Intel Corporation

Clane

Report No. INTE5170

Report Prepared By

NORTHWEST EMC

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

EMC Test Report

22975 NW Evergreen Parkway
Suite 400
Hillsboro, Oregon 97124

Certificate of Test

Last Date of Test: August 19, 2009
Intel Corporation
Model: Clane

Emissions			
Test Description	**Specification**	**Test Method**	**Pass/Fail**
Spurious Radiated Emissions	FCC 15.247 (DTS):2009	ANSI C63.4:2003 KDB No. 558074	**Pass**
Occupied Bandwidth	FCC 15.247 (DTS):2009	ANSI C63.4:2003 KDB No. 558074	**Pass**
Output Power	FCC 15.247 (DTS):2009	ANSI C63.4:2003 KDB No. 558074	**Pass**
Power Spectral Density	FCC 15.247 (DTS):2009	ANSI C63.4:2003 KDB No. 558074	**Pass**
Spurious Conducted Emissions	FCC 15.247 (DTS):2009	ANSI C63.4:2003 KDB No. 558074	**Pass**
Band Edge Compliance	FCC 15.247 (DTS):2009	ANSI C63.4:2003 KDB No. 558074	**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-1).

Approved By:

Don Facteau, IS 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 History

Revision Number	Description	Date	Page Number
00	None		

Barometric Pressure

The recorded barometric pressure has been normalized to sea level.

Accreditations and Authorizations

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

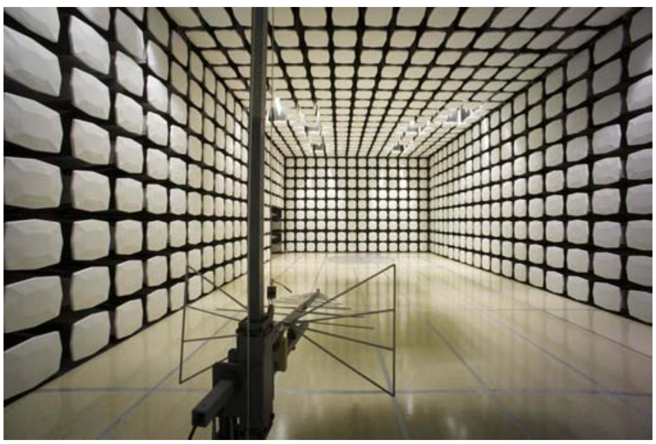
KCC: Northwest EMC, Inc is a CAB designated by MRA partners and recognized by Korea. (*Assigned Lab Numbers: Hillsboro: US0017, Irvine: US0158, Sultan: US0157)*

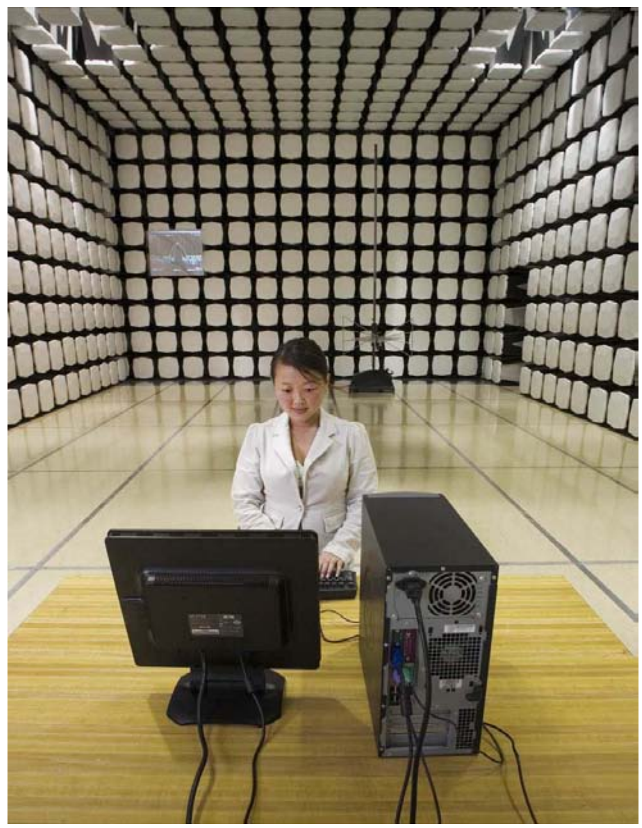
SCOPE

For details on the Scopes of our Accreditations, please visit:
http://www.nwemc.com/accreditations/

Northwest EMC Locations

Oregon Labs EV01-EV12 22975 NW Evergreen Pkwy Suite 400 Hillsboro, OR 97124 (503) 844-4066	California Labs OC01-OC13 41 Tesla Irvine, CA 92618 (949) 861-8918	Minnesota Labs MN01-MN08 9349 W Broadway Ave. Brooklyn Park, MN 55445 (763) 425-2281	Washington Labs SU01-SU07 14128 339th Ave. SE Sultan, WA 98294 (360) 793-8675	New York Labs WA01-WA04 4939 Jordan Rd. Elbridge, NY 13060 (315) 685-0796





Party Requesting the Test

Company Name:	Intel Corporation
Address:	5200 NE Elam Young Pkwy
City, State, Zip:	Hillsboro, OR 97124
Test Requested By:	Bob Hughes
Model:	Clane
First Date of Test:	August 14, 2009
Last Date of Test:	August 19, 2009
Receipt Date of Samples:	August 11, 2009
Equipment Design Stage:	Preproduction
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test

Functional Description of the EUT (Equipment Under Test):
802.11b radio module.

Testing Objective:
Seeking limited modular approval under FCC 15.247.

CONFIGURATION 1 INTE5170

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
EUT - 802.11b radio module	Intel	Clane	Unknown

CONFIGURATION 8 INTE5170

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
EUT - 802.11b radio module (High Channel, 1Mbps)	Intel	Clane	15

CONFIGURATION 9 INTE5170

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
EUT - 802.11b radio module (Mid Channel, 1Mbps)	Intel	Clane	7

CONFIGURATION 10 INTE5170

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
EUT - 802.11b radio module (Low Channel, 1Mbps)	Intel	Clane	Unknown

CONFIGURATION 11 INTE5170

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
EUT - 802.11b radio module (High Channel, 11Mbps)	Intel	Clane	6

Equipment modifications					
Item	Date	Test	Modification	Note	Disposition of EUT
1	8/14/2009	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.
2	8/14/2009	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.
3	8/14/2009	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.
4	8/14/2009	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.
5	8/18/2009	Spurious Radiated 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	8/18/2009	Radiated 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	8/19/2009	Occupied Bandwidth	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

OCCUPIED BANDWIDTH

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	E4440A	AFD	6/1/2009	13
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/21/2009	13
Power Meter	Gigatronics	8651A	SPM	12/10/2008	13
Power Sensor	Gigatronics	80701A	SPL	12/10/2008	13
Signal Generator	Hewlett-Packard	8648D	TGC	12/9/2008	13

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are 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 with the typical modulation.

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OCCUPIED BANDWIDTH

XMit 2009.03.05

EUT:	**Clane**			**Work Order:**	**INTE5170**
Serial Number:	**Unknown**			**Date:**	**08/19/09**
Customer:	**Intel Corporation**			**Temperature:**	**24°C**
Attendees:	**Bob Hughes**			**Humidity:**	**48%**
Project:	**None**			**Barometric Pres.:**	**30.06 in**
Tested by:	**Rod Peloquin**	**Power:**	**3 VDC**	**Job Site:**	**EV06**

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2009	ANSI C63.4:2003 KDB No. 558074

COMMENTS

Standalone radio module.

DEVIATIONS FROM TEST STANDARD

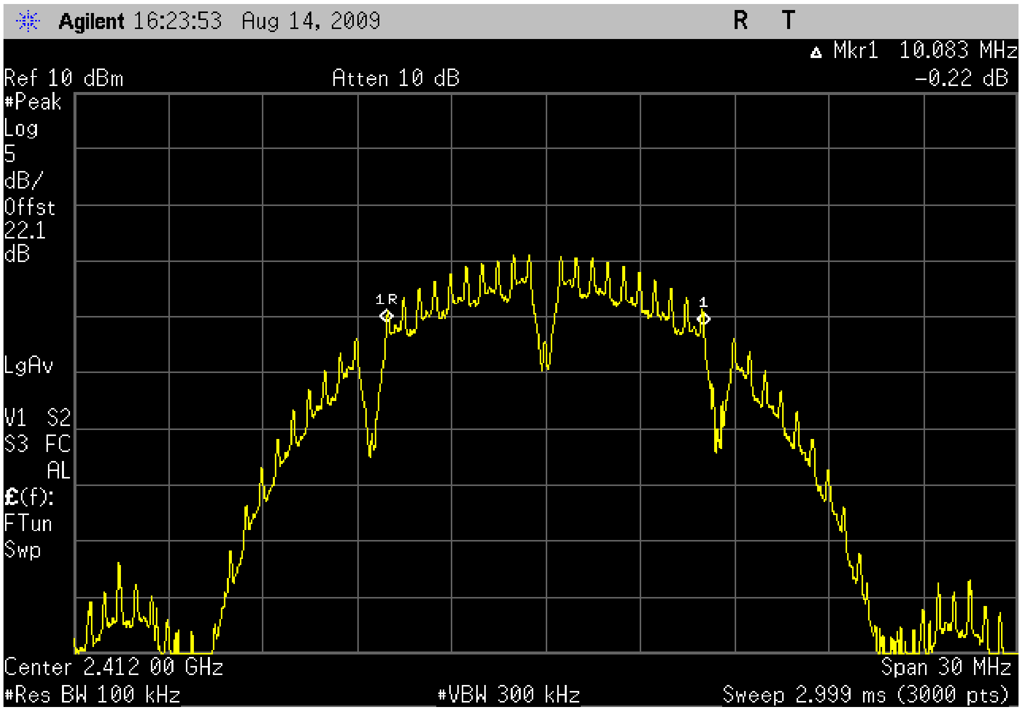
No Deviations

Configuration #	**1**	*Signature*

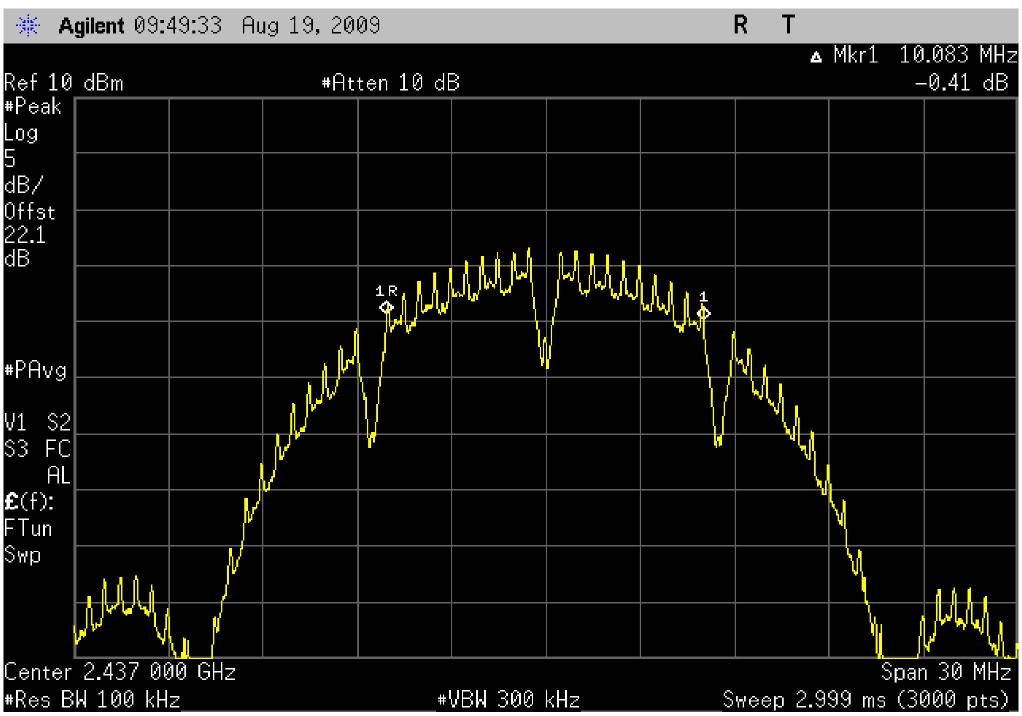
		Value	Limit	Results
802.11(b) 1 Mbps				
	Low Channel	10.083 MHz	> 500 kHz	Pass
	Mid Channel	10.083 MHz	> 500 kHz	Pass
	High Channel	10.083 MHz	> 500 kHz	Pass
802.11(b) 11 Mbps				
	Low Channel	9.383 MHz	> 500 kHz	Pass
	Mid Channel	10.734 MHz	> 500 kHz	Pass
	High Channel	9.433 MHz	> 500 kHz	Pass

OCCUPIED BANDWIDTH

802.11(b) 1 Mbps, Low Channel					
Result:	Pass	**Value:**	10.083 MHz	**Limit:**	> 500 kHz

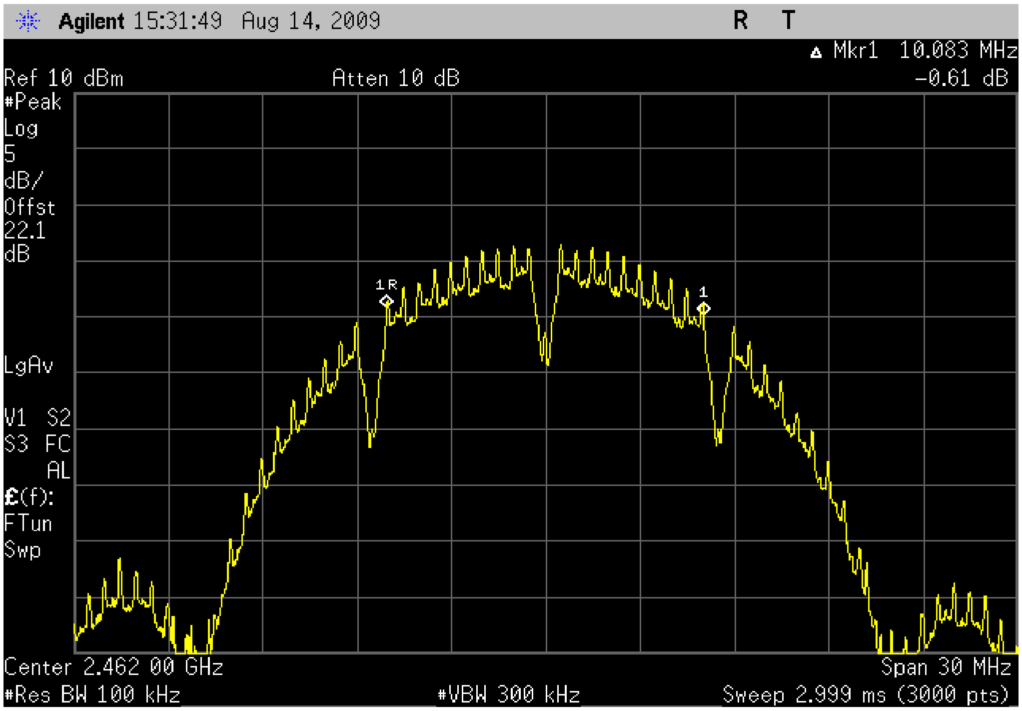


802.11(b) 1 Mbps, Mid Channel					
Result:	Pass	**Value:**	10.083 MHz	**Limit:**	> 500 kHz

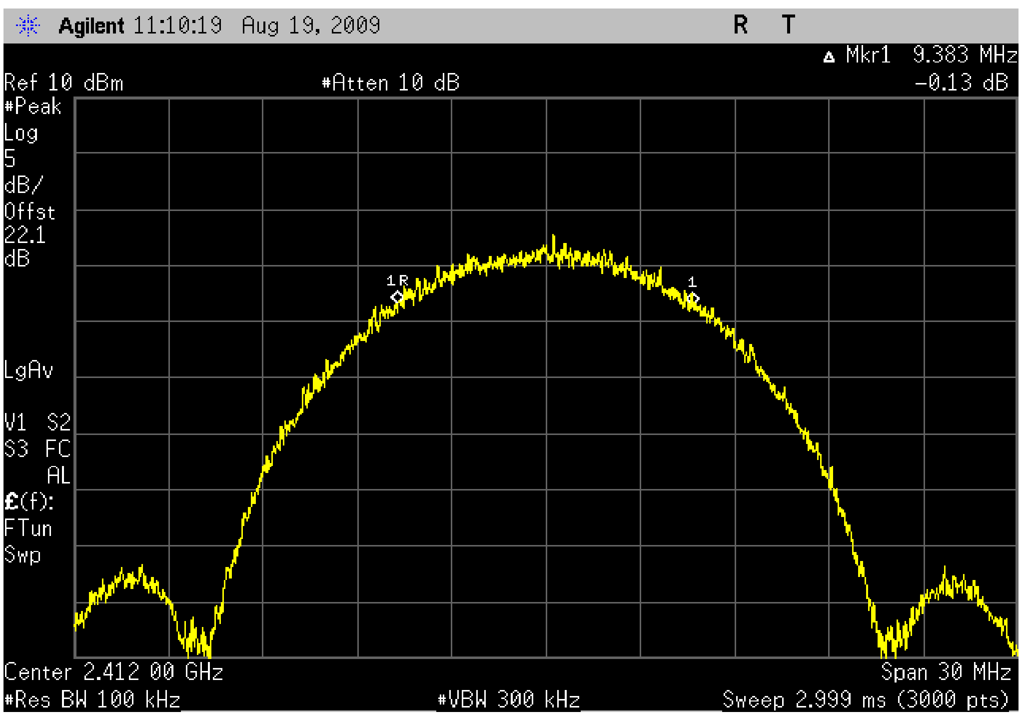


OCCUPIED BANDWIDTH

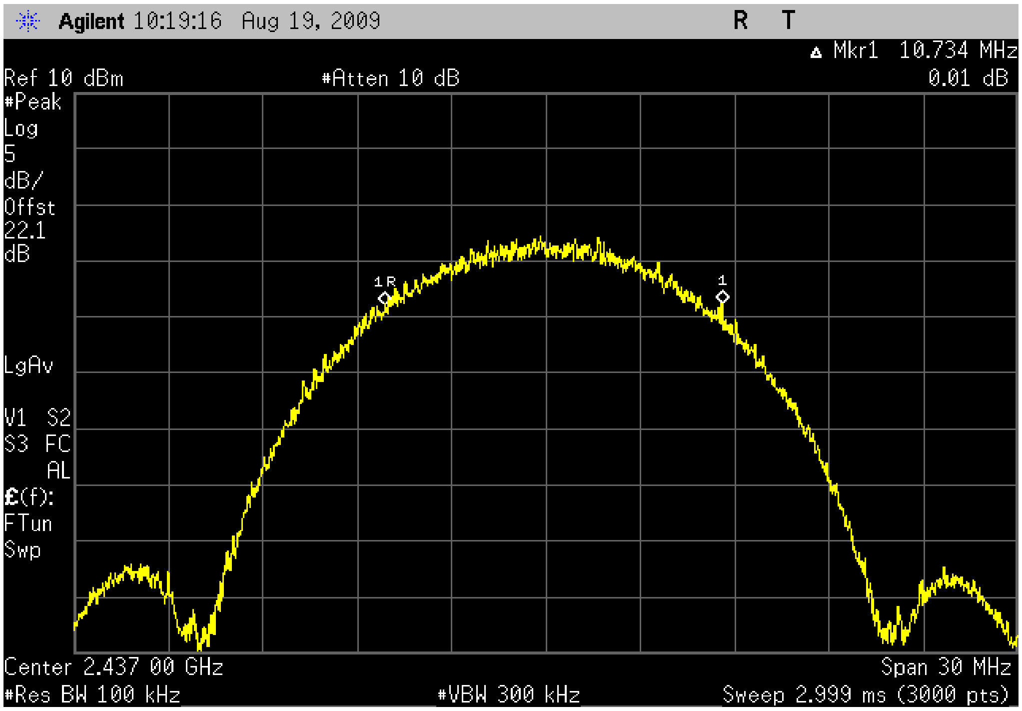
802.11(b) 1 Mbps, High Channel					
Result:	Pass	**Value:**	10.083 MHz	**Limit:**	> 500 kHz



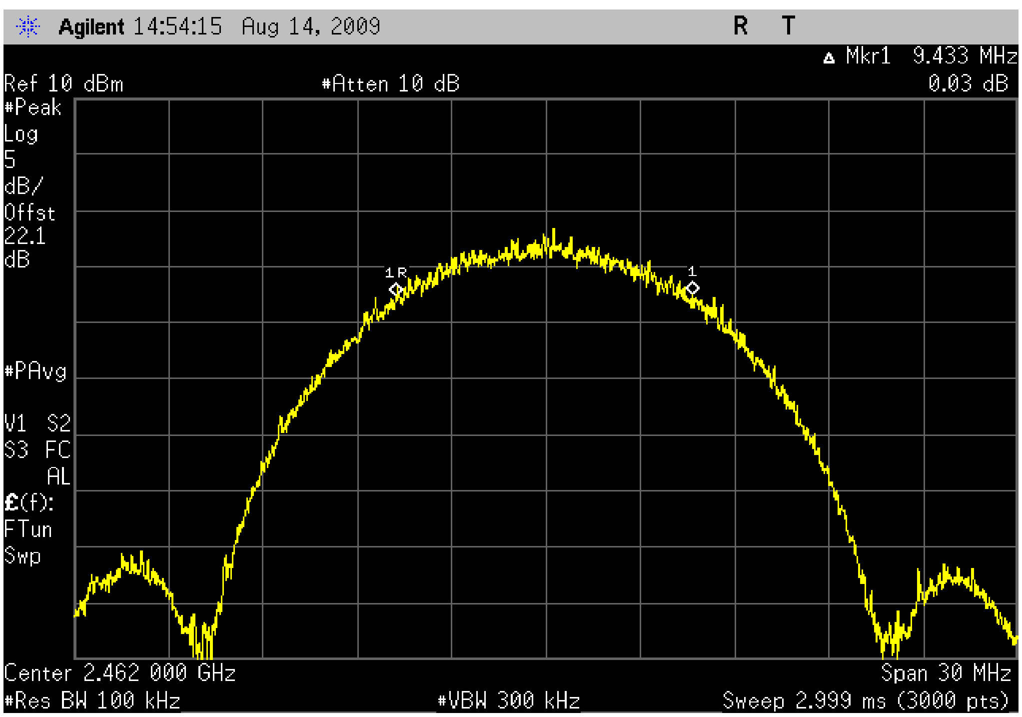
802.11(b) 11 Mbps, Low Channel					
Result:	Pass	**Value:**	9.383 MHz	**Limit:**	> 500 kHz



802.11(b) 11 Mbps, Mid Channel					
Result:	Pass	**Value:**	10.734 MHz	**Limit:**	> 500 kHz



802.11(b) 11 Mbps, High Channel					
Result:	Pass	**Value:**	9.433 MHz	**Limit:**	> 500 kHz



OUTPUT POWER - CHANNEL POWER

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	E4440A	AFD	6/1/2009	13
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/21/2009	13
Power Meter	Gigatronics	8651A	SPM	12/10/2008	13
Power Sensor	Gigatronics	80701A	SPL	12/10/2008	13
Signal Generator	Hewlett-Packard	8648D	TGC	12/9/2008	13

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

The transmit frequency was set to the required channels in each band, at each of the required data rates. The transmit power was set to its default maximum. A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used. The reference level offset on the spectrum analyzer was adjusted to compensate for cable loss and the external attenuation used between the RF output and the spectrum analyzer input. The amplitude accuracy of the spectrum analyzer was further enhanced by calibrating the setup using the power meter and synthesized signal generator.

- Prior to measuring peak transmit power; the emission bandwidth (B) was measured.
- Power was integrated across “B”, by using the channel power function of the spectrum analyzer and its default bandwidths.

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OUTPUT POWER - CHANNEL POWER

XMit 2009.03.05

EUT:	**Clane**			**Work Order:**	**INTE5170**
Serial Number:	**Unknown**			**Date:**	**08/14/09**
Customer:	**Intel Corporation**			**Temperature:**	**24°C**
Attendees:	**Bob Hughes**			**Humidity:**	**48%**
Project:	**None**			**Barometric Pres.:**	**30.06 in**
Tested by:	**Rod Peloquin**	**Power:**	**Battery**	**Job Site:**	**EV06**

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2009	ANSI C63.4:2003 KDB No. 558074

COMMENTS

Standalone radio module.

DEVIATIONS FROM TEST STANDARD

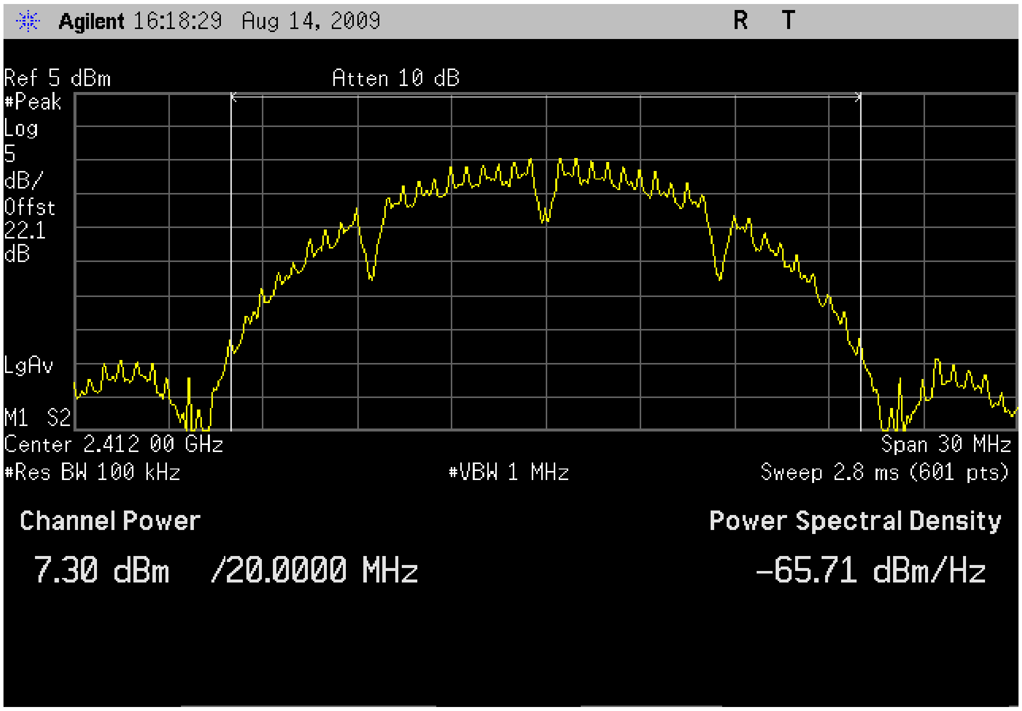
Ne Deviations

Configuration #	**1**	*Signature*

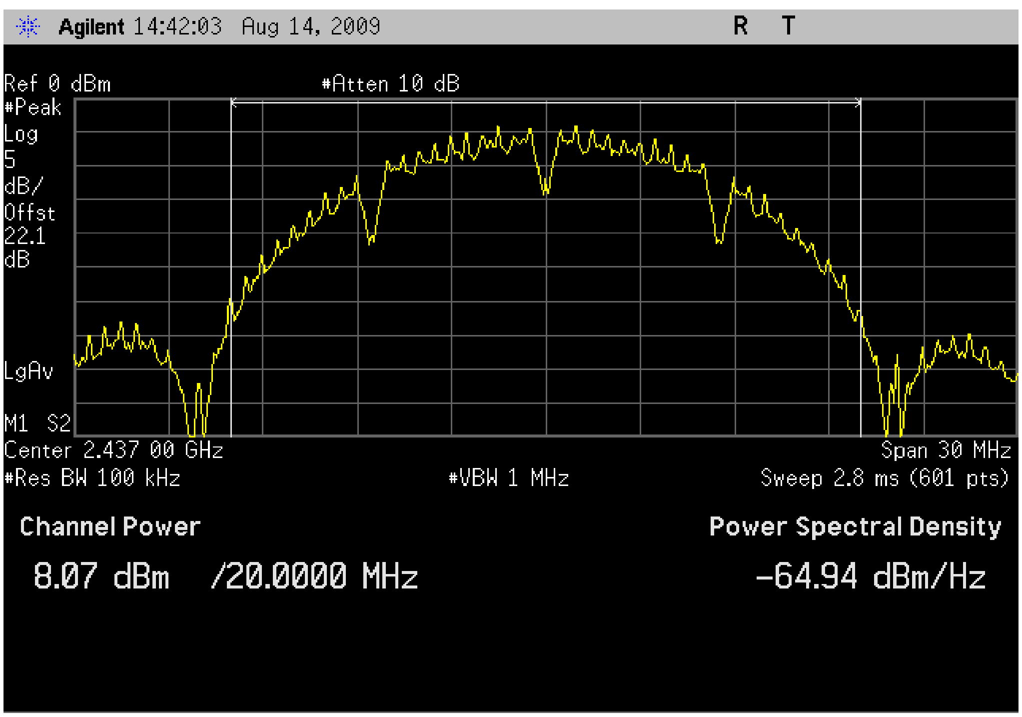
		Value	Limit	Results
802.11(b) 1 Mbps				
	Low Channel	7.3 dBm	30 dBm (1 Watt)	Pass
	Mid Channel	8.1 dBm	30 dBm (1 Watt)	Pass
	High Channel	8.3 dBm	30 dBm (1 Watt)	Pass
802.11(b) 11 Mbps				
	Low Channel	8.2 dBm	30 dBm (1 Watt)	Pass
	Mid Channel	8.5 dBm	30 dBm (1 Watt)	Pass
	High Channel	8.9 dBm	30 dBm (1 Watt)	Pass

OUTPUT POWER - CHANNEL POWER

802.11(b) 1 Mbps, Low Channel					
Result:	Pass	**Value:**	7.3 dBm	**Limit:**	30 dBm (1 Watt)

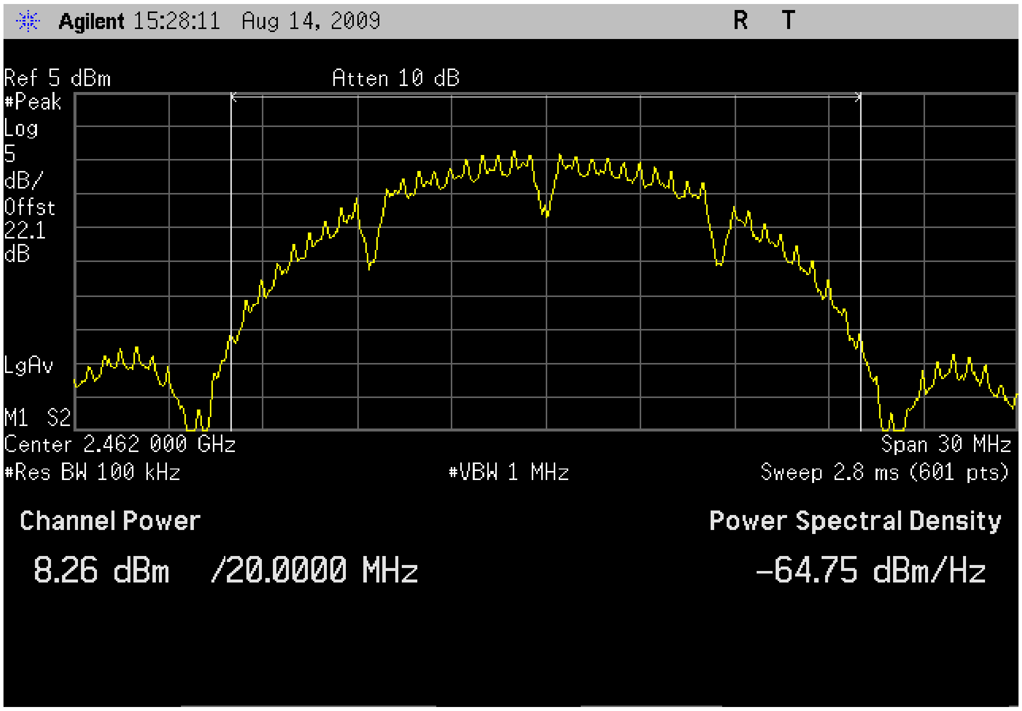


802.11(b) 1 Mbps, Mid Channel					
Result:	Pass	**Value:**	8.1 dBm	**Limit:**	30 dBm (1 Watt)

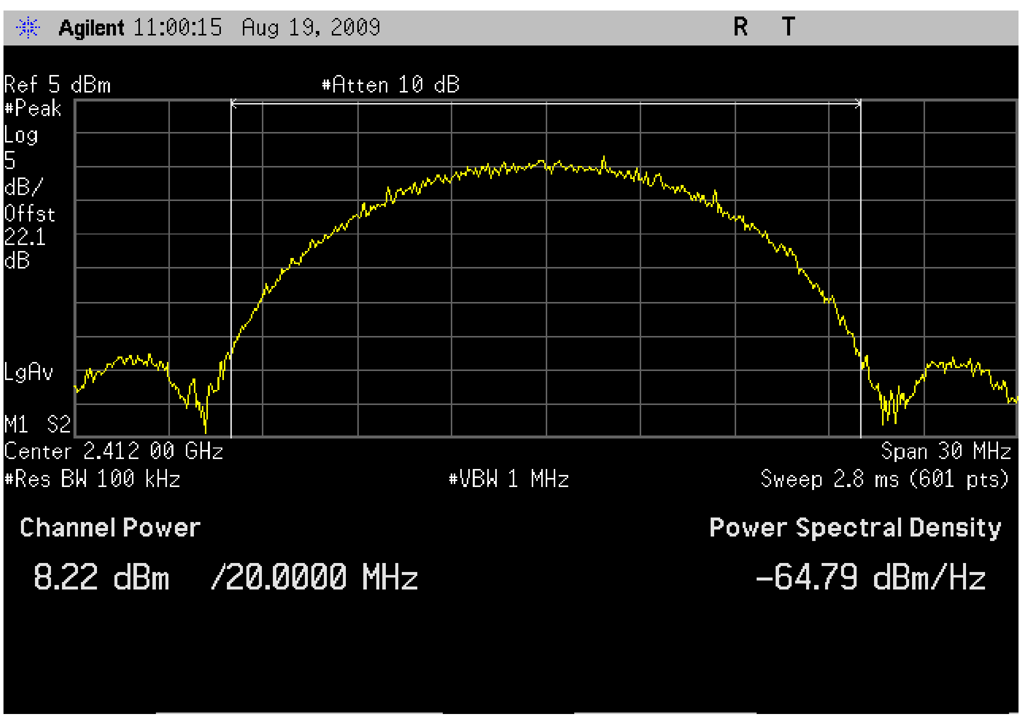


OUTPUT POWER - CHANNEL POWER

802.11(b) 1 Mbps, High Channel					
Result:	Pass	**Value:**	8.3 dBm	**Limit:**	30 dBm (1 Watt)

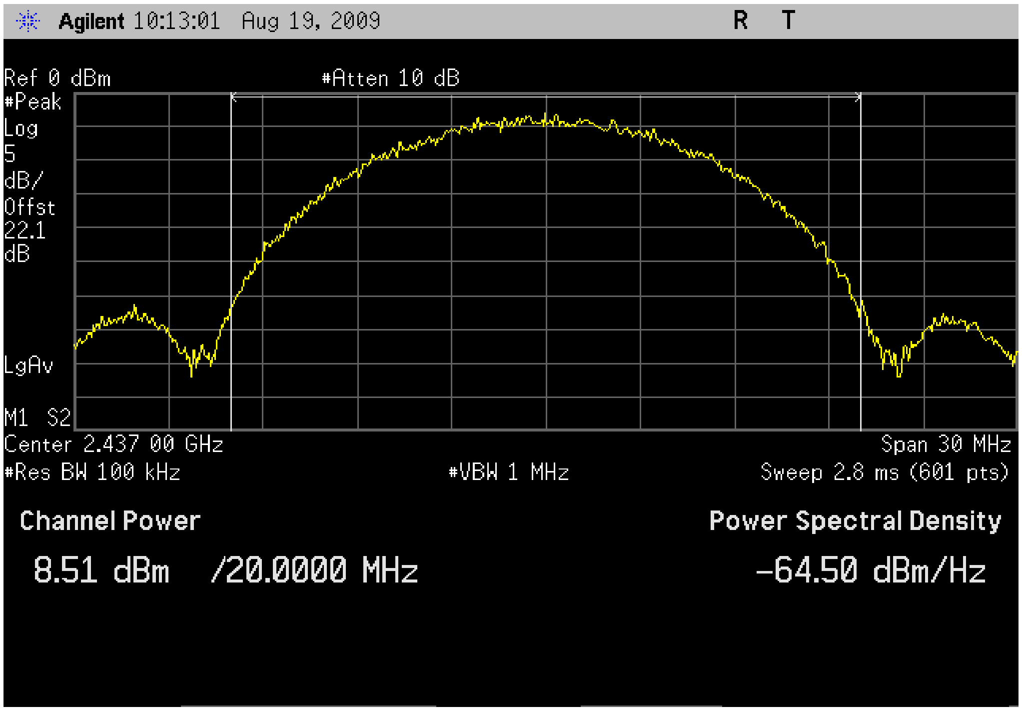


802.11(b) 11 Mbps, Low Channel					
Result:	Pass	**Value:**	8.2 dBm	**Limit:**	30 dBm (1 Watt)

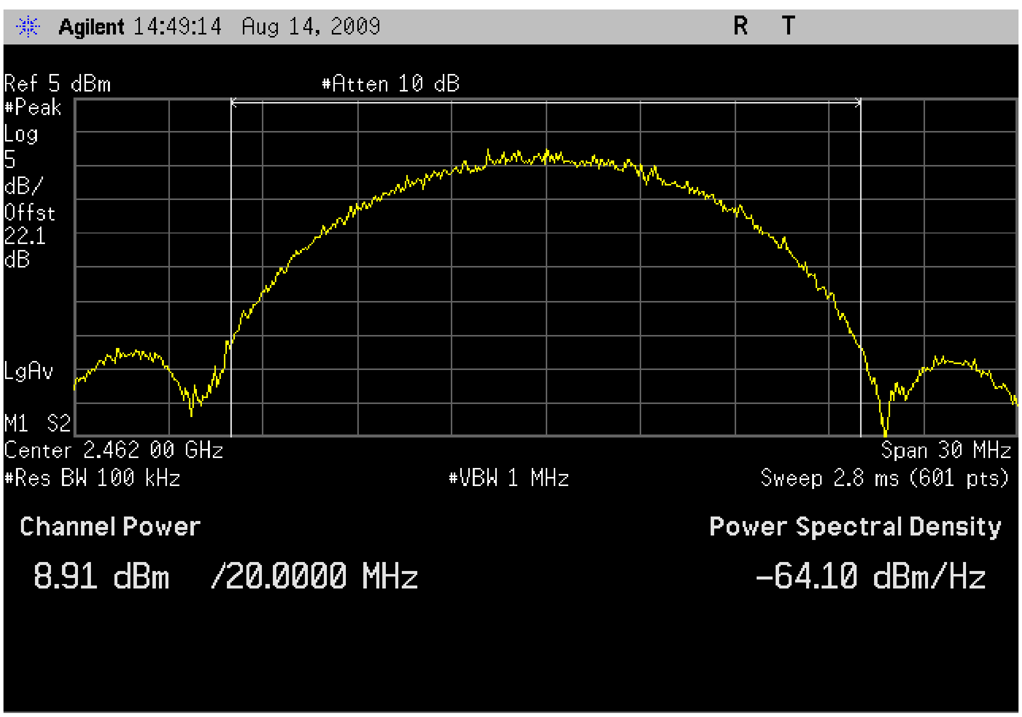


OUTPUT POWER - CHANNEL POWER

802.11(b) 11 Mbps, Mid Channel					
Result:	Pass	**Value:**	8.5 dBm	**Limit:**	30 dBm (1 Watt)



802.11(b) 11 Mbps, High Channel					
Result:	Pass	**Value:**	8.9 dBm	**Limit:**	30 dBm (1 Watt)



BAND EDGE COMPLIANCE

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	E4440A	AFD	6/1/2009	13
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/21/2009	13
Power Meter	Gigatronics	8651A	SPM	12/10/2008	13
Power Sensor	Gigatronics	80701A	SPL	12/10/2008	13
Signal Generator	Hewlett-Packard	8648D	TGC	12/9/2008	13

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

The requirements of FCC 15.247(d) for emissions at least 20dB below the carrier in any 100kHz bandwidth outside the allowable band was measured with the EUT set to low 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 using direct sequence modulation. The channels closest to the band edges were selected. The spectrum was scanned across each band edge from 10 MHz below the band edge to 10 MHz above the band edge.

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BAND EDGE COMPLIANCE

XMit 2009.03.05

EUT:	**Clane**			**Work Order:**	**INTE5170**
Serial Number:	**Unknown**			**Date:**	**08/14/09**
Customer:	**Intel Corporation**			**Temperature:**	**24°C**
Attendees:	**Bob Hughes**			**Humidity:**	**48%**
Project:	**None**			**Barometric Pres.:**	**30.06 in**
Tested by:	**Rod Peloquin**	**Power:**	**3 VDC**	**Job Site:**	**EV06**

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2009	ANSI C63.4:2003 KDB No. 558074

COMMENTS

Standalone radio module.

DEVIATIONS FROM TEST STANDARD

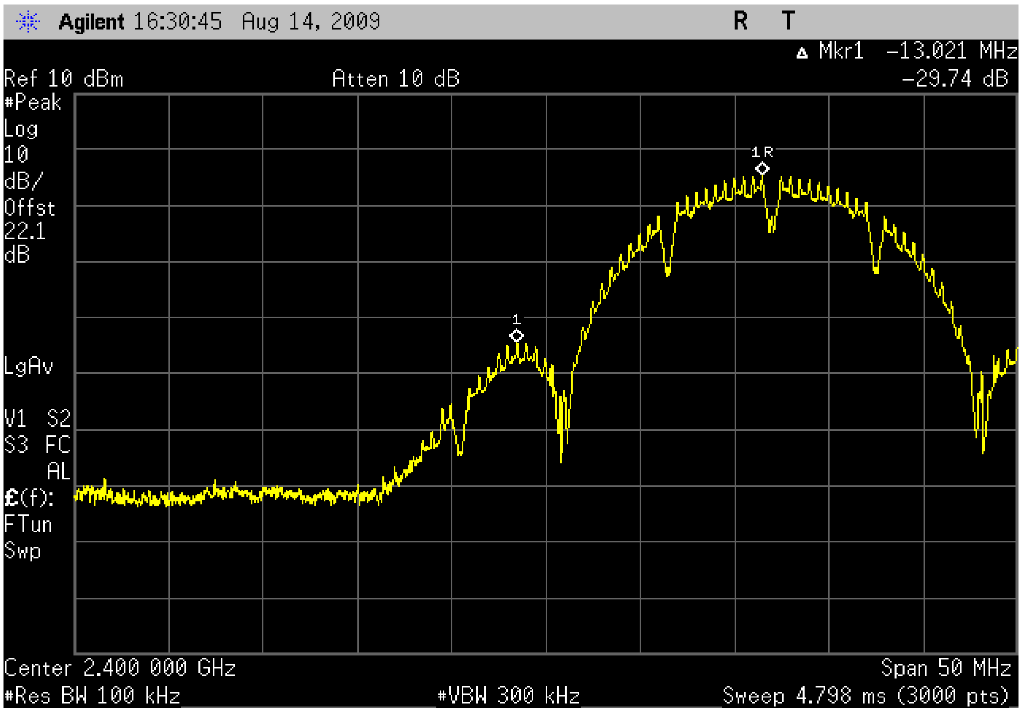
No Deviations

Configuration #	**1**	*Signature* Rodney L. Peloquin

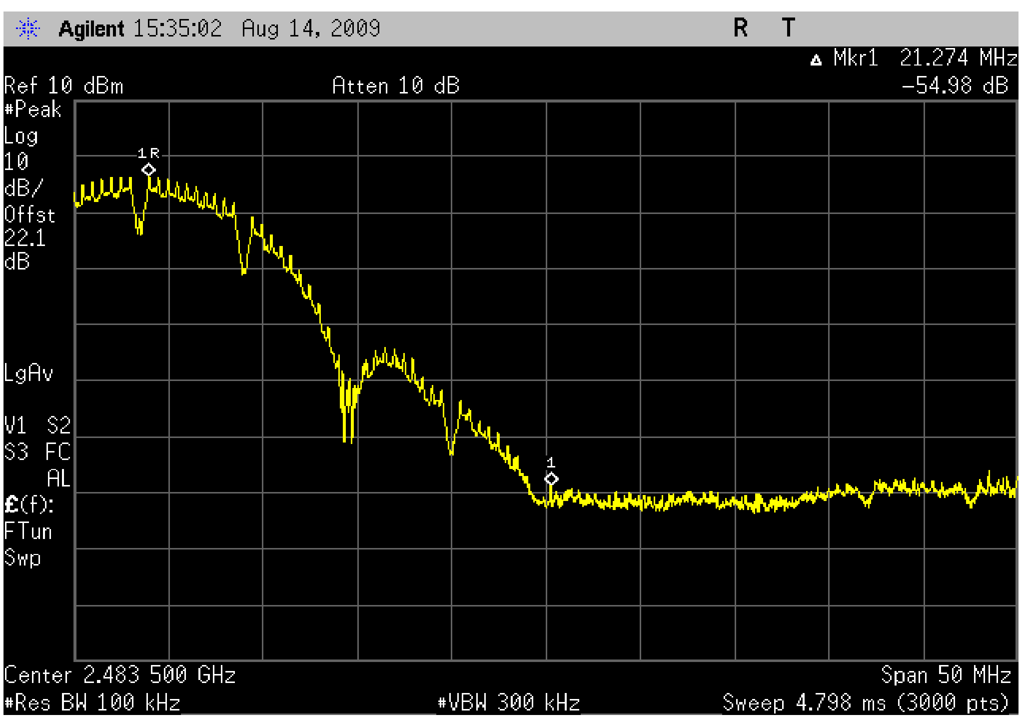
		Value	**Limit**	**Results**
802.11(b) 1 Mbps				
	Low Channel	-29.74 dBc	≤ -20 dBc	Pass
	High Channel	-54.98 dBc	≤ -20 dBc	Pass
802.11(b) 11 Mbps				
	Low Channel	-29.35 dBc	≤ -20 dBc	Pass
	High Channel	-55.78 dBc	≤ -20 dBc	Pass

BAND EDGE COMPLIANCE

802.11(b) 1 Mbps, Low Channel					
Result:	Pass	**Value:**	-29.74 dBc	**Limit:**	≤ -20 dBc

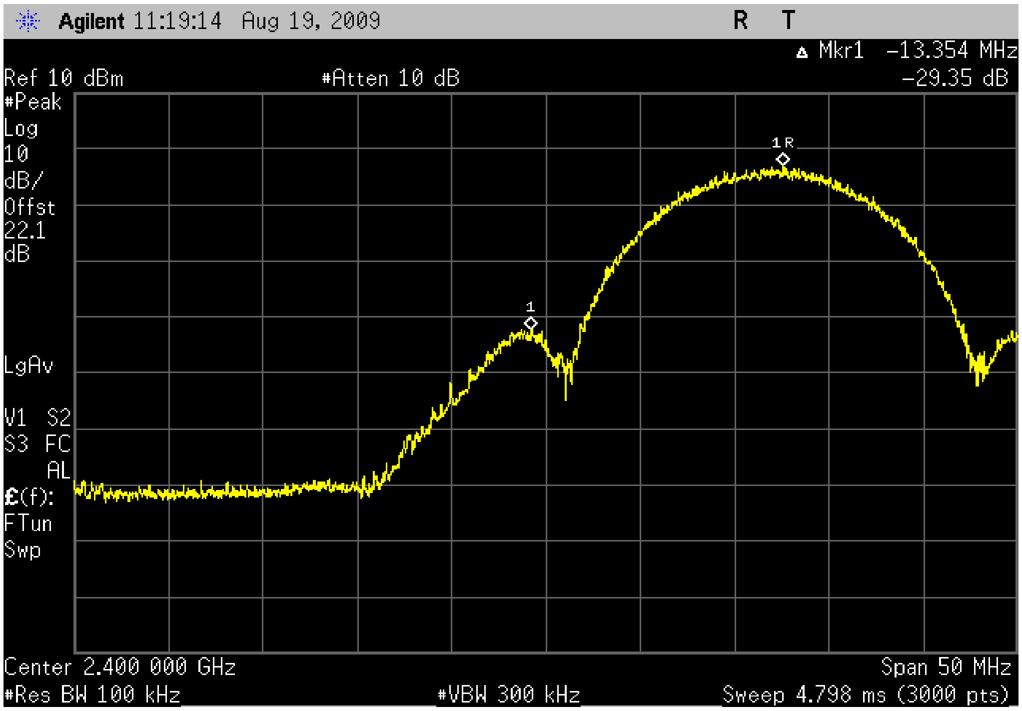


802.11(b) 1 Mbps, High Channel					
Result:	Pass	**Value:**	-54.98 dBc	**Limit:**	≤ -20 dBc

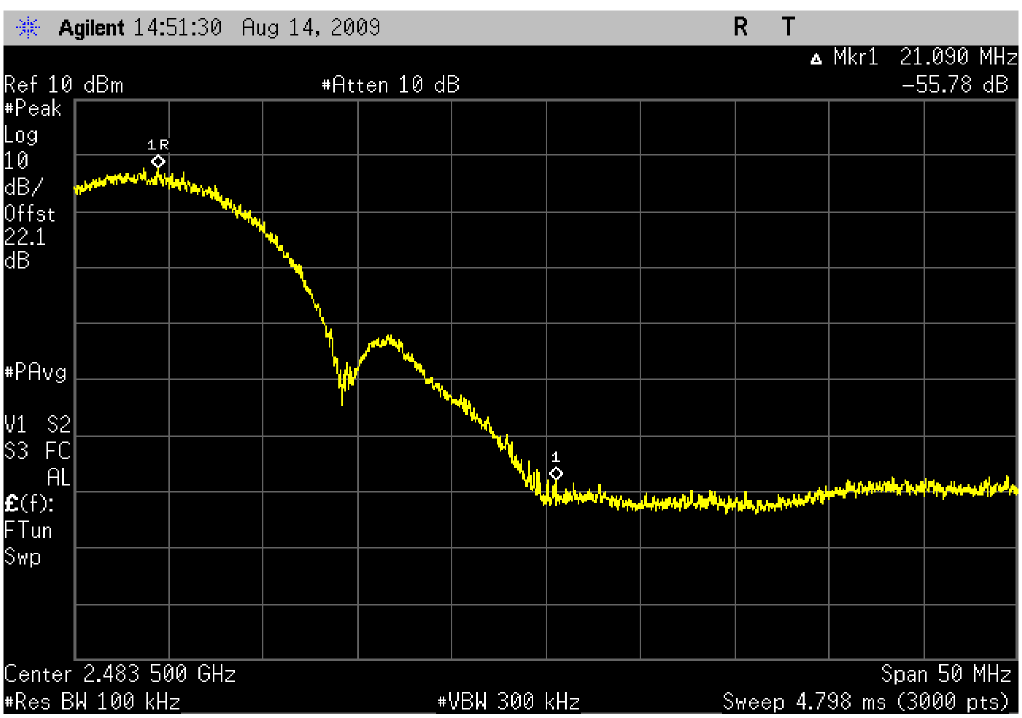


BAND EDGE COMPLIANCE

802.11(b) 11 Mbps, Low Channel					
Result:	Pass	**Value:**	-29.35 dBc	**Limit:**	≤ -20 dBc



802.11(b) 11 Mbps, High Channel					
Result:	Pass	**Value:**	-55.78 dBc	**Limit:**	≤ -20 dBc



SPURIOUS CONDUCTED 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	E4440A	AFD	6/1/2009	13
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/21/2009	13
Power Meter	Gigatronics	8651A	SPM	12/10/2008	13
Power Sensor	Gigatronics	80701A	SPL	12/10/2008	13
Signal Generator	Hewlett-Packard	8648D	TGC	12/9/2008	13

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are 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

XMit 2009.03.05

EUT:	**Clane**			**Work Order:**	**INTE5170**
Serial Number:	**Unknown**			**Date:**	**08/14/09**
Customer:	**Intel Corporation**			**Temperature:**	**24°C**
Attendees:	**Bob Hughes**			**Humidity:**	**48%**
Project:	**None**			**Barometric Pres.:**	**30.06 in**
Tested by:	**Rod Peloquin**	**Power:**	**Battery**	**Job Site:**	**EV06**

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2009	ANSI C63.4:2003 KDB No. 558074

COMMENTS

Standalone radio module.

DEVIATIONS FROM TEST STANDARD

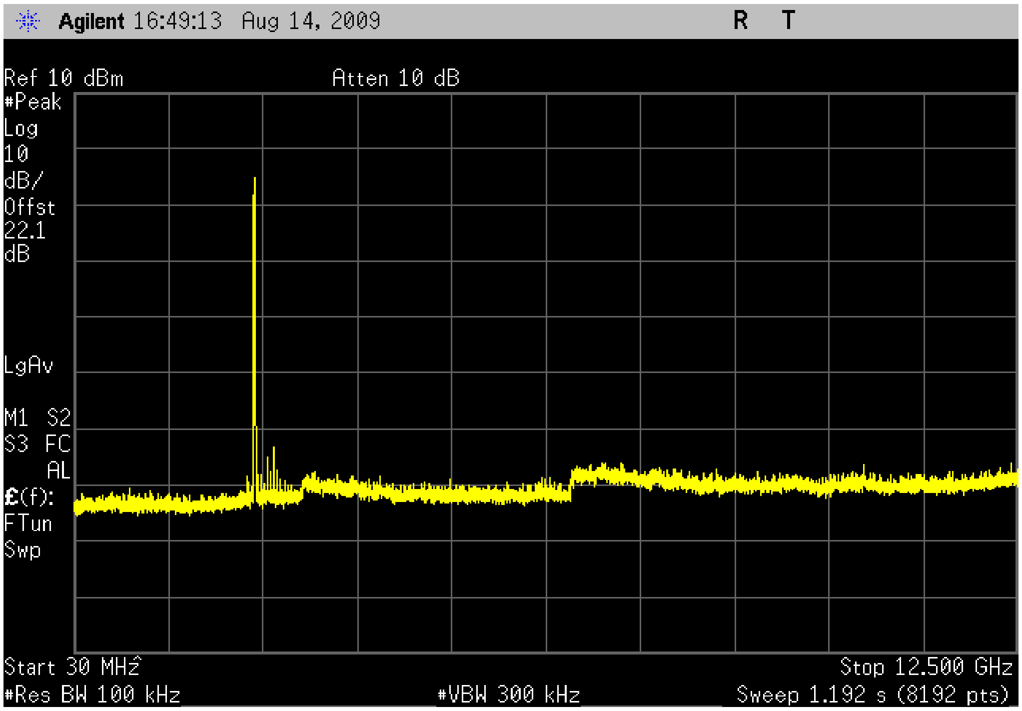
No Deviations

Configuration #	**1**	*Signature*

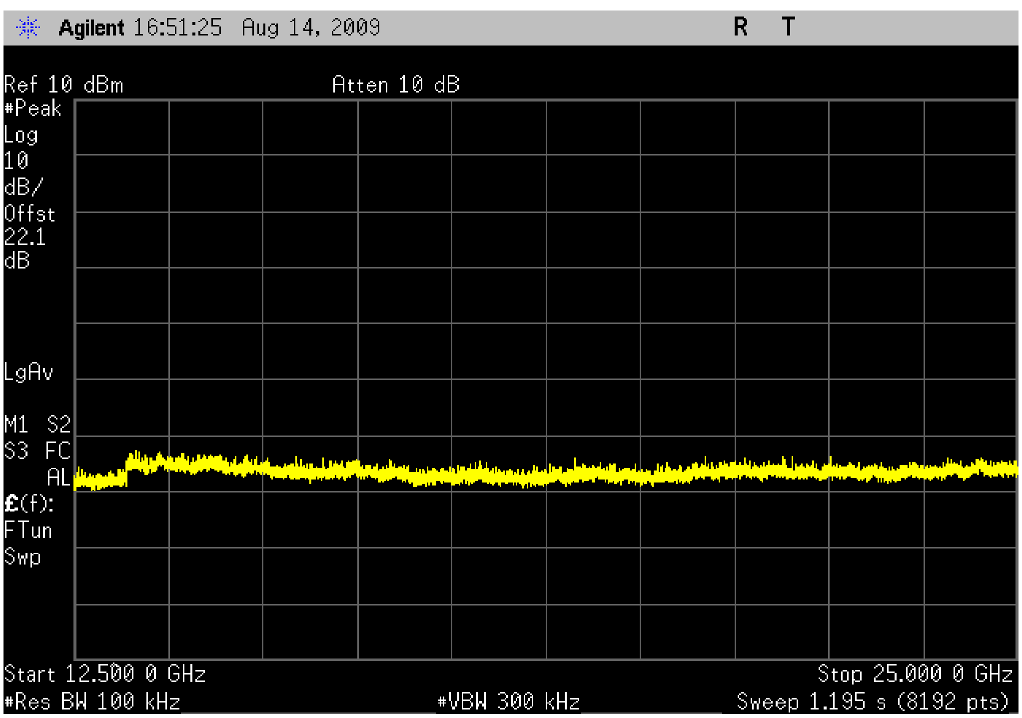
			Value	Limit	Results
802.11(b) 1 Mbps					
	Low Channel				
		30 MHz - 12.5 GHz	< -40 dBc	≤ - 20 dBc	Pass
		12.5 GHz - 25 GHz	< -40 dBc	≤ - 20 dBc	Pass
	Mid Channel				
		30 MHz - 12.5 GHz	< -40 dBc	≤ - 20 dBc	Pass
		12.5 GHz - 25 GHz	< -40 dBc	≤ - 20 dBc	Pass
	High Channel				
		30 MHz - 12.5 GHz	< -40 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

SPURIOUS CONDUCTED EMISSIONS

802.11(b) 1 Mbps, Low Channel, 30 MHz - 12.5 GHz					
Result:	Pass	**Value:**	< -40 dBc	**Limit:**	≤ - 20 dBc



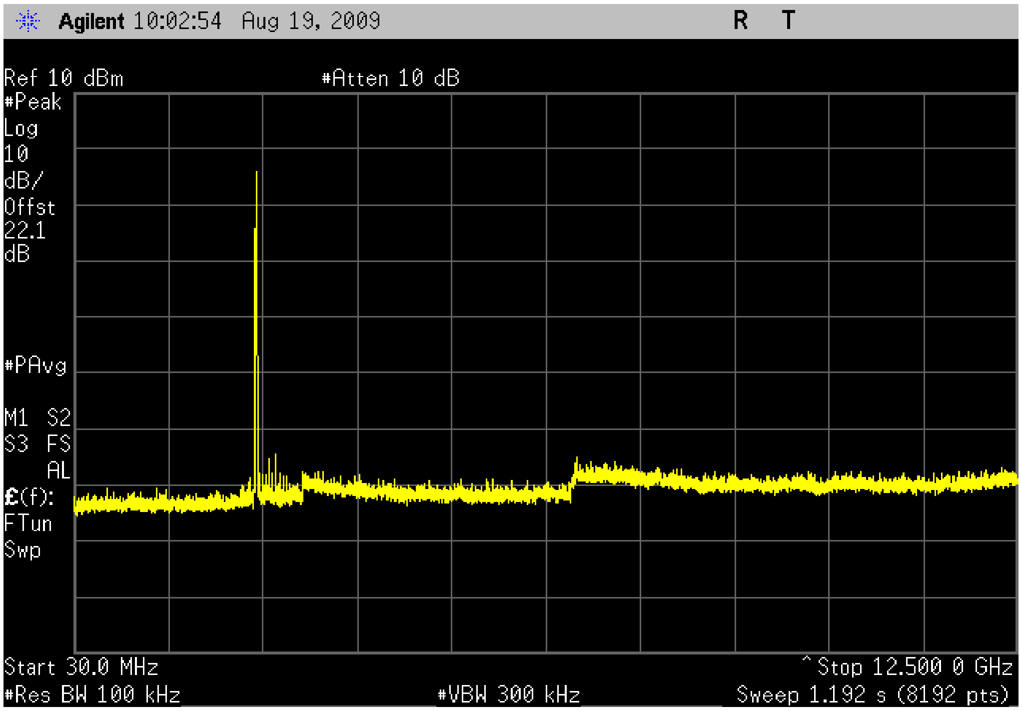
802.11(b) 1 Mbps, Low Channel, 12.5 GHz - 25 GHz					
Result:	Pass	**Value:**	< -40 dBc	**Limit:**	≤ - 20 dBc



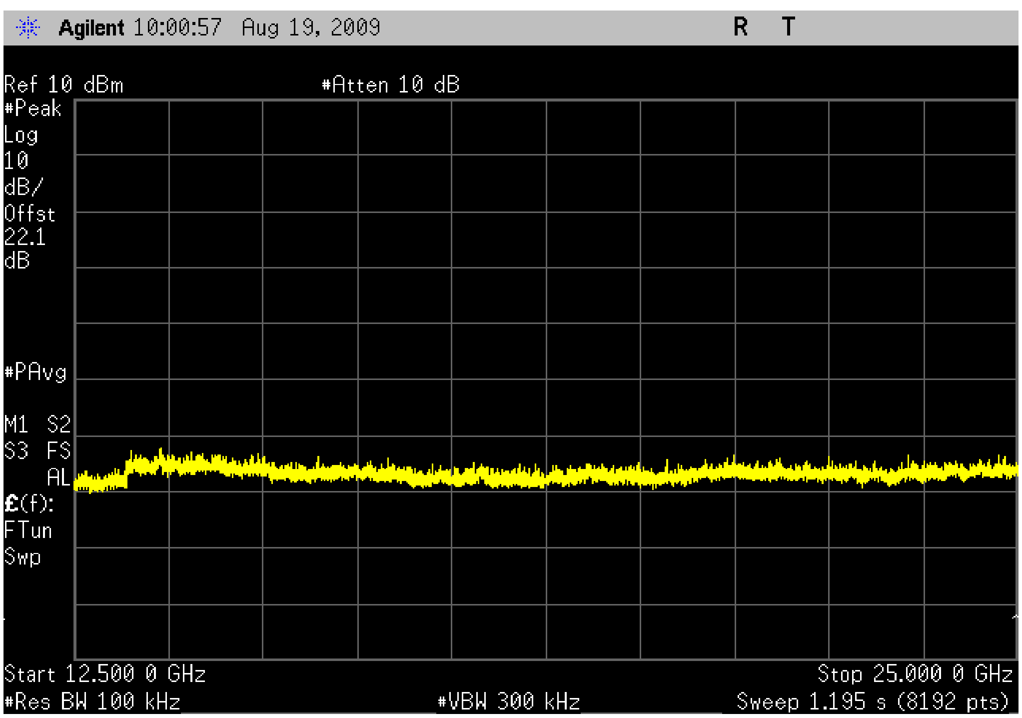
XMit 2009.03.05

SPURIOUS CONDUCTED EMISSIONS

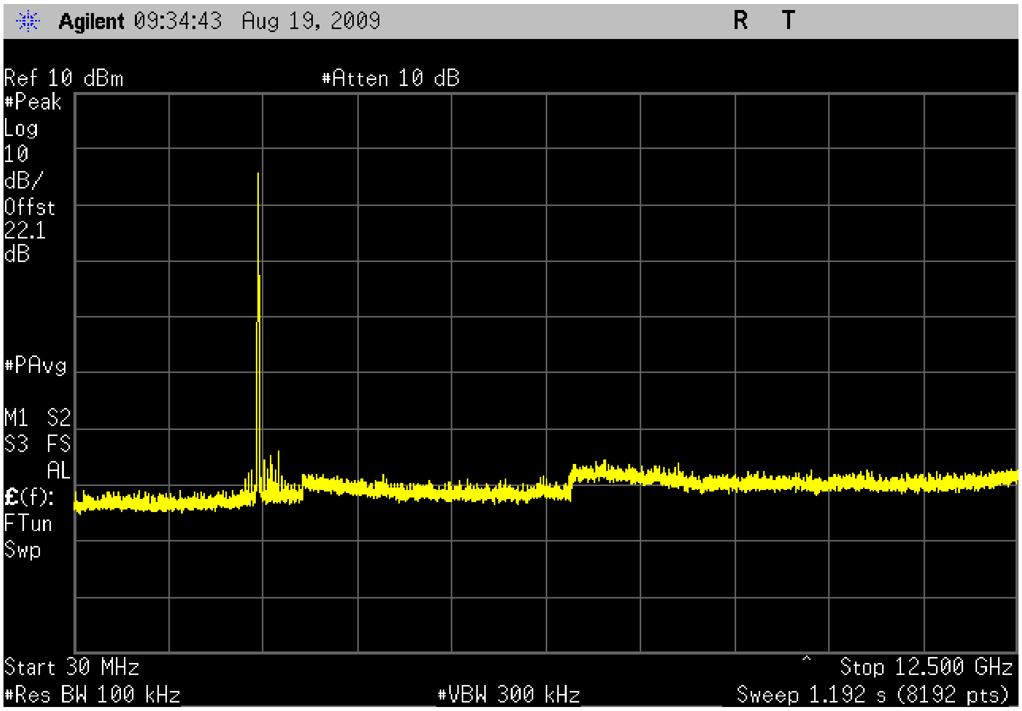
802.11(b) 1 Mbps, Mid Channel, 30 MHz - 12.5 GHz					
Result:	Pass	**Value:**	< -40 dBc	**Limit:**	≤ - 20 dBc



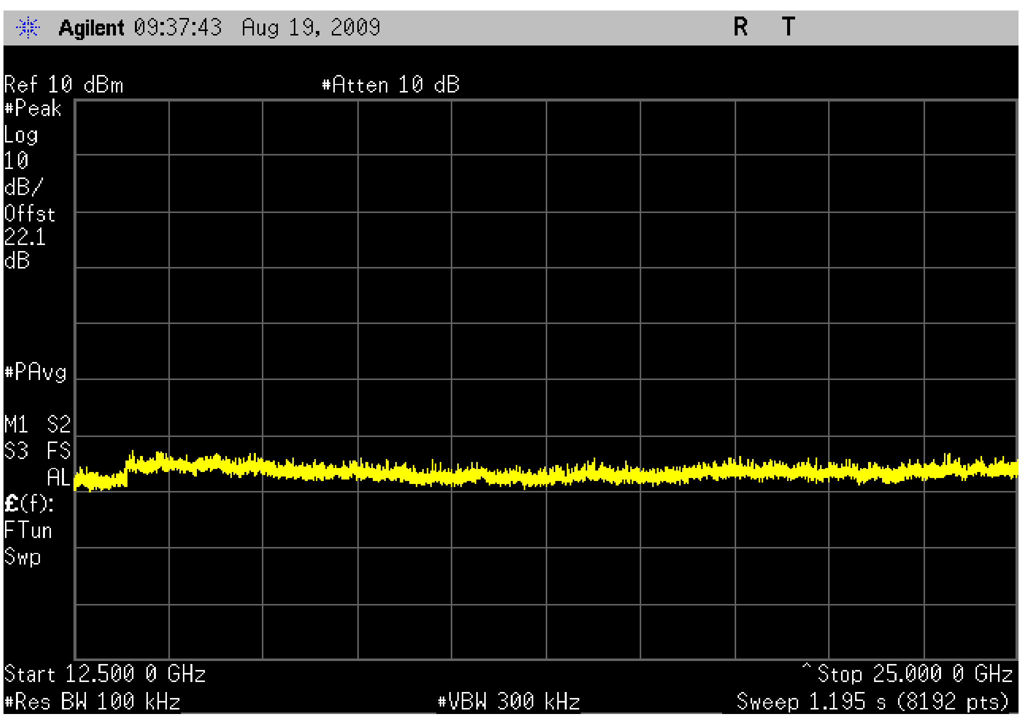
802.11(b) 1 Mbps, Mid Channel, 12.5 GHz - 25 GHz					
Result:	Pass	**Value:**	< -40 dBc	**Limit:**	≤ - 20 dBc



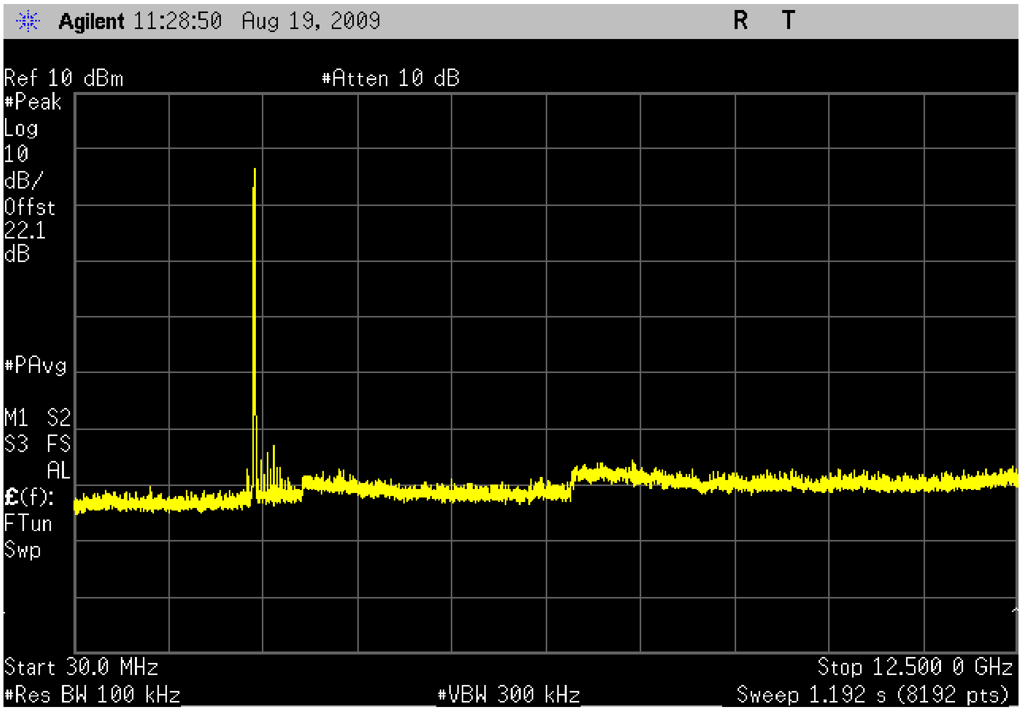
802.11(b) 1 Mbps, High Channel, 30 MHz - 12.5 GHz					
Result:	Pass	**Value:**	< -40 dBc	**Limit:**	≤ - 20 dBc



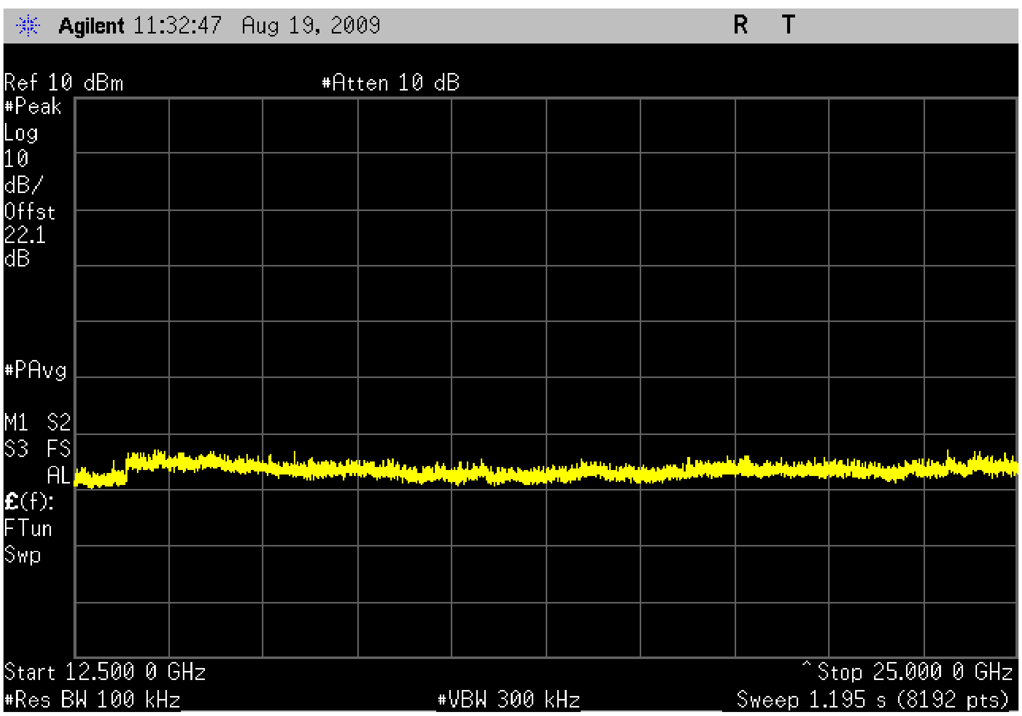
802.11(b) 1 Mbps, High Channel, 12.5 GHz - 25 GHz					
Result:	Pass	**Value:**	< -40 dBc	**Limit:**	≤ - 20 dBc



802.11(b) 11 Mbps, Low Channel, 30 MHz - 12.5 GHz					
Result:	Pass	**Value:**	< -40 dBc	**Limit:**	≤ - 20 dBc

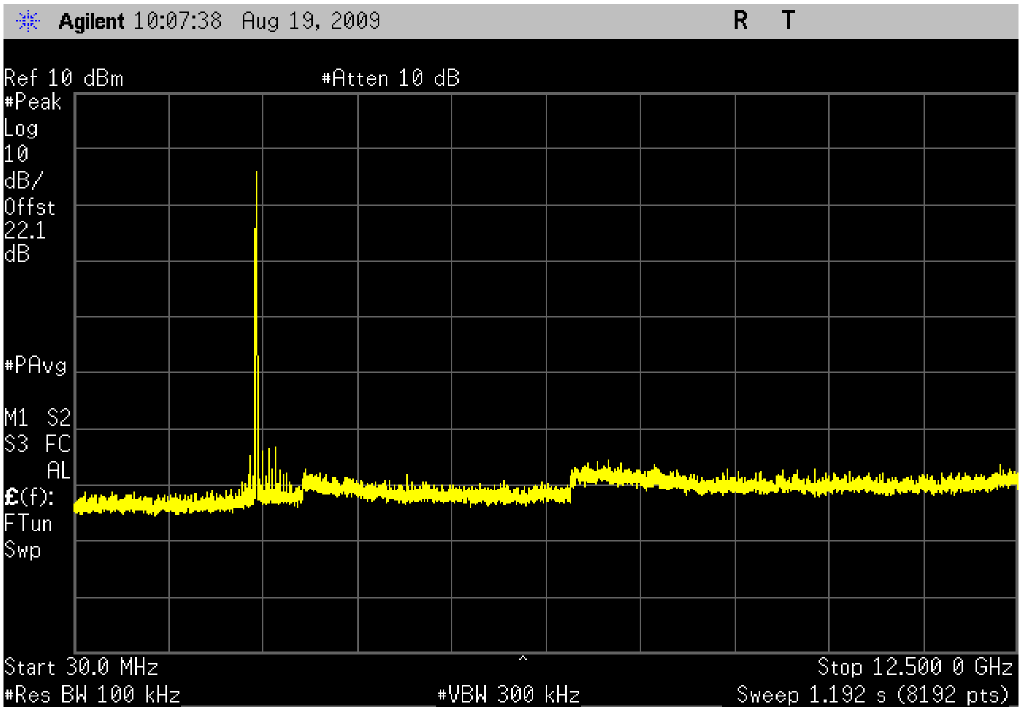


802.11(b) 11 Mbps, Low Channel, 12.5 GHz - 25 GHz					
Result:	Pass	**Value:**	< -40 dBc	**Limit:**	≤ - 20 dBc

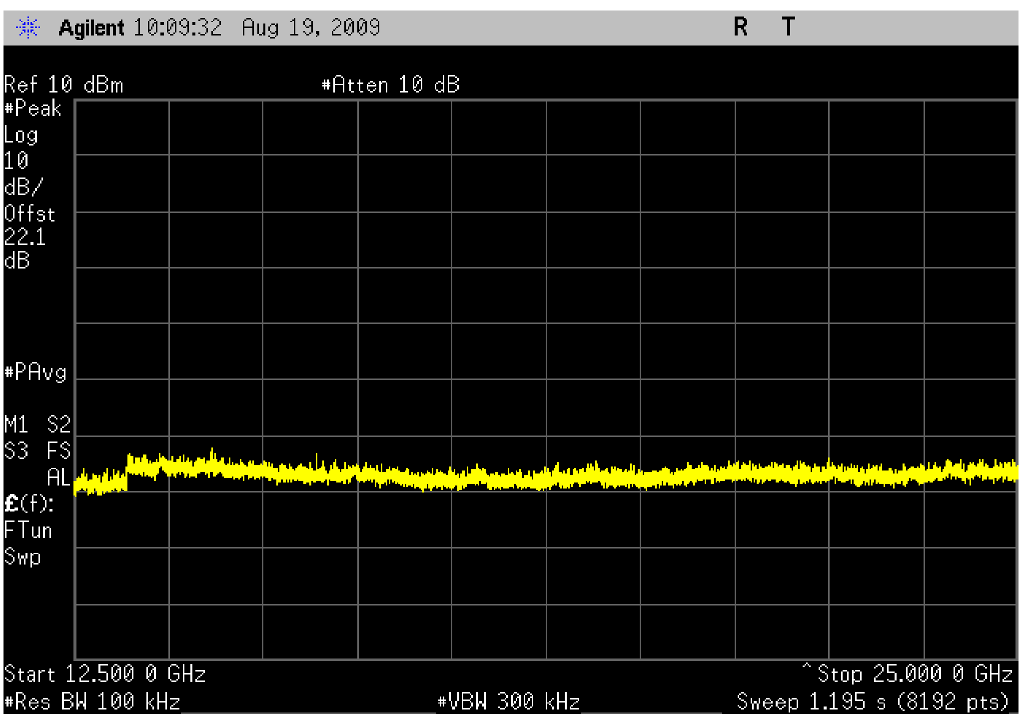


SPURIOUS CONDUCTED EMISSIONS

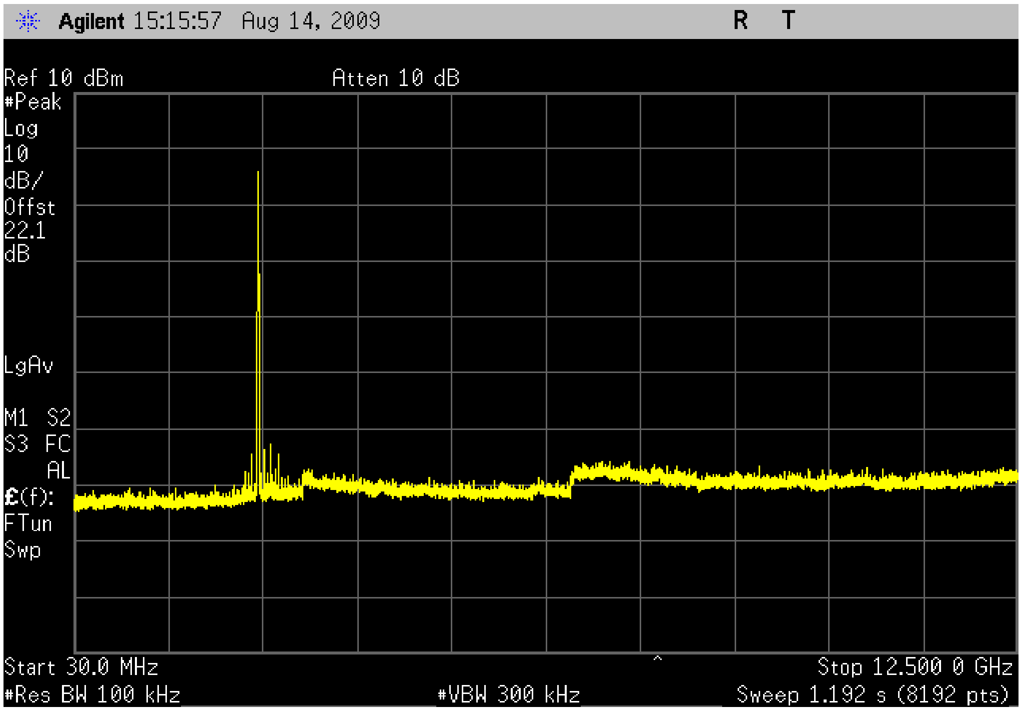
802.11(b) 11 Mbps, Mid Channel, 30 MHz - 12.5 GHz					
Result:	Pass	**Value:**	< -40 dBc	**Limit:**	≤ - 20 dBc



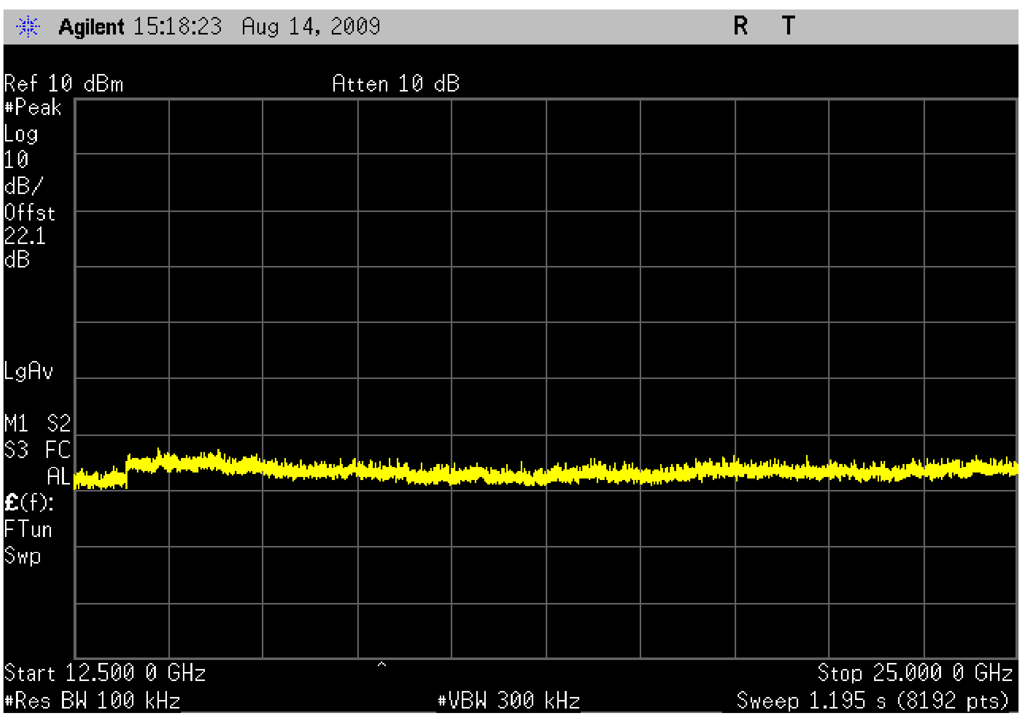
802.11(b) 11 Mbps, Mid Channel, 12.5 GHz - 25 GHz					
Result:	Pass	**Value:**	< -40 dBc	**Limit:**	≤ - 20 dBc



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



POWER SPECTRAL DENSITY

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	E4440A	AFD	6/1/2009	13
Attenuator 20 dB, SMA M/F 26GHz	S.M. Electronics	SA26B-20	AUY	7/21/2009	13
Power Meter	Gigatronics	8651A	SPM	12/10/2008	13
Power Sensor	Gigatronics	80701A	SPL	12/10/2008	13
Signal Generator	Hewlett-Packard	8648D	TGC	12/9/2008	13

MEASUREMENT UNCERTAINTY

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty for radiated emissions measurements is less than +/- 4 dB, and for conducted emissions measurements is less than +/- 2.7 dB. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for measurement uncertainty are available upon request.

TEST DESCRIPTION

The peak power spectral density measurements were measured with the EUT set to low, mid, 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 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 x $10^6 \div 3 \times 10^3$ = 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 35 dB for correction to 3 kHz.”

NORTHWEST
EMC

POWER SPECTRAL DENSITY

XMit 2009.03.05

EUT:	**Clane**			**Work Order:**	**INTE5170**
Serial Number:	**Unknown**			**Date:**	**08/14/09**
Customer:	**Intel Corporation**			**Temperature:**	**24°C**
Attendees:	**Bob Hughes**			**Humidity:**	**48%**
Project:	**None**			**Barometric Pres.:**	**30.06 in**
Tested by:	**Rod Peloquin**	**Power:**	**Battery**	**Job Site:**	**EV06**

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2009	ANSI C63.4:2003 KDB No. 558074

COMMENTS

Standalone radio module.

DEVIATIONS FROM TEST STANDARD

No Deviations

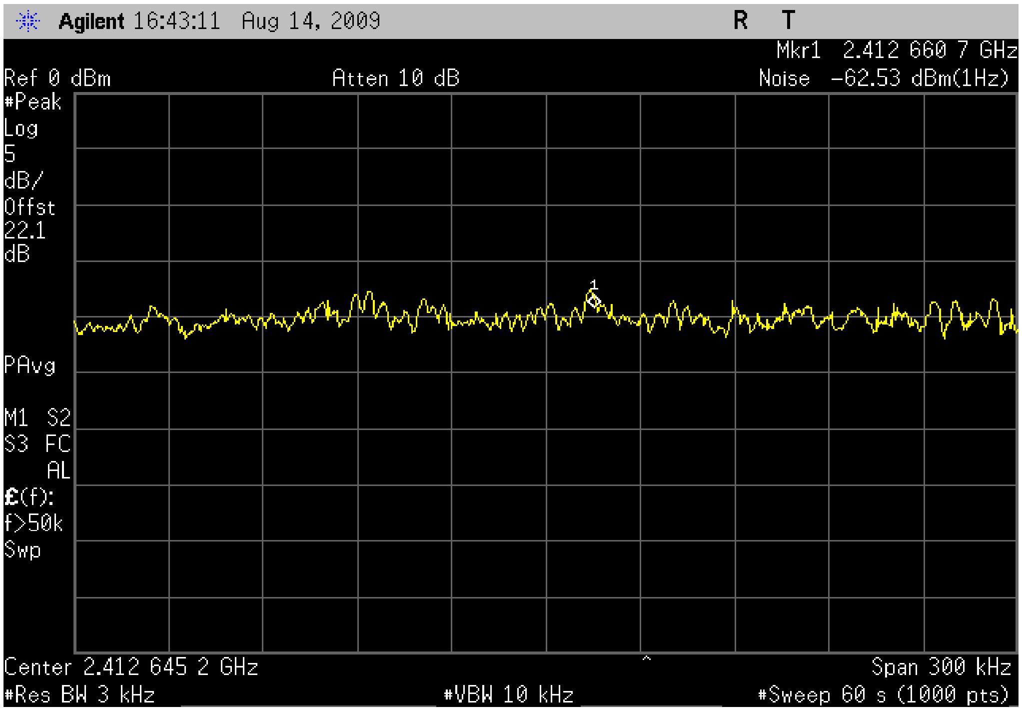
Configuration # **1**

Signature

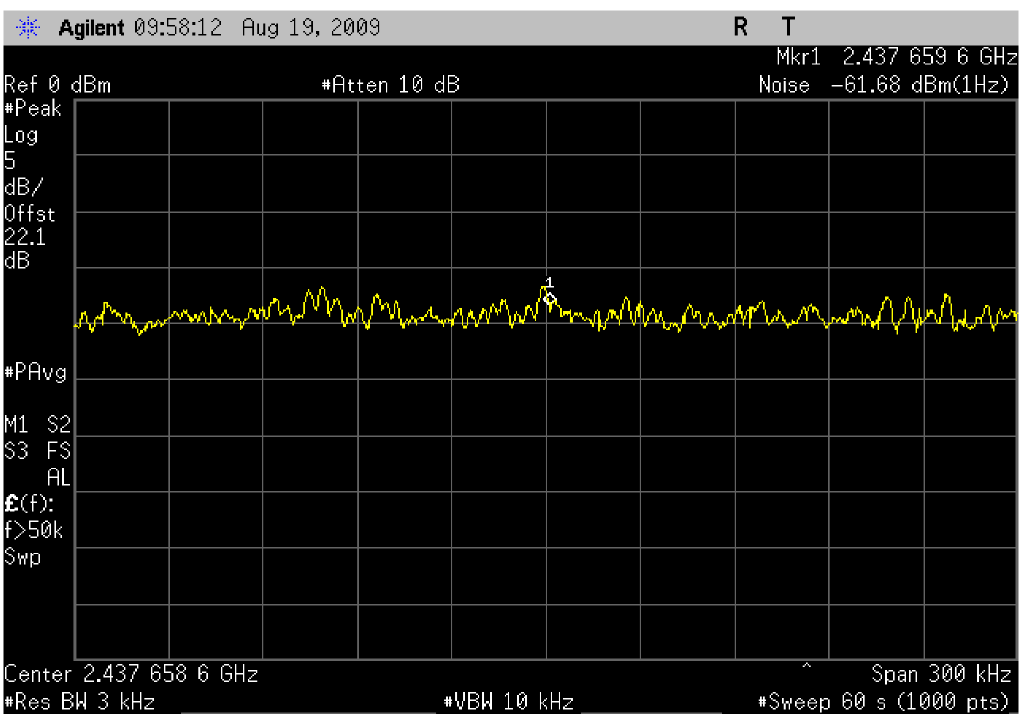
		Value	Limit	Results
802.11(b) 1 Mbps				
	Low Channel	-27.7 dBm / 3 kHz	8 dBm / 3 kHz	Pass
	Mid Channel	-26.9 dBm / 3 kHz	8 dBm / 3 kHz	Pass
	High Channel	-25.8 dBm / 3 kHz	8 dBm / 3 kHz	Pass
802.11(b) 11 Mbps				
	Low Channel	-26.8 dBm / 3 kHz	8 dBm / 3 kHz	Pass
	Mid Channel	-26.7 dBm / 3 kHz	8 dBm / 3 kHz	Pass
	High Channel	-26.3 dBm / 3 kHz	8 dBm / 3 kHz	Pass

POWER SPECTRAL DENSITY

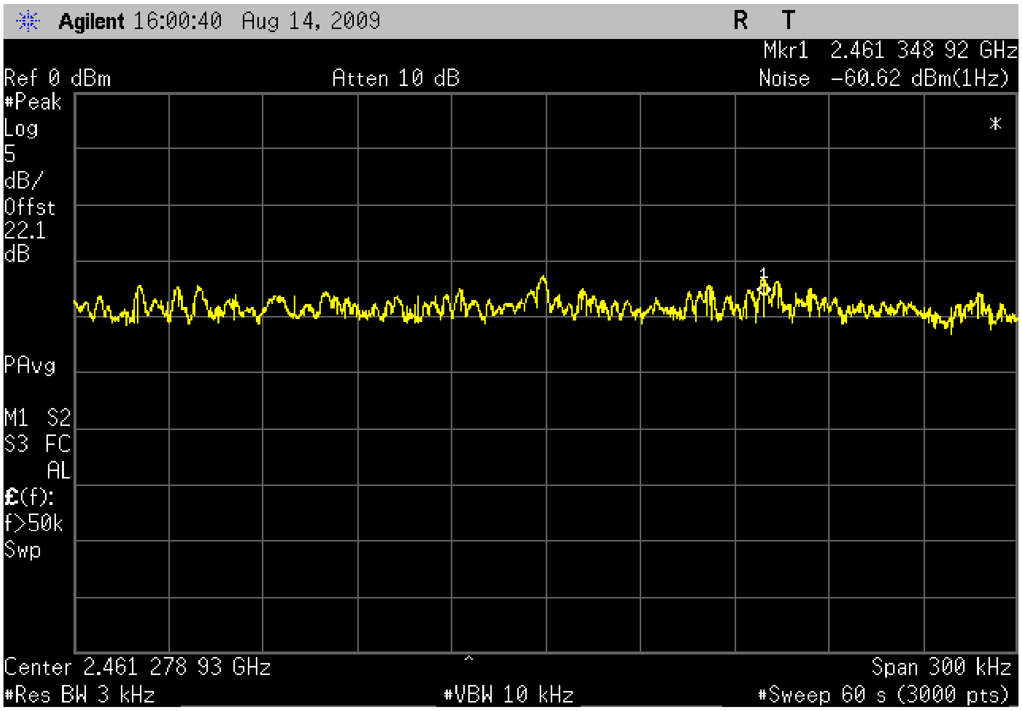
802.11(b) 1 Mbps, Low Channel					
Result:	Pass	**Value:**	-27.7 dBm / 3 kHz	**Limit:**	8 dBm / 3 kHz



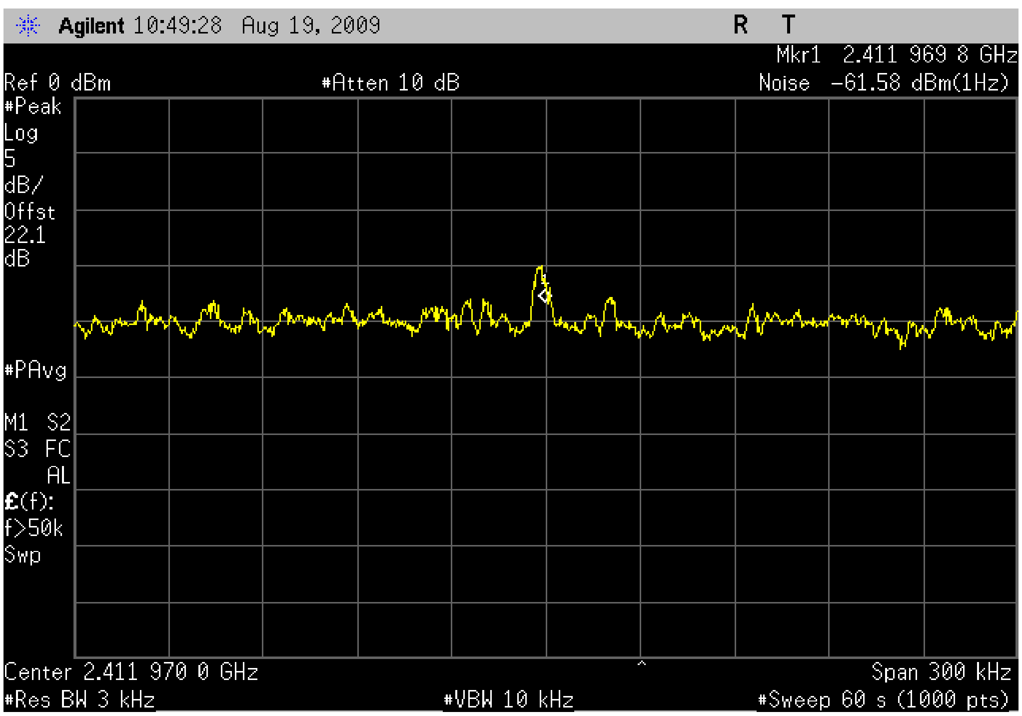
802.11(b) 1 Mbps, Mid Channel					
Result:	Pass	**Value:**	-26.9 dBm / 3 kHz	**Limit:**	8 dBm / 3 kHz



802.11(b) 1 Mbps, High Channel					
Result:	Pass	**Value:**	-25.8 dBm / 3 kHz	**Limit:**	8 dBm / 3 kHz

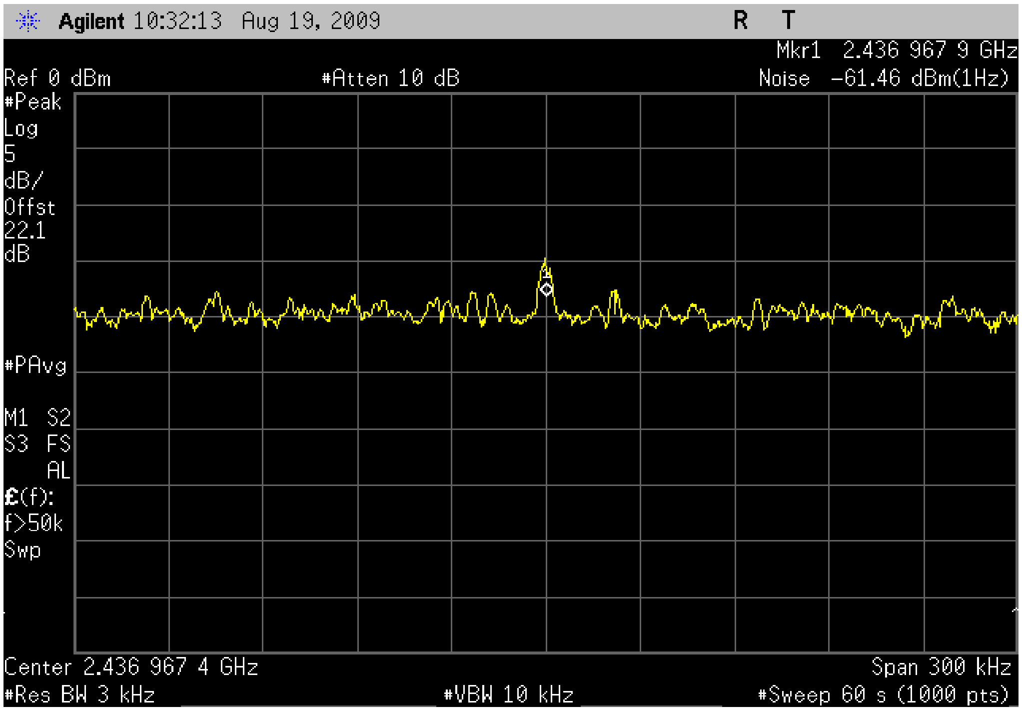


802.11(b) 11 Mbps, Low Channel					
Result:	Pass	**Value:**	-26.8 dBm / 3 kHz	**Limit:**	8 dBm / 3 kHz

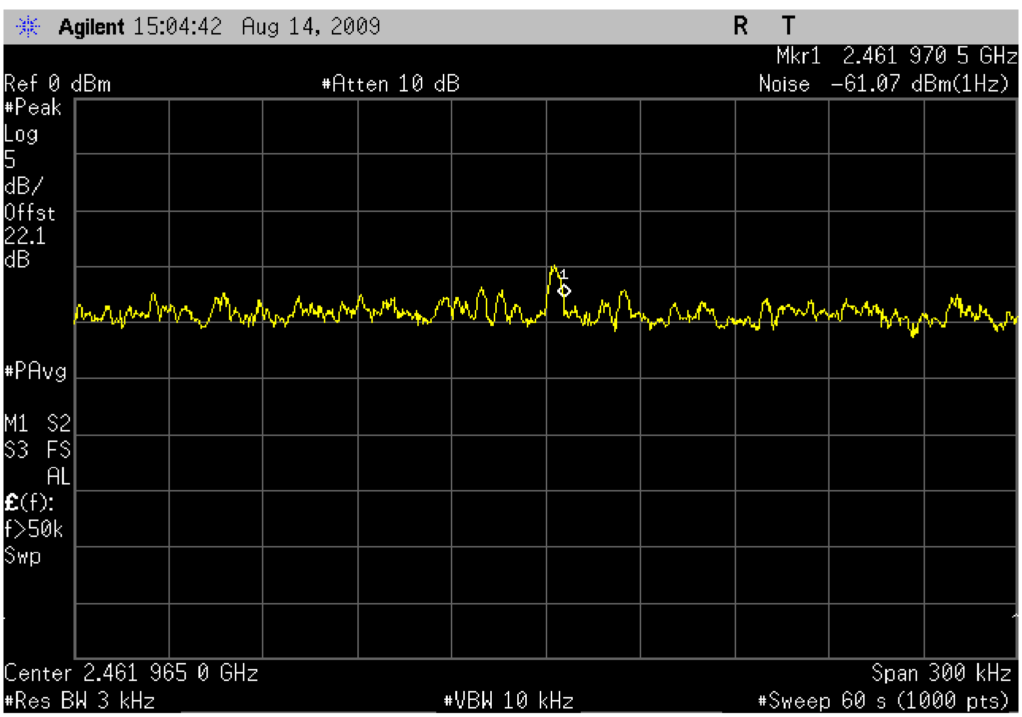


POWER SPECTRAL DENSITY

802.11(b) 11 Mbps, Mid Channel					
Result:	Pass	**Value:**	-26.7 dBm / 3 kHz	**Limit:**	8 dBm / 3 kHz



802.11(b) 11 Mbps, High Channel					
Result:	Pass	**Value:**	-26.3 dBm / 3 kHz	**Limit:**	8 dBm / 3 kHz



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.

MODES OF OPERATION
Transmitting 11 Mbps, high channel
Transmitting 1 Mbps, low channel
Transmitting 1 Mbps, mid channel
Transmitting 1 Mbps, high channel

POWER SETTINGS INVESTIGATED
Battery

FREQUENCY RANGE INVESTIGATED			
Start Frequency	30MHz	Stop Frequency	26GHz

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
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	ETS	3160-09	AHG	NCR	0
EV01 Cables		Standard Gain Horns Cables	EVF	11/13/2008	13
Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVD	7/10/2009	13
Antenna, Horn	ETS	3160-08	AHV	NCR	0
Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVC	7/10/2009	13
Antenna, Horn	ETS	3160-07	AHU	NCR	0
High Pass Filter	Micro-Tronics	HPM50111	HFO	7/10/2009	13
EV01 Cables		Double Ridge Horn Cables	EVB	7/10/2009	13
Pre-Amplifier	Miteq	AMF-4D-010100-24-10P	APW	7/10/2009	13
Antenna, Horn	EMCO	3115	AHC	8/12/2008	24
EV01 Cables		Bilog Cables	EVA	7/10/2009	13
Pre-Amplifier	Miteq	AM-1616-1000	AOL	7/10/2009	13
Antenna, Biconilog	EMCO	3141	AXE	1/15/2008	24
Spectrum Analyzer	Agilent	E4446A	AAY	12/11/2008	13

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

A measurement uncertainty estimation has been performed for each test per our internal quality document WP 342. The estimation is used to compare the measured result with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. The measurement uncertainty estimation 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.

NORTHWEST
EMC

Spurious Radiated Emissions

PSA 2008.07.21
EMI 2009.4.13

EUT:	**Clane**			**Work Order:**	**INTE5170**
Serial Number:	**15**			**Date:**	**08/18/09**
Customer:	**Intel Corporation**			**Temperature:**	**24**
Attendees:	**Bob Hughes**			**Humidity:**	**48%**
Project:	**None**			**Barometric Pres.:**	**30.06**
Tested by:	**Jennifer Herrett**	**Power:**	**Battery**	**Job Site:**	**EV01**

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2009	ANSI C63.4:2003, KDB No. 558074

TEST PARAMETERS

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

COMMENTS

Tx Power = 10dBm. Standalone configuration.

EUT OPERATING MODES

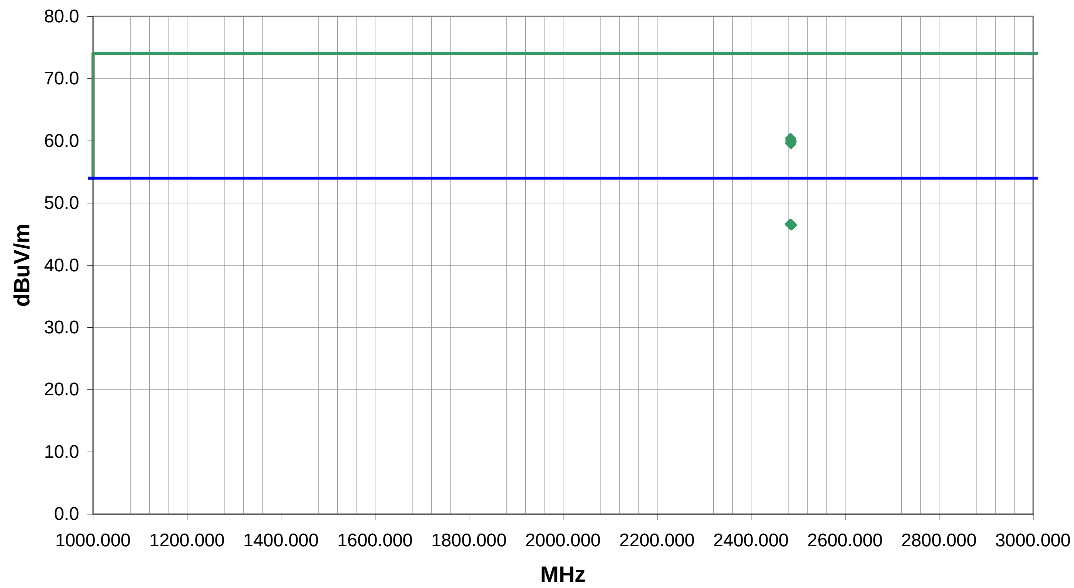
Transmitting 1 Mbps, high channel

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	**10**
Configuration #	**8**
Results	**Pass**

Signature Jennifer Herrett



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
2482.823	24.1	2.5	245.0	1.7	3.0	20.0	H-Horn	AV	0.0	46.6	54.0	-7.4	EUT horizontal.
2484.780	24.0	2.5	293.0	1.0	3.0	20.0	H-Horn	AV	0.0	46.5	54.0	-7.5	EUT on side.
2485.160	24.0	2.5	7.0	1.0	3.0	20.0	H-Horn	AV	0.0	46.5	54.0	-7.5	EUT vertical.
2485.350	24.0	2.5	321.0	1.0	3.0	20.0	V-Horn	AV	0.0	46.5	54.0	-7.5	EUT on side.
2486.107	24.0	2.5	58.0	1.0	3.0	20.0	V-Horn	AV	0.0	46.5	54.0	-7.5	EUT horizontal.
2486.340	24.0	2.5	162.0	1.0	3.0	20.0	V-Horn	AV	0.0	46.5	54.0	-7.5	EUT vertical.
2483.637	37.9	2.5	293.0	1.0	3.0	20.0	H-Horn	PK	0.0	60.4	74.0	-13.6	EUT on side.
2484.767	37.6	2.5	321.0	1.0	3.0	20.0	V-Horn	PK	0.0	60.1	74.0	-13.9	EUT on side.
2483.867	37.5	2.5	245.0	1.7	3.0	20.0	H-Horn	PK	0.0	60.0	74.0	-14.0	EUT horizontal.
2485.393	37.4	2.5	162.0	1.0	3.0	20.0	V-Horn	PK	0.0	59.9	74.0	-14.1	EUT vertical.
2483.710	37.1	2.5	58.0	1.0	3.0	20.0	V-Horn	PK	0.0	59.6	74.0	-14.4	EUT horizontal.
2484.633	37.0	2.5	7.0	1.0	3.0	20.0	H-Horn	PK	0.0	59.5	74.0	-14.5	EUT vertical.

NORTHWEST
EMC

Spurious Radiated Emissions

PSA 2008.07.21
EMI 2009.4.13

EUT:	Clane			Work Order:	INTE5170
Serial Number:	15			Date:	08/18/09
Customer:	Intel Corporation			Temperature:	24
Attendees:	Bob Hughes			Humidity:	48%
Project:	None			Barometric Pres.:	30.06 in
Tested by:	Jennifer Herrett	Power:	Battery	Job Site:	EV01

TEST SPECIFICATIONS | Test Method

FCC 15.247 (DTS):2009 | ANSI C63.4:2003, KDB No. 558074

TEST PARAMETERS

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

COMMENTS

Tx Power = 10dBm. Standalone configuration.

EUT OPERATING MODES

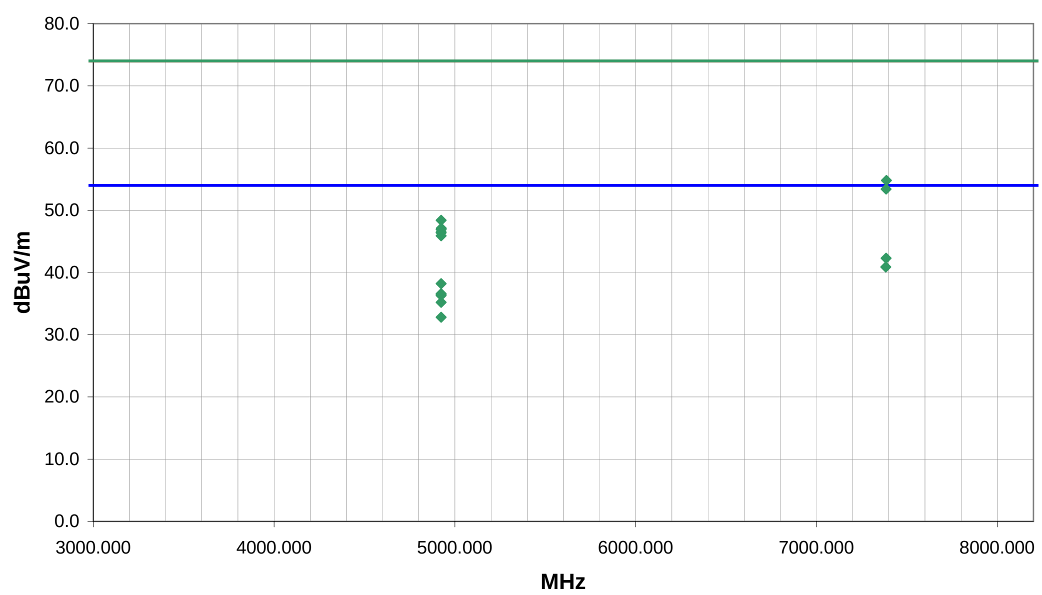
Transmitting 1 Mbps, high channel

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	11
Configuration #	8
Results	Pass

Jennifer Herrett
Signature



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
7385.025	26.2	16.1	34.0	1.0	3.0	0.0	H-Horn	AV	0.0	42.3	54.0	-11.7	EUT on side.
7383.608	24.8	16.1	246.0	1.8	3.0	0.0	V-Horn	AV	0.0	40.9	54.0	-13.1	EUTvertical.
4924.058	28.7	9.5	13.0	1.9	3.0	0.0	V-Horn	AV	0.0	38.2	54.0	-15.8	EUTvertical.
4924.042	27.1	9.5	140.0	1.0	3.0	0.0	H-Horn	AV	0.0	36.6	54.0	-17.4	EUTon side.
4924.042	27.0	9.5	84.0	1.0	3.0	0.0	H-Horn	AV	0.0	36.5	54.0	-17.5	EUT horizontal.
4924.017	26.8	9.5	140.0	1.0	3.0	0.0	H-Horn	AV	0.0	36.3	54.0	-17.7	EUTvertical.
4924.033	25.7	9.5	139.0	1.9	3.0	0.0	V-Horn	AV	0.0	35.2	54.0	-18.8	EUTon side.
7386.975	38.7	16.1	34.0	1.0	3.0	0.0	H-Horn	PK	0.0	54.8	74.0	-19.2	EUT on side.
7384.717	37.3	16.1	246.0	1.8	3.0	0.0	V-Horn	PK	0.0	53.4	74.0	-20.6	EUTvertical.
4923.863	23.3	9.5	0.0	1.9	3.0	0.0	V-Horn	AV	0.0	32.8	54.0	-21.2	EUT horizontal.
4924.042	38.9	9.5	13.0	1.9	3.0	0.0	V-Horn	PK	0.0	48.4	74.0	-25.6	EUTvertical.
4924.342	37.6	9.5	84.0	1.0	3.0	0.0	H-Horn	PK	0.0	47.1	74.0	-26.9	EUT horizontal.
4924.042	37.4	9.5	139.0	1.9	3.0	0.0	V-Horn	PK	0.0	46.9	74.0	-27.1	EUTon side.
4923.992	37.0	9.5	140.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.5	74.0	-27.5	EUTvertical.
4924.033	36.9	9.5	140.0	1.0	3.0	0.0	H-Horn	PK	0.0	46.4	74.0	-27.6	EUTon side.
4924.317	36.4	9.5	0.0	1.9	3.0	0.0	V-Horn	PK	0.0	45.9	74.0	-28.1	EUT horizontal.

NORTHWEST
EMC

Spurious Radiated Emissions

PSA 2008.07.21
EMI 2009.4.13

EUT:	**Clane**			**Work Order:**	**INTE5170**
Serial Number:	**7**			**Date:**	**08/18/09**
Customer:	**Intel Corporation**			**Temperature:**	**24**
Attendees:	**None**			**Humidity:**	**48%**
Project:	**None**			**Barometric Pres.:**	**30.06 in**
Tested by:	**Jennifer Herrett**	**Power:**	**Battery**	**Job Site:**	**EV01**

TEST SPECIFICATIONS | Test Method

FCC 15.247 (DTS):2009 | ANSI C63.4:2003, KDB No. 558074

TEST PARAMETERS

Antenna Height(s) (m) 1 - 4 | **Test Distance (m)** 3

COMMENTS

Tx Power = 10dBm. Standalone configuration.

EUT OPERATING MODES

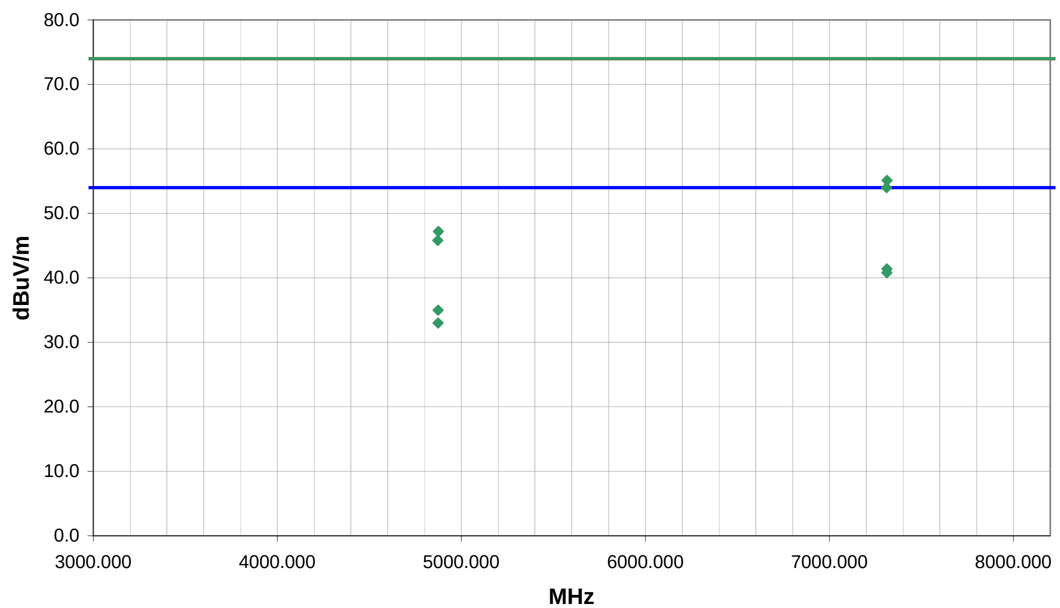
Transmitting 1 Mbps, mid channel

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	**12**
Configuration #	**9**
Results	**Pass**

Signature Jennifer Herrett



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
7311.975	25.5	15.9	342.0	1.0	3.0	0.0	H-Horn	AV	0.0	41.4	54.0	-12.6	EUT on side.
7312.342	25.0	15.8	349.0	1.0	3.0	0.0	V-Horn	AV	0.0	40.8	54.0	-13.2	EUT vertical.
7312.917	39.2	15.9	349.0	1.0	3.0	0.0	V-Horn	PK	0.0	55.1	74.0	-18.9	EUT vertical.
4874.000	25.7	9.3	349.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.0	54.0	-19.0	EUT vertical.
7310.150	38.1	15.9	342.0	1.0	3.0	0.0	H-Horn	PK	0.0	54.0	74.0	-20.0	EUT on side.
4874.017	23.7	9.3	114.0	2.6	3.0	0.0	H-Horn	AV	0.0	33.0	54.0	-21.0	EUT on side.
4874.983	37.9	9.3	349.0	1.0	3.0	0.0	V-Horn	PK	0.0	47.2	74.0	-26.8	EUT vertical.
4871.550	36.5	9.3	114.0	2.6	3.0	0.0	H-Horn	PK	0.0	45.8	74.0	-28.2	EUT on side.

NORTHWEST
EMC

Spurious Radiated Emissions

PSA 2008.07.21
EMI 2009.4.13

EUT:	Clane			**Work Order:**	INTE5170
Serial Number:	2			**Date:**	08/18/09
Customer:	Intel Corporation			**Temperature:**	24
Attendees:	None			**Humidity:**	48%
Project:	None			**Barometric Pres.:**	30.06 in
Tested by:	Jennifer Herrett	**Power:**	Battery	**Job Site:**	EV01

TEST SPECIFICATIONS | Test Method

FCC 15.247 (DTS):2009 | ANSI C63.4:2003, KDB No. 558074

TEST PARAMETERS

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

COMMENTS

Tx Power = 10dBm. Standalone configuration.

EUT OPERATING MODES

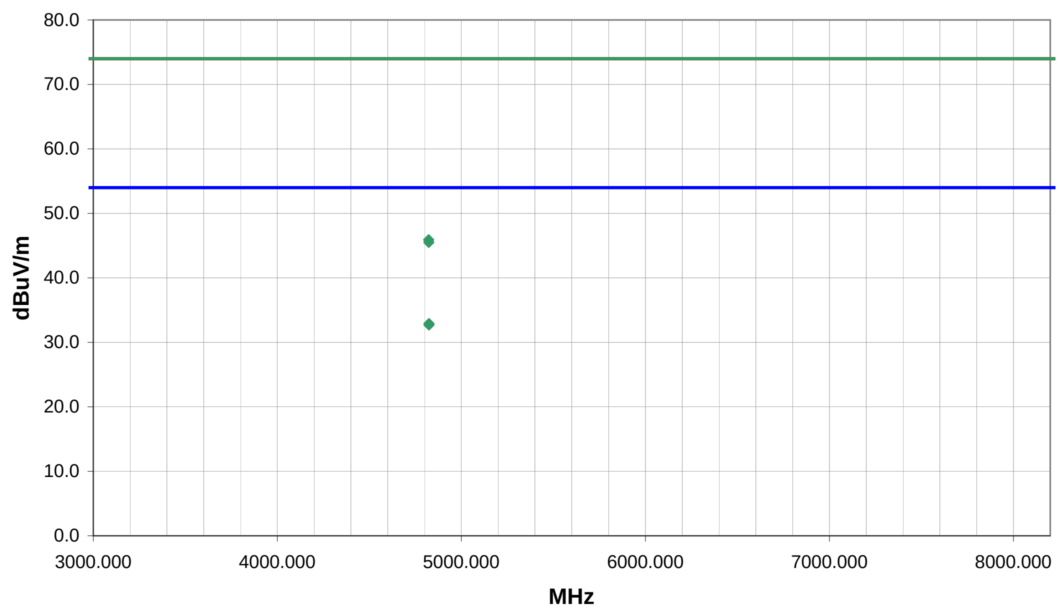
Transmitting 1 Mbps, low channel

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	13
Configuration #	10
Results	Pass

Jennifer Herrett
Signature



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
4823.900	23.6	9.3	359.0	2.3	3.0	0.0	V-Horn	AV	0.0	32.9	54.0	-21.1	EUT vertical.
4823.725	23.4	9.3	290.0	1.0	3.0	0.0	H-Horn	AV	0.0	32.7	54.0	-21.3	EUT on side.
4822.692	36.6	9.3	359.0	2.3	3.0	0.0	V-Horn	PK	0.0	45.9	74.0	-28.1	EUT vertical.
4823.392	36.2	9.3	290.0	1.0	3.0	0.0	H-Horn	PK	0.0	45.5	74.0	-28.5	EUT on side.

NORTHWEST
EMC

Spurious Radiated Emissions

PSA 2008.07.21
EMI 2009.4.13

EUT:	Clane	**Work Order:**	INTE5170
Serial Number:	6	**Date:**	08/18/09
Customer:	Intel Corporation	**Temperature:**	24
Attendees:	None	**Humidity:**	48%
Project:	None	**Barometric Pres.:**	30.06 in
Tested by:	Jennifer Herrett **Power:** Battery	**Job Site:**	EV01

TEST SPECIFICATIONS | Test Method

FCC 15.247 (DTS):2009 | ANSI C63.4:2003, KDB No. 558074

TEST PARAMETERS

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

COMMENTS

Tx Power = 10dBm. Standalone configuration.

EUT OPERATING MODES

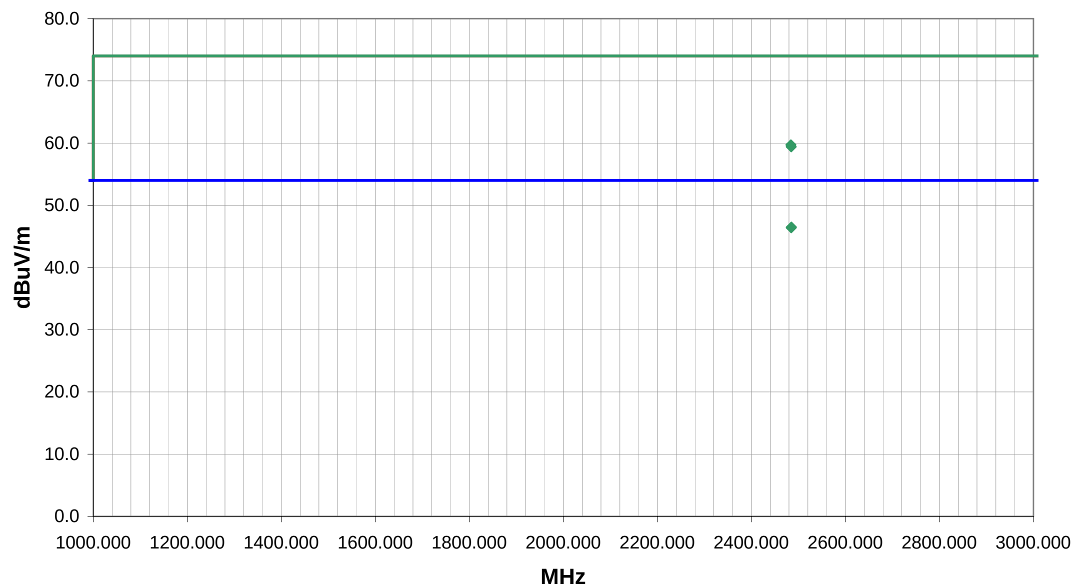
Transmitting 11 Mbps, high channel

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	14
Configuration #	11
Results	Pass

Jennifer Herrett
Signature



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
2485.083	24.0	2.5	294.0	2.3	3.0	20.0	H-Horn	AV	0.0	46.5	54.0	-7.5	EUT horizontal.
2484.797	23.9	2.5	18.0	1.0	3.0	20.0	V-Horn	AV	0.0	46.4	54.0	-7.6	EUT on side.
2483.847	37.2	2.5	294.0	2.3	3.0	20.0	H-Horn	PK	0.0	59.7	74.0	-14.3	EUT horizontal.
2484.850	36.9	2.5	18.0	1.0	3.0	20.0	V-Horn	PK	0.0	59.4	74.0	-14.6	EUT on side.

NORTHWEST

EMC

Spurious Radiated Emissions

PSA 2008.07.21
EMI 2009.4.13

EUT:	**Clane**			**Work Order:**	**INTE5170**
Serial Number:	**6**			**Date:**	**08/18/09**
Customer:	**Intel Corporation**			**Temperature:**	**24**
Attendees:	**None**			**Humidity:**	**48%**
Project:	**None**			**Barometric Pres.:**	**30.06 in**
Tested by:	**Jennifer Herrett**	**Power:**	**Battery**	**Job Site:**	**EV01**

TEST SPECIFICATIONS | Test Method

FCC 15.247 (DTS):2009 | ANSI C63.4:2003, KDB No. 558074

TEST PARAMETERS

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

COMMENTS

Tx Power = 10dBm. Standalone configuration.

EUT OPERATING MODES

Transmitting 11 Mbps, high channel

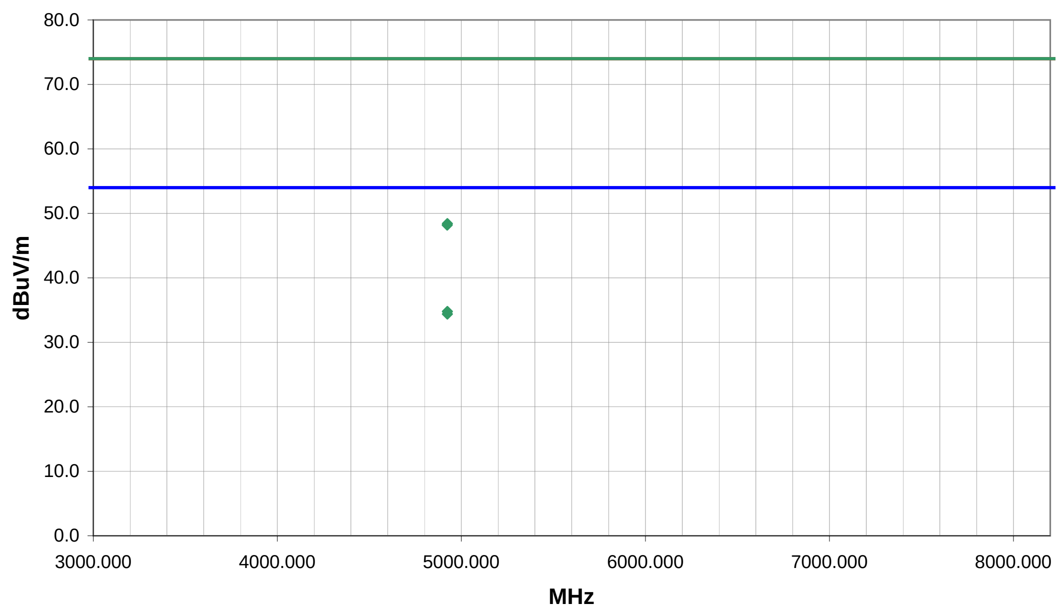
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	**15**
Configuration #	**11**
Results	**Pass**

Jennifer Herrett

Signature



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
4924.083	25.3	9.5	344.0	1.0	3.0	0.0	H-Horn	AV	0.0	34.8	54.0	-19.2	EUT on side.
4924.042	24.9	9.5	121.0	1.0	3.0	0.0	V-Horn	AV	0.0	34.4	54.0	-19.6	EUT vertical.
4923.758	38.9	9.5	344.0	1.0	3.0	0.0	H-Horn	PK	0.0	48.4	74.0	-25.6	EUT on side.
4922.933	38.7	9.5	121.0	1.0	3.0	0.0	V-Horn	PK	0.0	48.2	74.0	-25.8	EUT vertical.