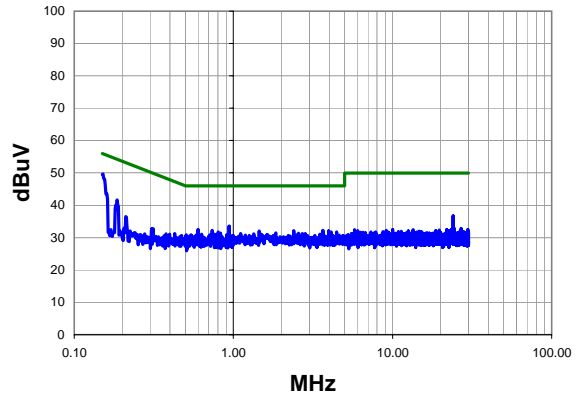
Test Specifications FCC 15.207:2008	Class B	Test Method ANSI C63.4:2003
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Run #	13	Line: High Line	Ext. Attenuation: 20	Results	Pass
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Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.152	27.6	22.0	49.6	65.9	-16.3
0.940	12.9	20.6	33.5	56.0	-22.5
0.186	20.3	21.3	41.6	64.2	-22.6
24.020	15.9	20.8	36.7	60.0	-23.3
0.601	11.7	20.8	32.5	56.0	-23.5
0.736	11.5	20.7	32.2	56.0	-23.8
3.656	11.6	20.6	32.2	56.0	-23.8
2.400	11.5	20.6	32.1	56.0	-23.9
1.456	11.5	20.6	32.1	56.0	-23.9
3.968	11.4	20.6	32.0	56.0	-24.0
4.448	11.1	20.6	31.7	56.0	-24.3
4.120	11.1	20.6	31.7	56.0	-24.3
0.803	11.0	20.7	31.7	56.0	-24.3
4.000	10.9	20.6	31.5	56.0	-24.5
1.848	10.9	20.6	31.5	56.0	-24.5
0.830	10.7	20.7	31.4	56.0	-24.6
2.568	10.7	20.6	31.3	56.0	-24.7
1.112	10.7	20.6	31.3	56.0	-24.7
2.832	10.6	20.6	31.2	56.0	-24.8
2.720	10.6	20.6	31.2	56.0	-24.8

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.152	27.6	22.0	49.6	55.9	-6.3
0.940	12.9	20.6	33.5	46.0	-12.5
0.186	20.3	21.3	41.6	54.2	-12.6
24.020	15.9	20.8	36.7	50.0	-13.3
0.601	11.7	20.8	32.5	46.0	-13.5
0.736	11.5	20.7	32.2	46.0	-13.8
3.656	11.6	20.6	32.2	46.0	-13.8
2.400	11.5	20.6	32.1	46.0	-13.9
1.456	11.5	20.6	32.1	46.0	-13.9
3.968	11.4	20.6	32.0	46.0	-14.0
4.448	11.1	20.6	31.7	46.0	-14.3
4.120	11.1	20.6	31.7	46.0	-14.3
0.803	11.0	20.7	31.7	46.0	-14.3
4.000	10.9	20.6	31.5	46.0	-14.5
1.848	10.9	20.6	31.5	46.0	-14.5
0.830	10.7	20.7	31.4	46.0	-14.6
2.568	10.7	20.6	31.3	46.0	-14.7
1.112	10.7	20.6	31.3	46.0	-14.7
2.832	10.6	20.6	31.2	46.0	-14.8
2.720	10.6	20.6	31.2	46.0	-14.8

EMC

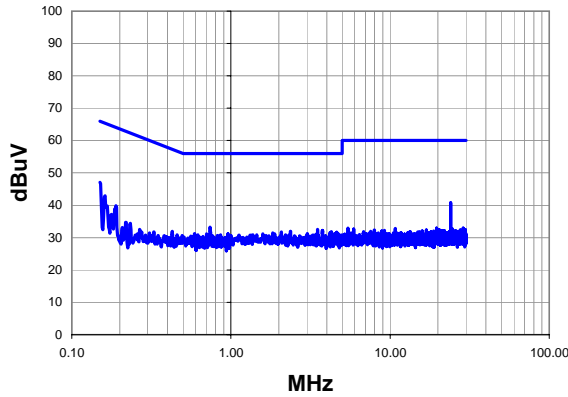
AC POWERLINE CONDUCTED EMISSIONS

Work Order:	INMC0500	Date:	12/13/08	<i>Dan Haas</i> Tested by: Dan Haas
Project:	None	Temperature:	20.3°C	
Job Site:	EV07	Humidity:	33.3	
Serial Number:	000B6B8D3470	Barometric Pres.:	1000.9mb	
EUT:	DDIB			
Configuration:	6 - AC Powerline Conducted Emissions			
Customer:	Intermec Technologies Corporation			
Attendees:	None			
EUT Power:	3.7 VDC via 120V/60Hz			
Operating Mode:	Transmitting 802.11(a), 6 Mbps, high channel			
Deviations:	No deviations.			
Comments:	Radio module in host hand held computer powered via linear power supply.			

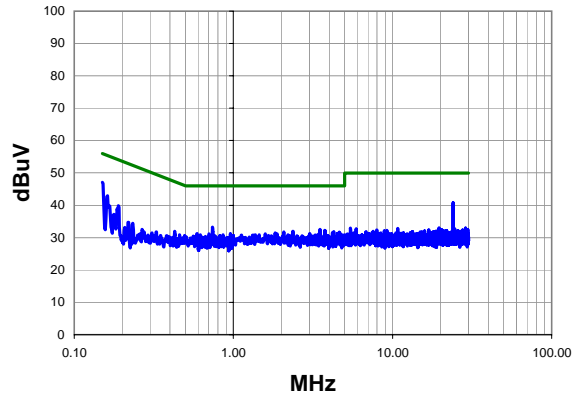
Test Specifications FCC 15.207:2008	Class B	Test Method ANSI C63.4:2003
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Run #	14	Line:	Neutral	Ext. Attenuation:	20	Results	Pass
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Peak Data - vs - Quasi Peak Limit



Peak Data - vs - Average Limit



Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.150	25.0	22.1	47.1	66.0	-18.9
24.020	19.9	20.8	40.7	60.0	-19.3
0.162	21.1	21.8	42.9	65.4	-22.4
0.740	12.5	20.7	33.2	56.0	-22.8
3.504	11.9	20.6	32.5	56.0	-23.5
3.752	11.6	20.6	32.2	56.0	-23.8
2.360	11.3	20.6	31.9	56.0	-24.1
4.264	11.2	20.6	31.8	56.0	-24.2
0.189	18.6	21.3	39.9	64.1	-24.2
2.072	11.2	20.6	31.8	56.0	-24.2
4.624	11.0	20.6	31.6	56.0	-24.4
4.192	10.9	20.6	31.5	56.0	-24.5
1.832	10.9	20.6	31.5	56.0	-24.5
4.496	10.6	20.6	31.2	56.0	-24.8
0.592	10.4	20.8	31.2	56.0	-24.8
3.024	10.6	20.6	31.2	56.0	-24.8
1.584	10.6	20.6	31.2	56.0	-24.8
0.703	10.4	20.8	31.2	56.0	-24.8
4.736	10.5	20.6	31.1	56.0	-24.9
0.957	10.5	20.6	31.1	56.0	-24.9

Peak Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted (dBuV)	Spec. Limit (dBuV)	Compared to Spec. (dB)
0.150	25.0	22.1	47.1	56.0	-8.9
24.020	19.9	20.8	40.7	50.0	-9.3
0.162	21.1	21.8	42.9	55.4	-12.4
0.740	12.5	20.7	33.2	46.0	-12.8
3.504	11.9	20.6	32.5	46.0	-13.5
3.752	11.6	20.6	32.2	46.0	-13.8
2.360	11.3	20.6	31.9	46.0	-14.1
4.264	11.2	20.6	31.8	46.0	-14.2
0.189	18.6	21.3	39.9	54.1	-14.2
2.072	11.2	20.6	31.8	46.0	-14.2
4.624	11.0	20.6	31.6	46.0	-14.4
4.192	10.9	20.6	31.5	46.0	-14.5
1.832	10.9	20.6	31.5	46.0	-14.5
4.496	10.6	20.6	31.2	46.0	-14.8
0.592	10.4	20.8	31.2	46.0	-14.8
3.024	10.6	20.6	31.2	46.0	-14.8
1.584	10.6	20.6	31.2	46.0	-14.8
0.703	10.4	20.8	31.2	46.0	-14.8
4.736	10.5	20.6	31.1	46.0	-14.9
0.957	10.5	20.6	31.1	46.0	-14.9

