

Tripod Data Systems, Inc.

WMBGMR01

May 17, 2006

Report No. TRPO0016.1

Report Prepared By



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

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EMC Test Report



22975 NW Evergreen Parkway
Suite 400
Hillsboro, Oregon 97124

Certificate of Test
Issue Date: May 17, 2006
Tripod Data Systems, Inc.
Model: WMBGMR01

Emissions				
Test Description	Specification	Test Method	Pass	Fail
AC Powerline Conducted Emissions	FCC 15.207 AC Powerline Conducted Emissions:2005-9	ANSI C63.4:2003	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Occupied Bandwidth	FCC 15.247(a) Occupied Bandwidth:2005-9	ANSI C63.4:2003	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Output Power	FCC 15.247(b) Output Power:2005-9	ANSI C63.4:2003	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Band Edge Compliance	FCC 15.247(d) Band Edge Compliance:2005-9	ANSI C63.4:2003	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Spurious Conducted Emissions	FCC 15.247(d) Spurious Conducted Emissions:2005-9	ANSI C63.4:2003	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Spurious Radiated Emissions	FCC 15.247(d) Spurious Radiated Emissions:2005-9	ANSI C63.4:2003	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Power Spectral Density	FCC 15.247(e) Power Spectral Density:2005-9	ANSI C63.4:2003	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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.

Approved By:

Greg Kiemel, Director of Engineering

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.

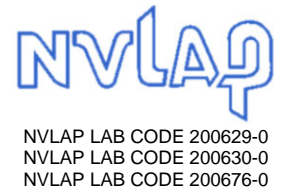
Product compliance is the responsibility of the client, therefore the tests and equipment modes of operation represented in this report were agreed upon by the client, prior to testing. This Report may only be duplicated in its entirety. The results of this test pertain only to the sample(s) tested, 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 89/336/EEC, ANSI C63.4, MIL-STD 461E, DO-160D and SAE J1113. 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.



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 212, Issue 1 (Provisional) 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.



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.



TÜV Product Service: Included in TÜV Product Service Group's Listing of Recognized Laboratories. It qualifies in connection with the TÜV Certification after Recognition of Agent's Testing Program for the product categories and/or standards shown in TÜV's current Listing of CARAT Laboratories, available from TÜV. A certificate was issued to represent that this laboratory continues to meet TÜV's CARAT Program requirements. Certificate No. USA0401C.



TÜV Rheinland: Authorized to carryout EMC tests by order and under supervision of TÜV Rheinland. This authorization is based on "Conditions for EMC-Subcontractors" of November 1992.



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, and R-2318, Irvine: C-2094 and R-1943, Sultan: R-871, C-1784 and R-1761*).



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. License No.SL2-IN-E-1017.



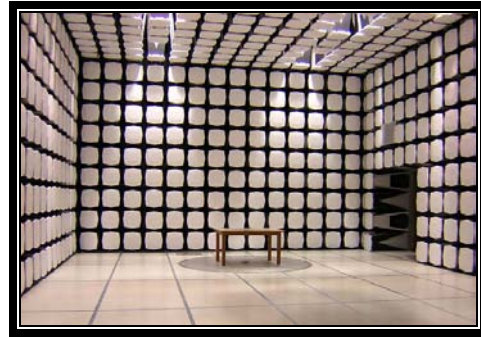
GOST: Northwest EMC, Inc. has been assessed and accredited by the Russian Certification bodies Certinform VNIINMASH, CERTINFO, SAMTES, and Federal CHEC, to perform EMC and Hygienic testing for Information Technology Products. As a result of their laboratory assessment, they will accept test results from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



SCOPE

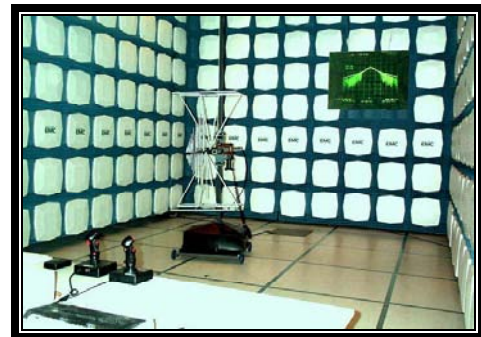
For details on the Scopes of our Accreditations, please visit:

<http://www.nwemc.com/scope.asp>



**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 – EV10**

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:	Tripod Data Systems, Inc.
Address:	345 SW Avery Ave
City, State, Zip:	Corvallis, OR 97333
Test Requested By:	Bob Grant
Model:	WMBGMR01
First Date of Test:	May 01, 2006
Last Date of Test:	May 08, 2006
Receipt Date of Samples:	April 21, 2006
Equipment Design Stage:	Production
Equipment Condition:	No visual damage.

Information Provided by the Party Requesting the Test

Clocks/Oscillators:	Not provided.
I/O Ports:	Serial, USB host (unused), USB client, SDIO, Compact flash (2), DC power

Functional Description of the EUT (Equipment Under Test):

The EUT is the WiFi portion of a WiFi – Bluetooth combo radio module hosted in the Ranger X series, a Windows Mobile handheld computer and data collector.

Client Justification for EUT Selection:

The product is a representative production sample.

Client Justification for Test Selection:

These test satisfy the requirements for certification under FCC 15.247.

CONFIGURATION 1 TRPO0016

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
EUT – WMBGMR01	Tripod Data Systems, Inc.	WMBGMR01	None

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Pocket PC Handheld Data Collector	Tripod Data Systems, Inc.	Ranger X	EMI 1
DC Power Supply	Cincon Electronics Co.	TR30R050	N/A

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
DC Leads	No	1.8	Yes	Pocket PC Handheld Data Collector	AC Power
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 2 TRPO0016

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
EUT – WMBGMR01	Tripod Data Systems, Inc.	WMBGMR01	None

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
DC Power Supply	Cincon Electronics Co.	TR30R050	N/A
Pocket PC Handheld Data Collector	Tripod Data Systems, Inc.	Ranger X	EMI 2

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
DC Leads	No	1.8	Yes	Pocket PC Handheld Data Collector	AC Power
Serial	Yes	1.5	No	Pocket PC Handheld Data Collector	Unterminated
USB 1	Yes	1.0	Yes	Pocket PC Handheld Data Collector	Unterminated
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	5/1/2006	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	5/1/2006	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.
3	5/2/2006	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.
4	5/3/2006	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.
5	5/3/2006	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	5/5/2006	AC Power Line 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	5/8/2006	Occupied Bandwidth	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

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	Hewlett-Packard	8593E	AAN	1/25/2006	13

MEASUREMENT UNCERTAINTY

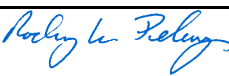
Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated 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 in a no hop mode.

EMC

OCCUPIED BANDWIDTH

EUT: WMBGMR01		Work Order: TRPO0016
Serial Number: None		Date: 05/08/06
Customer: Tripod Data Systems, Inc.		Temperature: 21°C
Attendees: None		Humidity: 33%
Project: None		Barometric Pres.: 30
Tested by: Rod Peloquin	Power: 120VAC/60Hz	Job Site: EV06
TEST SPECIFICATIONS		
FCC 15.247(a) 2005-9		Test Method: ANSI C63.4 2003
COMMENTS		
DEVIATIONS FROM TEST STANDARD		
Configuration #	1	Signature 

Modes of Operation and Test Conditions

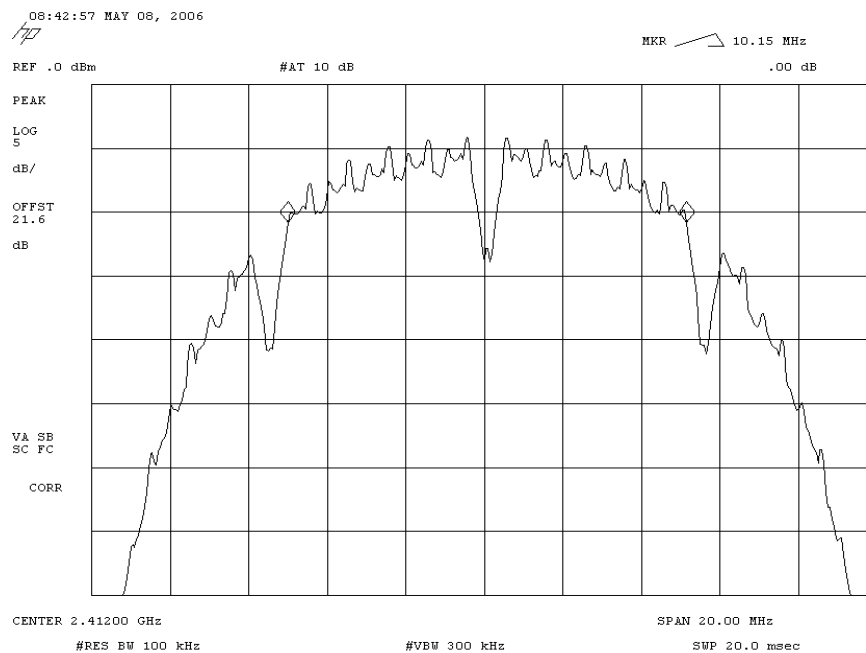
	Value	Limit	Result
802.11(b) 1 Mbps, Low Channel	10.2 MHz	> 500 kHz	Pass
802.11(b) 1 Mbps, Mid Channel	10.1 MHz	> 500 kHz	Pass
802.11(b) 1 Mbps, High Channel	10.2 MHz	> 500 kHz	Pass
802.11(b) 11 Mbps, Low Channel	10.4 MHz	> 500 kHz	Pass
802.11(b) 11 Mbps, Mid Channel	10.4 MHz	> 500 kHz	Pass
802.11(b) 11 Mbps, High Channel	10.4 MHz	> 500 kHz	Pass
802.11(g) 6 Mbps, Low Channel	16.7 MHz	> 500 kHz	Pass
802.11(g) 6 Mbps, Mid Channel	16.6MHz	> 500 kHz	Pass
802.11(g) 6 Mbps, High Channel	16.6 MHz	> 500 kHz	Pass
802.11(g) 36 Mbps, Low Channel	16.7 MHz	> 500 kHz	Pass
802.11(g) 36 Mbps, Mid Channel	16.6 MHz	> 500 kHz	Pass
802.11(g) 36 Mbps, High Channel	10.6 MHz	> 500 kHz	Pass
802.11(g) 54 Mbps, Low Channel	16.6 MHz	> 500 kHz	Pass
802.11(g) 54 Mbps, Mid Channel	16.6 MHz	> 500 kHz	Pass
802.11(g) 54 Mbps, High Channel	16.6 MHz	> 500 kHz	Pass

802.11(b) 1 Mbps, Low Channel

Result: Pass

Value: 10.2 MHz

Limit: > 500 kHz

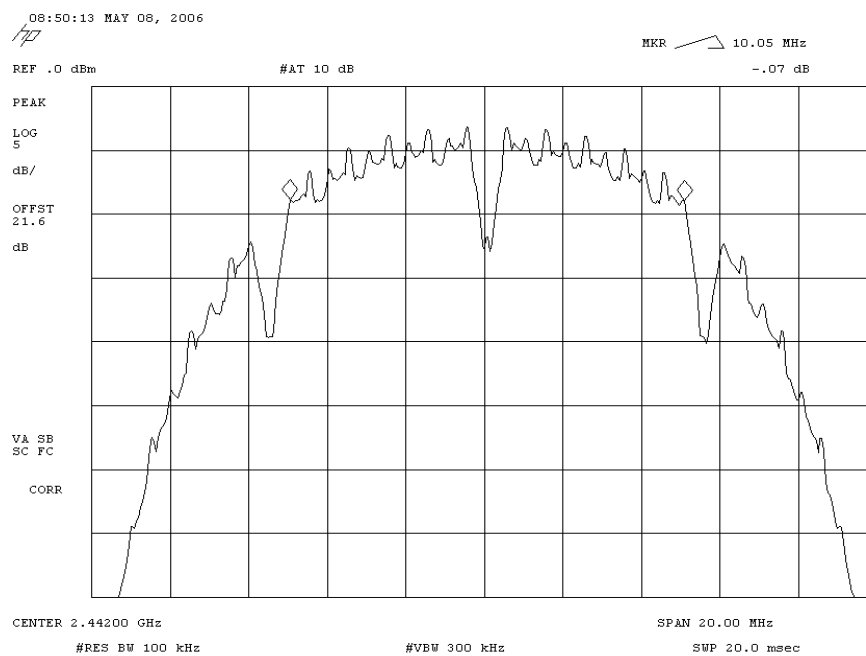


802.11(b) 1 Mbps, Mid Channel

Result: Pass

Value: 10.1 MHz

Limit: > 500 kHz

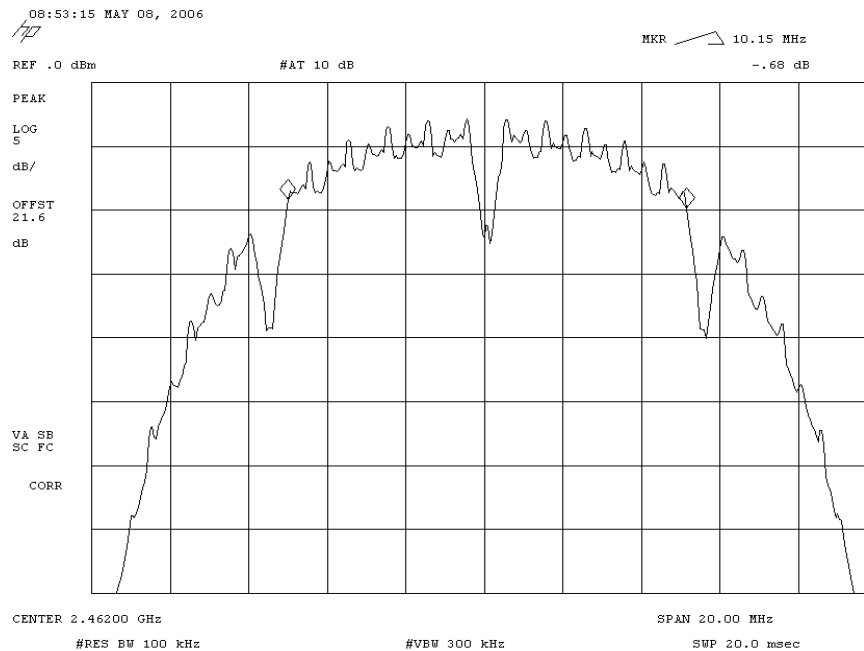


802.11(b) 1 Mbps, High Channel

Result: Pass

Value: 10.2 MHz

Limit: > 500 kHz

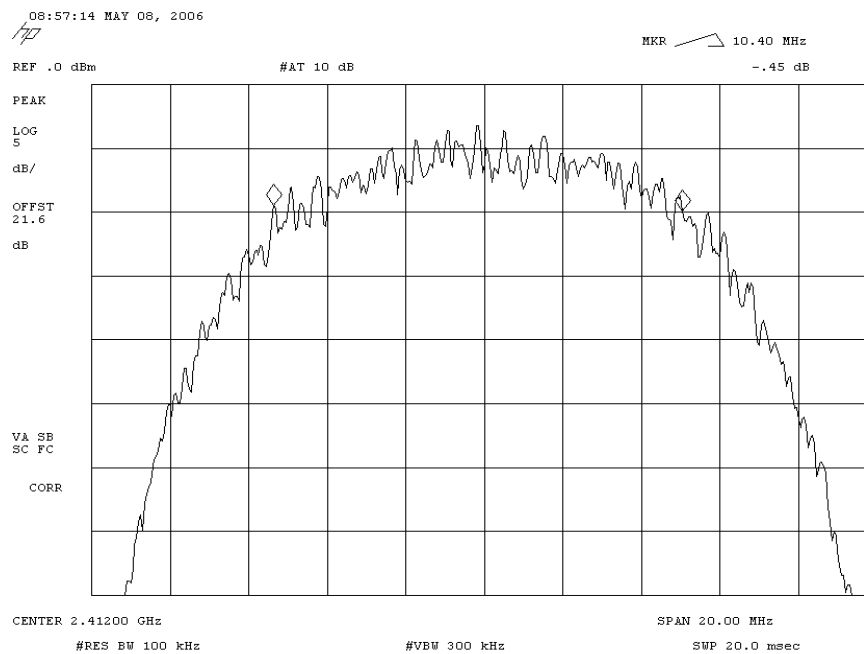


802.11(b) 11 Mbps, Low Channel

Result: Pass

Value: 10.4 MHz

Limit: > 500 kHz

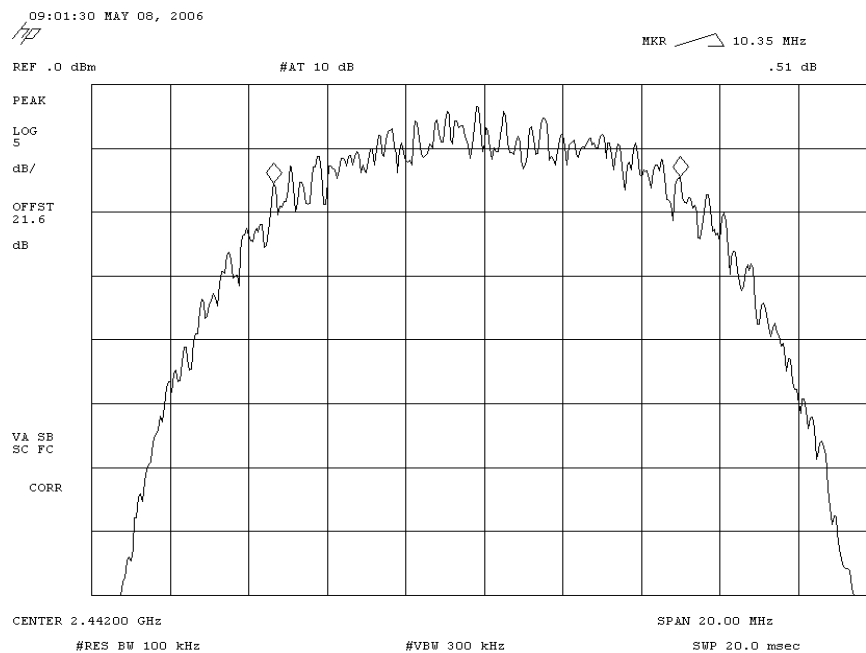


802.11(b) 11 Mbps, Mid Channel

Result: Pass

Value: 10.4 MHz

Limit: > 500 kHz

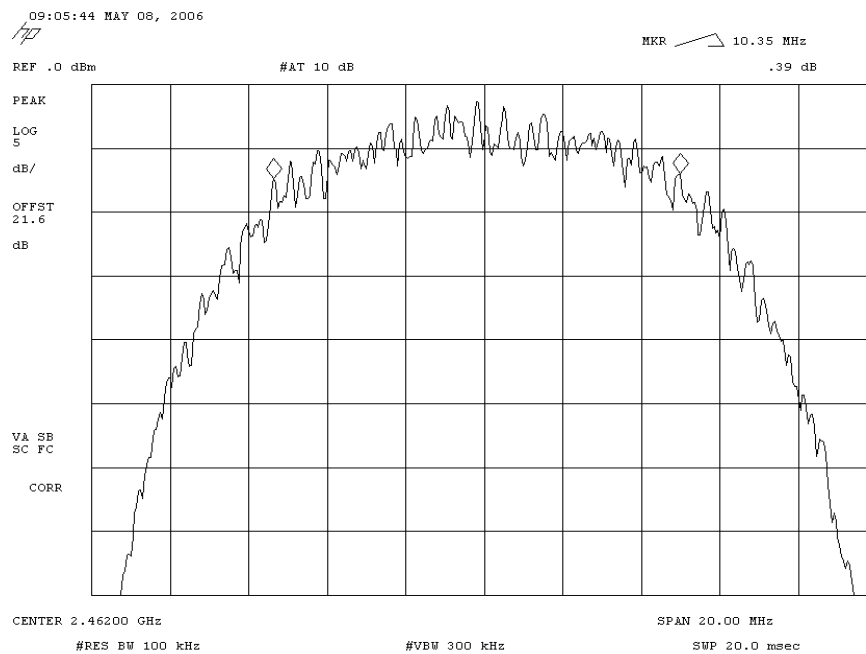


802.11(b) 11 Mbps, High Channel

Result: Pass

Value: 10.4 MHz

Limit: > 500 kHz



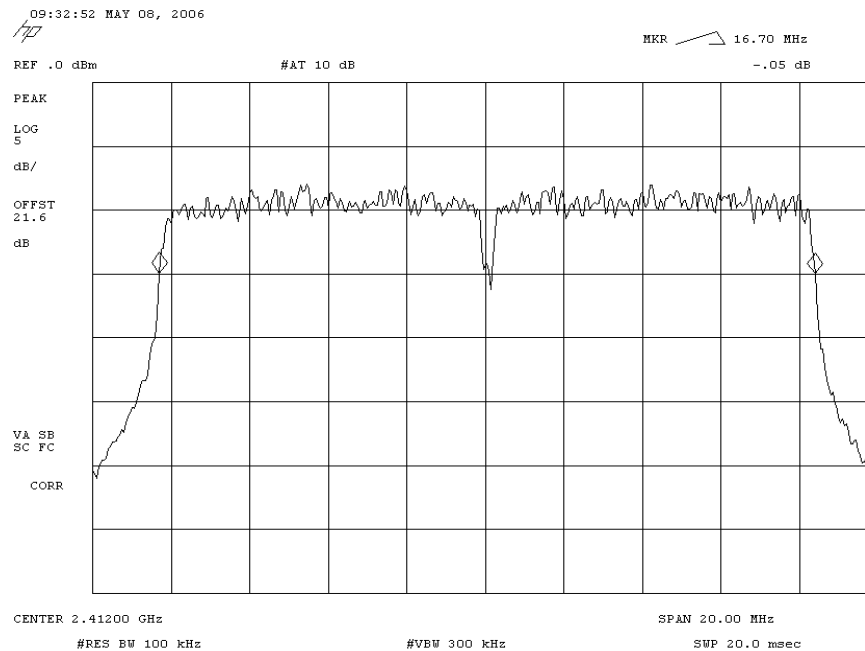
OCCUPIED BANDWIDTH

802.11(g) 6 Mbps, Low Channel

Result: Pass

Value: 16.7 MHz

Limit: > 500 kHz

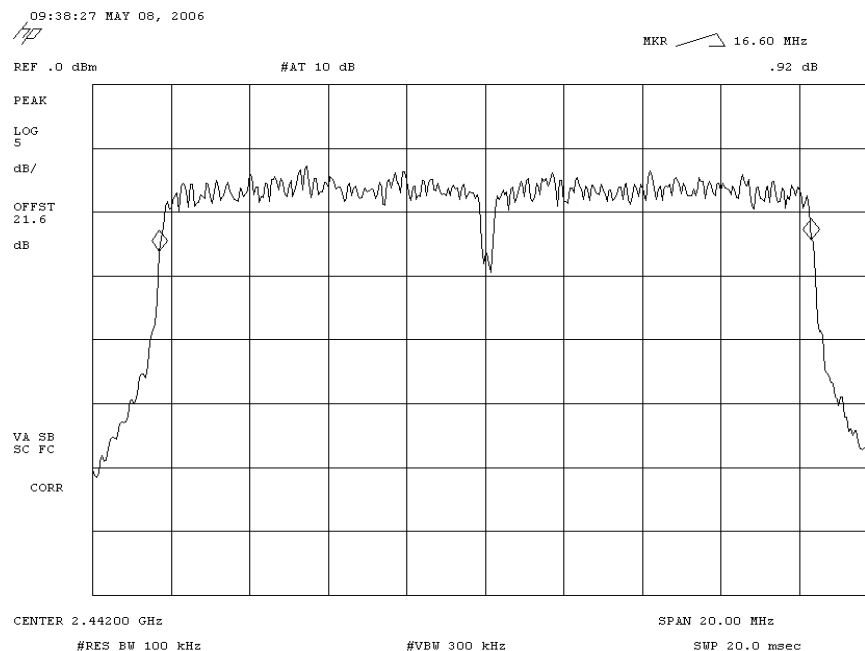


802.11(g) 6 Mbps, Mid Channel

Result: Pass

Value: 16.6MHz

Limit: > 500 kHz

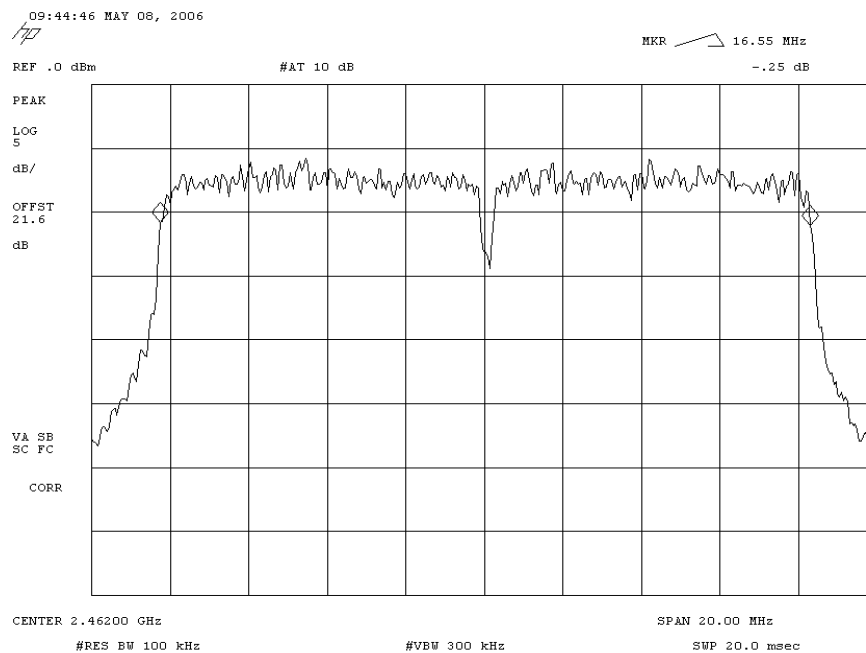


802.11(g) 6 Mbps, High Channel

Result: Pass

Value: 16.6 MHz

Limit: > 500 kHz

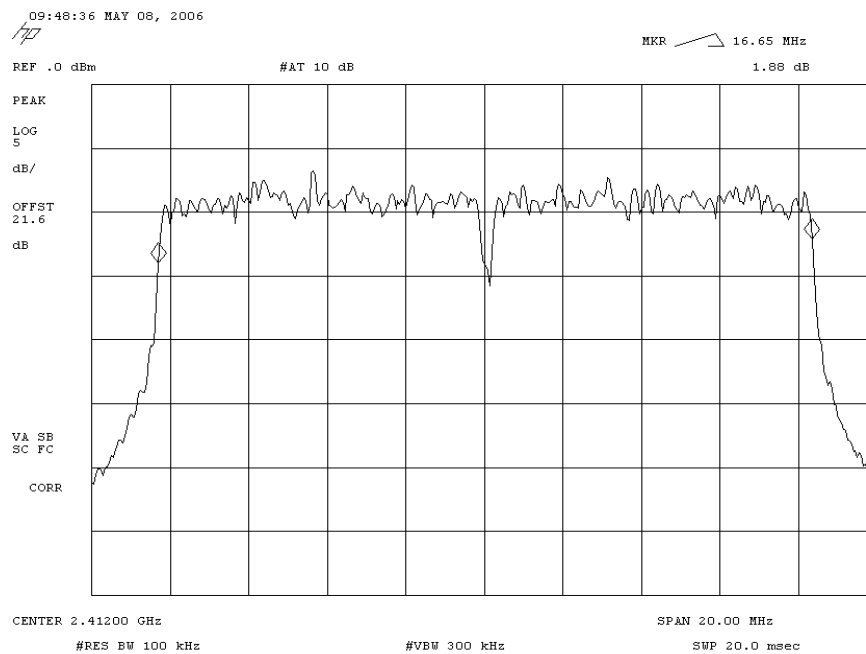


802.11(g) 36 Mbps, Low Channel

Result: Pass

Value: 16.7 MHz

Limit: > 500 kHz

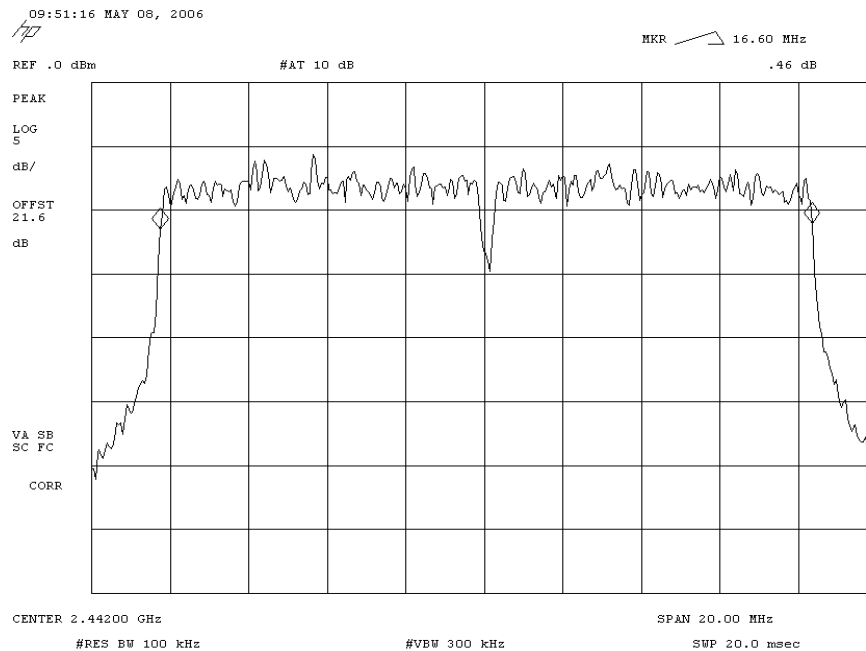


802.11(g) 36 Mbps, Mid Channel

Result: Pass

Value: 16.6 MHz

Limit: > 500 kHz

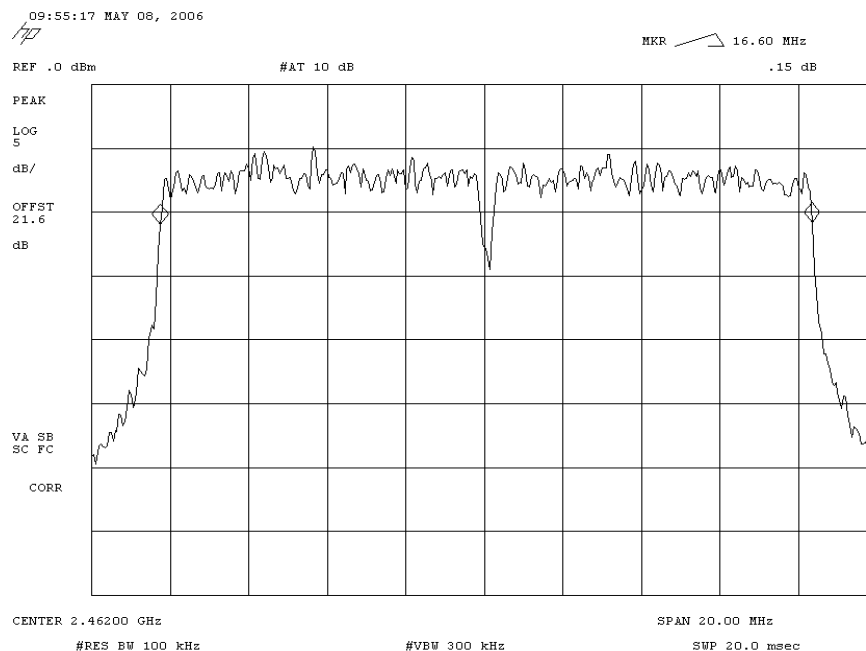


802.11(g) 36 Mbps, High Channel

Result: Pass

Value: 10.6 MHz

Limit: > 500 kHz



802.11(g) 54 Mbps, Low Channel

Result: Pass

Value: 16.6 MHz

Limit: > 500 kHz

09:58:41 MAY 08, 2006

hp

MKR 16.60 MHz

REF .0 dBm

#AT 10 dB

-1.17 dB

PEAK

LOG

dB/

OFFST

21.6

dB

VA SB

SC FC

CORR

CENTER 2.41200 GHz

SPAN 20.00 MHz

#RES BW 100 kHz

#VBW 300 kHz

SWP 20.0 msec

802.11(g) 54 Mbps, Mid Channel

Result: Pass

Value: 16.6 MHz

Limit: > 500 kHz

10:03:34 MAY 08, 2006

hp

MKR 16.60 MHz

REF .0 dBm

#AT 10 dB

.97 dB

PEAK

LOG

dB/

OFFST

21.6

dB

VA SB

SC FC

CORR

CENTER 2.44200 GHz

SPAN 20.00 MHz

#RES BW 100 kHz

#VBW 300 kHz

SWP 20.0 msec

802.11(g) 54 Mbps, High Channel

Result: Pass

Value: 16.6 MHz

Limit: > 500 kHz

10:03:34 MAY 08, 2006

hp

MKR 16.60 MHz

REF .0 dBm

#AT 10 dB

.97 dB

PEAK

LOG

dB/

OFFST

21.6

dB

VA SB

SC FC

CORR

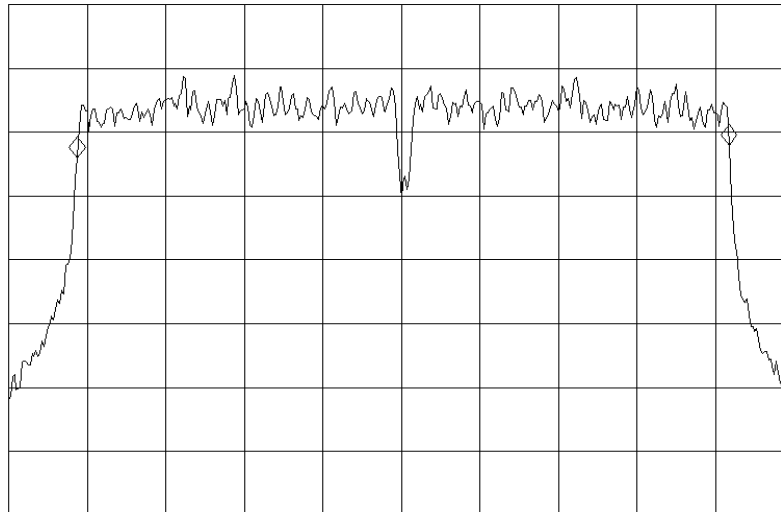
CENTER 2.44200 GHz

SPAN 20.00 MHz

#RES BW 100 kHz

#VBW 300 kHz

SWP 20.0 msec





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	12/8/2005	13
RF Detector	RLC Electronics	CR-133-R	ZZA	NCR	0
Power Sensor	Hewlett-Packard	8481H	SPB	7/23/2004	24
Power Meter	Hewlett Packard	E4418A	SPA	7/23/2004	24
Signal Generator	Hewlett-Packard	8648D	TGC	1/27/2006	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

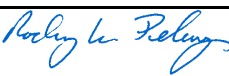
The peak output power was measured with the EUT set to low, medium, and high transmit frequencies. The EUT was transmitting at its maximum output power. The data rate of the radio was varied to determine the level that produced the highest output power.

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

OUTPUT POWER

EUT: WMBGMR01		Work Order: TRPO0016
Serial Number: None		Date: 05/01/06
Customer: Tripod Data Systems, Inc.		Temperature: 23°C°C
Attendees: Bob Grant		Humidity: 32%
Project: None		Barometric Pres.: 30.15
Tested by: Rod Peloquin	Power: 120VAC/60Hz	Job Site: EV06
TEST SPECIFICATIONS		
FCC 15.247(b) Output Power 2005-9		Test Method: ANSI C63.4 2003
COMMENTS		
DEVIATIONS FROM TEST STANDARD		
Configuration #	1	Signature 

Modes of Operation and Test Conditions

	Value	Limit	Result
802.11(b) 1 Mbps, Low Channel	13.2 mW	1 Watt	Pass
802.11(b) 1 Mbps, Mid Channel	16.1 mW	1 Watt	Pass
802.11(b) 1 Mbps, High Channel	16.7 mW	1 Watt	Pass
802.11(b) 11 Mbps, Low Channel	13.2 mW	1 Watt	Pass
802.11(b) 11 Mbps, Mid Channel	17.2 mW	1 Watt	Pass
802.11(b) 11 Mbps, High Channel	16.4 mW	1 Watt	Pass
802.11(g) 6 Mbps, Low Channel	21.7 mW	1 Watt	Pass
802.11(g) 6 Mbps, Mid Channel	24.6 mW	1 Watt	Pass
802.11(g) 6 Mbps, High Channel	24.5 mW	1 Watt	Pass
802.11(g) 36 Mbps, Low Channel	19.4 mW	1 Watt	Pass
802.11(g) 36 Mbps, Mid Channel	23.1 mW	1 Watt	Pass
802.11(g) 36 Mbps, High Channel	24.5 mW	1 Watt	Pass
802.11(g) 54 Mbps, Low Channel	18.6 mW	1 Watt	Pass
802.11(g) 54 Mbps, Mid Channel	22.1 mW	1 Watt	Pass
802.11(g) 54 Mbps, High Channel	24.1 mW	1 Watt	Pass

802.11(b) 1 Mbps, Low Channel

Result: Pass**Value:** 13.2 mW**Limit:** 1 Watt

Frequency (MHz)	Output Power (mW)
2412	13.2

802.11(b) 1 Mbps, Mid Channel

Result: Pass**Value:** 16.1 mW**Limit:** 1 Watt

Frequency (MHz)	Output Power (mW)
2442	16.1

802.11(b) 1 Mbps, High Channel

Result: Pass**Value:** 16.7 mW**Limit:** 1 Watt

Frequency (MHz)	Output Power (mW)
2462	16.7

802.11(b) 11 Mbps, Low Channel

Result: Pass**Value:** 13.2 mW**Limit:** 1 Watt

Frequency (MHz)	Output Power (mW)
2412	13.2

802.11(b) 11 Mbps, Mid Channel

Result: Pass**Value:** 17.2 mW**Limit:** 1 Watt

Frequency (MHz)	Output Power (mW)
2442	17.2

802.11(b) 11 Mbps, High Channel

Result: Pass**Value:** 16.4 mW**Limit:** 1 Watt

Frequency (MHz)	Output Power (mW)
2462	16.4

802.11(g) 6 Mbps, Low Channel

Result: Pass**Value:** 21.7 mW**Limit:** 1 Watt

Frequency (MHz)	Output Power (mW)
2412	21.7

802.11(g) 6 Mbps, Mid Channel

Result: Pass**Value:** 24.6 mW**Limit:** 1 Watt

Frequency (MHz)	Output Power (mW)
2442	24.6

OUTPUT POWER

802.11(g) 6 Mbps, High Channel

Result: Pass**Value:** 24.5 mW**Limit:** 1 Watt

Frequency (MHz)	Output Power (mW)
2462	24.5

802.11(g) 36 Mbps, Low Channel

Result: Pass**Value:** 19.4 mW**Limit:** 1 Watt

Frequency (MHz)	Output Power (mW)
2412	19.4

802.11(g) 36 Mbps, Mid Channel

Result: Pass**Value:** 23.1 mW**Limit:** 1 Watt

Frequency (MHz)	Output Power (mW)
2442	23.1

802.11(g) 36 Mbps, High Channel

Result: Pass**Value:** 24.5 mW**Limit:** 1 Watt

Frequency (MHz)	Output Power (mW)
2462	24.5

802.11(g) 54 Mbps, Low Channel

Result: Pass**Value:** 18.6 mW**Limit:** 1 Watt

Frequency (MHz)	Output Power (mW)
2412	18.6

802.11(g) 54 Mbps, Mid Channel

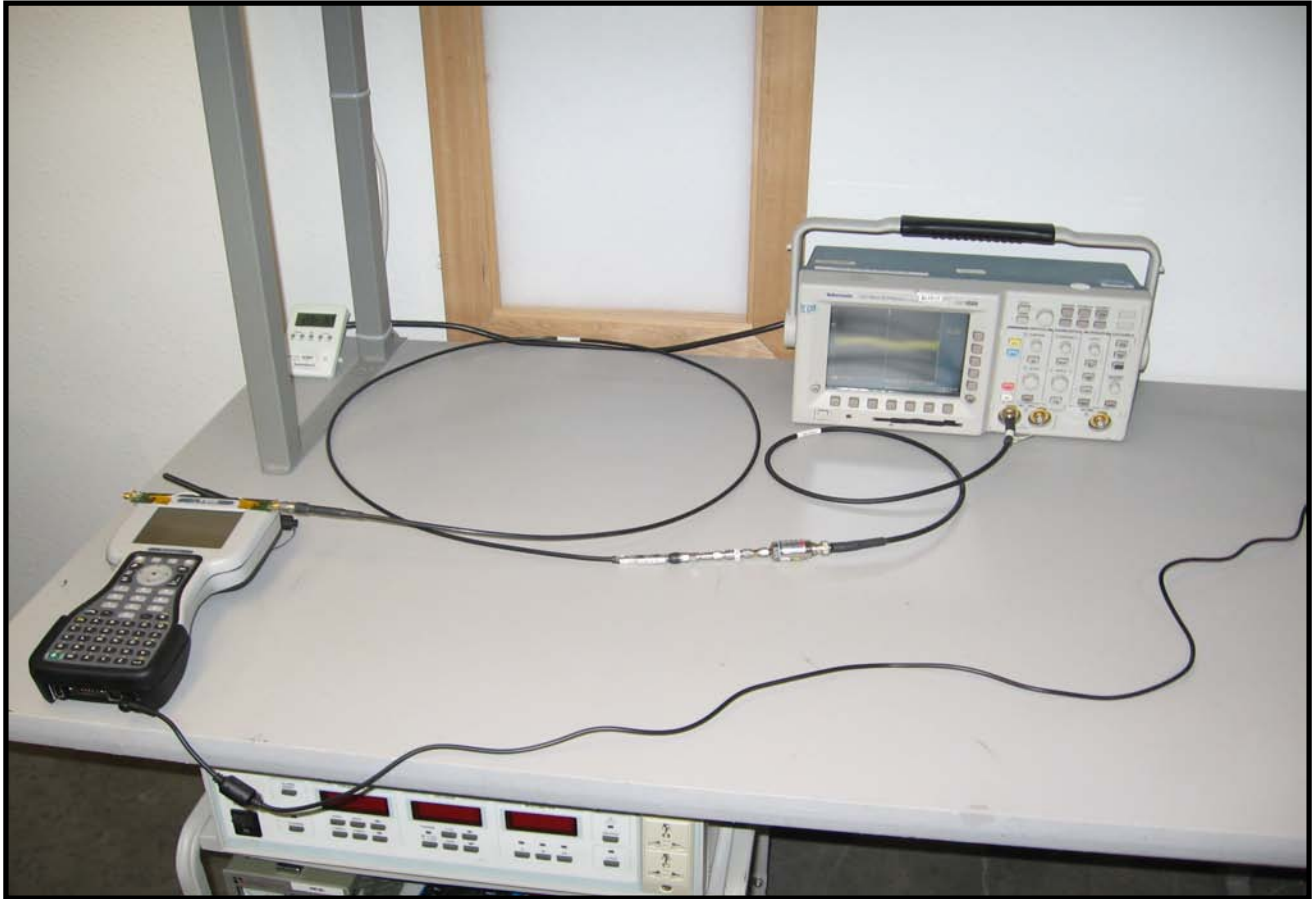
Result: Pass**Value:** 22.1 mW**Limit:** 1 Watt

Frequency (MHz)	Output Power (mW)
2442	22.1

802.11(g) 54 Mbps, High Channel

Result: Pass**Value:** 24.1 mW**Limit:** 1 Watt

Frequency (MHz)	Output Power (mW)
2462	24.1



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
Power Sensor	Hewlett-Packard	8481H	SPB	7/23/2004	24
Power Meter	Hewlett Packard	E4418A	SPA	7/23/2004	24
Signal Generator	Hewlett-Packard	8648D	TGC	1/27/2006	13
Spectrum Analyzer	Hewlett-Packard	8593E	AAN	1/25/2006	13

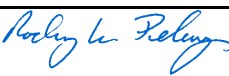
MEASUREMENT UNCERTAINTY

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 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.

EMC**BAND EDGE COMPLIANCE**

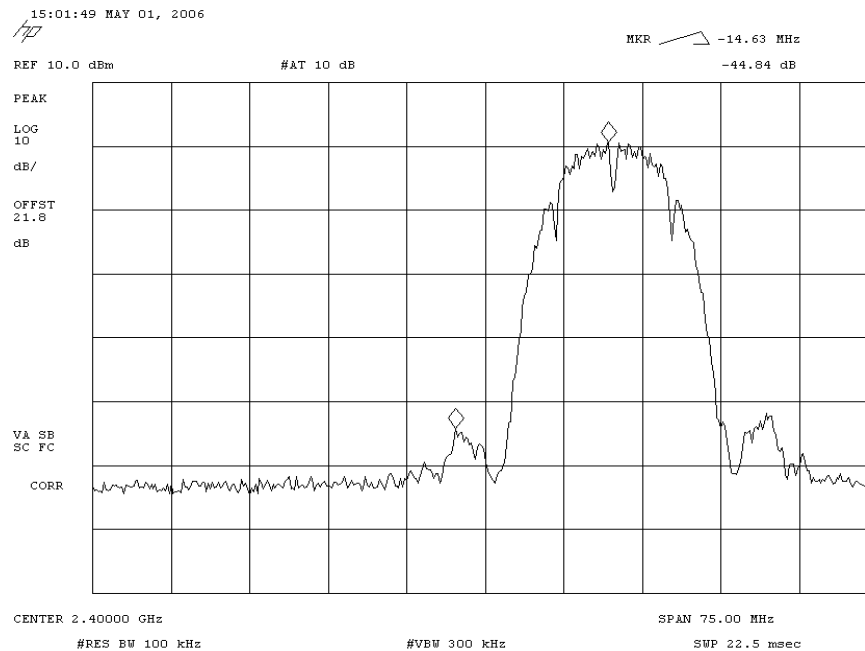
EUT: WMBGMR01		Work Order: TRPO0016	
Serial Number: None		Date: 05/01/06	
Customer: Tripod Data Systems, Inc.		Temperature: 23°C	
Attendees: Bob Grant		Humidity: 32%	
Project: None		Barometric Pres.: 30.15	
Tested by: Rod Peloquin		Power: 120VAC/60Hz	Job Site: EV06
TEST SPECIFICATIONS			
FCC 15.247(d) Band Edge Compliance 2005-9		Test Method ANSI C63.4 2003	
COMMENTS			
DEVIATIONS FROM TEST STANDARD			
Configuration #	1	 Signature	

Modes of Operation and Test Conditions	Value	Limit	Result
802.11(b) 1 Mbps, Low Channel	-44.8 dBc	≤ -20 dBc	Pass
802.11(b) 1 Mbps, High Channel	-53.5 dBc	≤ -20 dBc	Pass
802.11(b) 11 Mbps, Low Channel	-48.8 dBc	≤ -20 dBc	Pass
802.11(b) 11 Mbps, High Channel	-54.6 dBc	≤ -20 dBc	Pass
802.11(g) 6 Mbps, Low Channel	-26.8 dBc	≤ -20 dBc	Pass
802.11(g) 6 Mbps, High Channel	-36.4 dBc	≤ -20 dBc	Pass
802.11(g) 36 Mbps, Low Channel	-31.7 dBc	≤ -20 dBc	Pass
802.11(g) 36 Mbps, High Channel	-43.1 dBc	≤ -20 dBc	Pass
802.11(g) 54 Mbps, Low Channel	-31.1 dBc	≤ -20 dBc	Pass
802.11(g) 54 Mbps, High Channel	-44.6 dBc	≤ -20 dBc	Pass

802.11(b) 1 Mbps, Low Channel

Result: Pass

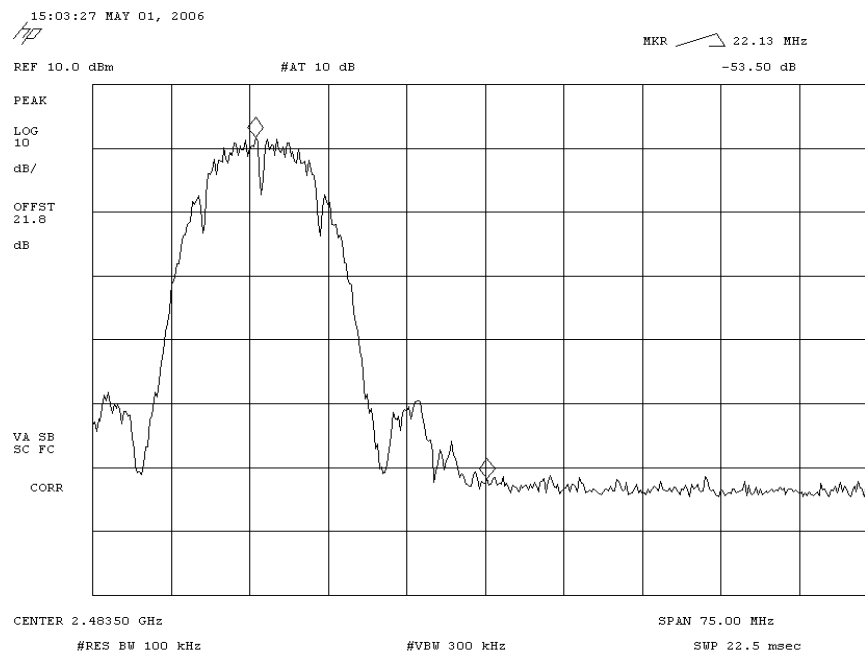
Value: -44.8 dBc

Limit: ≤ -20 dBc

802.11(b) 1 Mbps, High Channel

Result: Pass

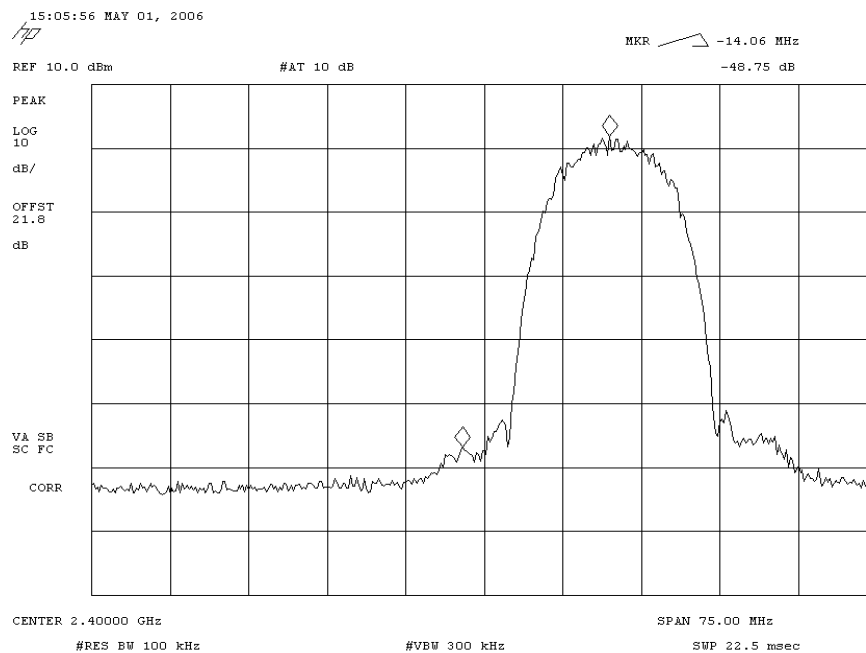
Value: -53.5 dBc

Limit: ≤ -20 dBc

802.11(b) 11 Mbps, Low Channel

Result: Pass

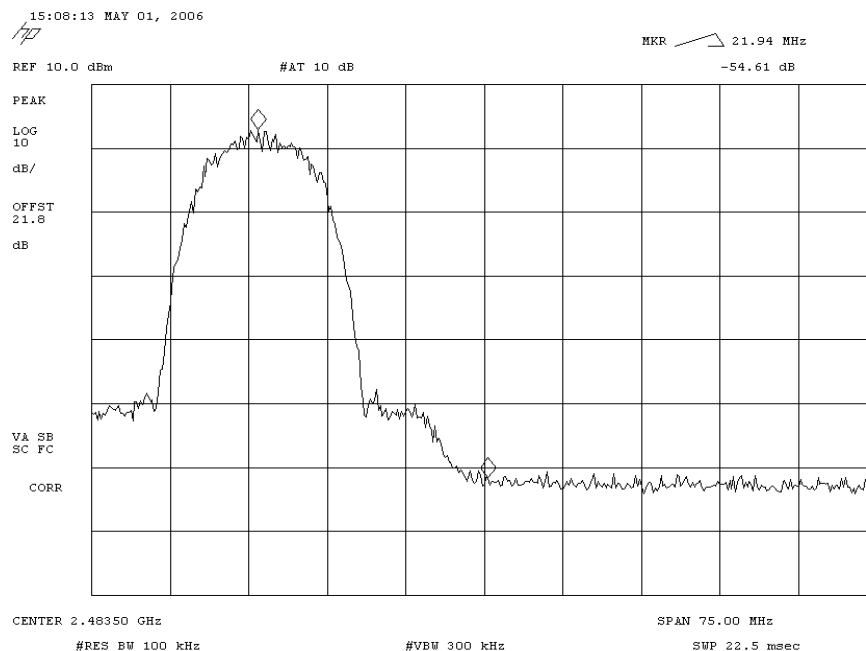
Value: -48.8 dBc

Limit: ≤ -20 dBc

802.11(b) 11 Mbps, High Channel

Result: Pass

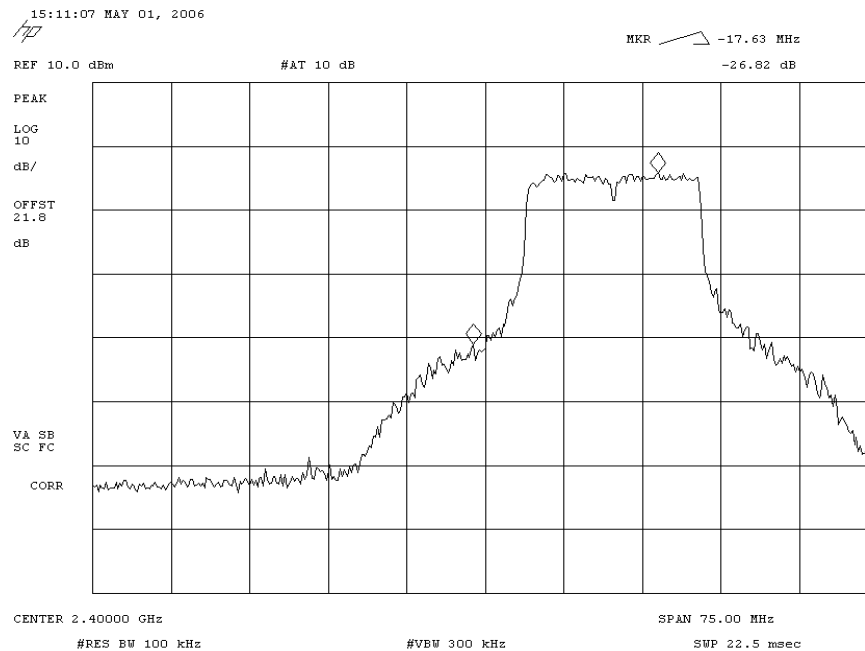
Value: -54.6 dBc

Limit: ≤ -20 dBc

802.11(g) 6 Mbps, Low Channel

Result: Pass

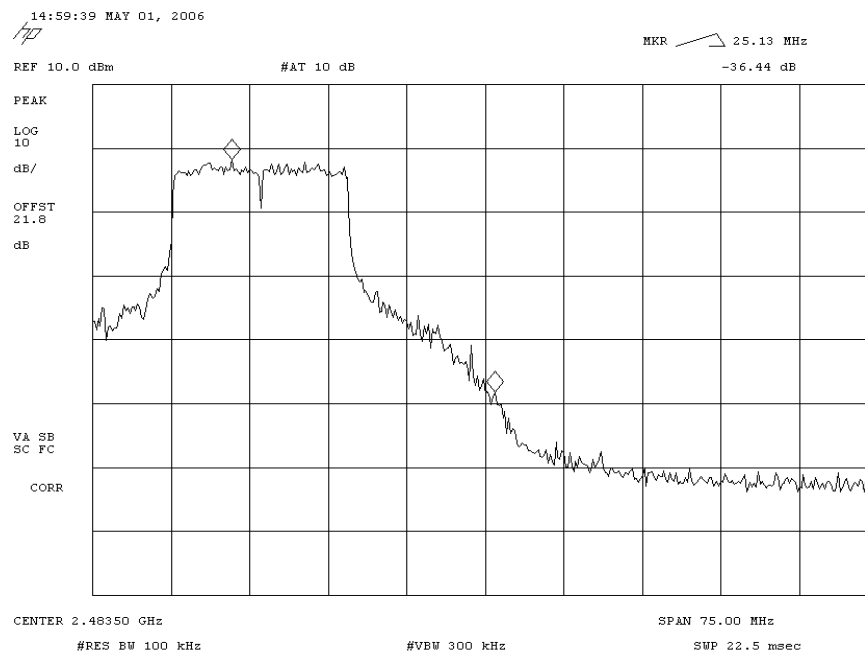
Value: -26.8 dBc

Limit: ≤ -20 dBc

802.11(g) 6 Mbps, High Channel

Result: Pass

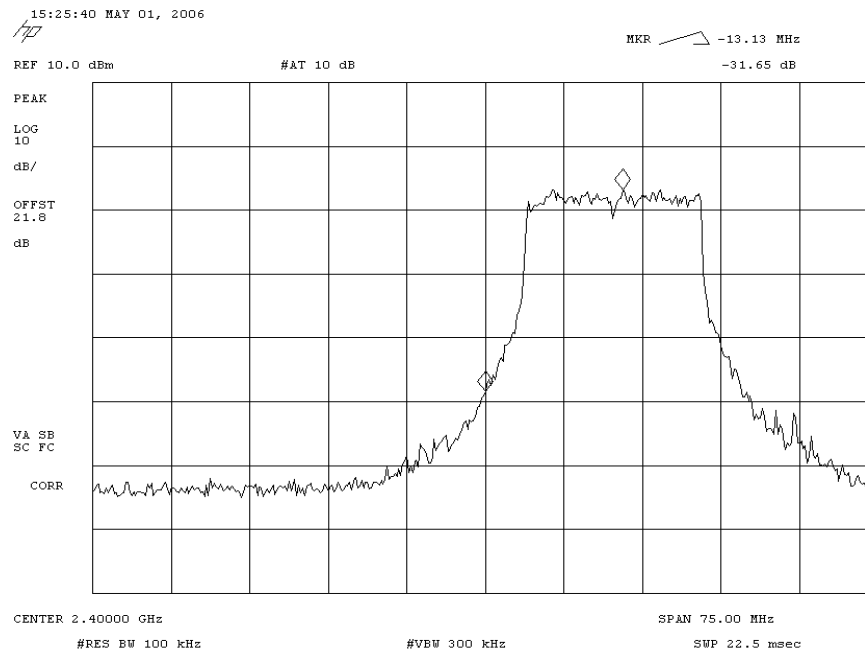
Value: -36.4 dBc

Limit: ≤ -20 dBc

802.11(g) 36 Mbps, Low Channel

Result: Pass

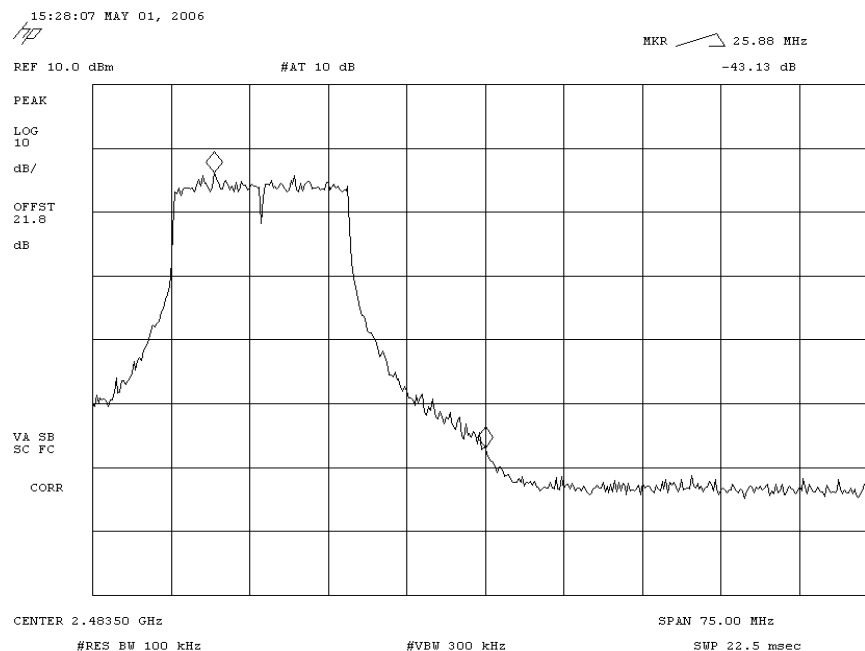
Value: -31.7 dBc

Limit: ≤ -20 dBc

802.11(g) 36 Mbps, High Channel

Result: Pass

Value: -43.1 dBc

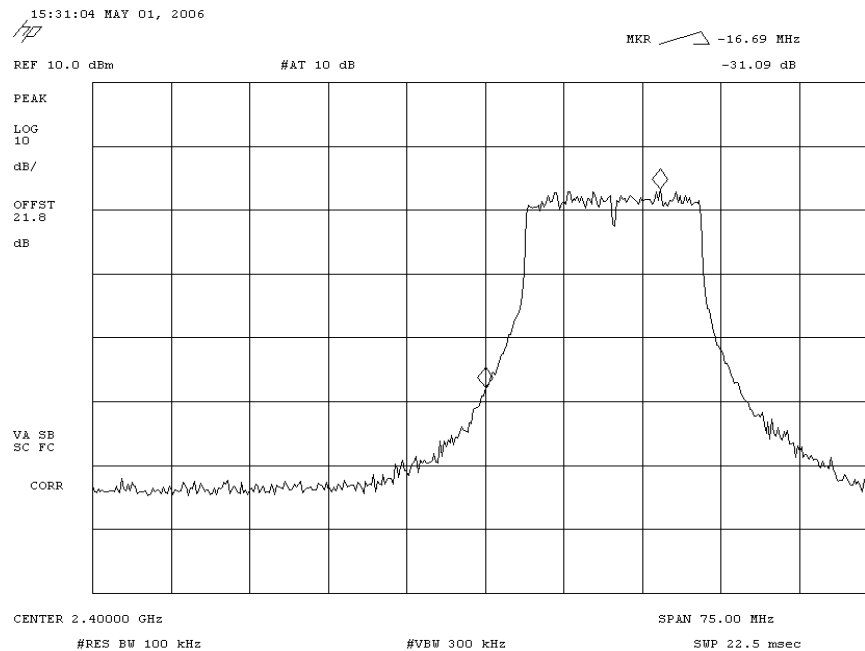
Limit: ≤ -20 dBc

BAND EDGE COMPLIANCE

802.11(g) 54 Mbps, Low Channel

Result: Pass

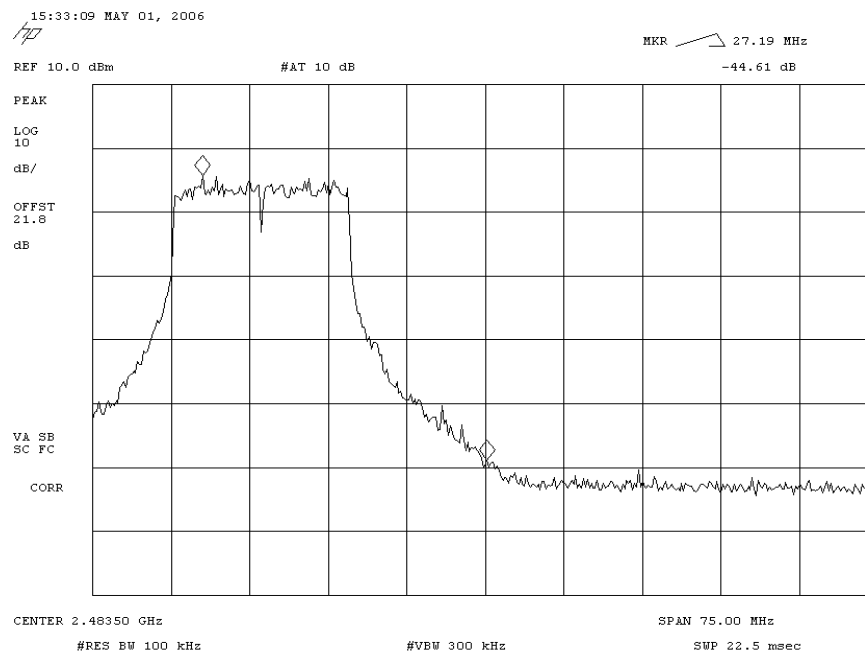
Value: -31.1 dBc

Limit: ≤ -20 dBc

802.11(g) 54 Mbps, High Channel

Result: Pass

Value: -44.6 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	AAT	4/4/2006	12

MEASUREMENT UNCERTAINTY

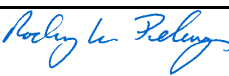
Measurement uncertainty is used to reflect the accuracy of the measured result as compared with its "true" or theoretically correct value. Our measurement data meets or exceeds the measurement uncertainty requirements of CISPR 16-4. In the case of transient tests our test equipment has been demonstrated 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.

EMC

SPURIOUS CONDUCTED EMISSIONS

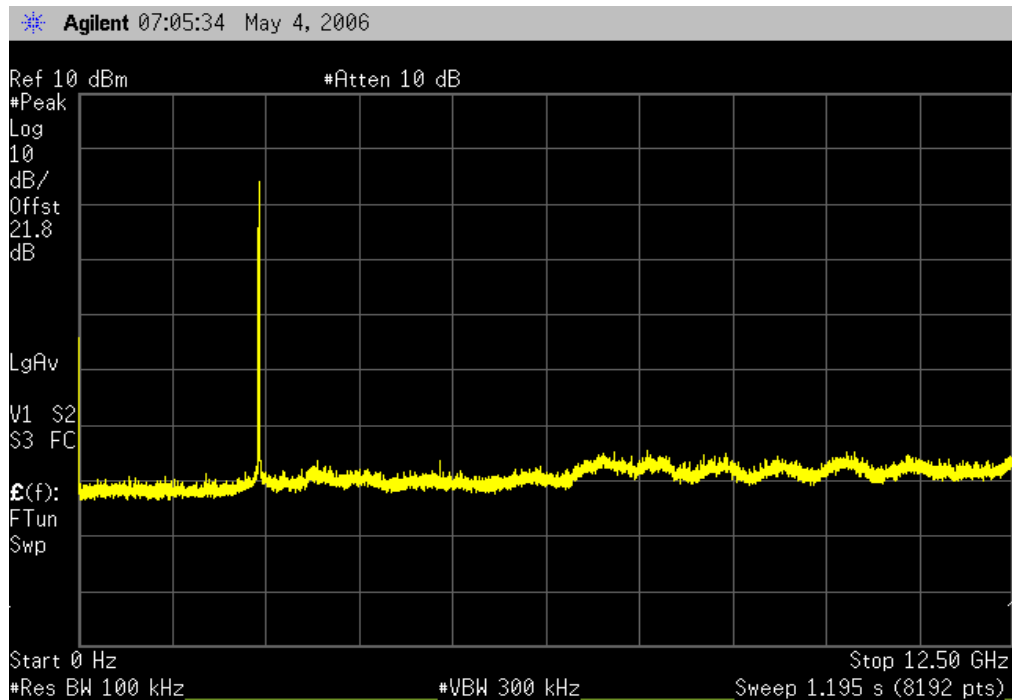
EUT: WMBGMR01		Work Order: TRPO0016	
Serial Number: None		Date: 05/03/06	
Customer: Tripod Data Systems, Inc.		Temperature: 24°C	
Attendees: None		Humidity: 25%	
Project: None		Barometric Pres.: 30.09	
Tested by: Rod Peloquin		Power: 120VAC/60Hz	Job Site: EV01
TEST SPECIFICATIONS			
FCC 15.247(d) Spurious Conducted Emissions 2005-9		Test Method	
		ANSI C63.4 2003	
COMMENTS			
DEVIATIONS FROM TEST STANDARD			
Configuration #	1	 Signature	

Modes of Operation and Test Conditions

	Value	Limit	Result
802.11(b) 1 Mbps, Low Channel, 0MHz - 12.5GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(b) 1 Mbps, Low Channel, 12.4GHz-25GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(b) 1 Mbps, Mid Channel, 0MHz - 12.5GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(b) 1 Mbps, Mid Channel, 12.4GHz-25GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(b) 1 Mbps, High Channel, 0MHz - 12.5GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(b) 1 Mbps, High Channel, 12.4GHz-25GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(b) 11 Mbps, Low Channel, 0MHz - 12.5GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(b) 11 Mbps, Low Channel, 12.4GHz-25GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(b) 11 Mbps, Mid Channel, 0MHz - 12.5GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(b) 11 Mbps, Mid Channel, 12.4GHz-25GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(b) 11 Mbps, High Channel, 0MHz - 12.5GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(b) 11 Mbps, High Channel, 12.4GHz-25GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(g) 6 Mbps, Low Channel, 0MHz - 12.5GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(g) 6 Mbps, Low Channel, 12.4GHz-25GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(g) 6 Mbps, Mid Channel, 0MHz - 12.5GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(g) 6 Mbps, Mid Channel, 12.4GHz-25GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(g) 6 Mbps, High Channel, 0MHz - 12.5GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(g) 6 Mbps, High Channel, 12.4GHz-25GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(g) 36 Mbps, Low Channel, 0MHz - 12.5GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(g) 36 Mbps, Low Channel, 12.4GHz-25GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(g) 36 Mbps, Mid Channel, 0MHz - 12.5GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(g) 36 Mbps, Mid Channel, 12.4GHz-25GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(g) 36 Mbps, High Channel, 0MHz - 12.5GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(g) 36 Mbps, High Channel, 12.4GHz-25GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(g) 54 Mbps, Low Channel, 0MHz - 12.5GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(g) 54 Mbps, Low Channel, 12.4GHz-25GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(g) 54 Mbps, Mid Channel, 0MHz - 12.5GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(g) 54 Mbps, Mid Channel, 12.4GHz-25GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(g) 54 Mbps, High Channel, 0MHz - 12.5GHz	≤ -40dBc	≤ -20dBc	Pass
802.11(g) 54 Mbps, High Channel, 12.4GHz-25GHz	≤ -40dBc	≤ -20dBc	Pass

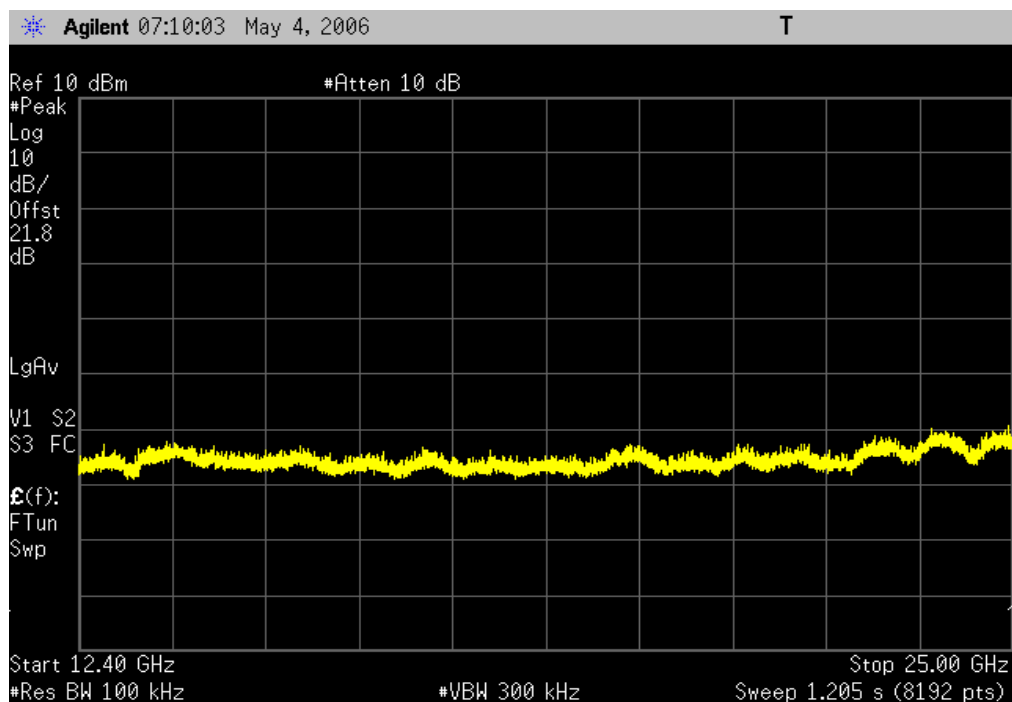
802.11(b) 1 Mbps, Low Channel, 0MHz - 12.5GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

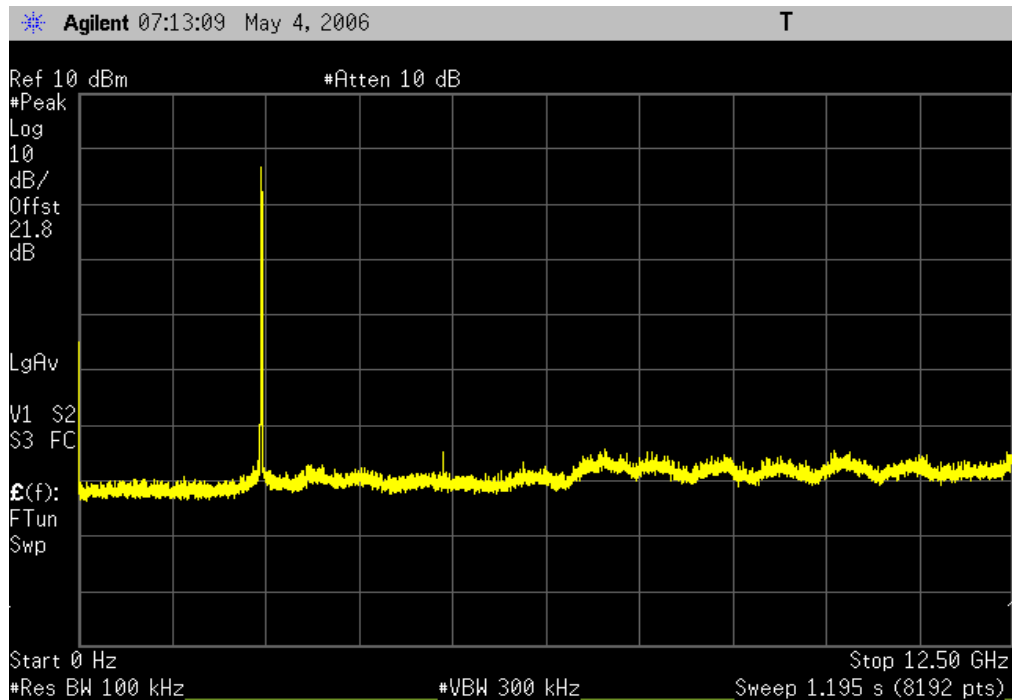
802.11(b) 1 Mbps, Low Channel, 12.4GHz-25GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

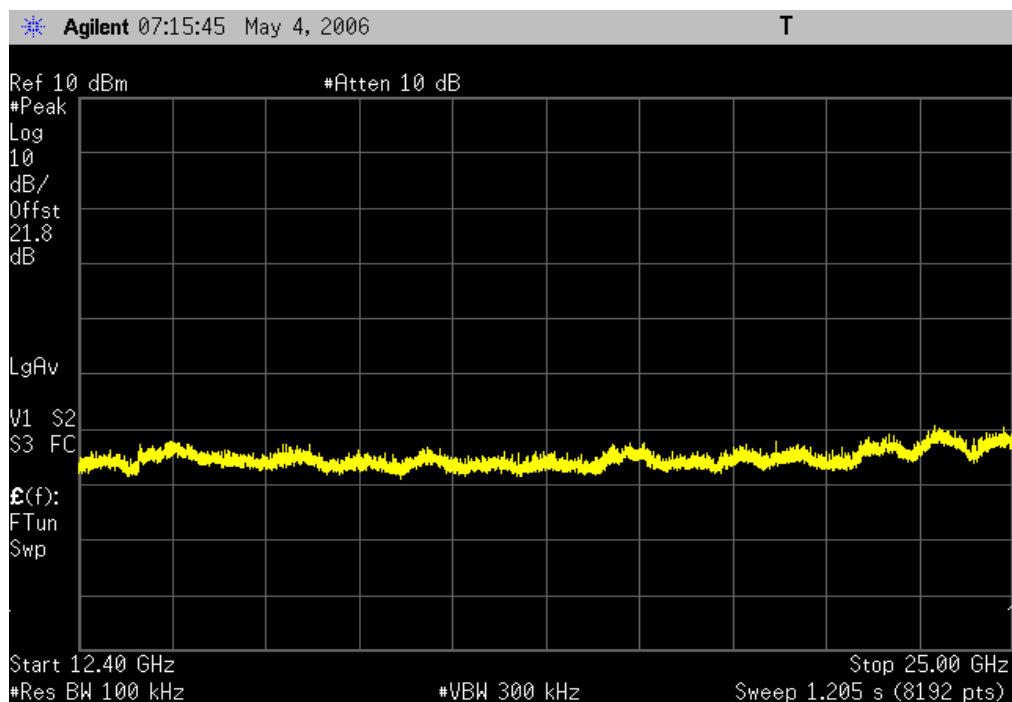
802.11(b) 1 Mbps, Mid Channel, 0MHz - 12.5GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

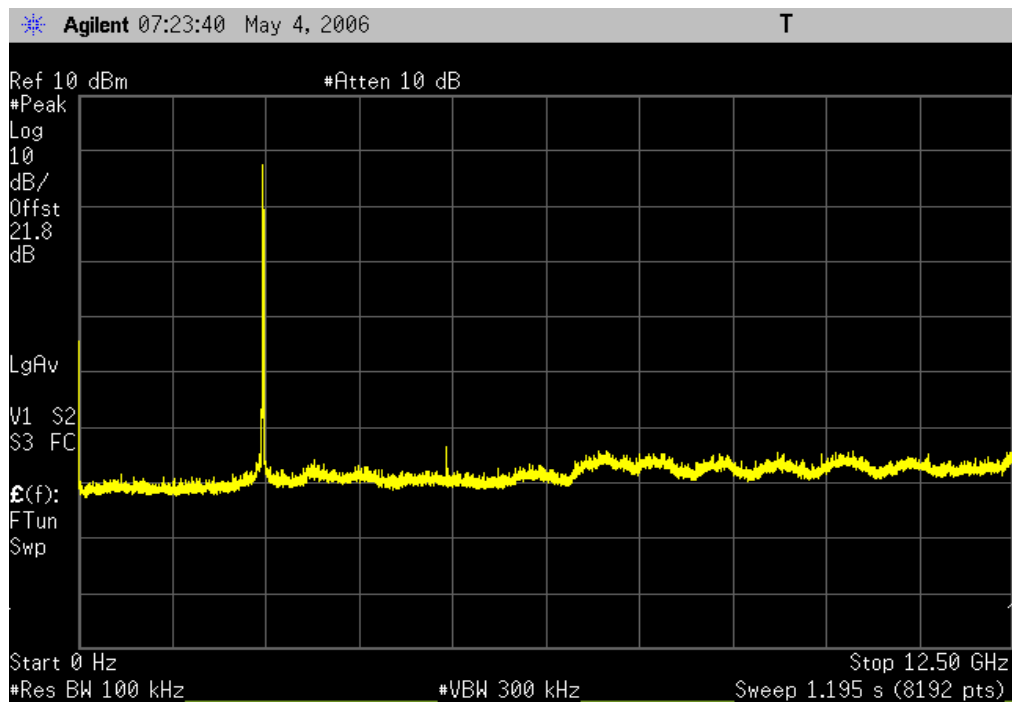
802.11(b) 1 Mbps, Mid Channel, 12.4GHz-25GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

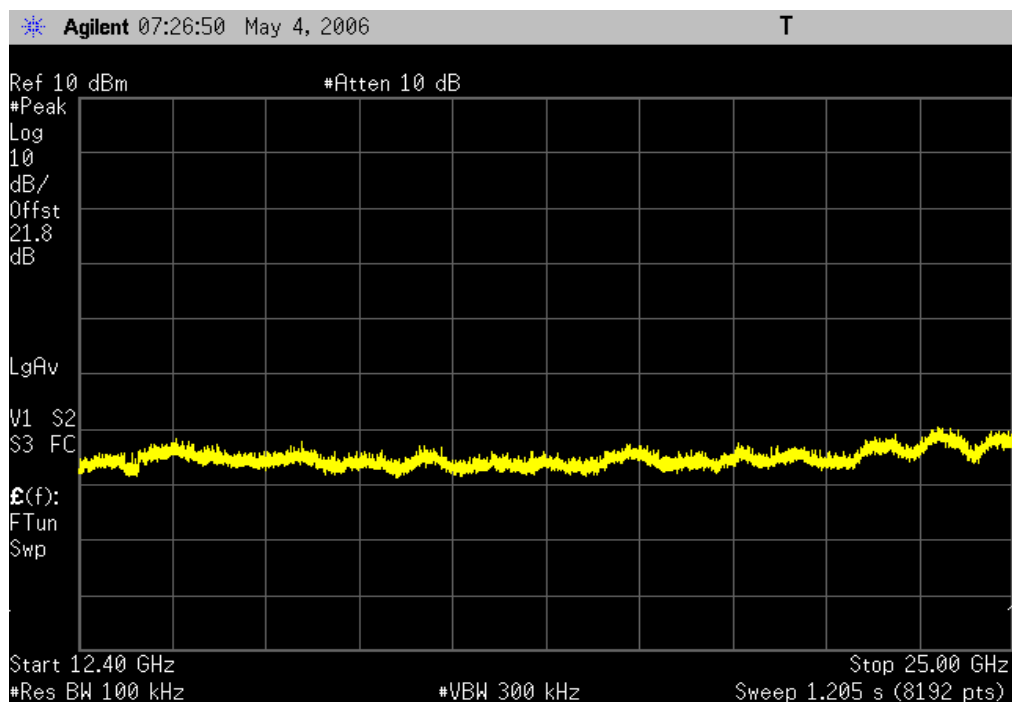
802.11(b) 1 Mbps, High Channel, 0MHz - 12.5GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

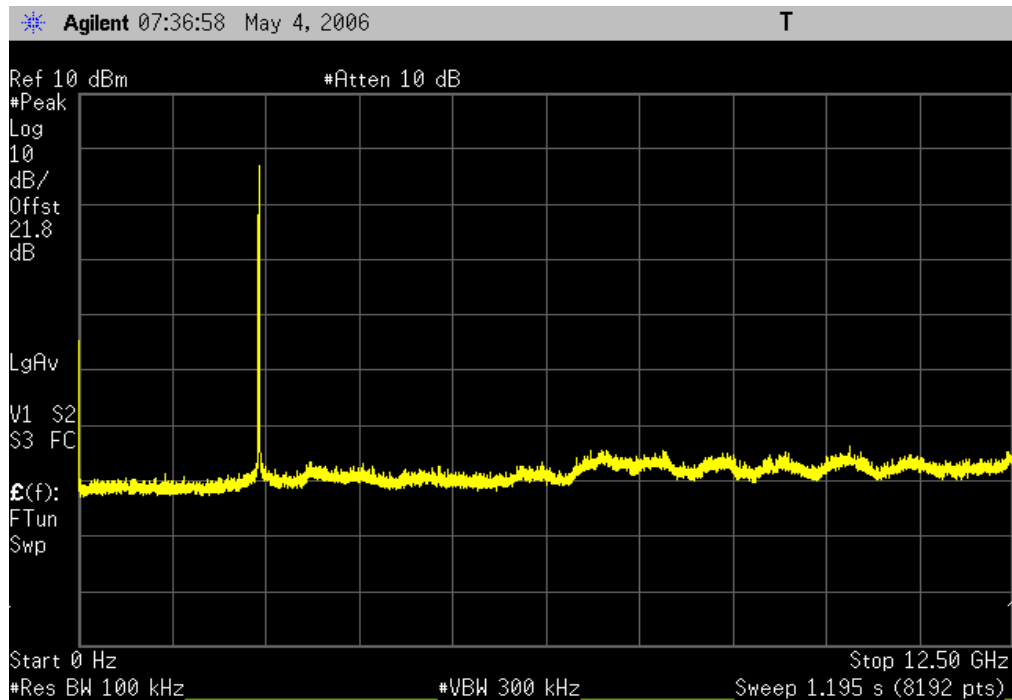
802.11(b) 1 Mbps, High Channel, 12.4GHz-25GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

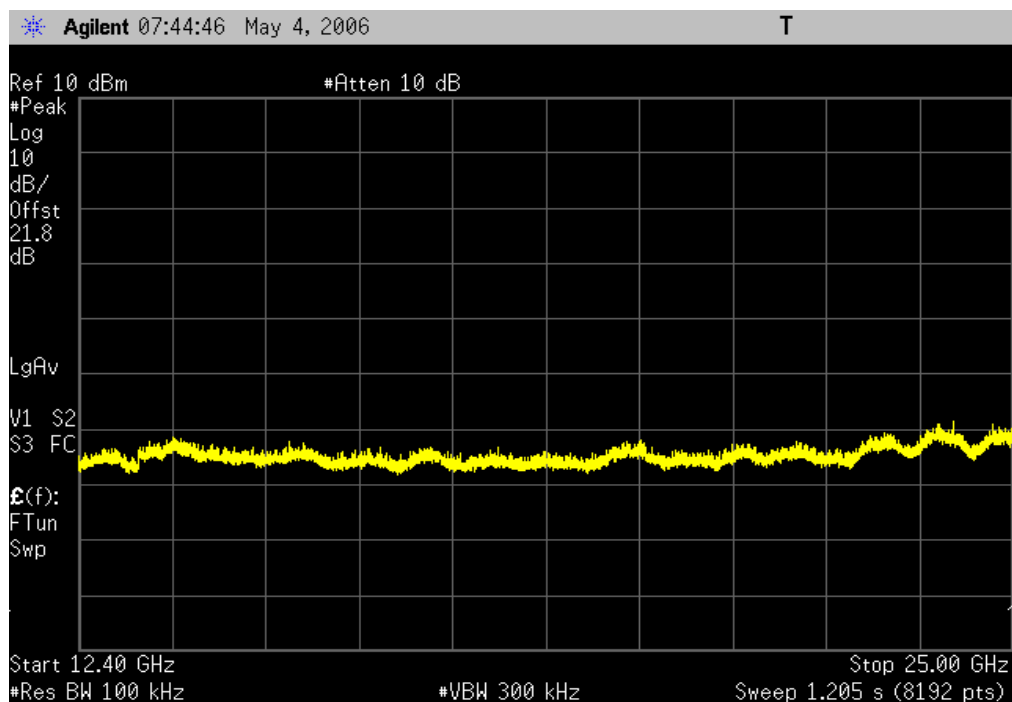
802.11(b) 11 Mbps, Low Channel, 0MHz - 12.5GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

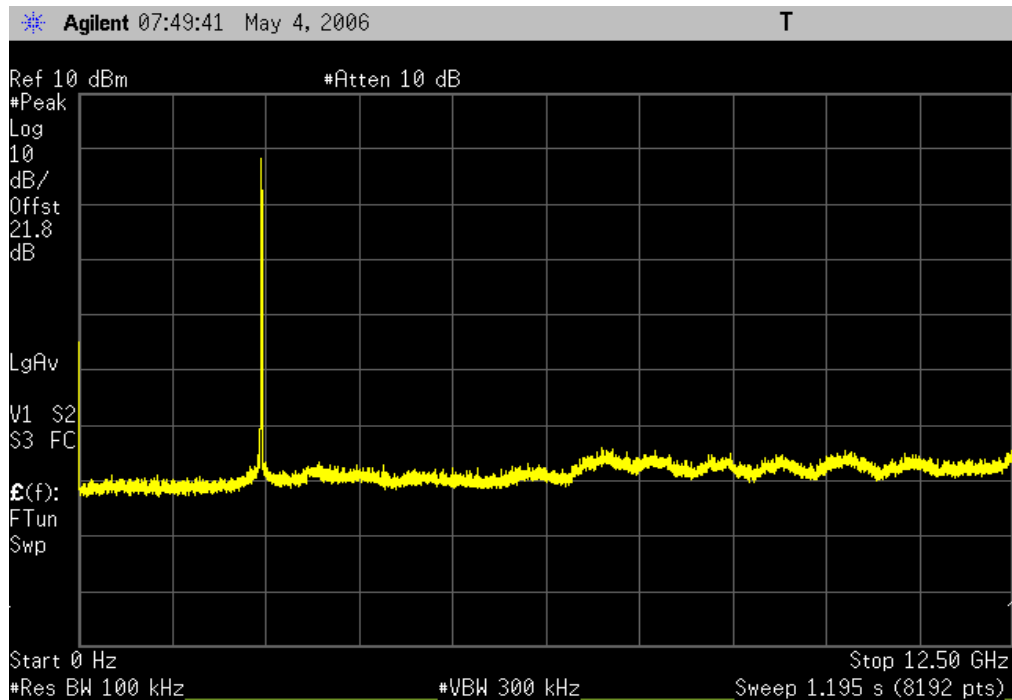
802.11(b) 11 Mbps, Low Channel, 12.4GHz-25GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

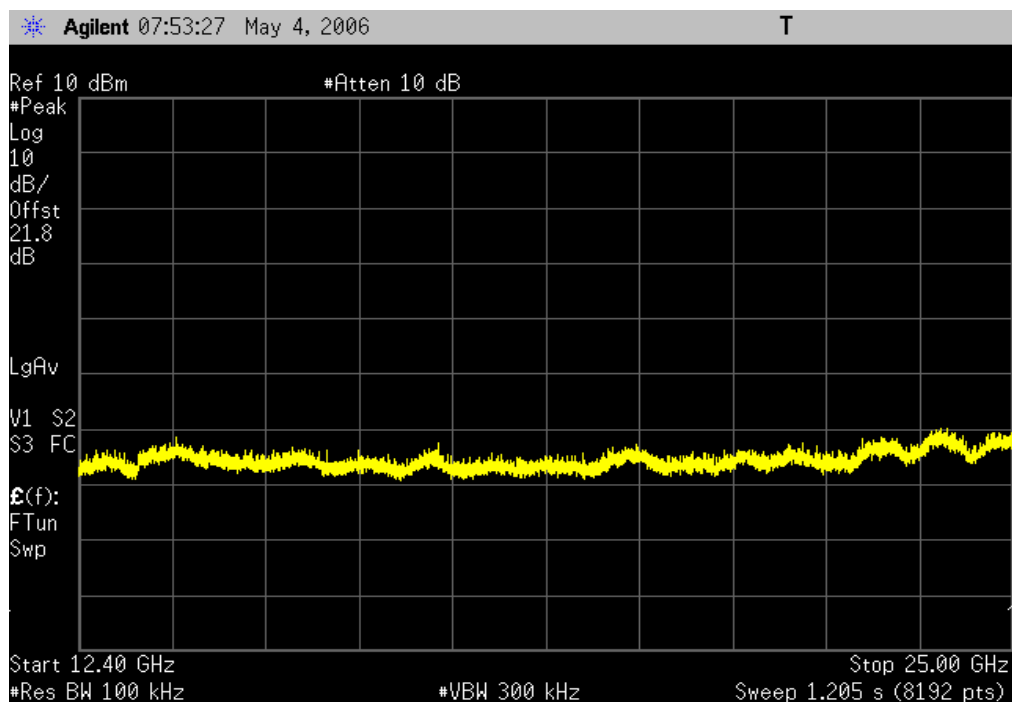
802.11(b) 11 Mbps, Mid Channel, 0MHz - 12.5GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

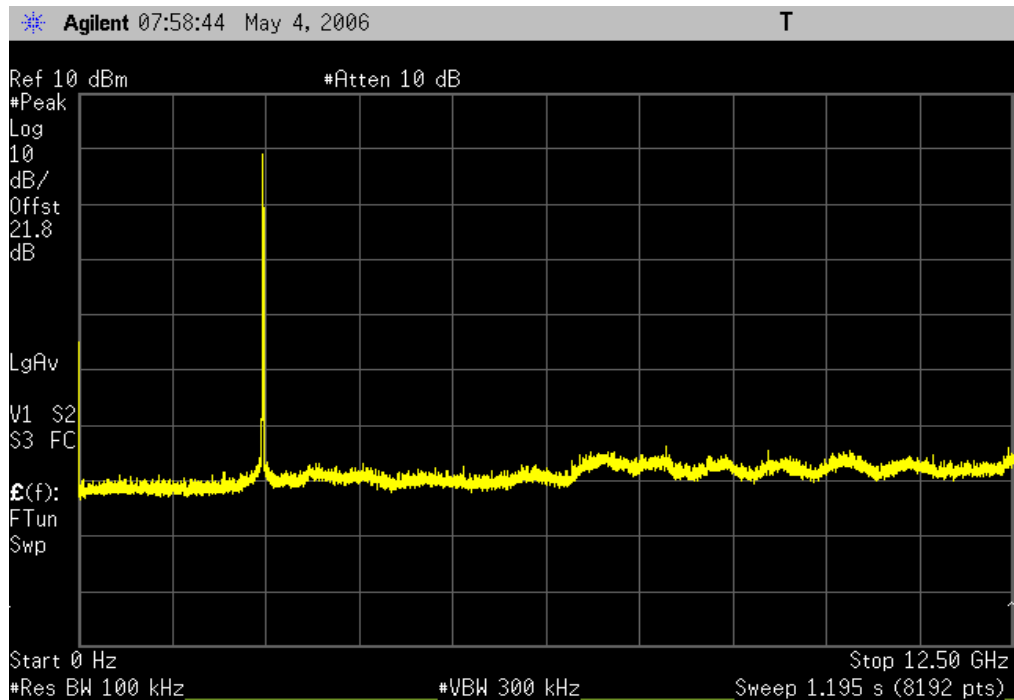
802.11(b) 11 Mbps, Mid Channel, 12.4GHz-25GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

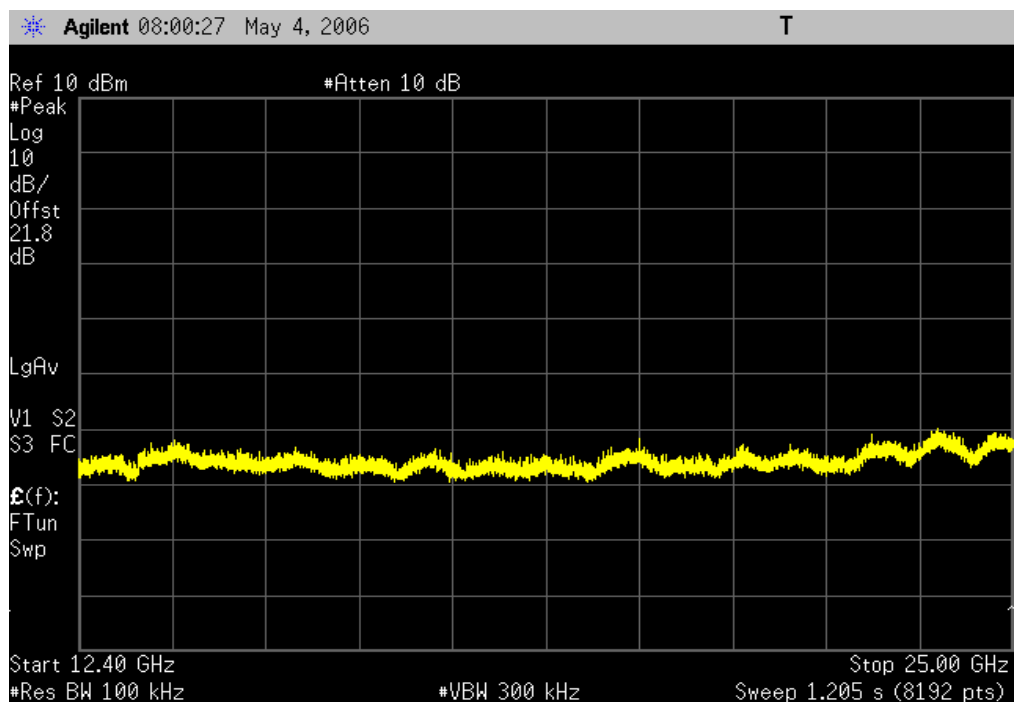
802.11(b) 11 Mbps, High Channel, 0MHz - 12.5GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

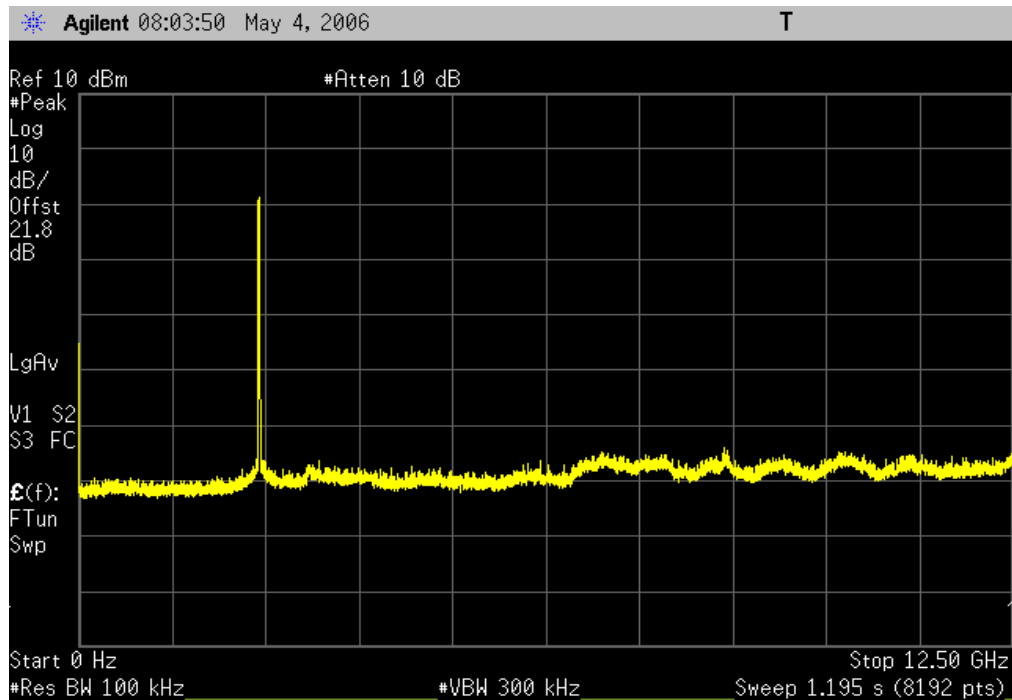
802.11(b) 11 Mbps, High Channel, 12.4GHz-25GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

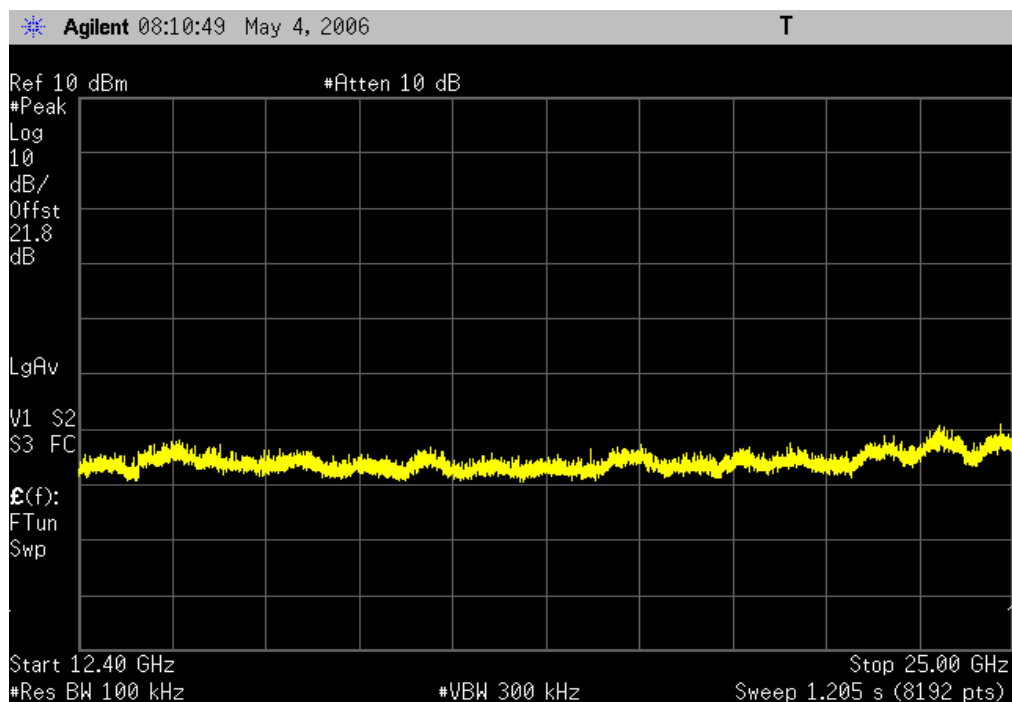
802.11(g) 6 Mbps, Low Channel, 0MHz - 12.5GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

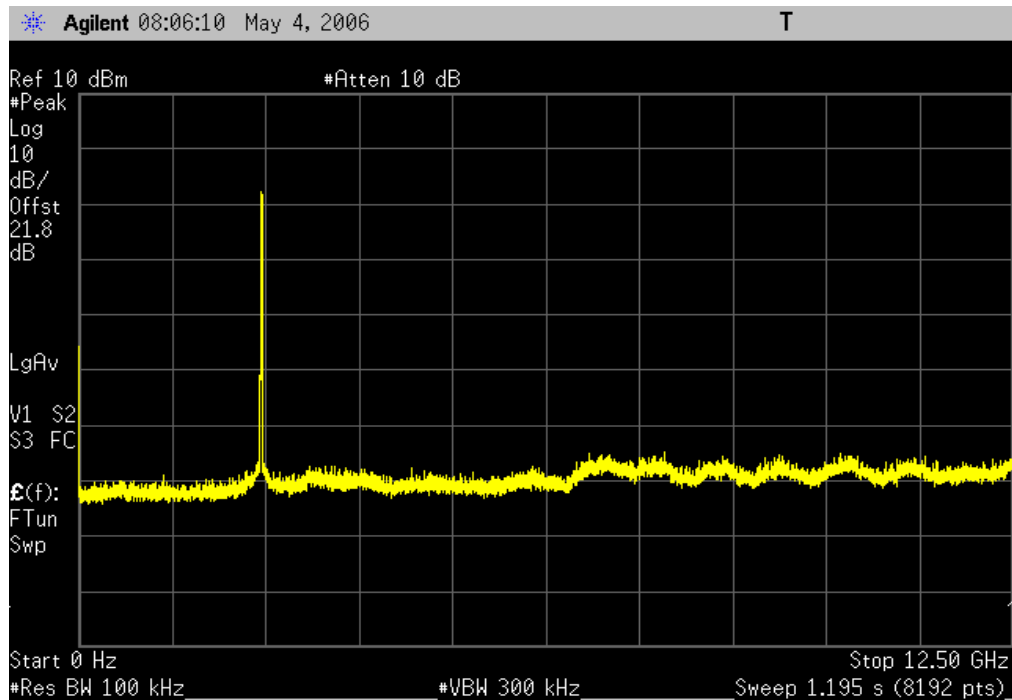
802.11(g) 6 Mbps, Low Channel, 12.4GHz-25GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

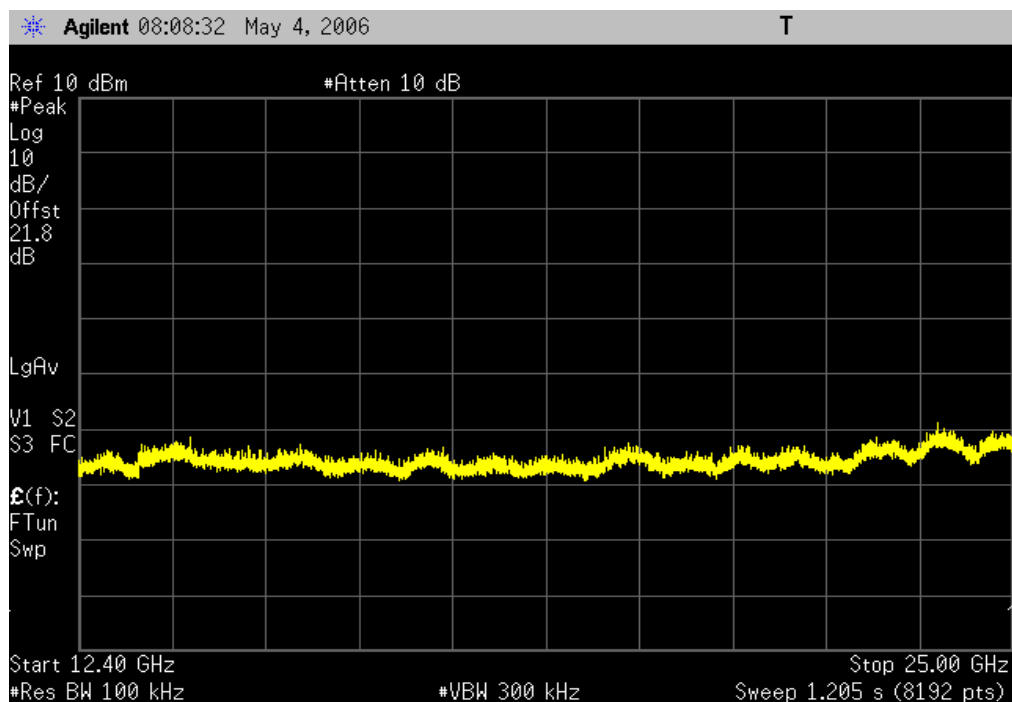
802.11(g) 6 Mbps, Mid Channel, 0MHz - 12.5GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

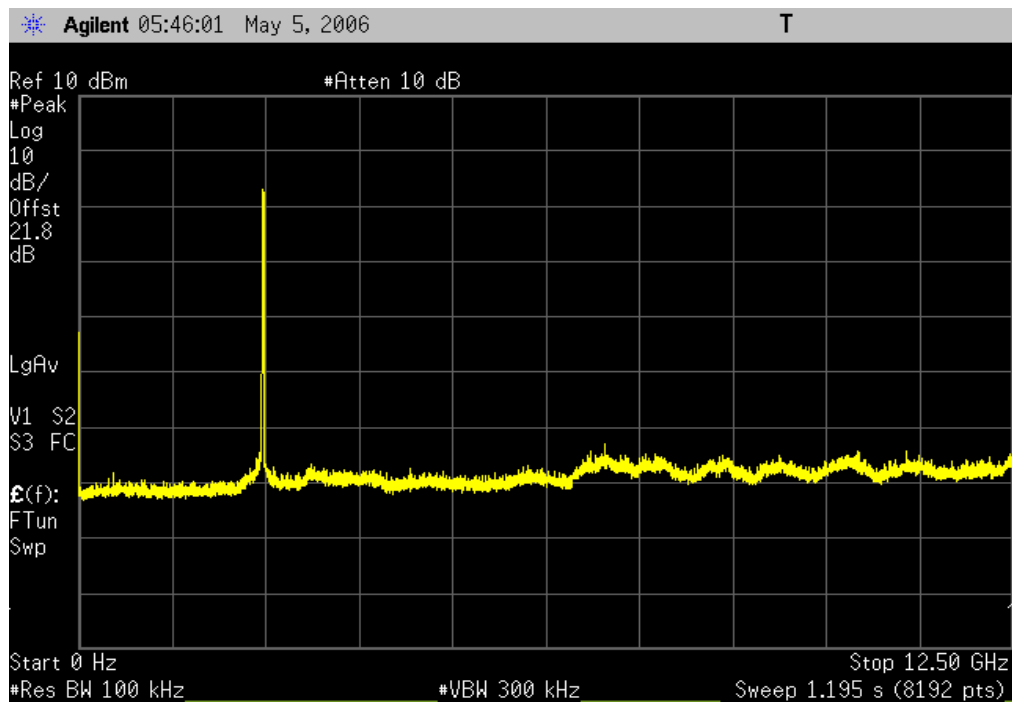
802.11(g) 6 Mbps, Mid Channel, 12.4GHz-25GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

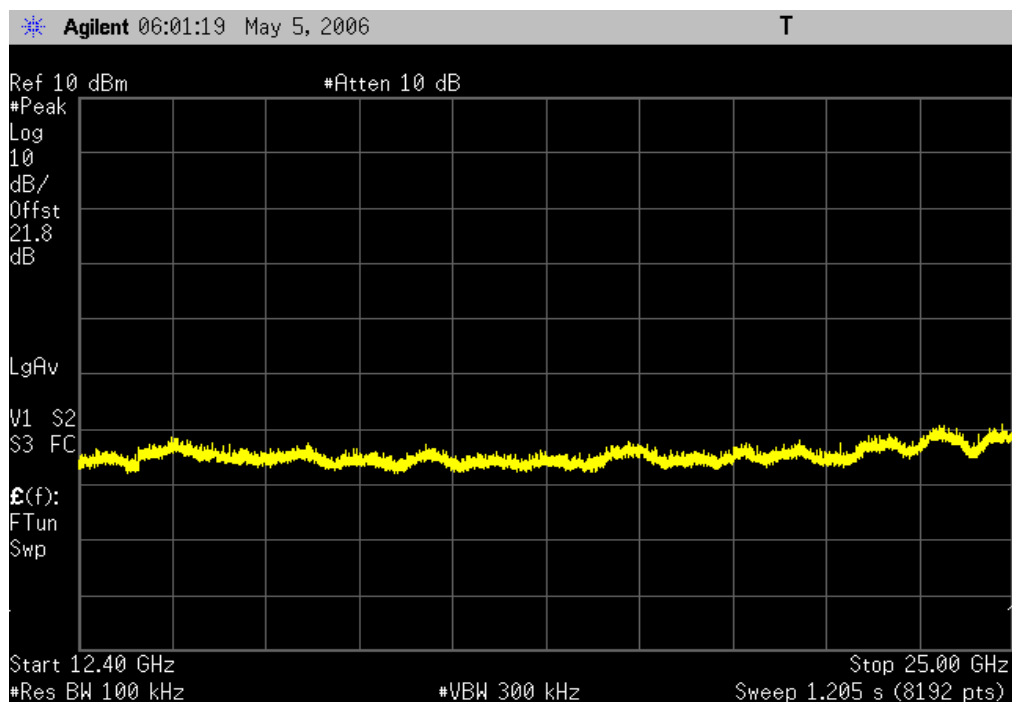
802.11(g) 6 Mbps, High Channel, 0MHz - 12.5GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

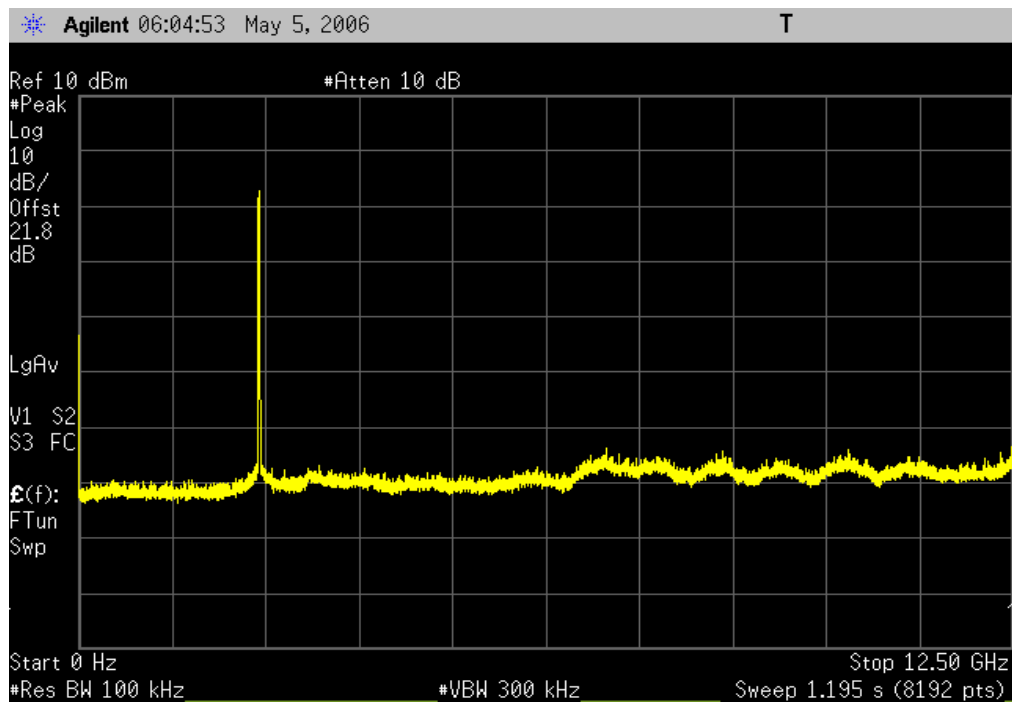
802.11(g) 6 Mbps, High Channel, 12.4GHz-25GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

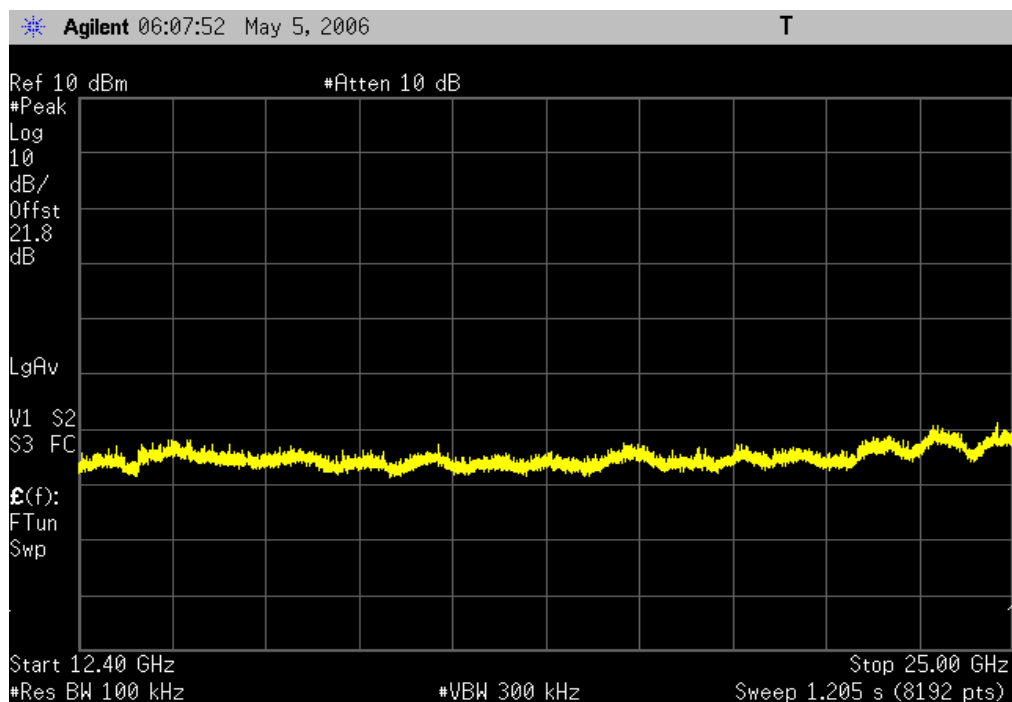
802.11(g) 36 Mbps, Low Channel, 0MHz - 12.5GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

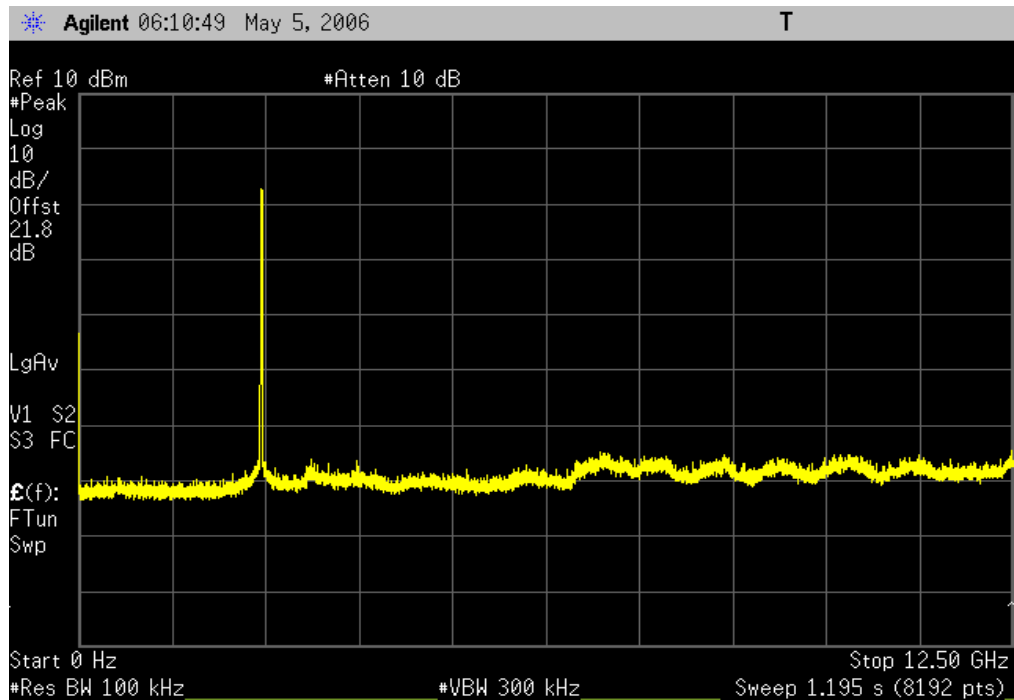
802.11(g) 36 Mbps, Low Channel, 12.4GHz-25GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

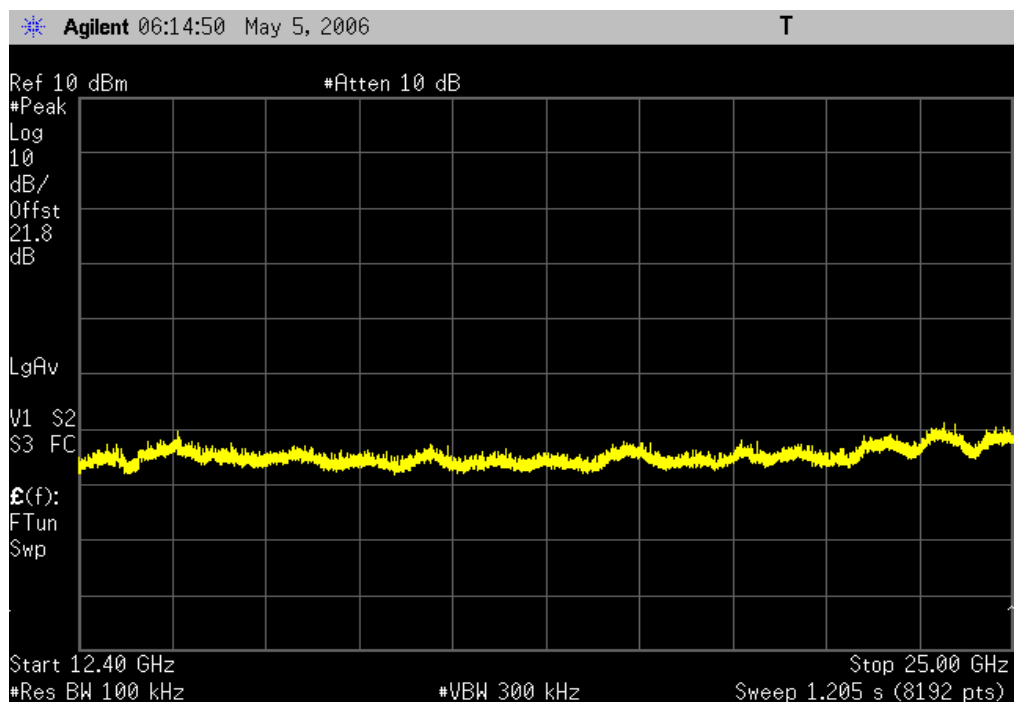
802.11(g) 36 Mbps, Mid Channel, 0MHz - 12.5GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

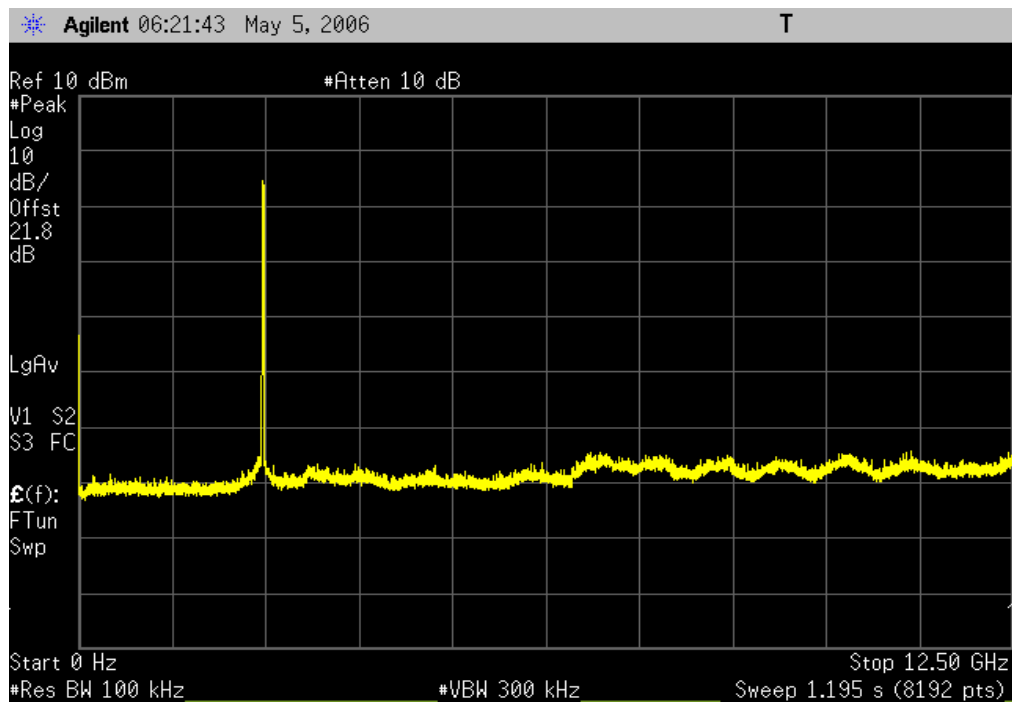
802.11(g) 36 Mbps, Mid Channel, 12.4GHz-25GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

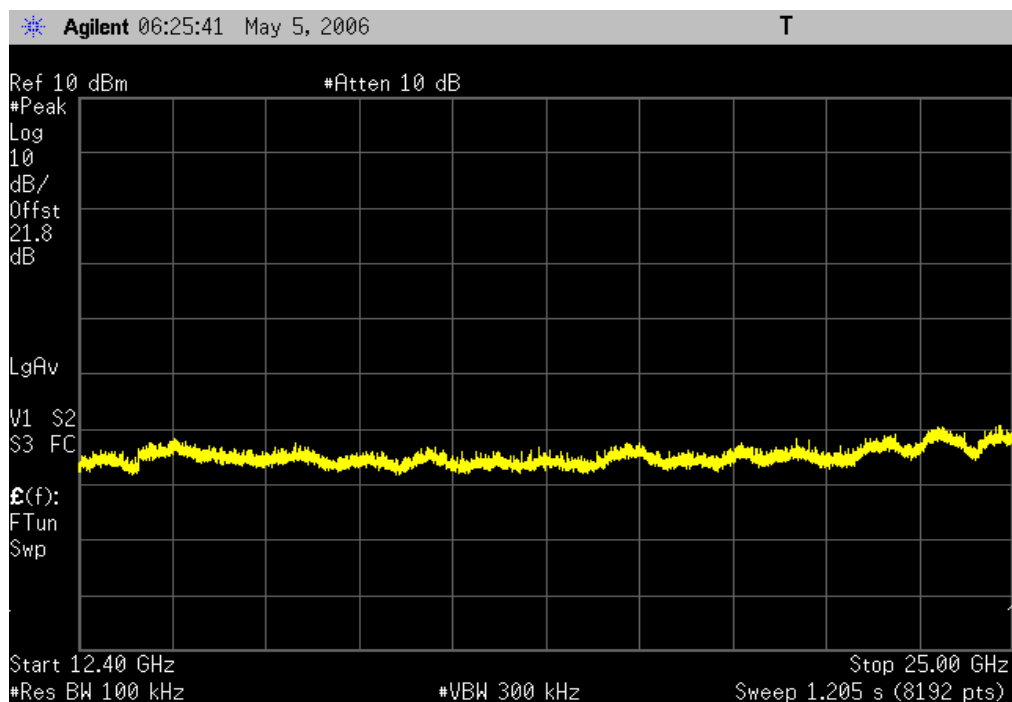
802.11(g) 36 Mbps, High Channel, 0MHz - 12.5GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

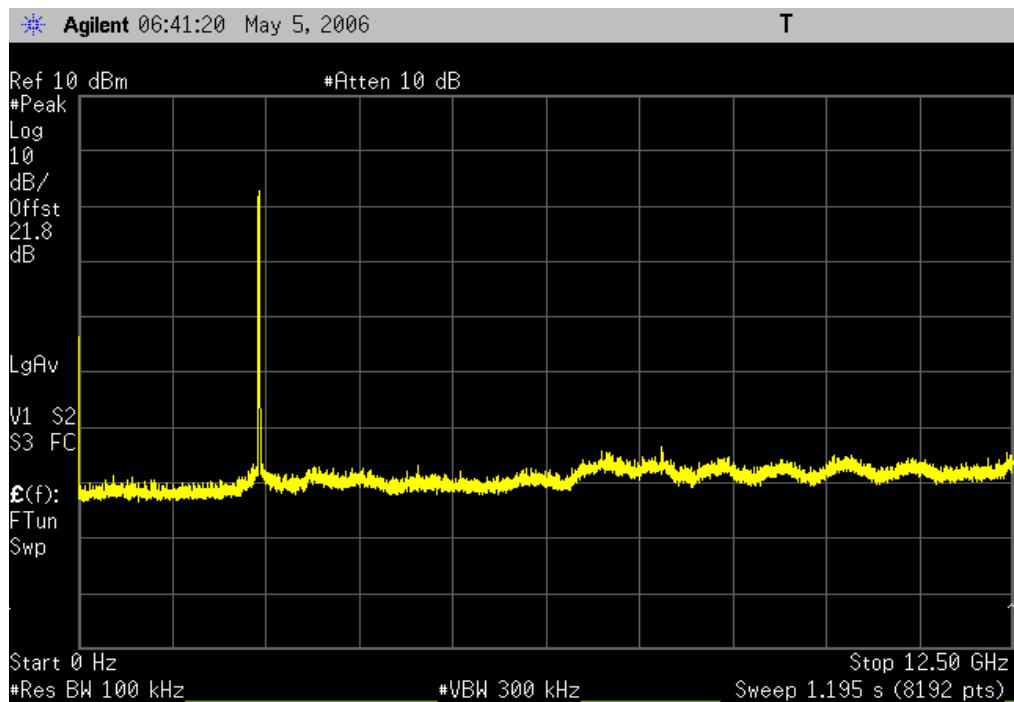
802.11(g) 36 Mbps, High Channel, 12.4GHz-25GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

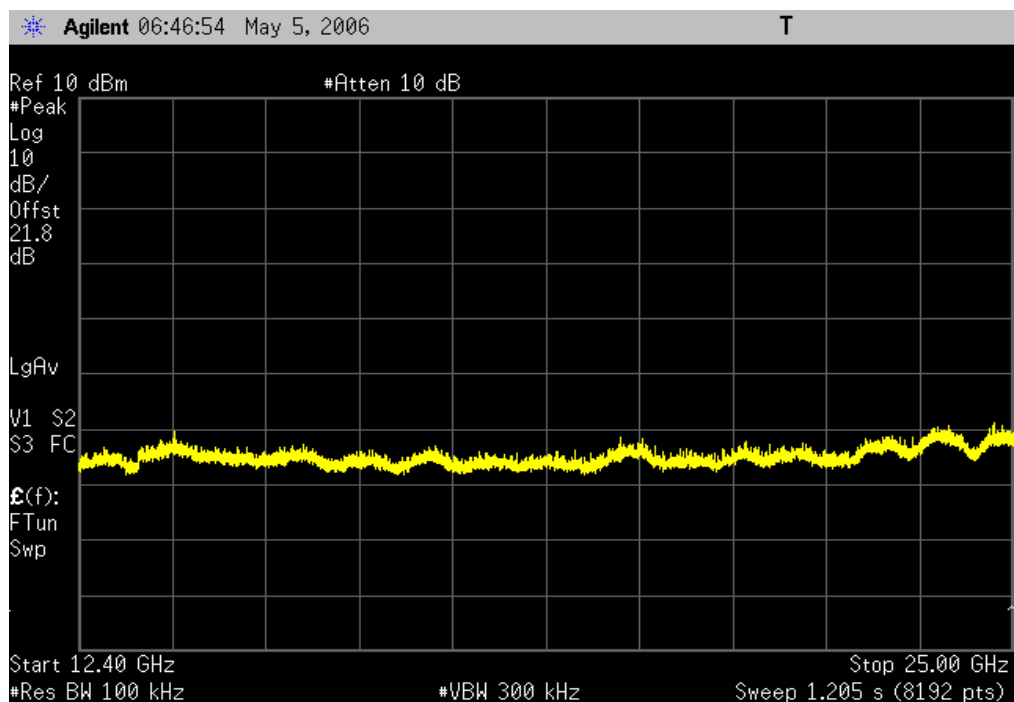
802.11(g) 54 Mbps, Low Channel, 0MHz - 12.5GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

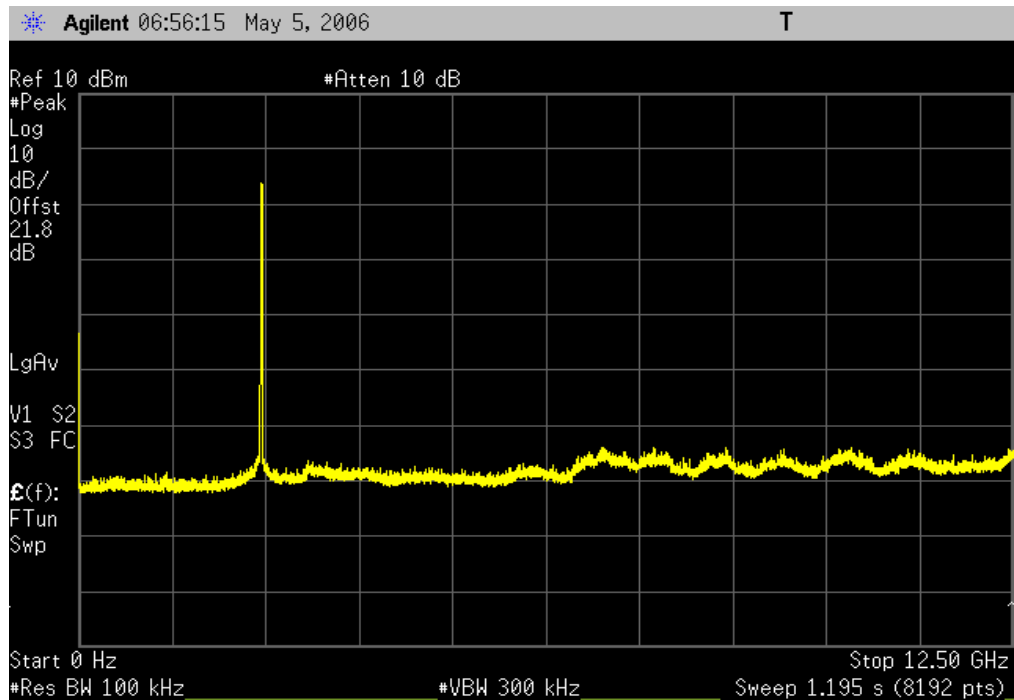
802.11(g) 54 Mbps, Low Channel, 12.4GHz-25GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

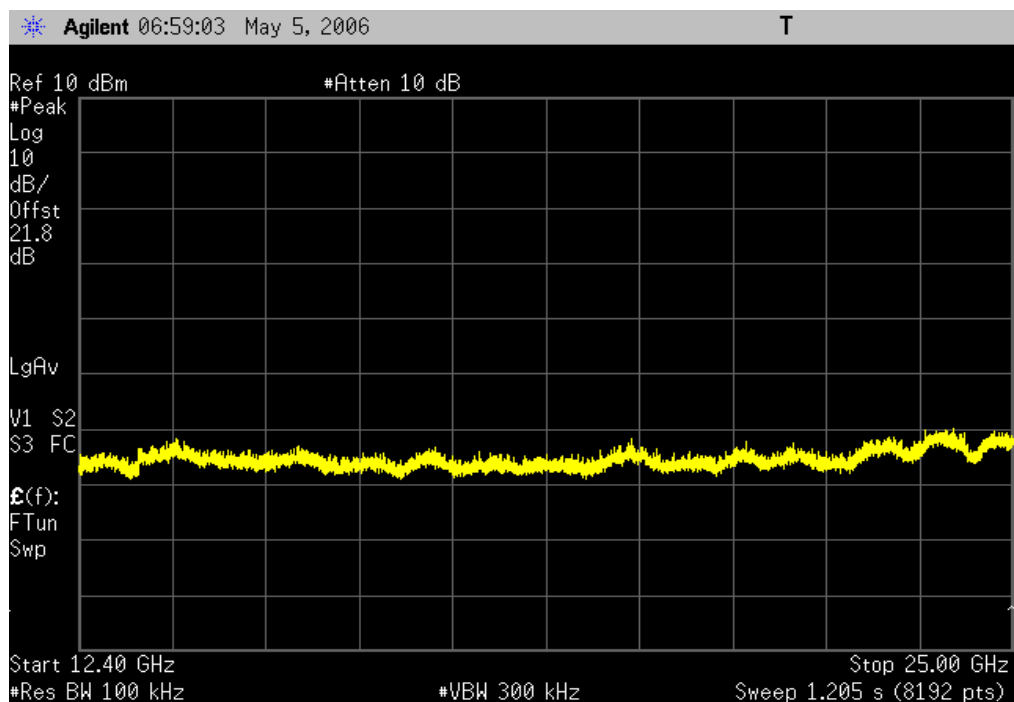
802.11(g) 54 Mbps, Mid Channel, 0MHz - 12.5GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

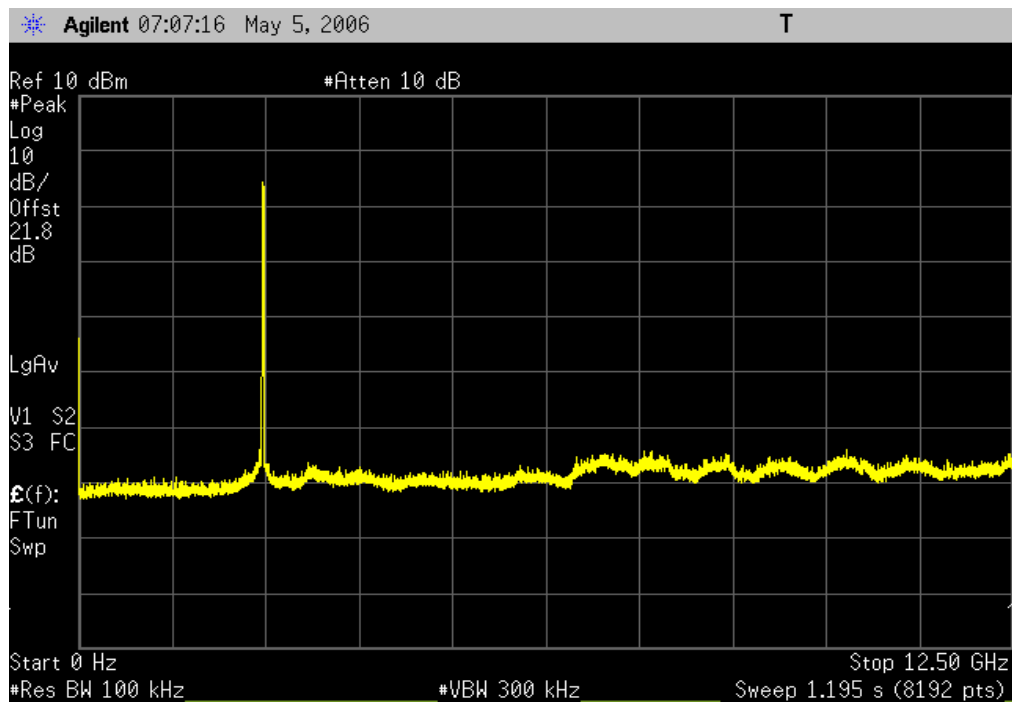
802.11(g) 54 Mbps, Mid Channel, 12.4GHz-25GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

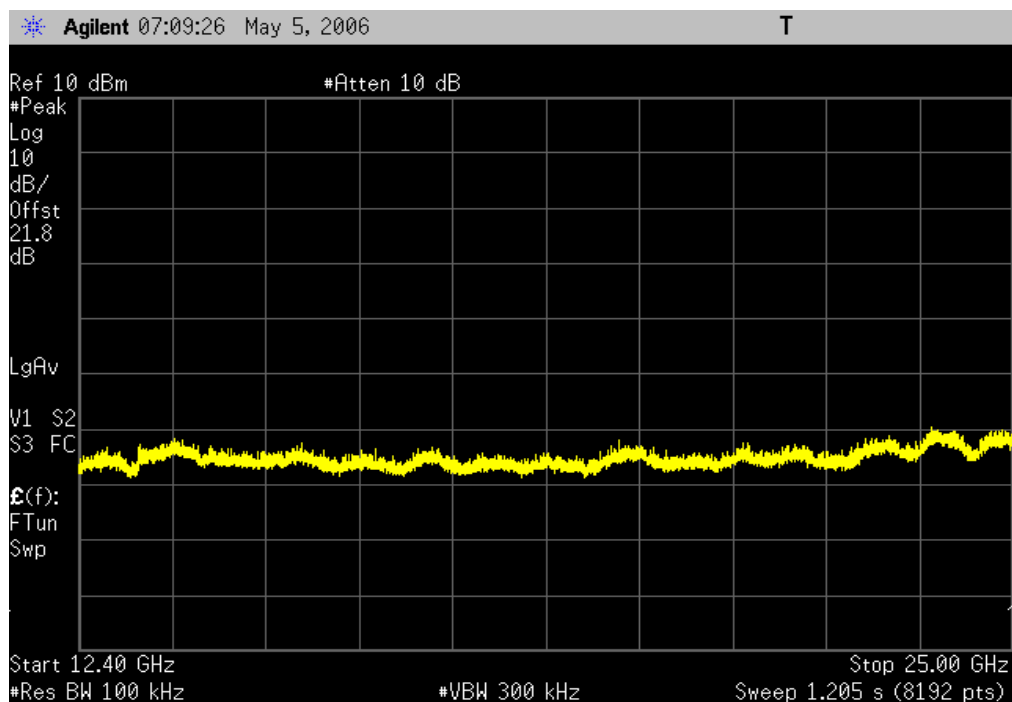
802.11(g) 54 Mbps, High Channel, 0MHz - 12.5GHz

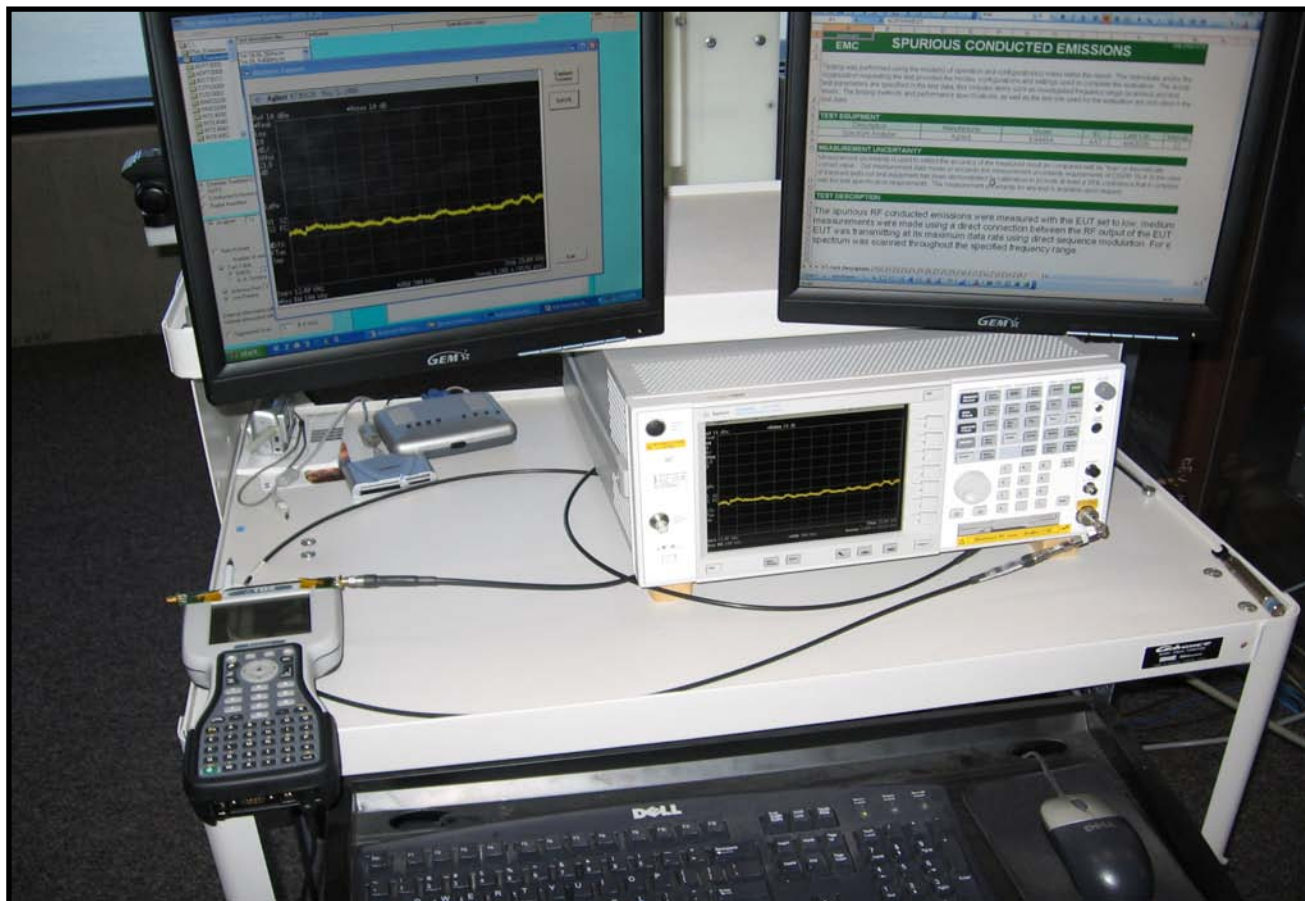
Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 

802.11(g) 54 Mbps, High Channel, 12.4GHz-25GHz

Result: Pass

Value: $\leq -40\text{dBc}$ Limit: $\leq -20\text{dBc}$ 



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
Power Sensor	Hewlett-Packard	8481H	SPB	7/23/2004	24
Power Meter	Hewlett Packard	E4418A	SPA	7/23/2004	24
Signal Generator	Hewlett-Packard	8648D	TGC	1/27/2006	13
Spectrum Analyzer	Hewlett-Packard	8593E	AAN	1/25/2006	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

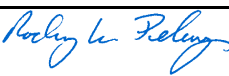
The peak power spectral density measurements were measured with the EUT set to low, mid, and high transmit frequencies. The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The EUT was transmitting at its maximum data rate using direct sequence modulation. Per the procedure outlined in FCC 97-114, 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: WMBGMR01		Work Order: TRPO0016
Serial Number: None		Date: 05/02/06
Customer: Tripod Data Systems, Inc.		Temperature: 21°C
Attendees: None		Humidity: 32%
Project: None		Barometric Pres.: 30.15
Tested by: Rod Peloquin	Power: 120VAC/60Hz	Job Site: EV06
TEST SPECIFICATIONS		
FCC 15.247(e) Power Spectral Density 2005-9		Test Method: ANSI C63.4 2003
COMMENTS		
DEVIATIONS FROM TEST STANDARD		
Configuration #	1	Signature 

Modes of Operation and Test Conditions

	Value	Limit	Result
802.11(b) 1 Mbps, Low Channel	-16.8 dBm / 3 kHz	8 dBm / 3 kHz	Pass
802.11(b) 1 Mbps, Mid Channel	-17.0 dBm / 3 kHz	8 dBm / 3 kHz	Pass
802.11(b) 1 Mbps, High Channel	-16.1 dBm / 3 kHz	8 dBm / 3 kHz	Pass
802.11(b) 11 Mbps, Low Channel	-16.3 dBm / 3 kHz	8 dBm / 3 kHz	Pass
802.11(b) 11 Mbps, Mid Channel	-18.6 dBm / 3 kHz	8 dBm / 3 kHz	Pass
802.11(b) 11 Mbps, High Channel	-18.1 dBm / 3 kHz	8 dBm / 3 kHz	Pass
802.11(g) 6 Mbps, Low Channel	-23.3 dBm / 3 kHz	8 dBm / 3 kHz	Pass
802.11(g) 6 Mbps, Mid Channel	-21.8 dBm / 3 kHz	8 dBm / 3 kHz	Pass
802.11(g) 6 Mbps, High Channel	-21.5 dBm / 3 kHz	8 dBm / 3 kHz	Pass
802.11(g) 36 Mbps, Low Channel	-24.0 dBm / 3 kHz	8 dBm / 3 kHz	Pass
802.11(g) 36 Mbps, Mid Channel	-23.3 dBm / 3 kHz	8 dBm / 3 kHz	Pass
802.11(g) 36 Mbps, High Channel	-22.7 dBm / 3 kHz	8 dBm / 3 kHz	Pass
802.11(g) 54 Mbps, Low Channel	-22.7 dBm / 3 kHz	8 dBm / 3 kHz	Pass
802.11(g) 54 Mbps, Mid Channel	-23.3 dBm / 3 kHz	8 dBm / 3 kHz	Pass
802.11(g) 54 Mbps, High Channel	-22.6 dBm / 3 kHz	8 dBm / 3 kHz	Pass

802.11(b) 1 Mbps, Low Channel

Result: Pass

Value: -16.8 dBm / 3 kHz

Limit: 8 dBm / 3 kHz

08:09:51 MAY 02, 2006

hp

MKR 2.4127005 GHz

REF -10.0 dBm

#AT 10 dB

-51.59 dBm(1 Hz)

SMPL

LOG

S

dB/

OFFST

21.8

dB

VA SB

SC FC

CORR

CENTER 2.4127125 GHz

SPAN 300.0 kHz

#RES BW 3.0 kHz

#VBW 10 kHz

#SWP 100 sec

802.11(b) 1 Mbps, Mid Channel

Result: Pass

Value: -17.0 dBm / 3 kHz

Limit: 8 dBm / 3 kHz

08:43:10 MAY 02, 2006

hp

MKR 2.4427085 GHz

REF -10.0 dBm

#AT 10 dB

-52.75 dBm(1 Hz)

SMPL

LOG

S

dB/

OFFST

21.8

dB

VA SB

SC FC

CORR

CENTER 2.4427175 GHz

SPAN 300.0 kHz

#RES BW 3.0 kHz

#VBW 10 kHz

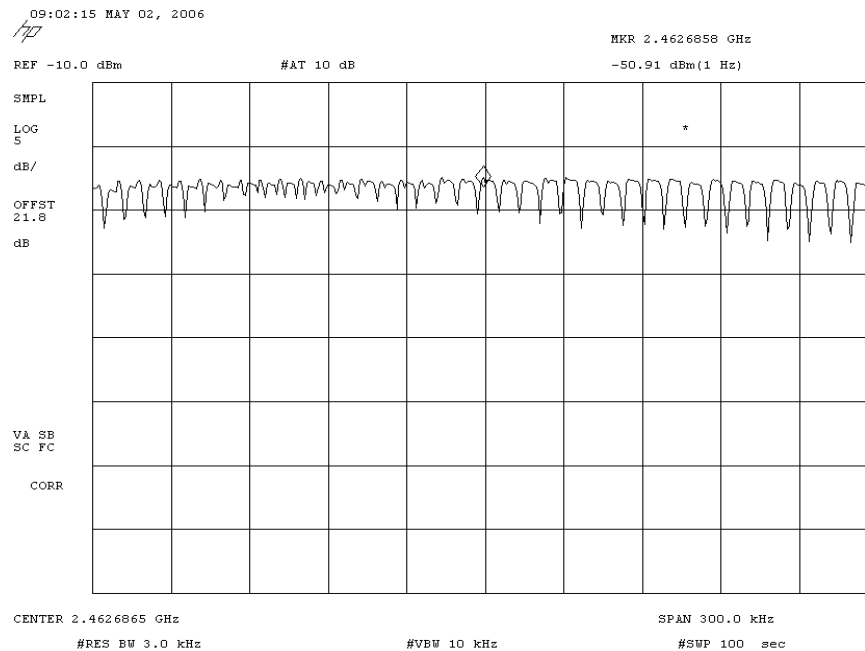
#SWP 100 sec

802.11(b) 1 Mbps, High Channel

Result: Pass

Value: -16.1 dBm / 3 kHz

Limit: 8 dBm / 3 kHz

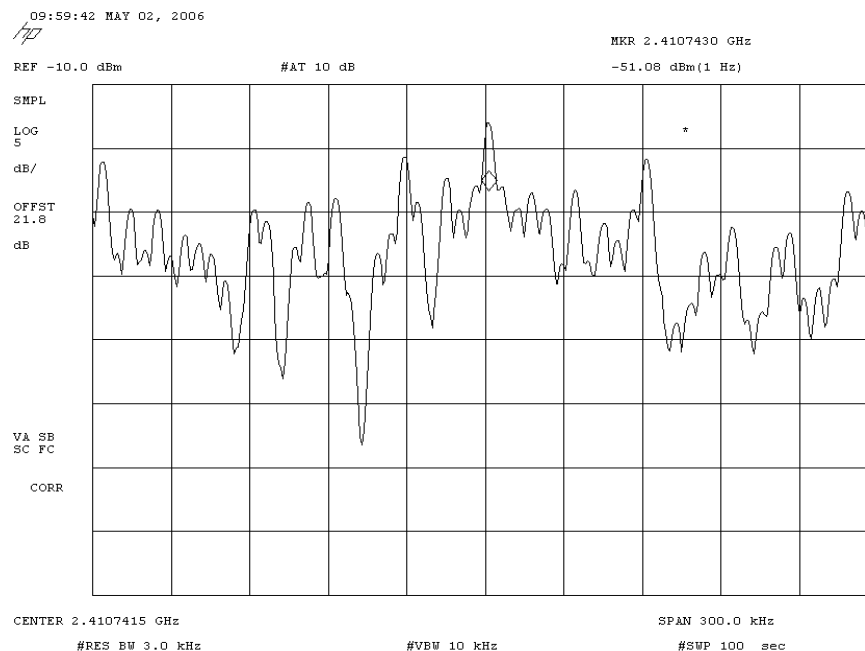


802.11(b) 11 Mbps, Low Channel

Result: Pass

Value: -16.3 dBm / 3 kHz

Limit: 8 dBm / 3 kHz

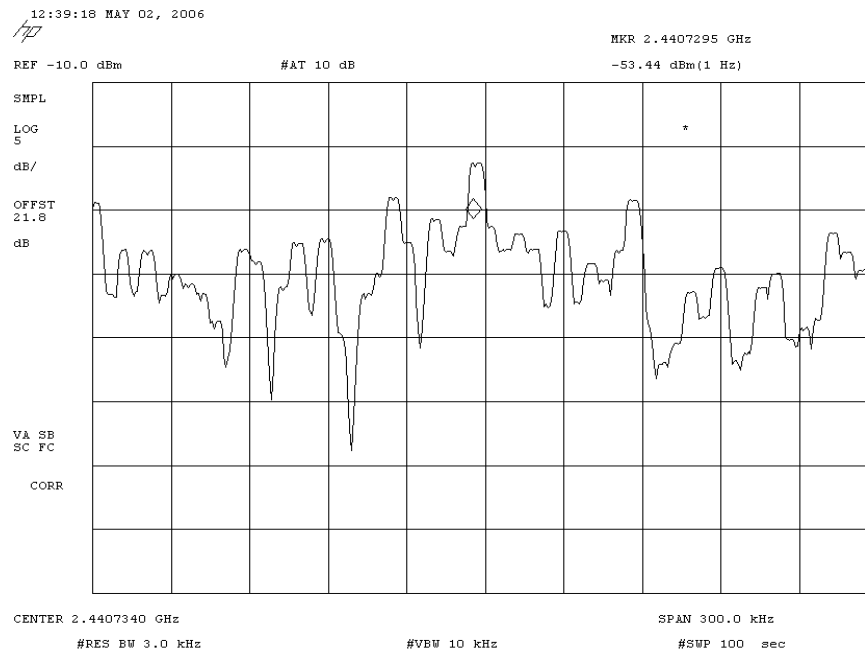


802.11(b) 11 Mbps, Mid Channel

Result: Pass

Value: -18.6 dBm / 3 kHz

Limit: 8 dBm / 3 kHz

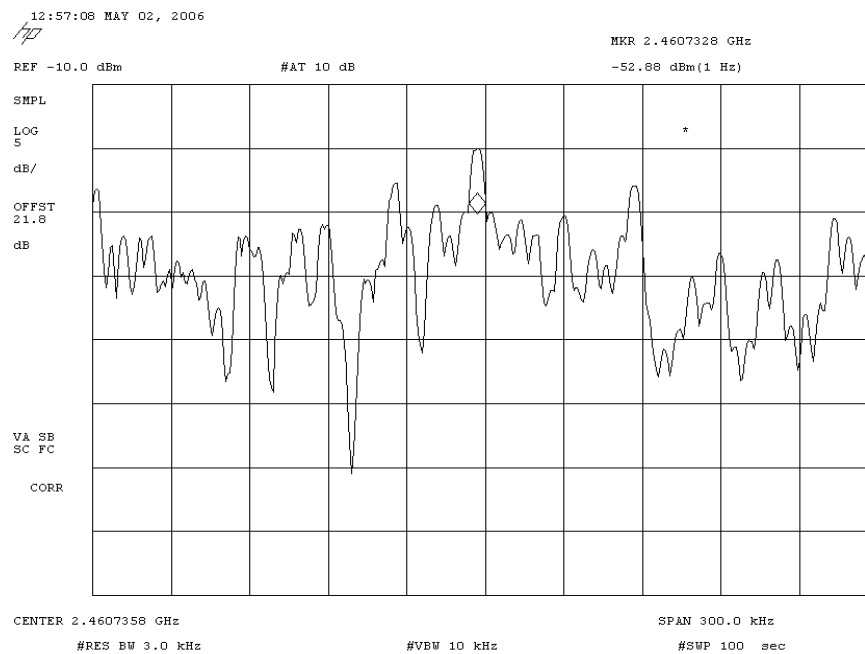


802.11(b) 11 Mbps, High Channel

Result: Pass

Value: -18.1 dBm / 3 kHz

Limit: 8 dBm / 3 kHz

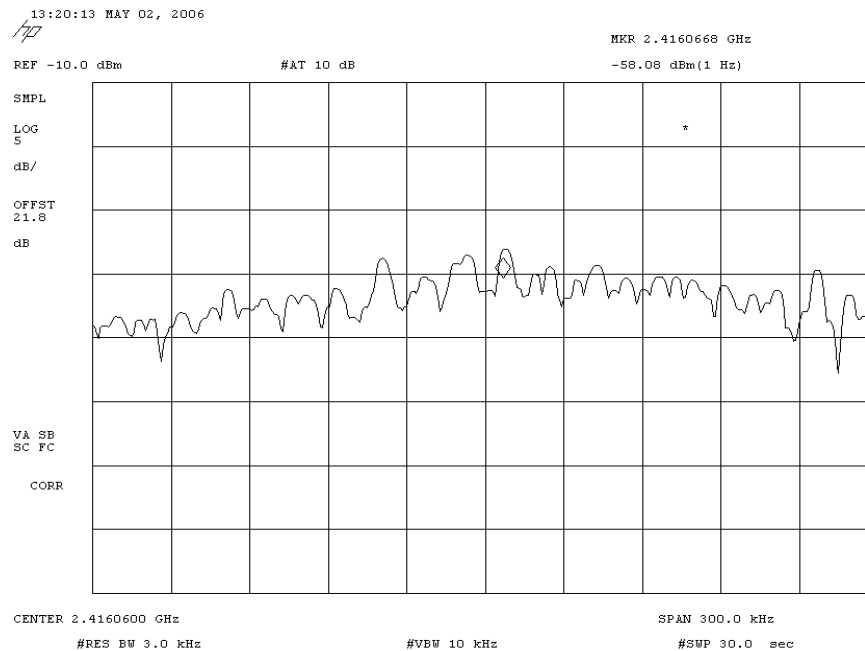


802.11(g) 6 Mbps, Low Channel

Result: Pass

Value: -23.3 dBm / 3 kHz

Limit: 8 dBm / 3 kHz

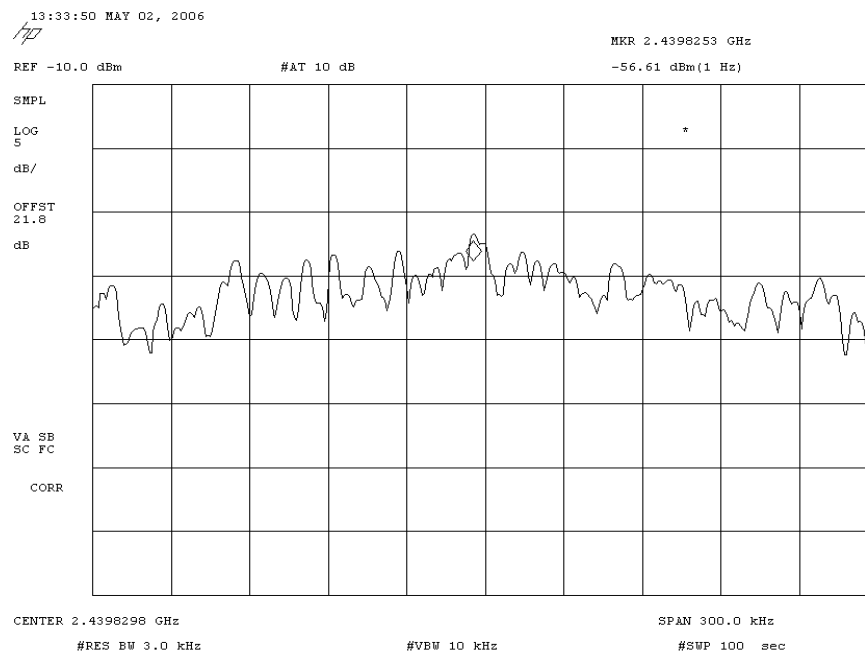


802.11(g) 6 Mbps, Mid Channel

Result: Pass

Value: -21.8 dBm / 3 kHz

Limit: 8 dBm / 3 kHz



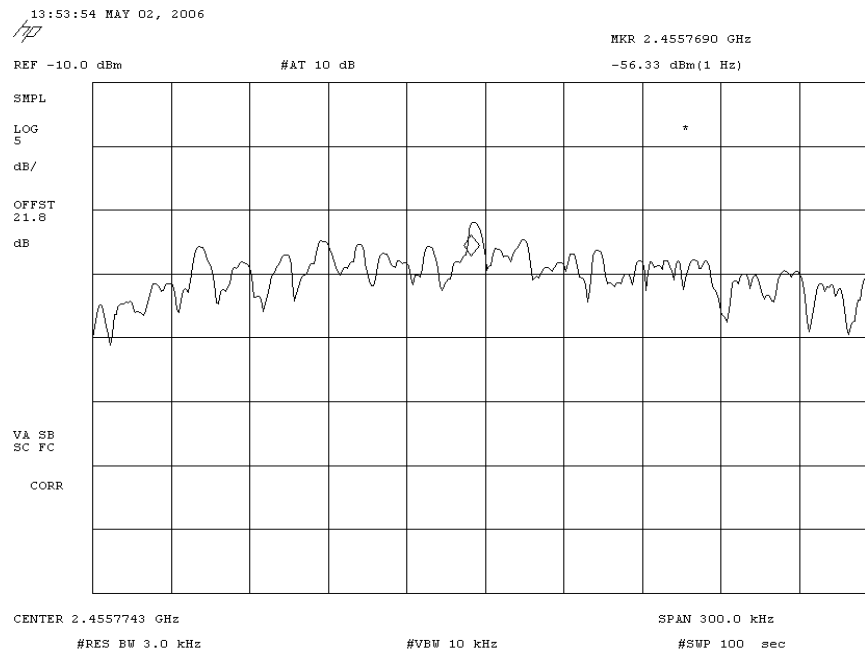
POWER SPECTRAL DENSITY

802.11(g) 6 Mbps, High Channel

Result: Pass

Value: -21.5 dBm / 3 kHz

Limit: 8 dBm / 3 kHz

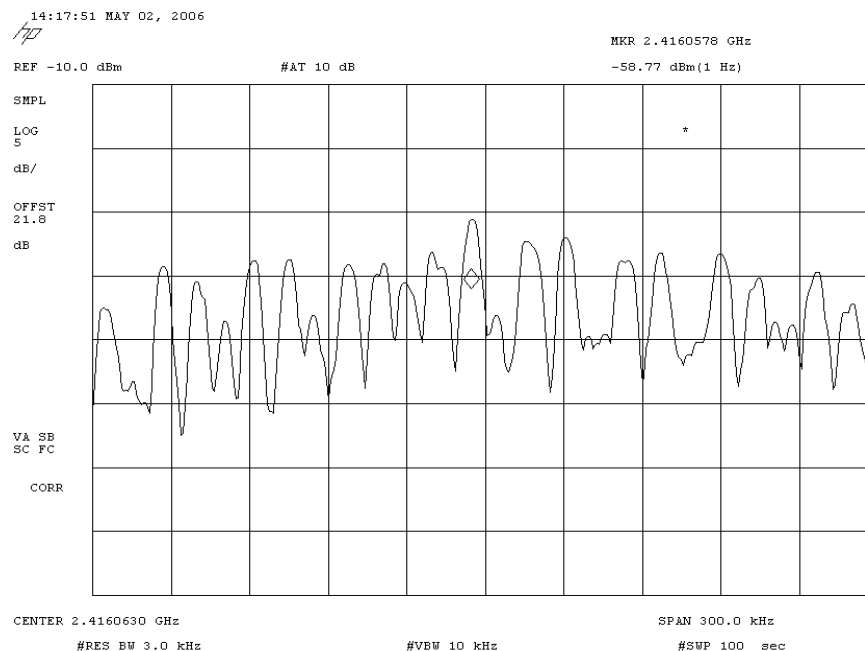


802.11(g) 36 Mbps, Low Channel

Result: Pass

Value: -24.0 dBm / 3 kHz

Limit: 8 dBm / 3 kHz

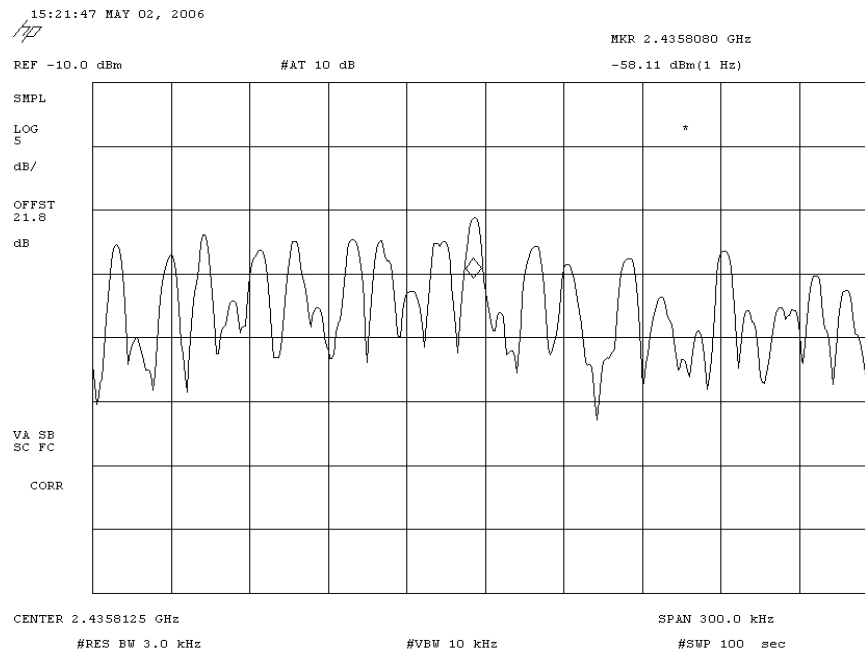


802.11(g) 36 Mbps, Mid Channel

Result: Pass

Value: -23.3 dBm / 3 kHz

Limit: 8 dBm / 3 kHz

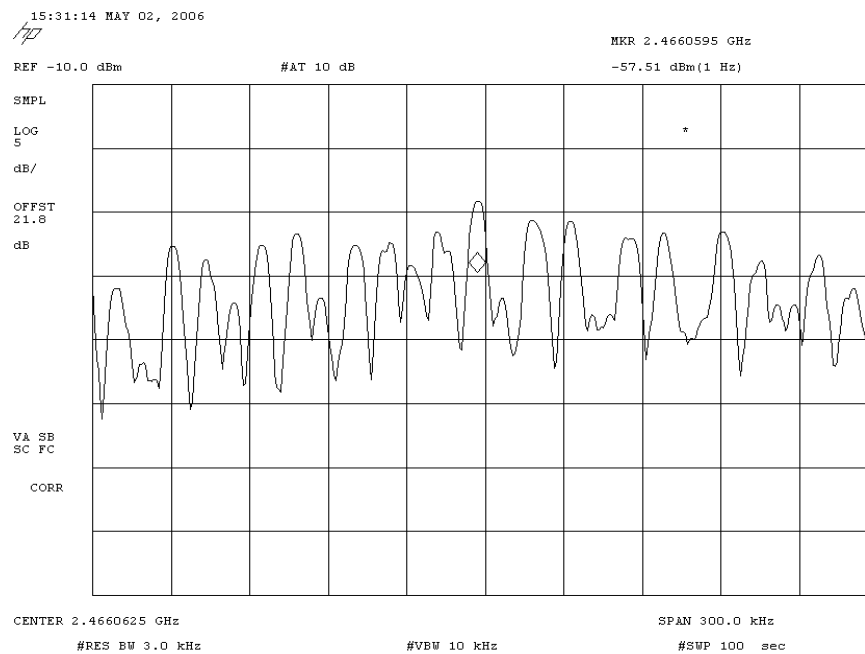


802.11(g) 36 Mbps, High Channel

Result: Pass

Value: -22.7 dBm / 3 kHz

Limit: 8 dBm / 3 kHz



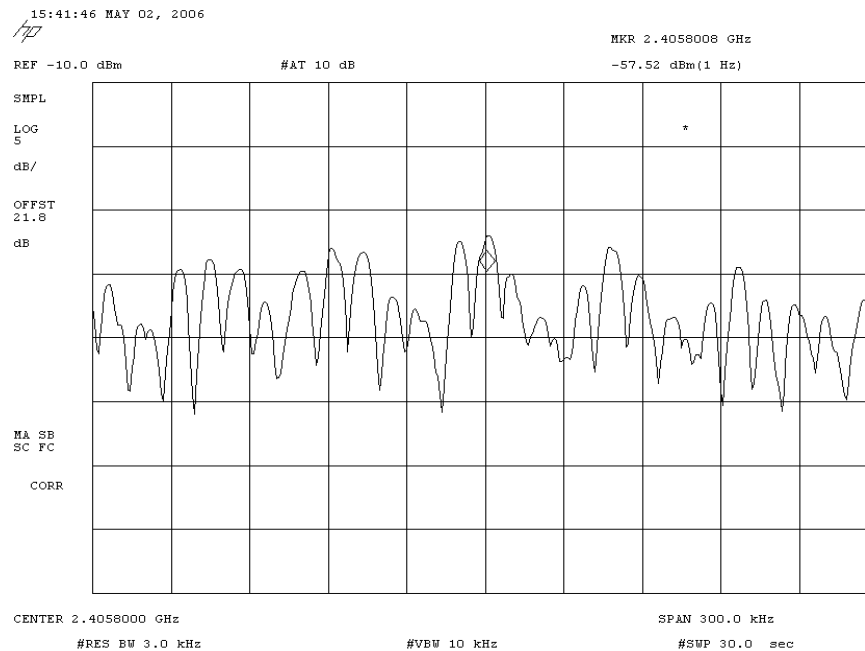
POWER SPECTRAL DENSITY

802.11(g) 54 Mbps, Low Channel

Result: Pass

Value: -22.7 dBm / 3 kHz

Limit: 8 dBm / 3 kHz

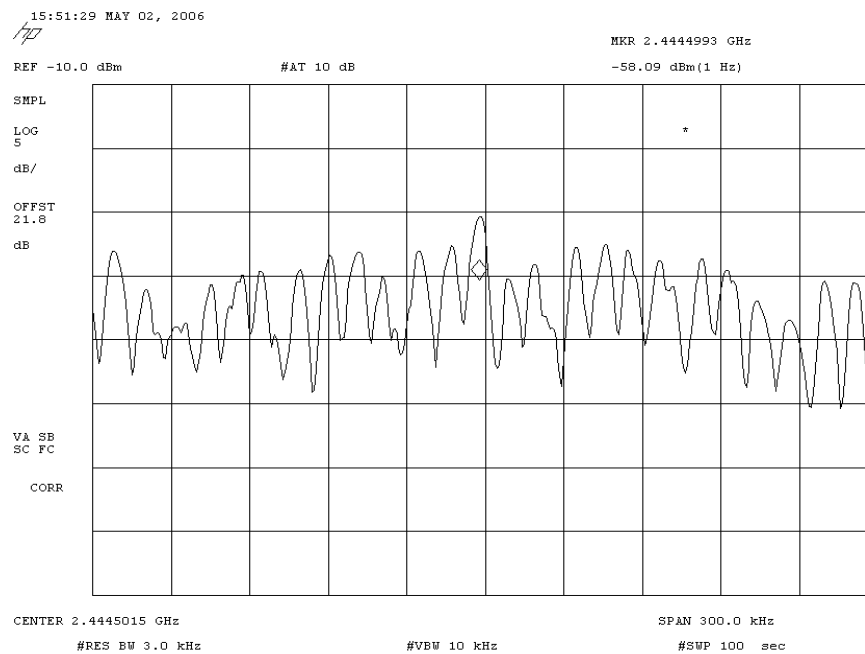


802.11(g) 54 Mbps, Mid Channel

Result: Pass

Value: -23.3 dBm / 3 kHz

Limit: 8 dBm / 3 kHz



802.11(g) 54 Mbps, High Channel

Result: Pass

Value: -22.6 dBm / 3 kHz

Limit: 8 dBm / 3 kHz

15:57:49 MAY 02, 2006

hp

MKR 2.4663823 GHz

REF -10.0 dBm

#AT 10 dB

-57.36 dBm(1 Hz)

SMPL

LOG

dB/

OFFST

dB

VA SB

SC FC

CORR

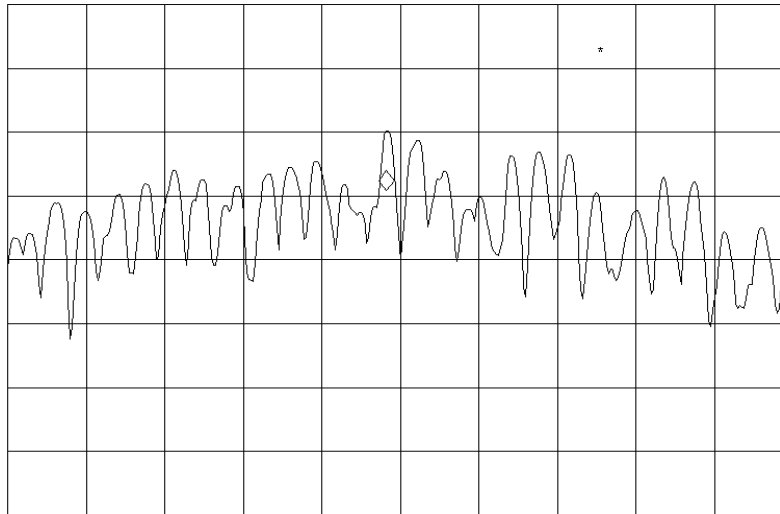
CENTER 2.4663875 GHz

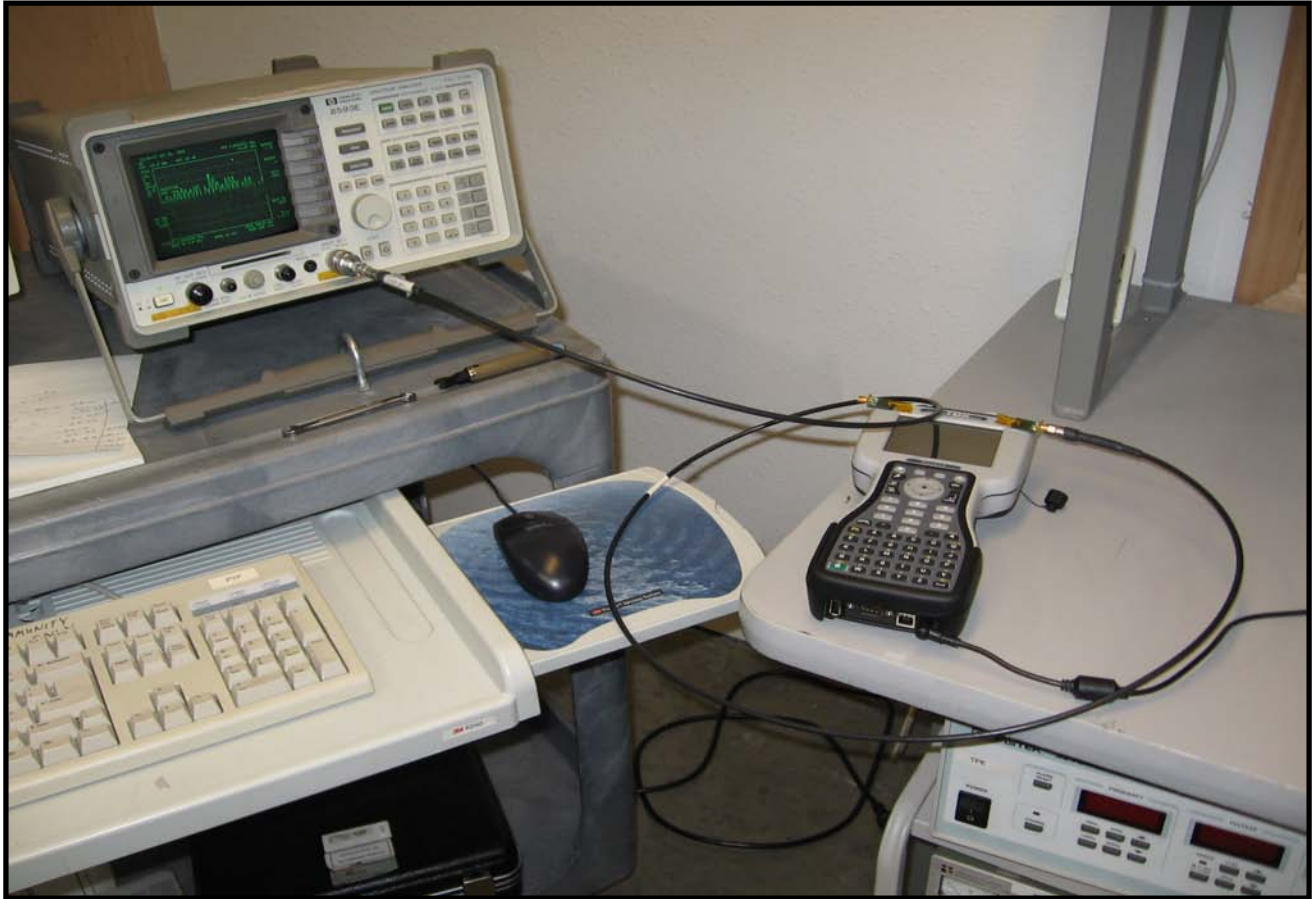
SPAN 300.0 kHz

#RES BW 3.0 kHz

#VBW 10 kHz

#SVP 100 sec





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

802.11(b) 1Mbps: Low Channel, Mid Channel, High Channel

802.11(b) 11Mbps: Low Channel, Mid Channel, High Channel

802.11(g) 6Mbps: Low Channel, Mid Channel, High Channel

802.11(g) 36Mbps: Low Channel, Mid Channel, High Channel

802.11(g) 54Mbps: Low Channel, Mid Channel, High Channel

POWER SETTINGS INVESTIGATED

120VAC/60Hz

TEST EQUIPMENT


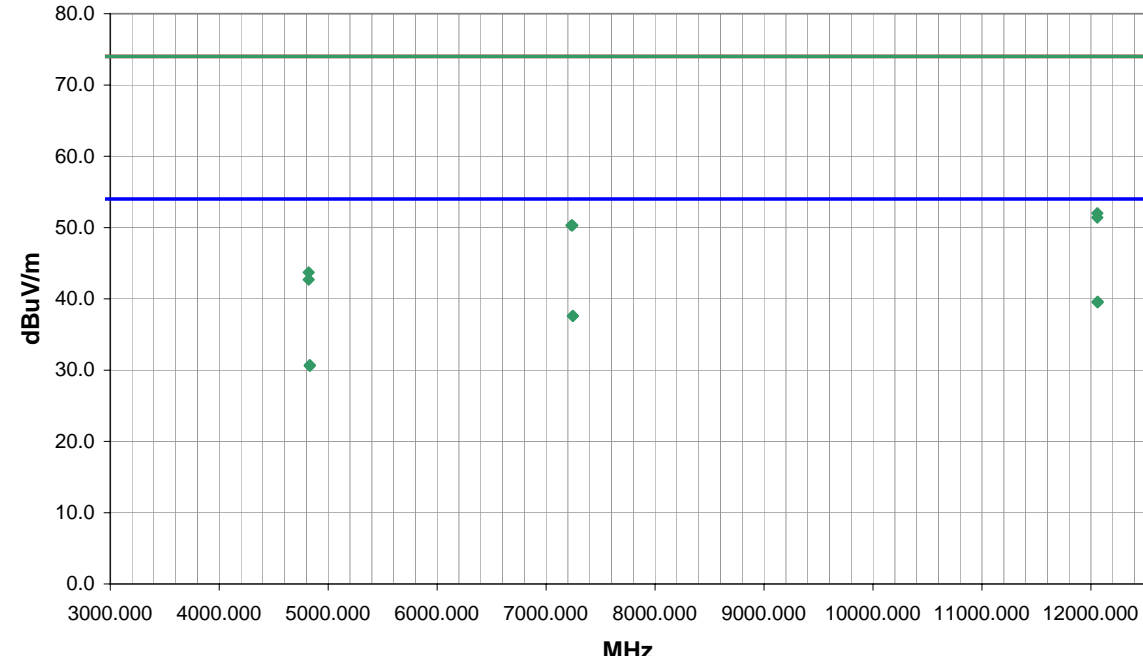
Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4446A	AAT	4/4/2006	12
Antenna, Biconilog	EMCO	3141	AXE	12/28/2005	24
Pre-Amplifier	Miteq	AM-1616-1000	AOL	1/4/2006	13
Antenna, Horn	EMCO	3115	AHC	8/30/2005	12
Pre-Amplifier	Miteq	AMF-4D-010100-24-10P	APW	8/2/2005	13
Antenna, Horn	EMCO	3160-08	AHK	NCR	0
Pre-Amplifier	Miteq	AMF-4D-005180-24-10P	APC	2/17/2005	16
Antenna, Horn	EMCO	3160-09	AHG	NCR	0
Pre-Amplifier	Miteq	JSD4-18002600-26-8P	APU	3/23/2006	13
EV01 cables c,g, h			EVA	3/30/2006	13
EV01 cables g,h,j			EVB	3/30/2006	13
EV01 Cable D			EVD	3/30/2006	13
EV01 cables g,h,l			EVF	4/17/2006	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.

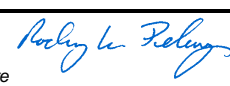
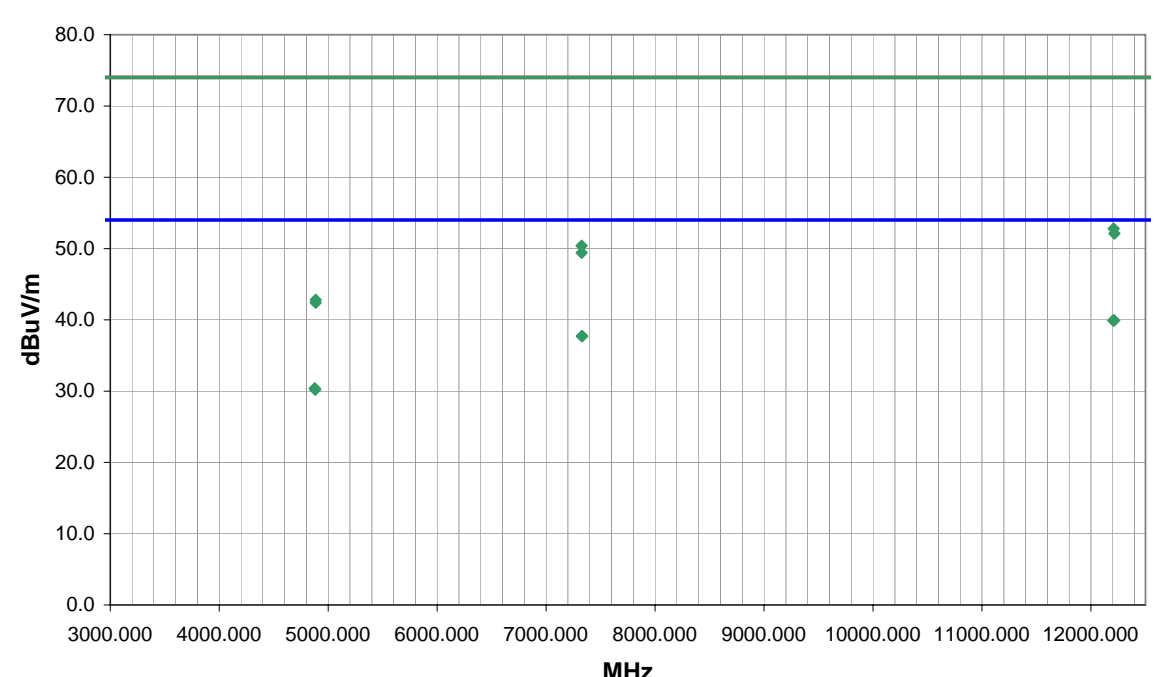
TEST DESCRIPTION

The 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 DATA SHEET		PSA 2006.04.25 EMI 2006.4.26								
EUT: WMBGMR01			Work Order: TRPO0016									
Serial Number: None			Date: 05/03/06									
Customer: Tripod Data Systems, Inc.			Temperature: 21°C									
Attendees: None			Humidity: 32%									
Project: None			Barometric Pres.: 30.15									
Tested by: Rod Peloquin		Power: 120VAC/60Hz		Job Site: EV01								
TEST SPECIFICATIONS			Test Method									
FCC 15.247(d) Spurious Radiated Emissions:2005-9			ANSI C63.4:2003									
TEST PARAMETERS												
Antenna Height(s) (m)		1 - 4		Test Distance (m) 3								
COMMENTS												
EUT OPERATING MODES												
802.11, low Channel												
DEVIATIONS FROM TEST STANDARD												
No deviations.												
Run #		1		<div style="text-align: right;">  Signature </div>								
Configuration #		2										
Results		Pass										
NVLAP Lab Code 200630-0												
												
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)
12060.320	23.5	16.1	331.0	3.1	3.0	0.0	H-Horn	AV	0.0	39.6	54.0	-14.4
12061.210	23.4	16.1	110.0	3.7	3.0	0.0	V-Horn	AV	0.0	39.5	54.0	-14.5
7244.620	24.5	13.1	262.0	2.4	3.0	0.0	H-Horn	AV	0.0	37.6	54.0	-16.4
7244.650	24.5	13.1	114.0	3.3	3.0	0.0	V-Horn	AV	0.0	37.6	54.0	-16.4
12058.250	35.9	16.1	110.0	3.7	3.0	0.0	V-Horn	PK	0.0	52.0	74.0	-22.0
12057.320	35.3	16.1	331.0	3.1	3.0	0.0	H-Horn	PK	0.0	51.4	74.0	-22.6
4830.680	24.3	6.4	65.0	1.2	3.0	0.0	H-Horn	AV	0.0	30.7	54.0	-23.3
4831.140	24.2	6.4	274.0	1.1	3.0	0.0	V-Horn	AV	0.0	30.6	54.0	-23.4
7231.530	37.2	13.1	262.0	2.4	3.0	0.0	H-Horn	PK	0.0	50.3	74.0	-23.7
7239.930	37.2	13.1	114.0	3.3	3.0	0.0	V-Horn	PK	0.0	50.3	74.0	-23.7
4820.460	37.3	6.4	65.0	1.2	3.0	0.0	H-Horn	PK	0.0	43.7	74.0	-30.3
4821.030	36.3	6.4	274.0	1.1	3.0	0.0	V-Horn	PK	0.0	42.7	74.0	-31.3

NORTHWEST		PSA 2006.04.25											
EMC		SPURIOUS RADIATED EMISSIONS DATA SHEET											
EMI 2006.4.26													
EUT: WMBGMR01		Work Order: TRPO0016											
Serial Number: None		Date: 05/03/06											
Customer: Tripod Data Systems, Inc.		Temperature: 21°C											
Attendees: None		Humidity: 32%											
Project: None		Barometric Pres.: 30.15											
Tested by: Rod Peloquin		Power: 120VAC/60Hz											
		Job Site: EV01											
TEST SPECIFICATIONS		Test Method											
FCC 15.247(d) Spurious Radiated Emissions:2005-9		ANSI C63.4:2003											
TEST PARAMETERS													
Antenna Height(s) (m)		Test Distance (m)											
1 - 4		3											
COMMENTS													
EUT OPERATING MODES													
802.11, high Channel													
DEVIATIONS FROM TEST STANDARD													
No deviations.													
Run #	2												
Configuration #	2												
Results	Pass												
		NVLAP Lab Code 200630-0 <i>Signature</i>											
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
2483.518	23.5	0.5	265.0	1.0	3.0	20.0	V-Horn	AV	0.0	44.0	54.0	-10.0	36 Mbps
2483.466	23.4	0.5	223.0	1.1	3.0	20.0	H-Horn	AV	0.0	43.9	54.0	-10.1	36 Mbps
2483.680	23.3	0.5	304.0	1.1	3.0	20.0	H-Horn	AV	0.0	43.8	54.0	-10.2	1 Mbps
2483.876	23.3	0.5	60.0	1.1	3.0	20.0	H-Horn	AV	0.0	43.8	54.0	-10.2	11 Mbps
2483.952	23.3	0.5	221.0	1.0	3.0	20.0	V-Horn	AV	0.0	43.8	54.0	-10.2	54 Mbps
2483.990	23.3	0.5	-1.0	1.6	3.0	20.0	H-Horn	AV	0.0	43.8	54.0	-10.2	54 Mbps
2484.007	23.3	0.5	334.0	1.1	3.0	20.0	V-Horn	AV	0.0	43.8	54.0	-10.2	1 Mbps
2484.035	23.3	0.5	185.0	1.1	3.0	20.0	V-Horn	AV	0.0	43.8	54.0	-10.2	6 Mbps
2484.058	23.3	0.5	295.0	1.2	3.0	20.0	H-Horn	AV	0.0	43.8	54.0	-10.2	6 Mbps
2484.180	23.3	0.5	90.0	1.1	3.0	20.0	V-Horn	AV	0.0	43.8	54.0	-10.2	11 Mbps
2484.215	36.9	0.5	265.0	1.0	3.0	20.0	V-Horn	PK	0.0	57.4	74.0	-16.6	36 Mbps
2483.991	36.7	0.5	223.0	1.1	3.0	20.0	H-Horn	PK	0.0	57.2	74.0	-16.8	36 Mbps
2483.761	36.5	0.5	334.0	1.1	3.0	20.0	V-Horn	PK	0.0	57.0	74.0	-17.0	1 Mbps
2484.083	36.5	0.5	90.0	1.1	3.0	20.0	V-Horn	PK	0.0	57.0	74.0	-17.0	11 Mbps
2483.670	36.4	0.5	295.0	1.2	3.0	20.0	H-Horn	PK	0.0	56.9	74.0	-17.1	6 Mbps
2483.879	36.4	0.5	304.0	1.1	3.0	20.0	H-Horn	PK	0.0	56.9	74.0	-17.1	1 Mbps
2483.768	36.3	0.5	60.0	1.1	3.0	20.0	H-Horn	PK	0.0	56.8	74.0	-17.2	11 Mbps
2484.454	36.3	0.5	185.0	1.1	3.0	20.0	V-Horn	PK	0.0	56.8	74.0	-17.2	6 Mbps
2483.961	36.1	0.5	-1.0	1.6	3.0	20.0	H-Horn	PK	0.0	56.6	74.0	-17.4	54 Mbps
2484.253	35.8	0.5	221.0	1.0	3.0	20.0	V-Horn	PK	0.0	56.3	74.0	-17.7	54 Mbps

NORTHWEST EMC										SPURIOUS RADIATED EMISSIONS DATA SHEET				PSA 2006.04.25 EMI 2006.4.26	
EUT: WMBGMR01										Work Order: TRPO0016					
Serial Number: None										Date: 05/03/06					
Customer: Tripod Data Systems, Inc.										Temperature: 21°C					
Attendees: None										Humidity: 32%					
Project: None										Barometric Pres.: 30.15					
Tested by: Rod Peloquin					Power: 120VAC/60Hz					Job Site: EV01					
TEST SPECIFICATIONS										Test Method					
FCC 15.247(d) Spurious Radiated Emissions:2005-9										ANSI C63.4:2003					
TEST PARAMETERS															
Antenna Height(s) (m)					1 - 4					Test Distance (m)			3		
COMMENTS															
EUT OPERATING MODES															
802.11, high Channel															
DEVIATIONS FROM TEST STANDARD															
No deviations.															
Run #		3		<div style="display: flex; justify-content: space-between; align-items: center;"> <div>NVLAP Lab Code 200630-0</div> <div style="text-align: right;"> <i>Rocky Le Pellego</i> Signature </div> </div>											
Configuration #		2													
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)			
12309.110	24.0	16.1	359.0	2.7	3.0	0.0	V-Horn	AV	0.0	40.1	54.0	-13.9			
12309.290	24.0	16.1	84.0	1.6	3.0	0.0	H-Horn	AV	0.0	40.1	54.0	-13.9			
7385.513	24.0	13.6	152.0	1.2	3.0	0.0	H-Horn	AV	0.0	37.6	54.0	-16.4			
7386.074	23.9	13.6	184.0	1.1	3.0	0.0	V-Horn	AV	0.0	37.5	54.0	-16.5			
12310.130	39.4	16.1	359.0	2.7	3.0	0.0	V-Horn	PK	0.0	55.5	74.0	-18.5			
12310.320	37.6	16.1	84.0	1.6	3.0	0.0	H-Horn	PK	0.0	53.7	74.0	-20.3			
7386.026	37.4	13.6	152.0	1.2	3.0	0.0	H-Horn	PK	0.0	51.0	74.0	-23.0			
7385.699	37.1	13.6	184.0	1.1	3.0	0.0	V-Horn	PK	0.0	50.7	74.0	-23.3			
4923.470	23.5	6.7	138.0	1.2	3.0	0.0	H-Horn	AV	0.0	30.2	54.0	-23.8			
4923.918	23.5	6.7	194.0	1.1	3.0	0.0	V-Horn	AV	0.0	30.2	54.0	-23.8			
4924.389	36.6	6.7	138.0	1.2	3.0	0.0	H-Horn	PK	0.0	43.3	74.0	-30.7			
4923.542	36.2	6.7	194.0	1.1	3.0	0.0	V-Horn	PK	0.0	42.9	74.0	-31.1			

NORTHWEST EMC		SPURIOUS RADIATED EMISSIONS DATA SHEET		PSA 2006.04.25 EMI 2006.4.26								
EUT: WMBGMR01			Work Order: TRPO0016									
Serial Number: None			Date: 05/03/06									
Customer: Tripod Data Systems, Inc.			Temperature: 21°C									
Attendees: None			Humidity: 32%									
Project: None			Barometric Pres.: 30.15									
Tested by: Rod Peloquin		Power: 120VAC/60Hz		Job Site: EV01								
TEST SPECIFICATIONS			Test Method									
FCC 15.247(d) Spurious Radiated Emissions:2005-9			ANSI C63.4:2003									
TEST PARAMETERS												
Antenna Height(s) (m)		1 - 4		Test Distance (m) 3								
COMMENTS												
EUT OPERATING MODES												
802.11, mid Channel												
DEVIATIONS FROM TEST STANDARD												
No deviations.												
Run #		4		 Signature								
Configuration #		2										
Results		Pass										
NVLAP Lab Code 200630-0												
												
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)
12203.370	23.8	16.1	204.0	2.5	3.0	0.0	H-Horn	AV	0.0	39.9	54.0	-14.1
12213.450	23.7	16.2	235.0	1.2	3.0	0.0	V-Horn	AV	0.0	39.9	54.0	-14.1
7327.710	24.3	13.4	73.0	2.4	3.0	0.0	H-Horn	AV	0.0	37.7	54.0	-16.3
7331.640	24.3	13.4	142.0	1.9	3.0	0.0	V-Horn	AV	0.0	37.7	54.0	-16.3
12207.740	36.7	16.1	235.0	1.2	3.0	0.0	V-Horn	PK	0.0	52.8	74.0	-21.2
12214.690	36.0	16.1	204.0	2.5	3.0	0.0	H-Horn	PK	0.0	52.1	74.0	-21.9
7325.520	37.0	13.4	142.0	1.9	3.0	0.0	V-Horn	PK	0.0	50.4	74.0	-23.6
4876.560	23.9	6.5	30.0	2.8	3.0	0.0	H-Horn	AV	0.0	30.4	54.0	-23.6
4880.470	23.7	6.5	281.0	1.1	3.0	0.0	V-Horn	AV	0.0	30.2	54.0	-23.8
7326.170	36.0	13.4	73.0	2.4	3.0	0.0	H-Horn	PK	0.0	49.4	74.0	-24.6
4885.140	36.3	6.5	30.0	2.8	3.0	0.0	H-Horn	PK	0.0	42.8	74.0	-31.2
4885.380	35.9	6.5	281.0	1.1	3.0	0.0	V-Horn	PK	0.0	42.4	74.0	-31.6







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, high channel
Transmitting 802.11, mid channel
Transmitting 802.11, low channel

POWER SETTINGS INVESTIGATED

120VAC/60Hz

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	LIQ	12/13/2005	13
Quasi-Peak Adapter	Hewlett-Packard	85650A	AQD	12/21/2005	13
Spectrum Analyzer Display	Hewlett Packard	85662A	AAID	12/21/2005	13
Spectrum Analyzer	Hewlett-Packard	8568B	AAI	12/21/2005	13

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

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 50 Ω measuring port is terminated by a 50 Ω EMI meter or a 50 Ω resistive load. All 50 Ω measuring ports of the LISN are terminated by 50 Ω .

NORTHWEST										ACQ-2006.04.25 EMI 2005.9.18		
EMC AC POWERLINE CONDUCTED EMISSIONS DATA SHEET												
EUT: WMBGMR01						Work Order: TRPO0016						
Serial Number: None						Date: 05/05/06						
Customer: Tripod Data Systems, Inc.						Temperature: 22						
Attendees: None						Humidity: 26%						
Project: None						Barometric Pres.: 29.93						
Tested by: Holly Ashkannejhad				Power: 120VAC/60Hz		Job Site: EV01						
TEST SPECIFICATIONS												
FCC 15.207 AC Powerline Conducted Emissions: 2005-09						Test Method ANSI C63.4:2003						
TEST PARAMETERS												
Cable or Line Tested						L1						
COMMENTS												
EUT OPERATING MODES												
Transmitting 802.11, low channel												
DEVIATIONS FROM TEST STANDARD												
No deviations.												
Run #		1		Signature <i>Holly Ashkannejhad</i> NVLAP Lab Code 200630-0								
Configuration #		2										
Results		Pass										
Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)		Detector (blank equal peaks [PK] from scan)		Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.398	22.1			2.2	0.0	20.0				44.3	47.9	-3.6
0.371	19.4			2.2	0.0	20.0				41.6	48.5	-6.8
0.496	16.8			1.9	0.0	20.0				38.7	46.1	-7.4
2.816	16.9			0.5	0.0	20.0				37.4	46.0	-8.6
0.523	15.5			1.8	0.0	20.0				37.3	46.0	-8.7
0.836	16.0			1.0	0.0	20.0				37.0	46.0	-9.0
0.463	15.6			2.0	0.0	20.0				37.6	46.6	-9.0
0.865	15.6			0.9	0.0	20.0				36.5	46.0	-9.5
0.799	15.4			1.1	0.0	20.0				36.5	46.0	-9.5
1.165	15.8			0.5	0.0	20.0				36.3	46.0	-9.7
1.195	15.5			0.5	0.0	20.0				36.0	46.0	-10.0
0.774	14.8			1.1	0.0	20.0				35.9	46.0	-10.1
1.135	15.4			0.5	0.0	20.0				35.9	46.0	-10.1
0.555	14.1			1.7	0.0	20.0				35.8	46.0	-10.2
1.105	15.1			0.5	0.0	20.0				35.6	46.0	-10.4
1.455	15.1			0.5	0.0	20.0				35.6	46.0	-10.4
0.153	22.5			2.9	0.0	20.0				45.4	55.9	-10.5
0.894	14.3			0.8	0.0	20.0				35.1	46.0	-10.9
0.584	13.4			1.7	0.0	20.0				35.1	46.0	-10.9

NORTHWEST										ACQ-2006.04.25 EMI 2005.9.18		
EMC AC POWERLINE CONDUCTED EMISSIONS DATA SHEET												
EUT: WMBGMR01						Work Order: TRPO0016						
Serial Number: None						Date: 05/05/06						
Customer: Tripod Data Systems, Inc.						Temperature: 22						
Attendees: None						Humidity: 26%						
Project: None						Barometric Pres.: 29.93						
Tested by: Holly Ashkannejhad				Power: 120VAC/60Hz		Job Site: EV01						
TEST SPECIFICATIONS												
FCC 15.207 AC Powerline Conducted Emissions: 2005-09						Test Method ANSI C63.4:2003						
TEST PARAMETERS												
Cable or Line Tested						N						
COMMENTS												
EUT OPERATING MODES												
Transmitting 802.11, low channel												
DEVIATIONS FROM TEST STANDARD												
No deviations.												
Run #		2		Signature <i>Holly Ashkannejhad</i> NVLAP Lab Code 200630-0								
Configuration #		2										
Results		Pass										
Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)		Detector (blank equal peaks [PK] from scan)		Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.399	20.7			2.2	0.0	20.0				42.9	47.9	-5.0
2.826	18.7			0.5	0.0	20.0				39.2	46.0	-6.8
0.371	18.3			2.2	0.0	20.0				40.5	48.5	-7.9
0.493	15.8			1.9	0.0	20.0				37.7	46.1	-8.4
0.522	15.0			1.8	0.0	20.0				36.8	46.0	-9.2
1.165	15.9			0.5	0.0	20.0				36.4	46.0	-9.6
0.834	15.4			1.0	0.0	20.0				36.4	46.0	-9.6
0.460	14.9			2.0	0.0	20.0				36.9	46.7	-9.8
2.526	15.4			0.5	0.0	20.0				35.9	46.0	-10.1
0.866	15.0			0.9	0.0	20.0				35.9	46.0	-10.1
1.455	15.1			0.5	0.0	20.0				35.6	46.0	-10.4
0.795	14.5			1.1	0.0	20.0				35.6	46.0	-10.4
0.553	13.2			1.7	0.0	20.0				34.9	46.0	-11.1
0.894	14.0			0.8	0.0	20.0				34.8	46.0	-11.2
15.936	18.1			0.5	0.0	20.0				38.6	50.0	-11.4
0.735	13.3			1.2	0.0	20.0				34.5	46.0	-11.5
0.775	13.4			1.1	0.0	20.0				34.5	46.0	-11.5
0.183	20.0			2.8	0.0	20.0				42.8	54.3	-11.6
1.745	13.8			0.5	0.0	20.0				34.3	46.0	-11.7

EUT:	WMBGMR01	Work Order:	TRPO0016
Serial Number:	None	Date:	05/05/06
Customer:	Tripod Data Systems, Inc.	Temperature:	22
Attendees:	None	Humidity:	26%
Project:	None	Barometric Pres.:	29.93
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS

Test Method

FCC 15.207 AC Powerline Conducted Emissions: 2005-09

ANSI C63.4:2003

TEST PARAMETERS

Cable or Line Tested N

COMMENTS

EUT OPERATING MODES

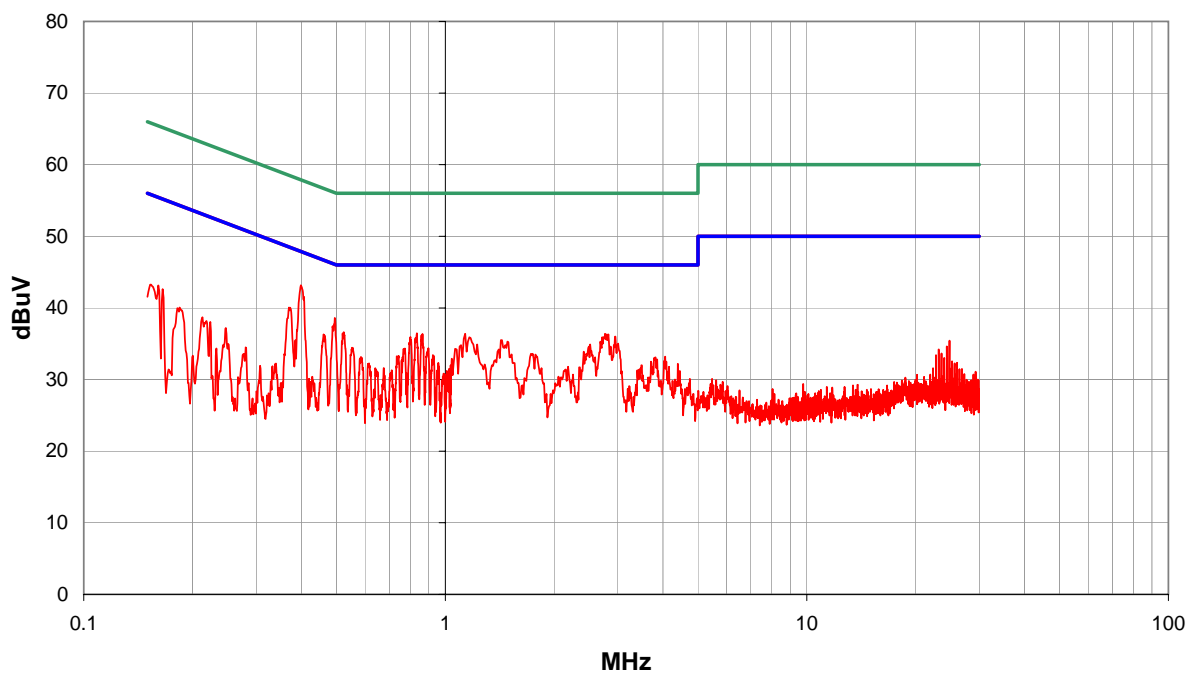
Transmitting 802.11, mid channel

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	3	Signature <i>Holly Ashkannejhad</i>
Configuration #	2	
Results	Pass	

NVLAP Lab Code 200630-0



Freq (MHz)	Amplitude (dBuV)		Transducer (dB)	Cable (dB)	External Attenuation (dB)	Detector (blank equal peaks [PK] from scan)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.398	21.0		2.2	0.0	20.0		43.2	47.9	-4.7
0.495	16.7		1.9	0.0	20.0		38.6	46.1	-7.5
0.370	17.8		2.3	0.0	20.0		40.1	48.5	-8.5
0.523	14.8		1.8	0.0	20.0		36.6	46.0	-9.4
0.834	15.5		1.0	0.0	20.0		36.5	46.0	-9.5
1.135	15.9		0.5	0.0	20.0		36.4	46.0	-9.6
2.766	15.9		0.5	0.0	20.0		36.4	46.0	-9.6
0.865	15.5		0.9	0.0	20.0		36.4	46.0	-9.6
2.946	15.5		0.5	0.0	20.0		36.0	46.0	-10.0
0.801	14.9		1.1	0.0	20.0		36.0	46.0	-10.0
0.461	14.3		2.0	0.0	20.0		36.3	46.7	-10.4
1.425	15.0		0.5	0.0	20.0		35.5	46.0	-10.5
2.516	14.4		0.5	0.0	20.0		34.9	46.0	-11.1
0.552	12.7		1.7	0.0	20.0		34.4	46.0	-11.6
0.898	13.6		0.8	0.0	20.0		34.4	46.0	-11.6
0.773	13.2		1.1	0.0	20.0		34.3	46.0	-11.7
1.065	13.8		0.5	0.0	20.0		34.3	46.0	-11.7
1.725	13.1		0.5	0.0	20.0		33.6	46.0	-12.4
0.165	19.8		2.8	0.0	20.0		42.6	55.2	-12.6

NORTHWEST										ACQ-2006.04.25 EMI 2005.9.18		
EMC AC POWERLINE CONDUCTED EMISSIONS DATA SHEET												
EUT: WMBGMR01						Work Order: TRPO0016						
Serial Number: None						Date: 05/05/06						
Customer: Tripod Data Systems, Inc.						Temperature: 22						
Attendees: None						Humidity: 26%						
Project: None						Barometric Pres.: 29.93						
Tested by: Holly Ashkannejhad					Power: 120VAC/60Hz		Job Site: EV01					
TEST SPECIFICATIONS												
FCC 15.207 AC Powerline Conducted Emissions: 2005-09						Test Method ANSI C63.4:2003						
TEST PARAMETERS												
Cable or Line Tested						L1						
COMMENTS												
EUT OPERATING MODES												
Transmitting 802.11, mid channel												
DEVIATIONS FROM TEST STANDARD												
No deviations.												
Run #		4		Signature <i>Holly Ashkannejhad</i> NVLAP Lab Code 200630-0								
Configuration #		2										
Results		Pass										
Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)		Detector (blank equal peaks [PK] from scan)		Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.400	21.5			2.2	0.0	20.0				43.7	47.8	-4.2
0.370	19.4			2.3	0.0	20.0				41.7	48.5	-6.9
0.388	18.9			2.2	0.0	20.0				41.1	48.1	-7.0
0.495	16.1			1.9	0.0	20.0				38.0	46.1	-8.1
0.523	15.4			1.8	0.0	20.0				37.2	46.0	-8.8
0.835	16.0			1.0	0.0	20.0				37.0	46.0	-9.0
0.465	15.5			2.0	0.0	20.0				37.5	46.6	-9.1
0.154	23.6			2.9	0.0	20.0				46.5	55.8	-9.4
2.826	16.0			0.5	0.0	20.0				36.5	46.0	-9.5
0.800	15.2			1.1	0.0	20.0				36.3	46.0	-9.7
1.135	15.5			0.5	0.0	20.0				36.0	46.0	-10.0
1.465	15.4			0.5	0.0	20.0				35.9	46.0	-10.1
0.857	14.9			0.9	0.0	20.0				35.8	46.0	-10.2
0.768	14.4			1.1	0.0	20.0				35.5	46.0	-10.5
0.554	13.6			1.7	0.0	20.0				35.3	46.0	-10.7
0.160	21.8			2.8	0.0	20.0				44.6	55.5	-10.8
0.583	13.5			1.7	0.0	20.0				35.2	46.0	-10.8
0.899	14.3			0.8	0.0	20.0				35.1	46.0	-10.9
2.936	14.4			0.5	0.0	20.0				34.9	46.0	-11.1

EUT:	WMBGMR01	Work Order:	TRPO0016
Serial Number:	None	Date:	05/05/06
Customer:	Tripod Data Systems, Inc.	Temperature:	22
Attendees:	None	Humidity:	26%
Project:	None	Barometric Pres.:	29.93
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS

Test Method

FCC 15.207 AC Powerline Conducted Emissions: 2005-09

ANSI C63.4:2003

TEST PARAMETERS

Cable or Line Tested L1

COMMENTS

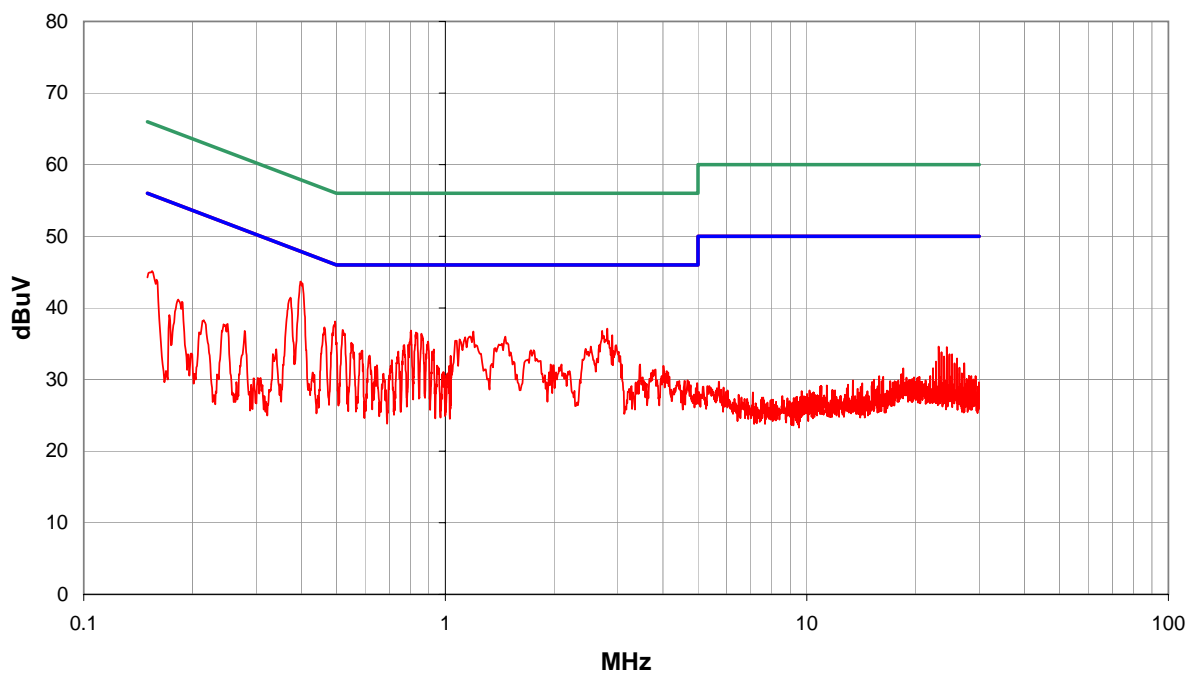
EUT OPERATING MODES

Transmitting 802.11, high channel

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	5	NVLAP Lab Code 200630-0	Signature <i>Holly Ashkannejhad</i>
Configuration #	2		
Results	Pass		



Freq (MHz)	Amplitude (dBuV)		Transducer (dB)	Cable (dB)	External Attenuation (dB)	Detector (blank equal peaks [PK] from scan)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.398	21.5		2.2	0.0	20.0		43.7	47.9	-4.2
0.373	19.2		2.2	0.0	20.0		41.4	48.4	-7.0
0.496	16.2		1.9	0.0	20.0		38.1	46.1	-8.0
2.806	16.6		0.5	0.0	20.0		37.1	46.0	-8.9
0.520	15.1		1.8	0.0	20.0		36.9	46.0	-9.1
0.804	15.8		1.0	0.0	20.0		36.8	46.0	-9.2
1.195	16.2		0.5	0.0	20.0		36.7	46.0	-9.3
0.463	15.3		2.0	0.0	20.0		37.3	46.6	-9.3
0.829	15.6		1.0	0.0	20.0		36.6	46.0	-9.4
0.858	15.5		0.9	0.0	20.0		36.4	46.0	-9.6
2.896	15.7		0.5	0.0	20.0		36.2	46.0	-9.8
1.465	15.5		0.5	0.0	20.0		36.0	46.0	-10.0
1.065	14.9		0.5	0.0	20.0		35.4	46.0	-10.6
0.155	22.3		2.8	0.0	20.0		45.1	55.8	-10.6
0.895	14.5		0.8	0.0	20.0		35.3	46.0	-10.7
0.550	13.4		1.8	0.0	20.0		35.2	46.0	-10.8
0.770	13.7		1.1	0.0	20.0		34.8	46.0	-11.2
2.966	14.3		0.5	0.0	20.0		34.8	46.0	-11.2
2.526	14.1		0.5	0.0	20.0		34.6	46.0	-11.4

NORTHWEST										ACQ-2006.04.25 EMI 2005.9.18									
EMC AC POWERLINE CONDUCTED EMISSIONS DATA SHEET																			
EUT: WMBGMR01										Work Order: TRPO0016									
Serial Number: None										Date: 05/05/06									
Customer: Tripod Data Systems, Inc.										Temperature: 22									
Attendees: None										Humidity: 26%									
Project: None										Barometric Pres.: 29.93									
Tested by: Holly Ashkannejhad										Power: 120VAC/60Hz					Job Site: EV01				
TEST SPECIFICATIONS																			
FCC 15.207 AC Powerline Conducted Emissions: 2005-09										Test Method ANSI C63.4:2003									
TEST PARAMETERS																			
Cable or Line Tested										N									
COMMENTS																			
EUT OPERATING MODES																			
Transmitting 802.11, high channel																			
DEVIATIONS FROM TEST STANDARD																			
No deviations.																			
Run #		6		Signature <i>Holly Ashkannejhad</i> NVLAP Lab Code 200630-0															
Configuration #		2																	
Results		Pass																	
Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)		Detector (blank equal peaks [PK] from scan)		Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)							
0.398	21.0			2.2	0.0	20.0				43.2	47.9	-4.7							
0.371	18.3			2.2	0.0	20.0				40.5	48.5	-7.9							
0.494	15.3			1.9	0.0	20.0				37.2	46.1	-8.9							
2.716	16.3			0.5	0.0	20.0				36.8	46.0	-9.2							
0.523	14.9			1.8	0.0	20.0				36.7	46.0	-9.3							
0.831	15.5			1.0	0.0	20.0				36.5	46.0	-9.5							
0.864	15.2			0.9	0.0	20.0				36.1	46.0	-9.9							
0.464	14.7			2.0	0.0	20.0				36.7	46.6	-9.9							
0.802	15.0			1.0	0.0	20.0				36.0	46.0	-10.0							
1.155	15.5			0.5	0.0	20.0				36.0	46.0	-10.0							
1.135	15.4			0.5	0.0	20.0				35.9	46.0	-10.1							
2.976	15.3			0.5	0.0	20.0				35.8	46.0	-10.2							
0.768	14.4			1.1	0.0	20.0				35.5	46.0	-10.5							
0.892	14.6			0.8	0.0	20.0				35.4	46.0	-10.6							
1.485	14.8			0.5	0.0	20.0				35.3	46.0	-10.7							
0.552	13.0			1.7	0.0	20.0				34.7	46.0	-11.3							
2.446	14.1			0.5	0.0	20.0				34.6	46.0	-11.4							
1.065	13.8			0.5	0.0	20.0				34.3	46.0	-11.7							
0.711	12.8			1.3	0.0	20.0				34.1	46.0	-11.9							

