

Spectrum Technology

**Sierra Wireless MC5725 WAN radio, Intel
4965AGN 802.11(b)/(g)/(a)/(n) radio, and
Broadcom USB Bluetooth module
BCM92035NMD in the IX605 notebook.**

April 23, 2007

Report No. SPTE0049.1

Report Prepared By



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

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EMC Test Report

Certificate of Test

Issue Date: April 23, 2007

Spectrum Technology

Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and
Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.

Emissions				
Test Description	Specification	Test Method	Pass	Fail
Spurious Radiated Emissions	FCC 15.247:2006 DTS	ANSI C63.4:2003, KDB No. 558074	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Spurious Radiated Emissions	FCC 15.407:2006	ANSI C63.4:2003, DA 02-2138:2002	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Conducted Emissions	FCC 15.207:2006	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:



Don Facteau, IS Manager

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.



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 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. USA0604C.



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



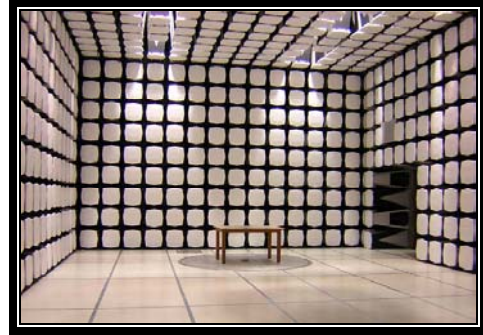
GOST: Northwest EMC, Inc. has been assessed and accredited by the Russian Certification bodies Certinform VNIINMASH, CERTINFO, SAMTES, and Federal CHEC, to perform EMC and Hygienic testing for Information Technology Products. As a result of their laboratory assessment, they will accept test results from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



SCOPE

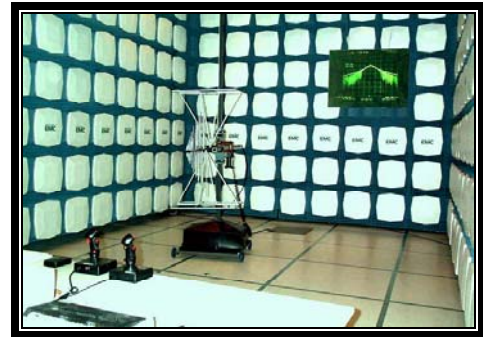
For details on the Scopes of our Accreditations, please visit:

<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 – EV11**

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



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

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

Party Requesting the Test

Company Name:	Spectrum Technology
Address:	209 Dayton Street Suite #205
City, State, Zip:	Edmonds, WA 98020
Test Requested By:	Rod Munro
Model:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.
First Date of Test:	March 19, 2007
Last Date of Test:	April 5, 2007
Receipt Date of Samples:	March 19, 2007
Equipment Design Stage:	Production
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test

Functional Description of the EUT (Equipment Under Test):

Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.

Testing Objective:

TCB and IC original certification of the Sierra Wireless MC5725 WAN radio in the IX605 (FCC ID: KBCIX-MC5725). Also, limited modular approvals of the Intel 4965AGN 802.11(a)/(b)/(g)/(n) radio (FCC ID: KBCIX-4965AGN) and the Broadcom USB Bluetooth Module BCM92035NMD (FCC ID: KBCIXBR-52) in the IX605. The IX605 is a new laptop pc that will require digital emissions. The MC5725 has an internal antenna and an alternate vehicle mount external magnetic mount style antenna. The radio already has RF antenna direct connect data under the FCC ID: N7N-MC5725. Direct connect data for the BT and WLAN radio is available under FCC ID: KBCIX600-BT and PD94965AGN . The BT radio has a single antenna. The 802.11n radio has two antennas (in n mode it can transmit through both simultaneously).

CONFIGURATION 1 SPTE0049**Software/Firmware Running during test**

Description	Version
ProcommPlus Terminal	4.8 Build 71

EUT

Description	Manufacturer	Model/Part Number	Serial Number
WAN Network Card	Sierra Wireless, Inc.	MC5725	Unknown

Peripherals in test setup boundary

Description	Manufacturer	Model/Part Number	Serial Number
Notebook PC	Itronix, Corp.	IX605	814T101002G70400806M000
AC Adapter	Delta Electronics	SADP-65KB D	92W0546007993
USB Card Reader	ImageMate	SDDR-91	015336
USB Mouse	Logitech	M-BE58	LZE02357693
802.11(a)/(b)/(g)/(n)	Intel Corporation	4965AGN	Unknown
USB Bluetooth Module	Broadcomm	BCM92035NMD	Unknown
Headset	Unknown	Unknown	Unknown

Cables

Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
USB	Yes	1.0m	No	Card Reader	Notebook PC
USB	Yes	1.2m	No	USB mouse	Notebook PC
Audio	No	1.0m	No	Headset	Notebook PC
Serial	Yes	1.0m	No	Notebook PC	Unterminated
Video	Yes	1.0m	No	Notebook PC	Unterminated
Phone	No	1.3m	No	Notebook PC	Unterminated
Ethernet	No	1.0m	No	Notebook PC	Unterminated
DC	No	1.2m	Yes	Notebook PC	AC Adapter
AC	No	1.6m	No	AC Adapter	AC Mains

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

CONFIGURATION 2 SPTE0049**Software/Firmware Running during test**

Description	Version
Intel PRO/Wireless 4965AGN-CRTU	4.1.20.0000

EUT

Description	Manufacturer	Model/Part Number	Serial Number
802.11(a)/(b)/(g)/(n)	Intel Corporation	4965AGN	Unknown

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Notebook PC	Itronix, Corp.	IX605	814T101002G70400806M000
AC Adapter	Delta Electronics	SADP-65KB D	92W0546007993
USB Card Reader	ImageMate	SDDR-91	015336
USB Mouse	Logitech	M-BE58	LZE02357693
WAN Network Card	Sierra Wireless, Inc.	MC5725	Unknown
USB Bluetooth Module	Broadcomm	BCM92035NMD	Unknown
Headset	Unknown	Unknown	Unknown

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
USB	Yes	1.0m	No	Card Reader	Notebook PC
USB	Yes	1.2m	No	USB mouse	Notebook PC
Audio	No	1.0m	No	Headset	Notebook PC
Serial	Yes	1.0m	No	Notebook PC	Unterminated
Video	Yes	1.0m	No	Notebook PC	Unterminated
Phone	No	1.3m	No	Notebook PC	Unterminated
Ethernet	No	1.0m	No	Notebook PC	Unterminated
DC	No	1.2m	Yes	Notebook PC	AC Adapter
AC	No	1.6m	No	AC Adapter	AC Mains
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 5 SPTE0049

Software/Firmware Running during test	
Description	Version
Intel PRO/Wireless 4965AGN-CRTU	4.1.20.0000

EUT			
Description	Manufacturer	Model/Part Number	Serial Number
802.11(a)/(b)/(g)/(n)	Intel Corporation	4965AGN	Unknown

Peripherals in test setup boundary			
Description	Manufacturer	Model/Part Number	Serial Number
Notebook PC	Itronix, Corp.	IX605	814T101002G70400806M000
USB Card Reader	ImageMate	SDDR-91	015336
USB Mouse	Logitech	M-BE58	LZE02357693
WAN Network Card	Sierra Wireless, Inc.	MC5725	Unknown
USB Bluetooth Module	Broadcomm	BCM92035NMD	Unknown
Vehicle Dock	Itronix, Corp.	IX600 Vehicle Dock, RF	ZZTPE7003ZN7393
Game Controller	Microsoft	X04-63237	6323700623744
PS2 Mouse	Microsoft	X04-72174	5041022-6
12V Car Battery	N/A	N/A	N/A
External WAN Antenna	Maxrad	Unknown	Unknown
External WLAN Antenna (to populate port only)	Maxrad	Unknown	Unknown
Keyboard	Compaq	166516-006	B13990E39G7250
Headset	Unknown	Unknown	Unknown

Cables					
Cable Type	Shield	Length (m)	Ferrite	Connection 1	Connection 2
USB	Yes	1.0m	No	Card Reader	Notebook PC
USB	Yes	1.2m	No	USB mouse	Notebook PC
Audio	No	1.0m	No	Headset	Notebook PC
Serial	Yes	1.0m	No	Notebook PC	Unterminated
Video	Yes	1.0m	No	Notebook PC	Unterminated
Ethernet	No	1.0m	No	Notebook PC	Unterminated
USB	Yes	1.3m	No	Vehicle Dock	Unterminated
USB	Yes	1.3m	No	Vehicle Dock	Game Controller
Serial	Yes	1.0m	No	Vehicle Dock	Unterminated
Mouse	No	1.3m	No	PS2 Mouse	Vehicle Dock
Keyboard	No	1.6m	No	Keyboard	Vehicle Dock
Antenna	Yes	2m	No	External WAN Antenna	Vehicle Dock
Antenna	Yes	2m	No	External WLAN Antenna	Vehicle Dock
DC	No	1.6m	No	Vehicle Dock	12V Battery
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	3/19/2007	Spurious Radiated Emissions - 802.11 (b)/(g)	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	3/27/2007	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	4/5/2007	Spurious Radiated Emissions - 802.11 (b)/(g)	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.

MODES OF OPERATION

802.11(a), Transmit, 6Mbps, High (161).
 802.11(a), Transmit, 6Mbps, Mid (157).
 802.11(a), Transmit, 6Mbps, Low (149).

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
Receiver	Rohde & Schwartz	ESCI	ARG	12/7/2006	13
Attenuator	Tektronix	011-0059-02	ATC	12/27/2006	13
High Pass Filter	TTE	H97-100K-50-720B	HFX	8/22/2006	13
EV07 cable d			EVG	3/30/2006	13
LISN	Solar	9252-50-R-24-BNC	LIQ	12/20/2006	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

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

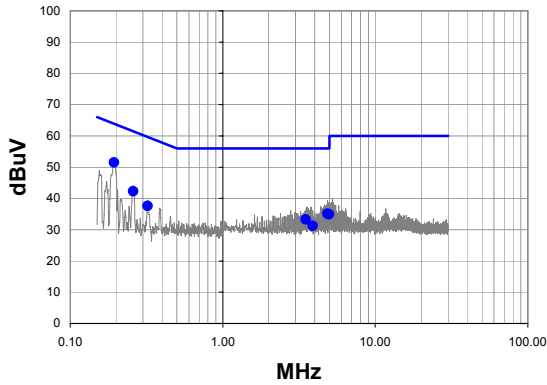
Using the mode of operation and configuration noted within this report, conducted emissions tests were performed. The frequency range investigated (scanned), is also noted in this report. Conducted power line measurements are made, unless otherwise specified, over the frequency range from 150 kHz to 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 .

Work Order:	SPTE0049	Date:	03/27/07	
Project:	None	Temperature:	22	
Job Site:	EV07	Humidity:	33	
Serial Number:	None	Barometric Pres.:	30.17	
Tested by: Jennifer Herrett				
EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.			
Configuration:	2 - SRE - WLAN card = EUT			
Customer:	Spectrum Technology			
Attendees:	Rod Munro			
EUT Power:	120VAC/60Hz			
Operating Mode:	802.11(a), Transmit, 6Mbps, Low (149).			
Deviations:	No deviations.			
Comments:	Notebook configuration.			

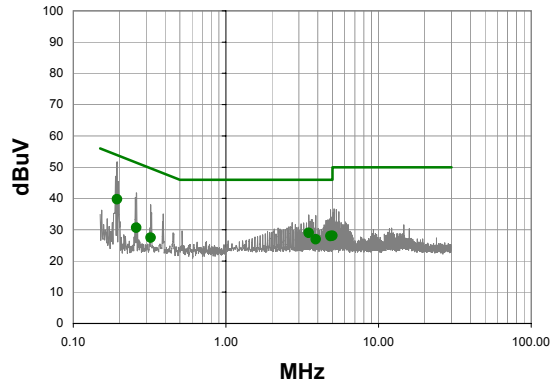
Test Specifications FCC 15.207:2006	Class B	Test Method ANSI C63.4:2003
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Run #	15	Line:	Neutral	Ext. Attenuation:	20	Results	Pass
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Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.194	30.4	1.1	51.5	63.9	-12.3
0.259	21.3	1.0	42.3	61.5	-19.2
4.852	14.6	0.5	35.1	56.0	-20.9
4.980	14.4	0.5	34.9	56.0	-21.1
0.322	16.6	0.9	37.5	59.7	-22.1
3.492	12.8	0.5	33.3	56.0	-22.7
3.884	10.7	0.5	31.2	56.0	-24.8


Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.194	18.6	1.1	39.7	53.9	-14.1
3.492	8.5	0.5	29.0	46.0	-17.0
4.980	7.6	0.5	28.1	46.0	-17.9
4.852	7.5	0.5	28.0	46.0	-18.0
3.884	6.4	0.5	26.9	46.0	-19.1
0.259	9.6	1.0	30.6	51.5	-20.9
0.322	6.5	0.9	27.4	49.7	-22.2

EMC

CONDUCTED EMISSIONS

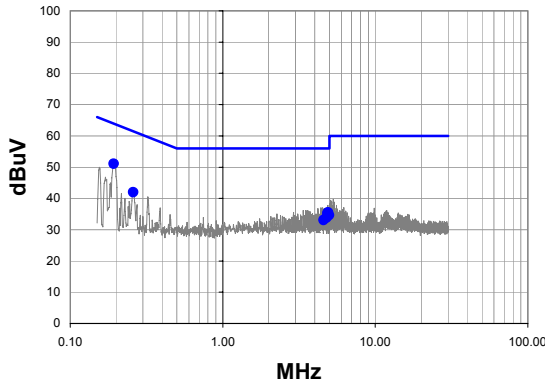
NVLAP Lab Code 200630-0

Work Order:	SPTE0049	Date:	03/27/07	
Project:	None	Temperature:	22	
Job Site:	EV07	Humidity:	33	Tested by: Jennifer Herrett
Serial Number:	None	Barometric Pres.:	30.17	
EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.			
Configuration:	2 - SRE - WLAN card = EUT			
Customer:	Spectrum Technology			
Attendees:	Rod Munro			
EUT Power:	120VAC/60Hz			
Operating Mode:	802.11(a), Transmit, 6Mbps, Low (149).			
Deviations:	No deviations.			
Comments:	Notebook configuration.			

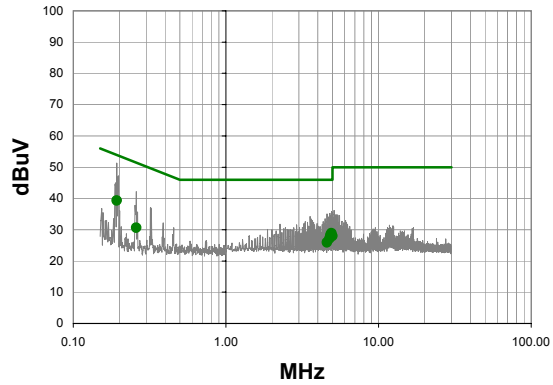
Test Specifications FCC 15.207:2006	Class B	Test Method ANSI C63.4:2003
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Run #	16	Line:	High Line	Ext. Attenuation:	20	Results	Pass
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Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.193	29.9	1.1	51.0	63.9	-12.9
0.259	21.0	1.0	42.0	61.5	-19.5
4.916	15.0	0.5	35.5	56.0	-20.5
4.852	14.7	0.5	35.2	56.0	-20.8
4.980	14.1	0.5	34.6	56.0	-21.4
4.788	13.3	0.5	33.8	56.0	-22.2
4.592	12.6	0.5	33.1	56.0	-22.9

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.193	18.2	1.1	39.3	53.9	-14.6
4.916	8.4	0.5	28.9	46.0	-17.1
4.852	7.8	0.5	28.3	46.0	-17.7
4.980	7.5	0.5	28.0	46.0	-18.0
4.788	6.6	0.5	27.1	46.0	-18.9
4.592	5.4	0.5	25.9	46.0	-20.1
0.259	9.6	1.0	30.6	51.5	-20.9

EMC

CONDUCTED EMISSIONS

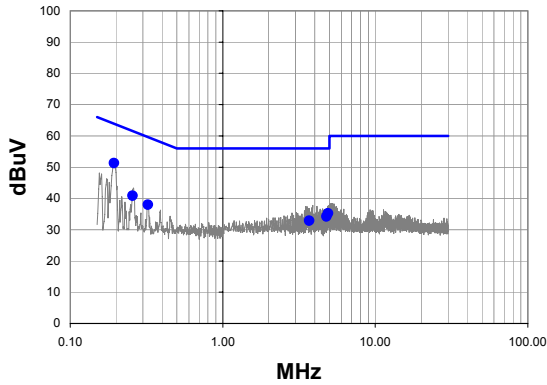
NVLAP Lab Code 200630-0

Work Order:	SPTE0049	Date:	03/27/07	<i>Jennifer Herrett</i>
Project:	None	Temperature:	22	
Job Site:	EV07	Humidity:	33	Tested by: Jennifer Herrett
Serial Number:	None	Barometric Pres.:	30.17	
EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.			
Configuration:	2 - SRE - WLAN card = EUT			
Customer:	Spectrum Technology			
Attendees:	Rod Munro			
EUT Power:	120VAC/60Hz			
Operating Mode:	802.11(a), Transmit, 6Mbps, Mid (157).			
Deviations:	No deviations.			
Comments:	Notebook configuration.			

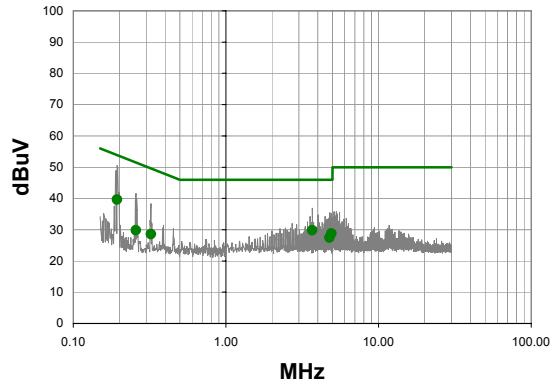
Test Specifications FCC 15.207:2006	Class B	Test Method ANSI C63.4:2003
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Run #	17	Line:	High Line	Ext. Attenuation:	20	Results	Pass
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Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.194	30.2	1.1	51.3	63.9	-12.5
0.257	19.9	1.0	40.9	61.5	-20.7
4.916	14.7	0.5	35.2	56.0	-20.8
0.323	17.0	0.9	37.9	59.6	-21.7
4.788	13.7	0.5	34.2	56.0	-21.8
3.688	12.4	0.5	32.9	56.0	-23.1

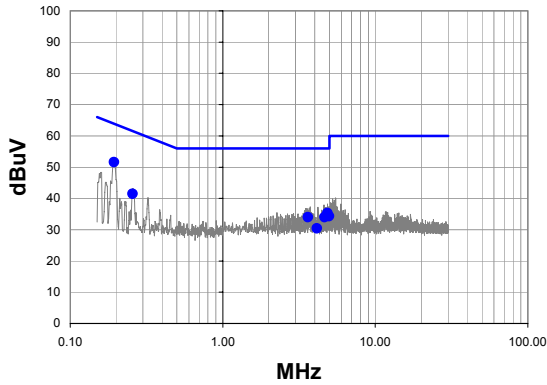
Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.194	18.5	1.1	39.6	53.9	-14.2
3.688	9.3	0.5	29.8	46.0	-16.2
4.916	8.3	0.5	28.8	46.0	-17.2
4.788	6.9	0.5	27.4	46.0	-18.6
0.323	7.6	0.9	28.5	49.6	-21.1
0.257	8.8	1.0	29.8	51.5	-21.8

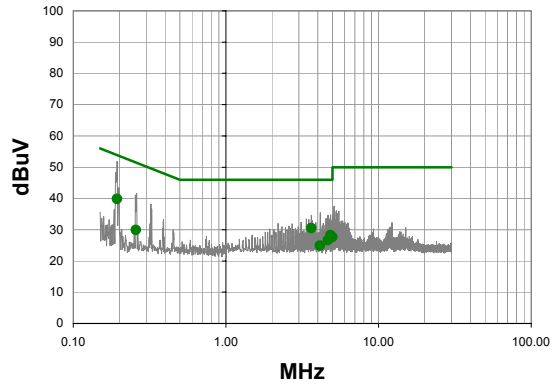
Work Order:	SPTE0049	Date:	03/27/07	<i>Jennifer Herrett</i>
Project:	None	Temperature:	22	
Job Site:	EV07	Humidity:	33	Tested by: Jennifer Herrett
Serial Number:	None	Barometric Pres.:	30.17	
EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.			
Configuration:	2 - SRE - WLAN card = EUT			
Customer:	Spectrum Technology			
Attendees:	Rod Munro			
EUT Power:	120VAC/60Hz			
Operating Mode:	802.11(a), Transmit, 6Mbps, Mid (157).			
Deviations:	No deviations.			
Comments:	Notebook configuration.			

Test Specifications FCC 15.207:2006	Class B	Test Method ANSI C63.4:2003
Run #	18	Line: Neutral
Ext. Attenuation:	20	Results Pass

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.194	30.5	1.1	51.6	63.9	-12.2
0.257	20.5	1.0	41.5	61.5	-20.1
4.852	14.8	0.5	35.3	56.0	-20.7
4.980	13.8	0.5	34.3	56.0	-21.7
3.624	13.5	0.5	34.0	56.0	-22.0
4.656	13.5	0.5	34.0	56.0	-22.0
4.140	9.9	0.5	30.4	56.0	-25.6


Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.194	18.7	1.1	39.8	53.9	-14.0
3.624	10.0	0.5	30.5	46.0	-15.5
4.852	7.8	0.5	28.3	46.0	-17.7
4.980	7.1	0.5	27.6	46.0	-18.4
4.656	6.1	0.5	26.6	46.0	-19.4
4.140	4.4	0.5	24.9	46.0	-21.1
0.257	8.9	1.0	29.9	51.5	-21.7

EMC

CONDUCTED EMISSIONS

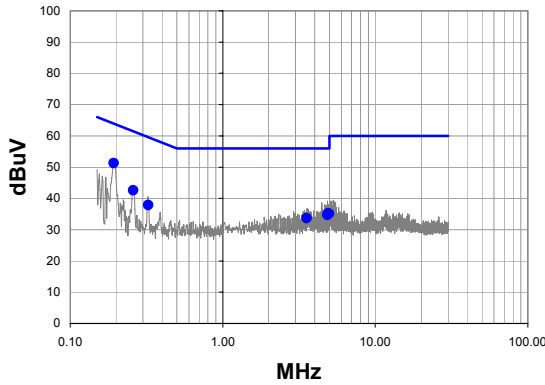
NVLAP Lab Code 200630-0

Work Order:	SPTE0049	Date:	03/27/07	
Project:	None	Temperature:	22	
Job Site:	EV07	Humidity:	33	Tested by: Jennifer Herrett
Serial Number:	None	Barometric Pres.:	30.17	
EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.			
Configuration:	2 - SRE - WLAN card = EUT			
Customer:	Spectrum Technology			
Attendees:	Rod Munro			
EUT Power:	120VAC/60Hz			
Operating Mode:	802.11(a), Transmit, 6Mbps, High (161).			
Deviations:	No deviations.			
Comments:	Notebook configuration.			

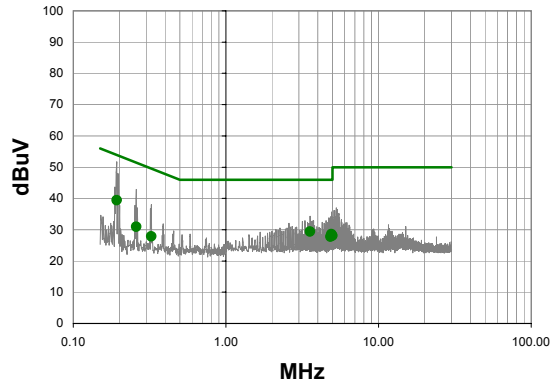
Test Specifications FCC 15.207:2006	Class B	Test Method ANSI C63.4:2003
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Run #	19	Line:	Neutral	Ext. Attenuation:	20	Results	Pass
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Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit



Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.193	30.1	1.1	51.2	63.9	-12.7
0.259	21.6	1.0	42.6	61.5	-18.9
4.916	14.7	0.5	35.2	56.0	-20.8
4.980	14.6	0.5	35.1	56.0	-20.9
4.852	14.2	0.5	34.7	56.0	-21.3
0.325	16.9	0.9	37.8	59.6	-21.8
3.556	13.2	0.5	33.7	56.0	-22.3

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.193	18.3	1.1	39.4	53.9	-14.5
3.556	8.9	0.5	29.4	46.0	-16.6
4.916	8.1	0.5	28.6	46.0	-17.4
4.980	7.6	0.5	28.1	46.0	-17.9
4.852	7.2	0.5	27.7	46.0	-18.3
0.259	9.9	1.0	30.9	51.5	-20.6
0.325	6.9	0.9	27.8	49.6	-21.8

EMC

CONDUCTED EMISSIONS

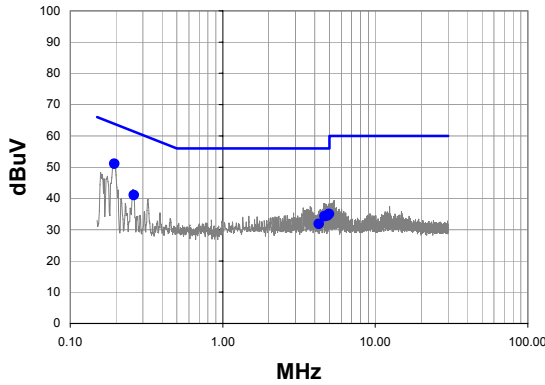
NVLAP Lab Code 200630-0

Work Order:	SPTE0049	Date:	03/27/07	<i>Jennifer Herrett</i>
Project:	None	Temperature:	22	
Job Site:	EV07	Humidity:	33	Tested by: Jennifer Herrett
Serial Number:	None	Barometric Pres.:	30.17	
EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.			
Configuration:	2 - SRE - WLAN card = EUT			
Customer:	Spectrum Technology			
Attendees:	Rod Munro			
EUT Power:	120VAC/60Hz			
Operating Mode:	802.11(a), Transmit, 6Mbps, High (161).			
Deviations:	No deviations.			
Comments:	Notebook configuration.			

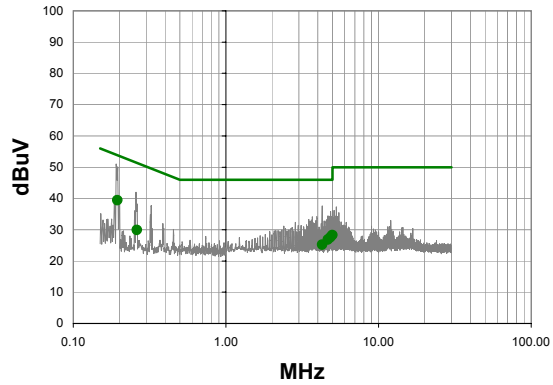
Test Specifications FCC 15.207:2006	Class B	Test Method ANSI C63.4:2003
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Run #	20	Line:	High Line	Ext. Attenuation:	20	Results	Pass
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Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit

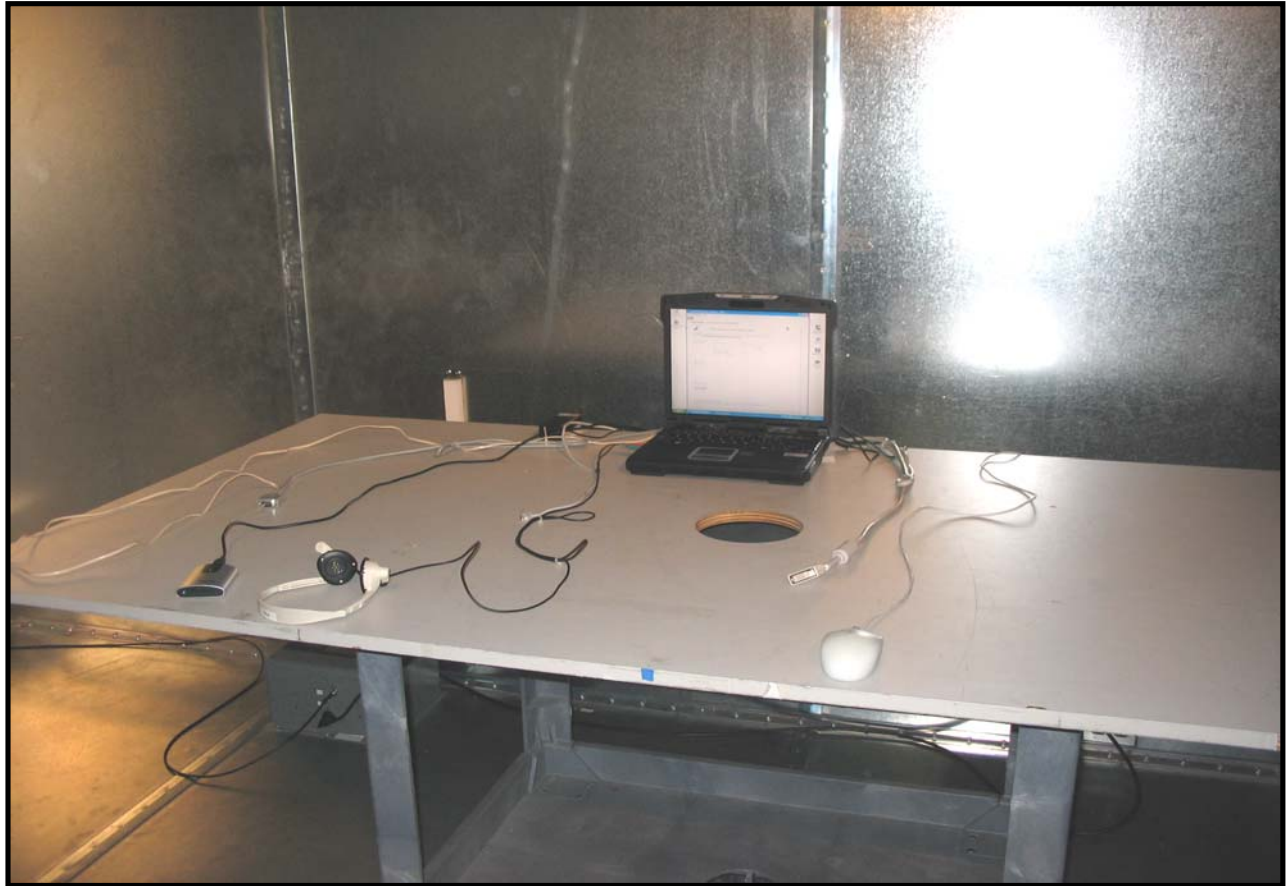


Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.195	30.0	1.1	51.1	63.8	-12.7
0.261	20.1	1.0	41.1	61.4	-20.3
4.980	14.5	0.5	35.0	56.0	-21.0
4.852	14.0	0.5	34.5	56.0	-21.5
4.656	13.8	0.5	34.3	56.0	-21.7
4.268	11.3	0.5	31.8	56.0	-24.2

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.195	18.3	1.1	39.4	53.8	-14.4
4.980	7.8	0.5	28.3	46.0	-17.7
4.852	7.0	0.5	27.5	46.0	-18.5
4.656	6.3	0.5	26.8	46.0	-19.2
4.268	4.7	0.5	25.2	46.0	-20.8
8.9	8.9	1.0	29.9	51.4	-21.5





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 INVESTIGATED

802.11(a)
802.11(n), 5GHz band

MIMO SETTINGS INVESTIGATED

20MHz wide
40MHz wide

ANTENNA CONFIGURATIONS INVESTIGATED

Chain A
Chain AB

CHANNELS INVESTIGATED

5150-5250MHz band
Low channel = Ch. 36, 5180MHz
High channel = Ch. 48, 5240MHz
5250-5350MHz band
Low channel = Ch. 52, 5260MHz
High channel = Ch. 64, 5320MHz

CHANNELS INVESTIGATED (40MHz 'Fat channel' mode)

5190-5250MHz band
Low channel = Ch. 38, 5190MHz
High channel = Ch. 46, 5230MHz
5250-5310MHz band
Low channel = Ch. 54, 5270MHz
High channel = Ch. 62, 5310MHz

DATA RATES INVESTIGATED

6Mbps, 36Mbps, 54Mbps

POWER SETTINGS INVESTIGATED

120VAC/60Hz

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	40 GHz
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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 cable B			EVE	3/30/2006	13
Pre-Amplifier	Miteq	JS4-26004000-50-5A	AON	3/29/2006	13
Pre-Amplifier	Miteq	JS4-26004000-40-8P	APV	3/29/2006	13
Antenna, Horn	EMCO	3160-10	AHI	NCR	0
EV01 Cable D			EVD	3/30/2006	13
Pre-Amplifier	Miteq	JSD4-18002600-26-8P	APU	3/23/2006	13
Antenna, Horn	EMCO	3160-09	AHG	NCR	0
EV01 cables g,h,l			EVF	4/17/2006	13
Pre-Amplifier	Miteq	AMF-4D-005180-24-10P	APC	5/12/2006	13
Antenna, Horn	EMCO	3160-08	AHK	NCR	0

Spectrum Analyzer	Agilent	E4446A	AAT	12/7/2006	13
Low Pass Filter 0-1000 MHz	Micro-Tronics	LPM50004	LFD	12/29/2006	13
High Pass Filter	Micro-Tronics	HPM50111	HFO	12/29/2006	13
High Pass Filter	K&L Microwave	1WP01-15000/E6000-O/O	HFJ	4/3/2006	24
7.5-9.5 GHz Bandpass Filter	K&L Microwave	7ED20-8500/E2000-O/O	HFL	4/3/2006	24
5.8 GHz Notch Filter	Micro-Tronics	BRC50705	HFQ	1/12/2007	13
5.25 GHz Notch Filter	K&L Microwave	8N50-5250/X200-0/0	HFK	4/3/2006	24
Pre-Amplifier	Miteq	AMF-4D-010100-24-10P	APW	12/29/2006	13
Antenna, Horn	EMCO	3115	AHC	8/24/2006	12
EV01 cables g,h,j			EVB	12/29/2006	13
Pre-Amplifier	Miteq	AM-1616-1000	AOL	12/29/2006	13
Antenna, Biconilog	EMCO	3141	AXE	12/28/2005	24
EV01 cables c,g, h			EVA	12/29/2006	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

TEST DESCRIPTION

The highest gain of each type of antenna to be used with the EUT was tested. In this case, both antennas available were of the same type and gain, so a single antenna, Chain A, was tested for 802.11(a) mode, while the combo Chain AB and Chain A were tested for 802.11(n) mode. The EUT was configured for low, mid, or high transmit frequencies of each applicable band. For each configuration, the spectrum was scanned throughout the specified range. In addition, measurements were made in the restricted bands to verify compliance. While scanning, emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and the EUT antenna in three orthogonal axis, and adjusting measurement antenna height and polarization, and manipulating the EUT antenna in 3 orthogonal planes (per ANSI C63.4:2003). A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPT0049
Serial Number:	None	Date:	03/22/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	39%
Project:	None	Barometric Pres.:	30.2
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS Test Method

FCC 15.407:2006	ANSI C63.4:2003, DA 02-2138:2002
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TEST PARAMETERS

Antenna Height(s) (m)	1 - 4	Test Distance (m)	0
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COMMENTS

Notebook configuration. Chain A. This test satisfies 15.407(b)(1-2) for this configuration.

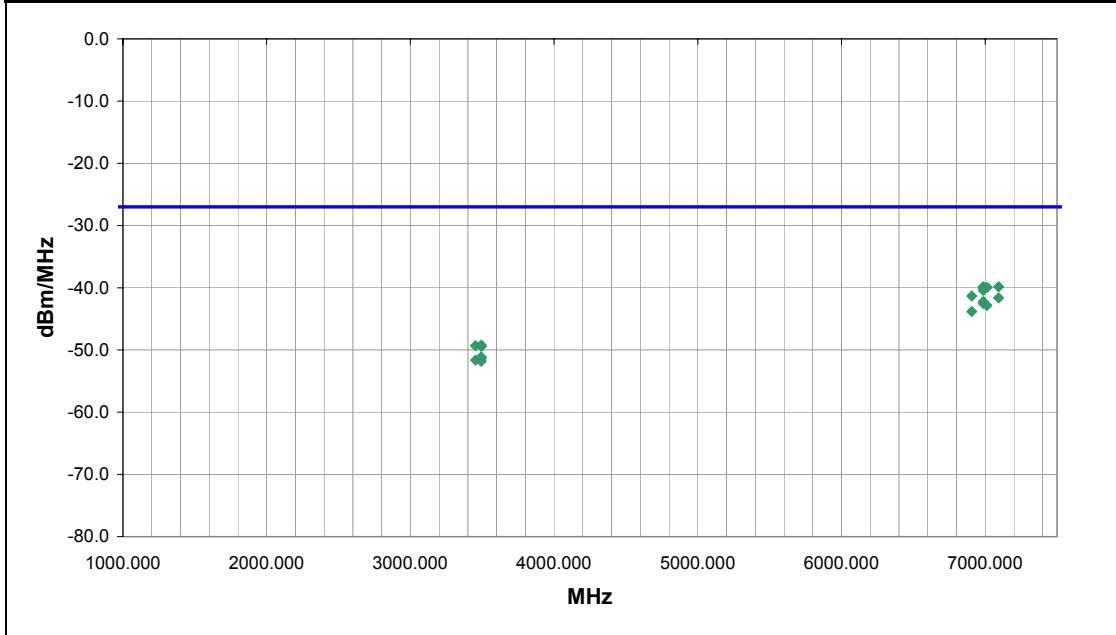
EUT OPERATING MODES

Transmitting 802.11(a), see comments for channel and data rate

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	8	NVLAP Lab Code 200630-0	Signature <i>Holly Ashkannejhad</i>
Configuration #	2		
Results	Pass		



Freq (MHz)	Azimuth (degrees)	Height (meters)	Polarity	Detector	EIRP (Watts/MHz)	EIRP (dBm/MHz)	Spec. Limit (dBm/MHz)	Compared to Spec. (dB)	Comments
7093.237	170.0	1.0	V-Horn	PK	1.04E-07	-39.8	-27.0	-12.8	Ch. 64, 6Mbps
6987.147	209.0	1.0	V-Horn	PK	1.04E-07	-39.8	-27.0	-12.8	Ch. 48, 6Mbps
7013.336	209.0	1.0	V-Horn	PK	1.02E-07	-39.9	-27.0	-12.9	Ch. 52, 6Mbps
6987.074	207.0	1.0	V-Horn	PK	9.93E-08	-40.0	-27.0	-13.0	Ch. 48, 36Mbps
6987.127	33.0	1.0	V-Horn	PK	9.06E-08	-40.4	-27.0	-13.4	Ch. 48, 54Mbps
6906.395	206.0	1.0	V-Horn	PK	7.36E-08	-41.3	-27.0	-14.3	Ch. 36, 6Mbps
7093.184	40.0	1.0	H-Horn	PK	6.87E-08	-41.6	-27.0	-14.6	Ch. 64, 6Mbps
6986.614	146.0	1.0	H-Horn	PK	5.99E-08	-42.2	-27.0	-15.2	Ch. 48, 54Mbps
6987.307	102.0	1.0	H-Horn	PK	5.85E-08	-42.3	-27.0	-15.3	Ch. 48, 36Mbps
6986.627	140.0	1.0	H-Horn	PK	5.59E-08	-42.5	-27.0	-15.5	Ch. 48, 6Mbps
7012.639	107.0	1.0	H-Horn	PK	5.21E-08	-42.8	-27.0	-15.8	Ch. 52, 6Mbps
6906.928	275.0	1.0	H-Horn	PK	4.14E-08	-43.8	-27.0	-16.8	Ch. 36, 6Mbps
3493.490	345.0	1.0	V-Horn	PK	1.19E-08	-49.2	-27.0	-22.2	Ch. 48, 6Mbps
3453.000	113.0	1.0	V-Horn	PK	1.17E-08	-49.3	-27.0	-22.3	Ch. 36, 6Mbps
3494.010	-1.0	1.0	V-Horn	PK	1.14E-08	-49.4	-27.0	-22.4	Ch. 48, 36Mbps
3492.440	15.0	1.0	V-Horn	PK	7.71E-09	-51.1	-27.0	-24.1	Ch. 48, 54Mbps
3492.600	349.0	1.2	H-Horn	PK	7.54E-09	-51.2	-27.0	-24.2	Ch. 48, 36Mbps
3494.136	5.0	1.2	H-Horn	PK	7.36E-09	-51.3	-27.0	-24.3	Ch. 48, 6Mbps
3454.300	261.0	1.2	H-Horn	PK	6.87E-09	-51.6	-27.0	-24.6	Ch. 36, 6Mbps
3493.296	196.0	1.0	H-Horn	PK	6.56E-09	-51.8	-27.0	-24.8	Ch. 48, 54Mbps

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPT0049
Serial Number:	None	Date:	03/22/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	39%
Project:	None	Barometric Pres.:	30.2
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 15.407:2006	ANSI C63.4:2003, DA 02-2138:2002

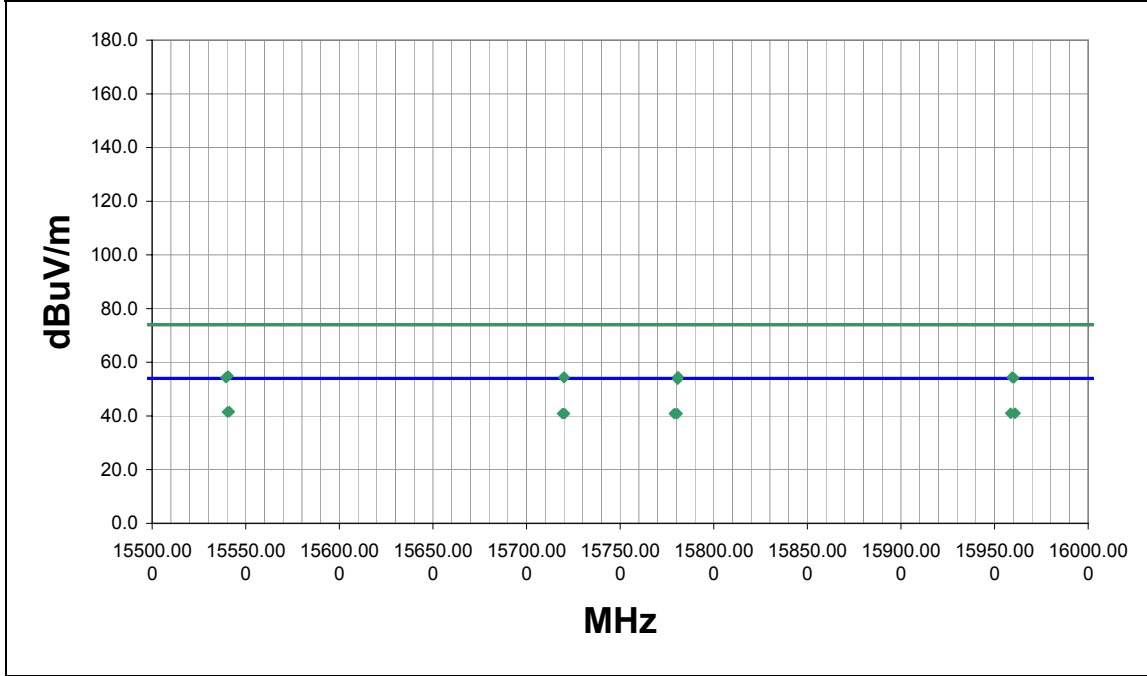
TEST PARAMETERS			
Antenna Height(s) (m)	1 - 4	Test Distance (m)	3

COMMENTS
Notebook configuration. Chain A. This satisfies the requirements for 15.407(b)(7) for this configuration.

EUT OPERATING MODES
Transmitting 802.11(a), 6Mbps. see comments for channel

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	9	NVLAP Lab Code 200630-0	Signature <i>Holly Ashkannejhad</i>
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)	Comments
15541.180	24.3	17.3	284.0	3.3	3.0	0.0	V-Horn	AV	0.0	41.6	54.0	-12.4	Ch. 36
15540.230	24.2	17.3	334.0	1.0	3.0	0.0	H-Horn	AV	0.0	41.5	54.0	-12.5	Ch. 36
15958.590	23.3	17.7	225.0	1.0	3.0	0.0	H-Horn	AV	0.0	41.0	54.0	-13.0	Ch. 64
15960.950	23.3	17.7	178.0	1.0	3.0	0.0	V-Horn	AV	0.0	41.0	54.0	-13.0	Ch. 64
15719.260	23.4	17.5	359.0	2.1	3.0	0.0	H-Horn	AV	0.0	40.9	54.0	-13.1	Ch. 48
15720.220	23.4	17.5	322.0	1.0	3.0	0.0	V-Horn	AV	0.0	40.9	54.0	-13.1	Ch. 48
15778.940	23.4	17.5	266.0	1.0	3.0	0.0	V-Horn	AV	0.0	40.9	54.0	-13.1	Ch. 52
15780.410	23.4	17.5	265.0	1.0	3.0	0.0	H-Horn	AV	0.0	40.9	54.0	-13.1	Ch. 52
15540.480	37.6	17.3	334.0	1.0	3.0	0.0	H-Horn	PK	0.0	54.9	74.0	-19.1	Ch. 36
15780.950	37.1	17.5	265.0	1.0	3.0	0.0	H-Horn	PK	0.0	54.6	74.0	-19.4	Ch. 52
15719.970	37.0	17.5	322.0	1.0	3.0	0.0	V-Horn	PK	0.0	54.5	74.0	-19.5	Ch. 48
15959.420	36.7	17.7	178.0	1.0	3.0	0.0	V-Horn	PK	0.0	54.4	74.0	-19.6	Ch. 64
15719.960	36.8	17.5	359.0	2.1	3.0	0.0	H-Horn	PK	0.0	54.3	74.0	-19.7	Ch. 48
15539.370	37.0	17.3	284.0	3.3	3.0	0.0	V-Horn	PK	0.0	54.3	74.0	-19.7	Ch. 36
15960.270	36.5	17.7	225.0	1.0	3.0	0.0	H-Horn	PK	0.0	54.2	74.0	-19.8	Ch. 64
15780.660	36.2	17.5	266.0	1.0	3.0	0.0	V-Horn	PK	0.0	53.7	74.0	-20.3	Ch. 52

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPT0049
Serial Number:	None	Date:	03/22/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	39%
Project:	None	Barometric Pres.:	30.2
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 15.407:2006	ANSI C63.4:2003, DA 02-2138:2002

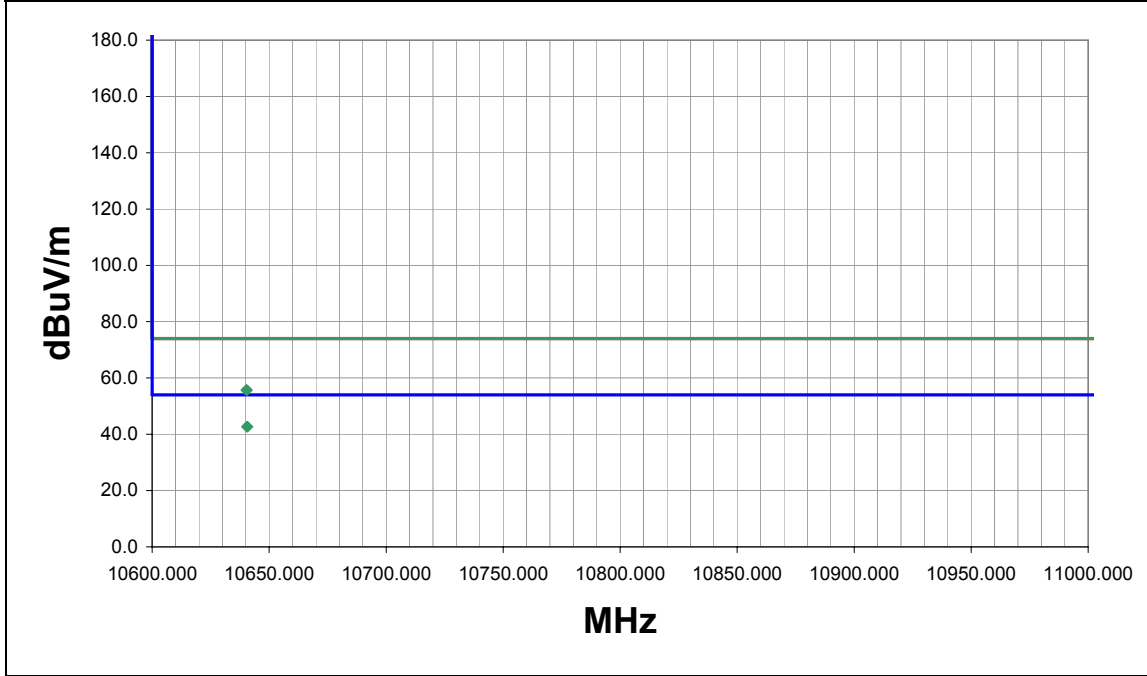
TEST PARAMETERS			
Antenna Height(s) (m)	1 - 4	Test Distance (m)	3

COMMENTS
Notebook configuration. Chain A. This satisfies the requirements for 15.407(b)(7) for this configuration.

EUT OPERATING MODES
Transmitting 802.11(a), see comments for channel, 6Mbps

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	11	NVLAP Lab Code 200630-0	Signature <i>Holly Ashkannejhad</i>
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)	Comments
10640.510	24.3	18.4	182.0	1.0	3.0	0.0	V-Horn	AV	0.0	42.7	54.0	-11.3	Ch. 64
10640.730	24.3	18.4	144.0	1.0	3.0	0.0	H-Horn	AV	0.0	42.7	54.0	-11.3	Ch. 64
10640.200	37.3	18.4	182.0	1.0	3.0	0.0	V-Horn	PK	0.0	55.7	74.0	-18.3	Ch. 64
10640.550	37.3	18.4	144.0	1.0	3.0	0.0	H-Horn	PK	0.0	55.7	74.0	-18.3	Ch. 64

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)(g)(a)(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPTE0049
Serial Number:	None	Date:	03/22/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	39%
Project:	None	Barometric Pres.:	30.2
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS		Test Method	
FCC 15.407:2006		ANSI C63.4:2003, DA 02-2138:2002	

TEST PARAMETERS			
Antenna Height(s) (m)	1 - 4	Test Distance (m)	0

COMMENTS
Notebook configuration. Chain A. This satisfies 15.2407(b)(1-2) for this configuration.

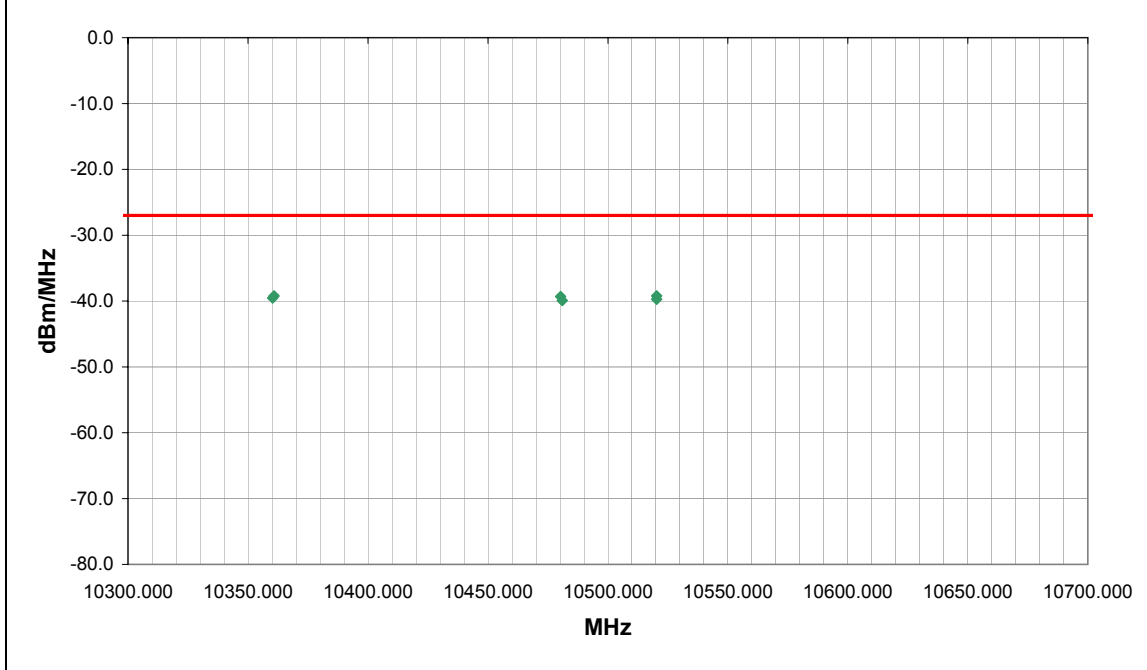
EUT OPERATING MODES

Transmitting 802.11(a), see comments for channel, 6Mbps

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	11	NVLAP Lab Code 200630-0	Signature <i>Holly Ashkannejhad</i>
Configuration #	2		
Results	Pass		



Freq (MHz)	Azimuth (degrees)	Height (meters)	Polarity	Detector	EIRP (Watts/MHz)	EIRP (dBm/MHz)	Spec. Limit (dBm/MHz)	Compared to Spec. (dB)	Comments
10360.900	19.0	1.0	V-Horn	PK	1.19E-07	-39.2	-27.0	-12.2	Ch. 36
10520.330	66.0	2.5	H-Horn	PK	1.19E-07	-39.2	-27.0	-12.2	Ch. 52
10480.300	188.0	1.0	H-Horn	PK	1.17E-07	-39.3	-27.0	-12.3	Ch. 48
10360.250	177.0	1.0	H-Horn	PK	1.11E-07	-39.5	-27.0	-12.5	Ch. 36
10520.280	282.0	1.0	V-Horn	PK	1.06E-07	-39.7	-27.0	-12.7	Ch. 52
10480.960	347.0	1.0	V-Horn	PK	1.02E-07	-39.9	-27.0	-12.9	Ch. 48

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPT0049
Serial Number:	None	Date:	04/04/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	39%
Project:	None	Barometric Pres.:	30.2
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS		Test Method	
FCC 15.407:2006		ANSI C63.4:2003, DA 02-2138:2002	

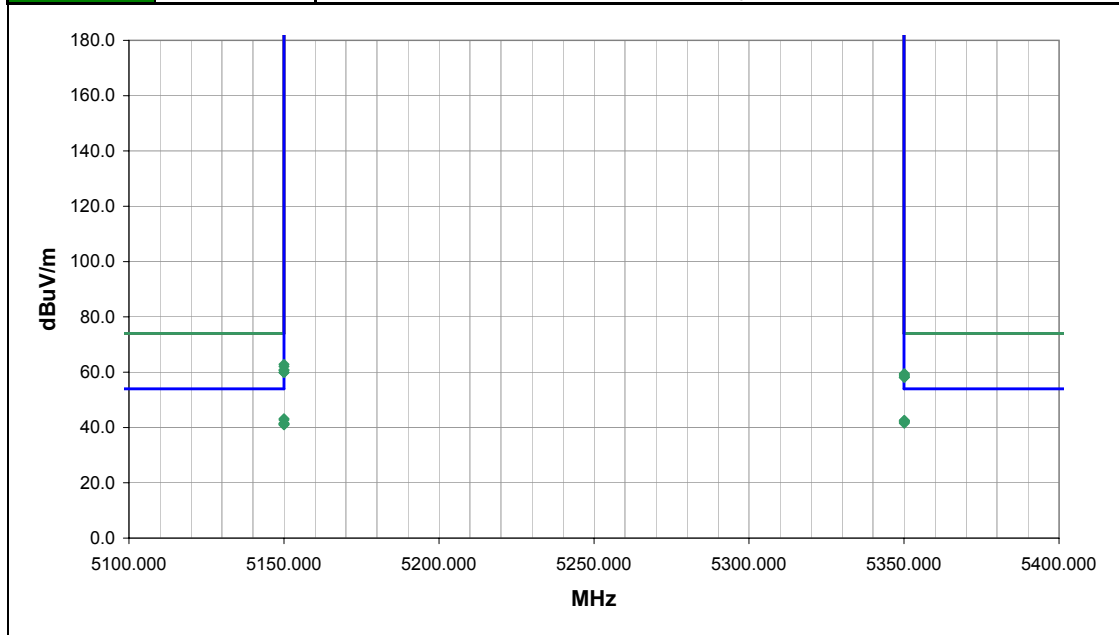
TEST PARAMETERS			
Antenna Height(s) (m)	1 - 4	Test Distance (m)	3

COMMENTS
Notebook configuration. This satisfies the requirements for 15.407(b)(7) for this configuration.

EUT OPERATING MODES
Transmitting 802.11(a), 5GHz band, Chain A, see comments for channel

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	89	NVLAP Lab Code 200630-0	Signature <i>Holly Ashkannejhad</i>
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)	Comments
5150.000	16.4	36.3	68.0	1.0	1.0	0.0	V-Horn	AV	-9.5	43.2	54.0	-10.8	6Mbps, Ch. 36
5150.000	36.1	36.3	68.0	1.0	1.0	0.0	V-Horn	PK	-9.5	62.9	74.0	-11.1	6Mbps, Ch. 36
5150.000	16.0	36.3	98.0	1.1	1.0	0.0	H-Horn	AV	-9.5	42.8	54.0	-11.2	6Mbps, Ch. 36
5350.100	15.2	36.9	56.0	1.1	1.0	0.0	H-Horn	AV	-9.5	42.6	54.0	-11.4	6Mbps, Ch. 64
5350.100	15.1	36.9	237.0	1.1	1.0	0.0	V-Horn	AV	-9.5	42.5	54.0	-11.5	6Mbps, Ch. 64
5350.100	14.9	36.9	153.0	1.1	1.0	0.0	V-Horn	AV	-9.5	42.3	54.0	-11.7	36Mbps, Ch. 64
5350.100	14.7	36.9	255.0	1.1	1.0	0.0	H-Horn	AV	-9.5	42.1	54.0	-11.9	36Mbps, Ch. 64
5150.000	35.3	36.3	98.0	1.1	1.0	0.0	H-Horn	PK	-9.5	62.1	74.0	-11.9	6Mbps, Ch. 36
5350.100	14.6	36.9	140.0	1.0	1.0	0.0	V-Horn	AV	-9.5	42.0	54.0	-12.0	54Mbps, Ch. 64
5150.000	14.8	36.3	151.0	1.1	1.0	0.0	V-Horn	AV	-9.5	41.6	54.0	-12.4	36Mbps, Ch. 36
5350.100	14.2	36.9	72.0	1.1	1.0	0.0	H-Horn	AV	-9.5	41.6	54.0	-12.4	54Mbps, Ch. 64
5150.000	14.6	36.3	258.0	1.1	1.0	0.0	H-Horn	AV	-9.5	41.4	54.0	-12.6	36Mbps, Ch. 36
5150.000	14.4	36.3	75.0	1.1	1.0	0.0	H-Horn	AV	-9.5	41.2	54.0	-12.8	54Mbps, Ch. 36
5150.000	14.2	36.3	138.0	1.1	1.0	0.0	V-Horn	AV	-9.5	41.0	54.0	-13.0	54Mbps, Ch. 36
5150.000	34.1	36.3	151.0	1.1	1.0	0.0	V-Horn	PK	-9.5	60.9	74.0	-13.1	36Mbps, Ch. 36
5150.000	33.9	36.3	138.0	1.1	1.0	0.0	V-Horn	PK	-9.5	60.7	74.0	-13.3	54Mbps, Ch. 36
5150.000	33.1	36.3	258.0	1.1	1.0	0.0	H-Horn	PK	-9.5	59.9	74.0	-14.1	36Mbps, Ch. 36
5150.000	33.1	36.3	75.0	1.1	1.0	0.0	H-Horn	PK	-9.5	59.9	74.0	-14.1	54Mbps, Ch. 36
5350.100	32.1	36.9	56.0	1.1	1.0	0.0	H-Horn	PK	-9.5	59.5	74.0	-14.5	6Mbps, Ch. 64
5350.100	31.8	36.9	237.0	1.1	1.0	0.0	V-Horn	PK	-9.5	59.2	74.0	-14.8	6Mbps, Ch. 64

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)(g)/(a)(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPTE0049
Serial Number:	None	Date:	03/23/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	39%
Project:	None	Barometric Pres.:	30.2
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS		Test Method
FCC 15.407:2006	ANSI C63.4:2003, DA 02-2138:2002	

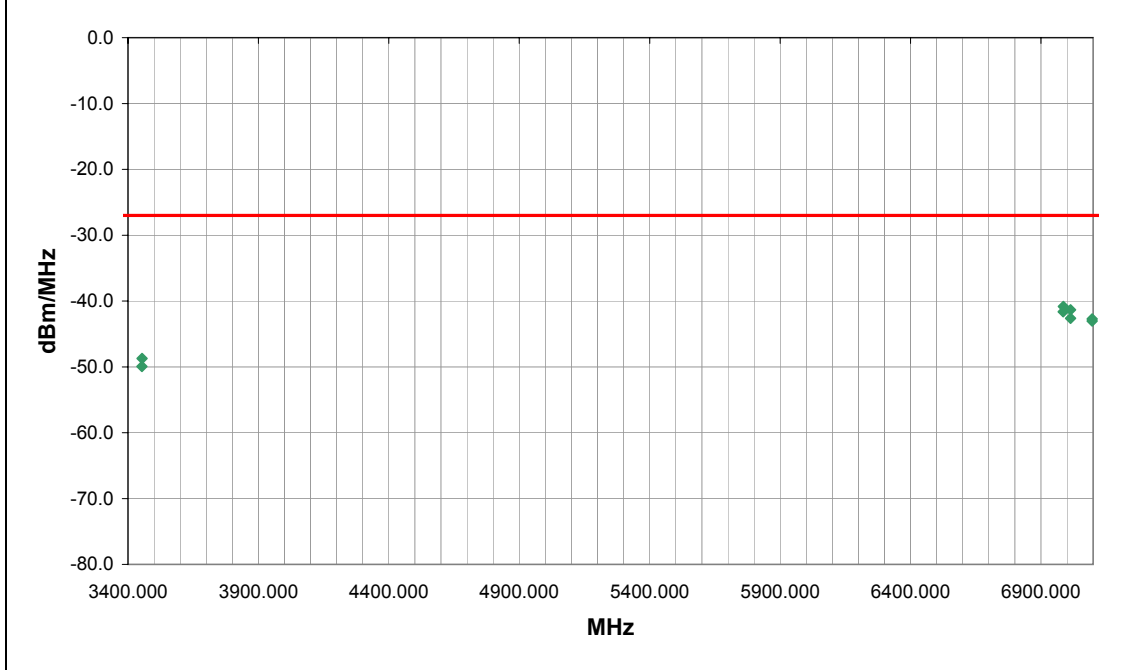
TEST PARAMETERS			
Antenna Height(s) (m)	1 - 4	Test Distance (m)	0

COMMENTS
Notebook configuration. This satisfies 15.407(b)(1-2) for this configuration.

EUT OPERATING MODES
Transmitting 802.11(n), 5GHz band, Chain A, HT0, 20MHz wide

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	12	NVLAP Lab Code 200630-0	Signature <i>Holly Ashkannejhad</i>
Configuration #	2		
Results	Pass		



Freq (MHz)	Azimuth (degrees)	Height (meters)	Polarity	Detector	EIRP (Watts/MHz)	EIRP (dBm/MHz)	Spec. Limit (dBm/MHz)	Compared to Spec. (dB)	Comments
6986.211	273.0	1.0	V-Horn	PK	8.26E-08	-40.8	-27.0	-13.8	Ch. 48
7013.579	108.0	1.0	V-Horn	PK	7.36E-08	-41.3	-27.0	-14.3	Ch. 52
6985.016	248.0	1.0	H-Horn	PK	6.87E-08	-41.6	-27.0	-14.6	Ch. 48
7013.649	158.0	1.0	H-Horn	PK	5.46E-08	-42.6	-27.0	-15.6	Ch. 52
7096.432	0.0	2.0	V-Horn	PK	5.33E-08	-42.7	-27.0	-15.7	Ch. 64
7096.599	94.0	1.0	H-Horn	PK	4.98E-08	-43.0	-27.0	-16.0	Ch. 64
3453.845	255.0	1.0	V-Horn	PK	1.34E-08	-48.7	-27.0	-21.7	Ch. 36
3453.370	153.0	1.0	H-Horn	PK	1.02E-08	-49.9	-27.0	-22.9	Ch. 36

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPT0049
Serial Number:	None	Date:	03/23/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	39%
Project:	None	Barometric Pres.:	30.2
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS Test Method

FCC 15.407:2006	ANSI C63.4:2003, DA 02-2138:2002
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TEST PARAMETERS

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

Notebook configuration. This satisfies the requirements for 15.407(b)(7) for this configuration.

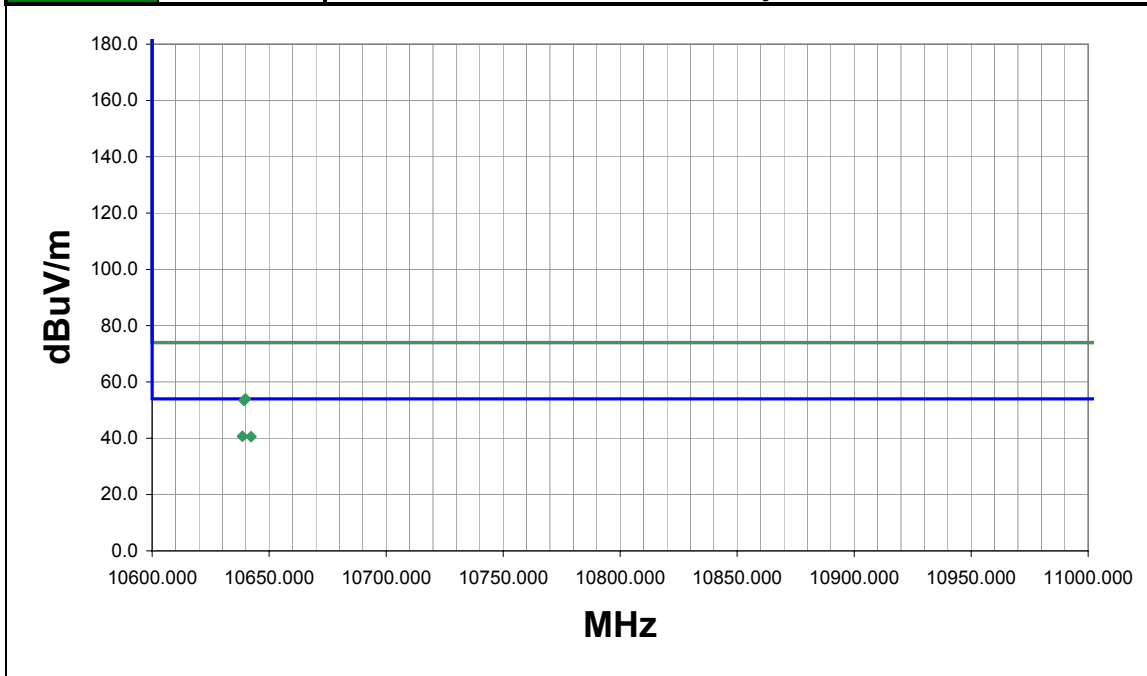
EUT OPERATING MODES

Transmitting 802.11(n), 5GHz band, Chain A, HT0, 20MHz wide

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	13	NVLAP Lab Code 200630-0	Signature <i>Holly Ashkannejhad</i>
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)	Comments
10638.530	22.3	18.4	266.0	1.0	3.0	0.0	H-Horn	AV	0.0	40.7	54.0	-13.3	Ch. 64
10642.230	22.2	18.4	258.0	2.5	3.0	0.0	V-Horn	AV	0.0	40.6	54.0	-13.4	Ch. 64
10639.860	35.6	18.4	266.0	1.0	3.0	0.0	H-Horn	PK	0.0	54.0	74.0	-20.0	Ch. 64
10639.220	35.0	18.4	258.0	2.5	3.0	0.0	V-Horn	PK	0.0	53.4	74.0	-20.6	Ch. 64

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)(g)(a)(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPTE0049
Serial Number:	None	Date:	03/23/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	39%
Project:	None	Barometric Pres.:	30.2
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS Test Method

FCC 15.407:2006	ANSI C63.4:2003, DA 02-2138:2002
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TEST PARAMETERS

Antenna Height(s) (m)	1 - 4	Test Distance (m)	0
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COMMENTS

Notebook configuration. This satisfies 15.407(b)(1-3) for this configuration.

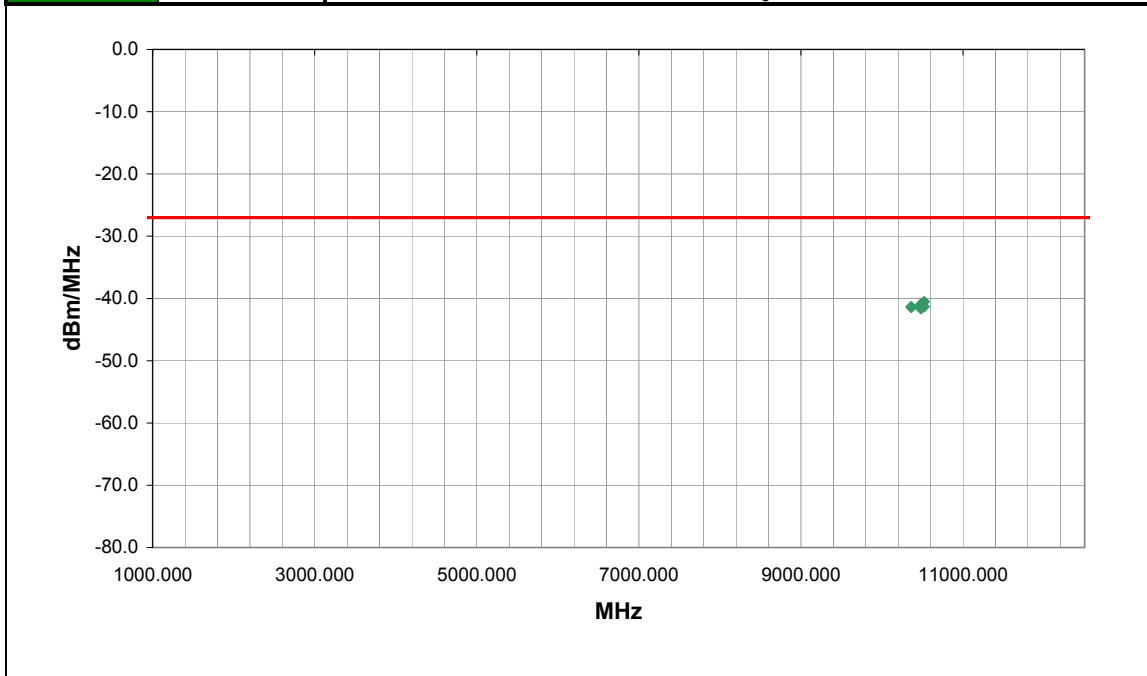
EUT OPERATING MODES

Transmitting 802.11(n), 5GHz band, Chain A, HT0, 20MHz wide

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	13	NVLAP Lab Code 200630-0 <i>Signature Holly Ashkannejhad</i>
Configuration #	2	
Results	Pass	



Freq (MHz)	Azimuth (degrees)	Height (meters)	Polarity	Detector	EIRP (Watts/MHz)	EIRP (dBm/MHz)	Spec. Limit (dBm/MHz)	Compared to Spec. (dB)	Comments
10518.930	88.0	1.0	H-Horn	PK	8.85E-08	-40.5	-27.0	-13.5	Ch. 52
10479.200	169.0	1.0	V-Horn	PK	8.07E-08	-40.9	-27.0	-13.9	Ch. 48
10359.880	220.0	1.0	H-Horn	PK	7.36E-08	-41.3	-27.0	-14.3	Ch. 36
10519.330	171.0	1.0	V-Horn	PK	7.36E-08	-41.3	-27.0	-14.3	Ch. 52
10359.430	47.0	1.0	V-Horn	PK	7.20E-08	-41.4	-27.0	-14.4	Ch. 36
10479.440	59.0	1.0	H-Horn	PK	6.87E-08	-41.6	-27.0	-14.6	Ch. 48

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPT0049
Serial Number:	None	Date:	03/23/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	39%
Project:	None	Barometric Pres.:	30.2
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 15.407:2006	ANSI C63.4:2003, DA 02-2138:2002

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

COMMENTS
Notebook configuration. This satisfies the requirements for 15.407(b)(7) for this configuration.

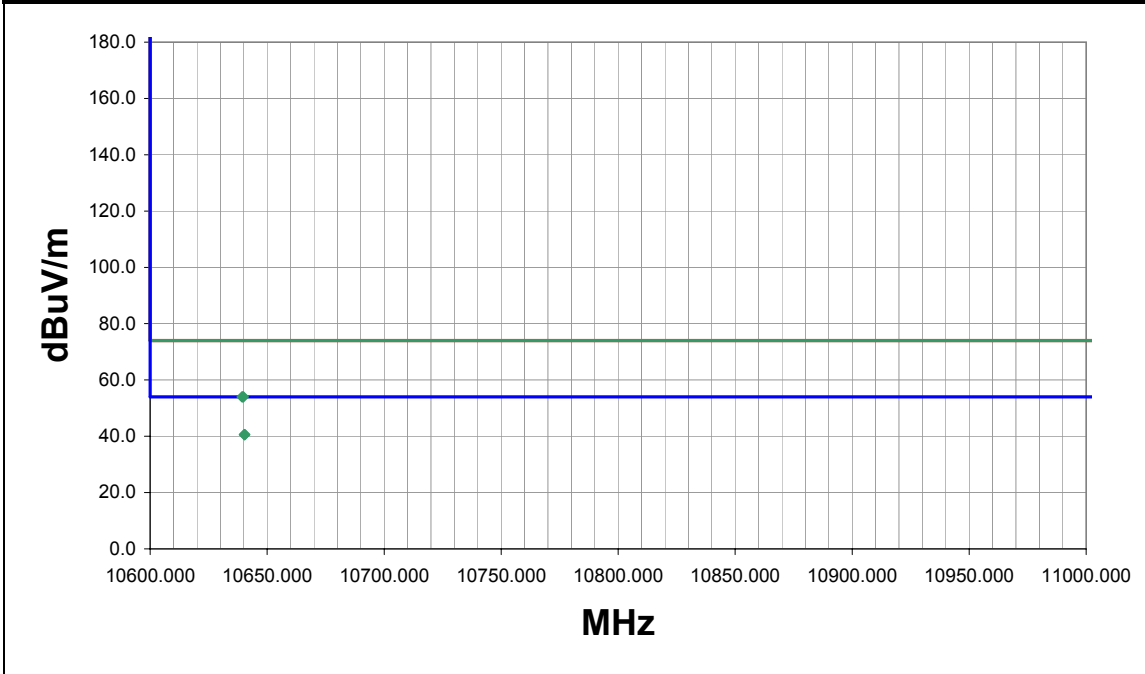
EUT OPERATING MODES

Transmitting 802.11(n), 5GHz band, Chain AB, HT15, 20MHz wide

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	14	NVLAP Lab Code 200630-0	Signature <i>Holly Ashkannejhad</i>
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)	Comments
10640.250	22.2	18.4	78.0	1.0	3.0	0.0	V-Horn	AV	0.0	40.6	54.0	-13.4	Ch. 64
10640.440	22.2	18.4	129.0	1.0	3.0	0.0	H-Horn	AV	0.0	40.6	54.0	-13.4	Ch. 64
10639.310	35.6	18.4	78.0	1.0	3.0	0.0	V-Horn	PK	0.0	54.0	74.0	-20.0	Ch. 64
10639.790	35.6	18.4	129.0	1.0	3.0	0.0	H-Horn	PK	0.0	54.0	74.0	-20.0	Ch. 64

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPTE0049
Serial Number:	None	Date:	03/23/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	39%
Project:	None	Barometric Pres.:	30.2
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS Test Method

FCC 15.407:2006	ANSI C63.4:2003, DA 02-2138:2002
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TEST PARAMETERS

Antenna Height(s) (m)	1 - 4	Test Distance (m)	0
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COMMENTS

Notebook configuration. This satisfies 15.407(b)(1-2) for this configuration.

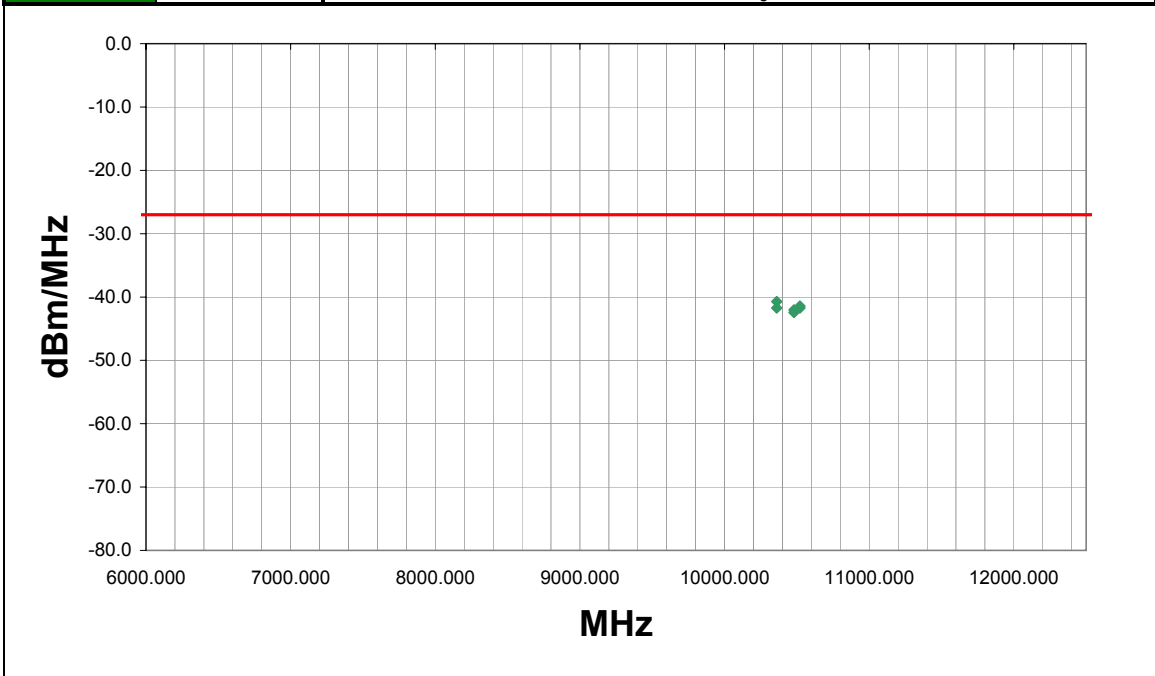
EUT OPERATING MODES

Transmitting 802.11(n), 5GHz band, Chain AB, HT15, 20MHz wide

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	14	NVLAP Lab Code 200630-0	Signature <i>Holly Ashkannejhad</i>
Configuration #	2		
Results	Pass		



Freq (MHz)	Azimuth (degrees)	Height (meters)	Polarity	Detector	EIRP (Watts/MHz)	EIRP (dBm/MHz)	Spec. Limit (dBm/MHz)	Compared to Spec. (dB)	Comments
10360.630	10.0	1.0	H-Horn	PK	8.46E-08	-40.7	-27.0	-13.7	Ch. 36
10520.900	201.0	1.0	H-Horn	PK	7.20E-08	-41.4	-27.0	-14.4	Ch. 52
10360.100	97.0	1.0	V-Horn	PK	6.72E-08	-41.7	-27.0	-14.7	Ch. 36
10520.650	149.0	2.0	V-Horn	PK	6.72E-08	-41.7	-27.0	-14.7	Ch. 52
10480.260	238.0	1.0	H-Horn	PK	6.27E-08	-42.0	-27.0	-15.0	Ch. 48
10479.630	250.0	1.0	V-Horn	PK	5.72E-08	-42.4	-27.0	-15.4	Ch. 48

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPTE0049
Serial Number:	None	Date:	03/23/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	39%
Project:	None	Barometric Pres.:	30.2
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS		Test Method	
FCC 15.407:2006		ANSI C63.4:2003, DA 02-2138:2002	

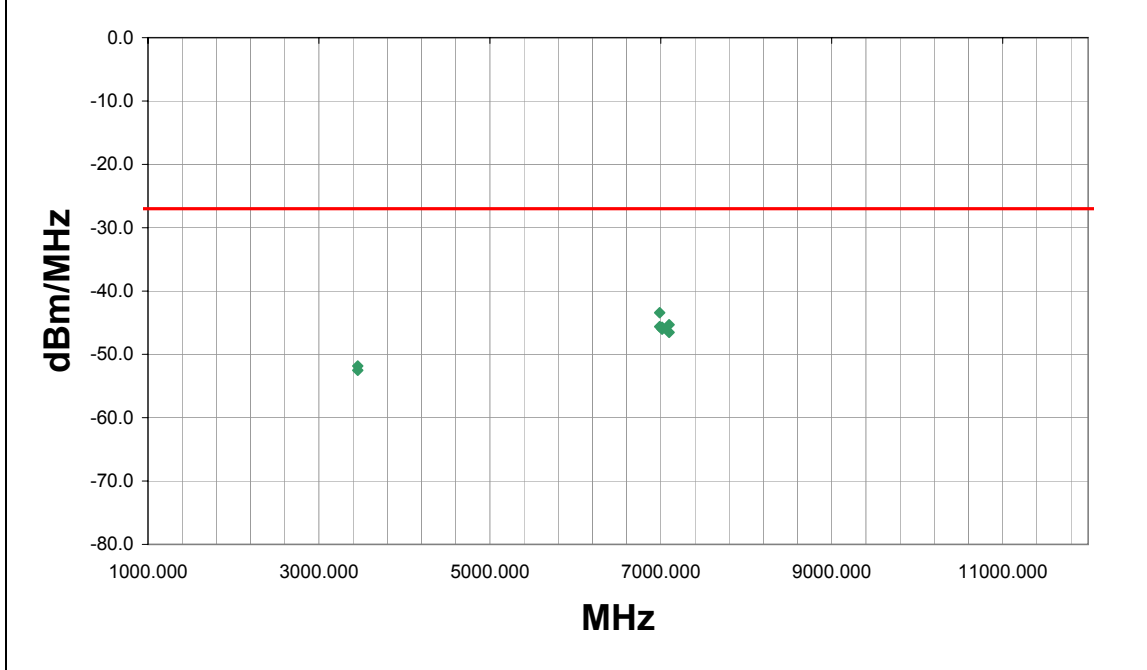
TEST PARAMETERS			
Antenna Height(s) (m)	1 - 4	Test Distance (m)	0

COMMENTS
Notebook configuration. This satisfies 15.407(b)(1-2) for this configuration.

EUT OPERATING MODES
Transmitting 802.11(n), 5GHz band, Chain AB, HT15, 20MHz wide

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	16	NVLAP Lab Code 200630-0	Signature <i>Holly Ashkannejhad</i>
Configuration #	2		
Results	Pass		



Freq (MHz)	Azimuth (degrees)	Height (meters)	Polarity	Detector	EIRP (Watts/MHz)	EIRP (dBm/MHz)	Spec. Limit (dBm/MHz)	Compared to Spec. (dB)	Comments
6986.771	351.0	1.0	V-Horn	PK	4.54E-08	-43.4	-27.0	-16.4	Ch. 48
7096.262	85.0	1.0	H-Horn	PK	2.93E-08	-45.3	-27.0	-18.3	Ch. 64
6985.901	254.0	1.0	H-Horn	PK	2.74E-08	-45.6	-27.0	-18.6	Ch. 48
7013.954	240.0	1.0	H-Horn	PK	2.67E-08	-45.7	-27.0	-18.7	Ch. 52
7013.959	293.0	1.0	V-Horn	PK	2.50E-08	-46.0	-27.0	-19.0	Ch. 52
7097.052	216.0	1.0	V-Horn	PK	2.22E-08	-46.5	-27.0	-19.5	Ch. 64
3453.645	230.0	1.0	V-Horn	PK	6.56E-09	-51.8	-27.0	-24.8	Ch. 36
3453.845	86.0	1.0	H-Horn	PK	5.59E-09	-52.5	-27.0	-25.5	Ch. 36

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPT0049
Serial Number:	None	Date:	04/04/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	39%
Project:	None	Barometric Pres.:	30.2
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 15.407:2006	ANSI C63.4:2003, DA 02-2138:2002

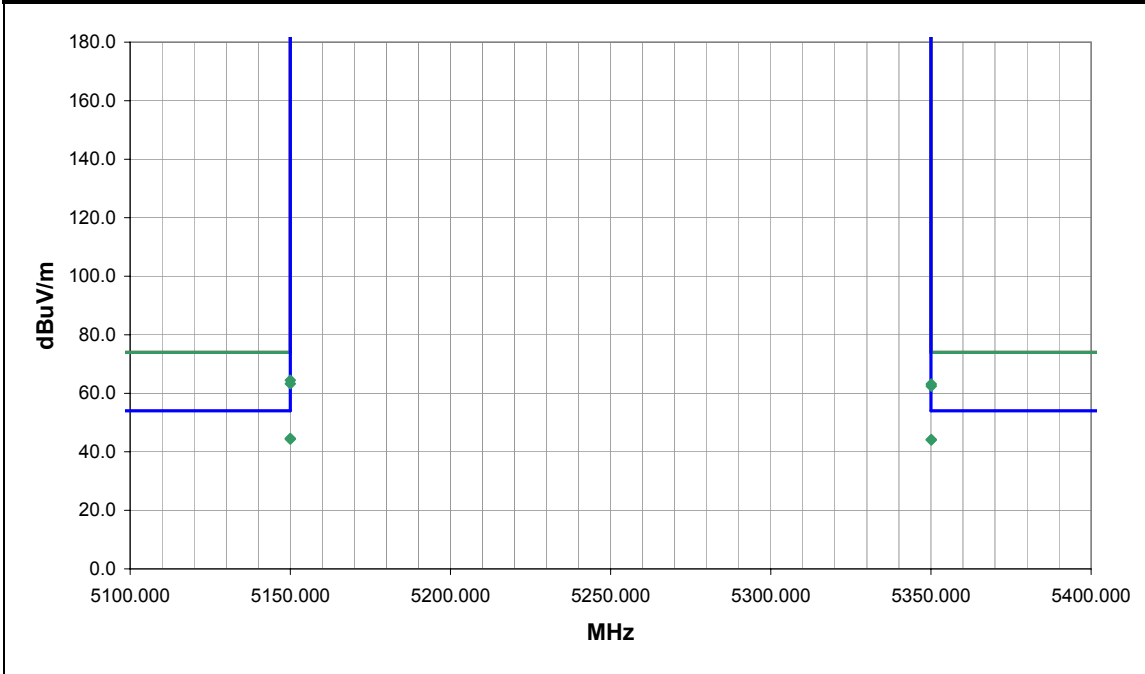
TEST PARAMETERS			
Antenna Height(s) (m)	1 - 4	Test Distance (m)	3

COMMENTS
Notebook configuration. This satisfies the requirements for 15.407(b)(7) for this configuration.

EUT OPERATING MODES
Transmitting 802.11(n), 5GHz band, Chain A, 20MHz wide, see comments for channel

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	90	NVLAP Lab Code 200630-0	Signature <i>Holly Ashkannejhad</i>
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)	Comments
5150.000	17.8	36.3	56.0	1.1	1.0	0.0	V-Horn	AV	-9.5	44.6	54.0	-9.4	Ch. 36
5150.000	37.7	36.3	56.0	1.1	1.0	0.0	V-Horn	PK	-9.5	64.5	74.0	-9.5	Ch. 36
5150.000	17.6	36.3	225.0	1.1	1.0	0.0	H-Horn	AV	-9.5	44.4	54.0	-9.6	Ch. 36
5350.100	16.8	36.9	124.0	1.1	1.0	0.0	V-Horn	AV	-9.5	44.2	54.0	-9.8	Ch. 64
5350.100	16.7	36.9	360.0	1.0	1.0	0.0	H-Horn	AV	-9.5	44.1	54.0	-9.9	Ch. 64
5150.000	36.5	36.3	225.0	1.1	1.0	0.0	H-Horn	PK	-9.5	63.3	74.0	-10.7	Ch. 36
5350.100	35.8	36.9	124.0	1.1	1.0	0.0	V-Horn	PK	-9.5	63.2	74.0	-10.8	Ch. 64
5350.100	35.1	36.9	360.0	1.0	1.0	0.0	H-Horn	PK	-9.5	62.5	74.0	-11.5	Ch. 64

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPT0049
Serial Number:	None	Date:	04/04/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	39%
Project:	None	Barometric Pres.:	30.2
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 15.407:2006	ANSI C63.4:2003, DA 02-2138:2002

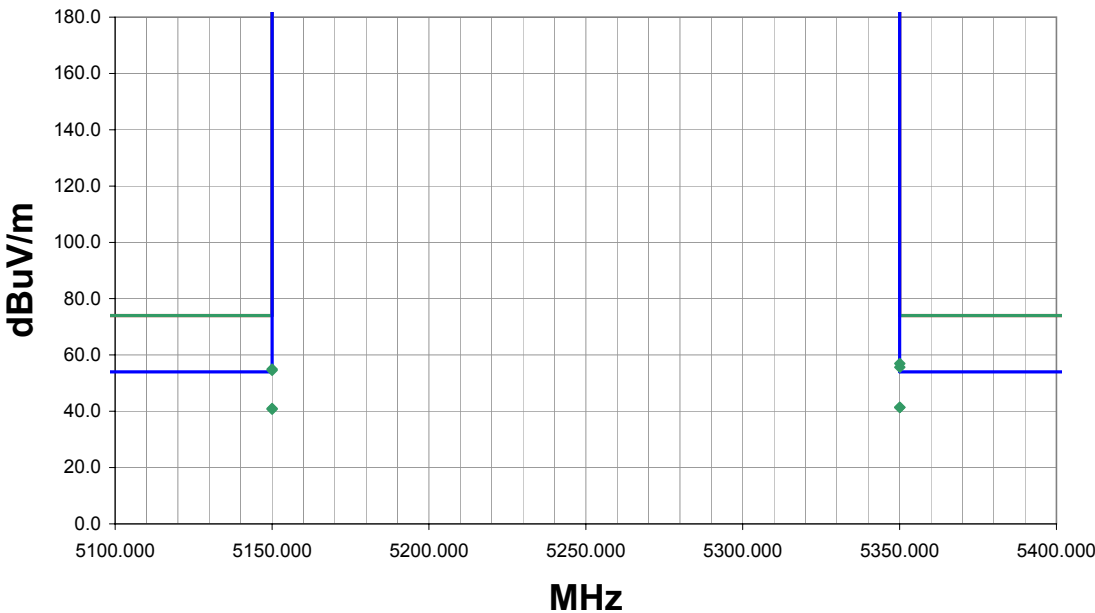
TEST PARAMETERS			
Antenna Height(s) (m)	1 - 4	Test Distance (m)	3

COMMENTS
Notebook configuration. This satisfies the requirements for 15.407(b)(7) for this configuration.

EUT OPERATING MODES
Transmitting 802.11(n), 5GHz band, Chain AB, 20MHz wide

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	91	NVLAP Lab Code 200630-0	Signature <i>Holly Ashkannejhad</i>
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)	Comments
5350.100	14.0	36.9	236.0	1.1	1.0	0.0	H-Horn	AV	-9.5	41.4	54.0	-12.6	Ch. 64
5350.100	14.0	36.9	122.0	1.0	1.0	0.0	V-Horn	AV	-9.5	41.4	54.0	-12.6	Ch. 64
5150.000	14.2	36.3	67.0	1.0	1.0	0.0	V-Horn	AV	-9.5	41.0	54.0	-13.0	Ch. 36
5150.000	14.0	36.3	240.0	1.1	1.0	0.0	H-Horn	AV	-9.5	40.8	54.0	-13.2	Ch. 36
5350.100	29.6	36.9	122.0	1.0	1.0	0.0	V-Horn	PK	-9.5	57.0	74.0	-17.0	Ch. 64
5350.100	28.3	36.9	236.0	1.1	1.0	0.0	H-Horn	PK	-9.5	55.7	74.0	-18.3	Ch. 64
5150.000	28.2	36.3	67.0	1.0	1.0	0.0	V-Horn	PK	-9.5	55.0	74.0	-19.0	Ch. 36
5150.000	27.8	36.3	240.0	1.1	1.0	0.0	H-Horn	PK	-9.5	54.6	74.0	-19.4	Ch. 36

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPT0049
Serial Number:	None	Date:	04/04/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	30%
Project:	None	Barometric Pres.:	30.42
Tested by:	Holy Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 15.407:2006	ANSI C63.4:2003, DA 02-2138:2002

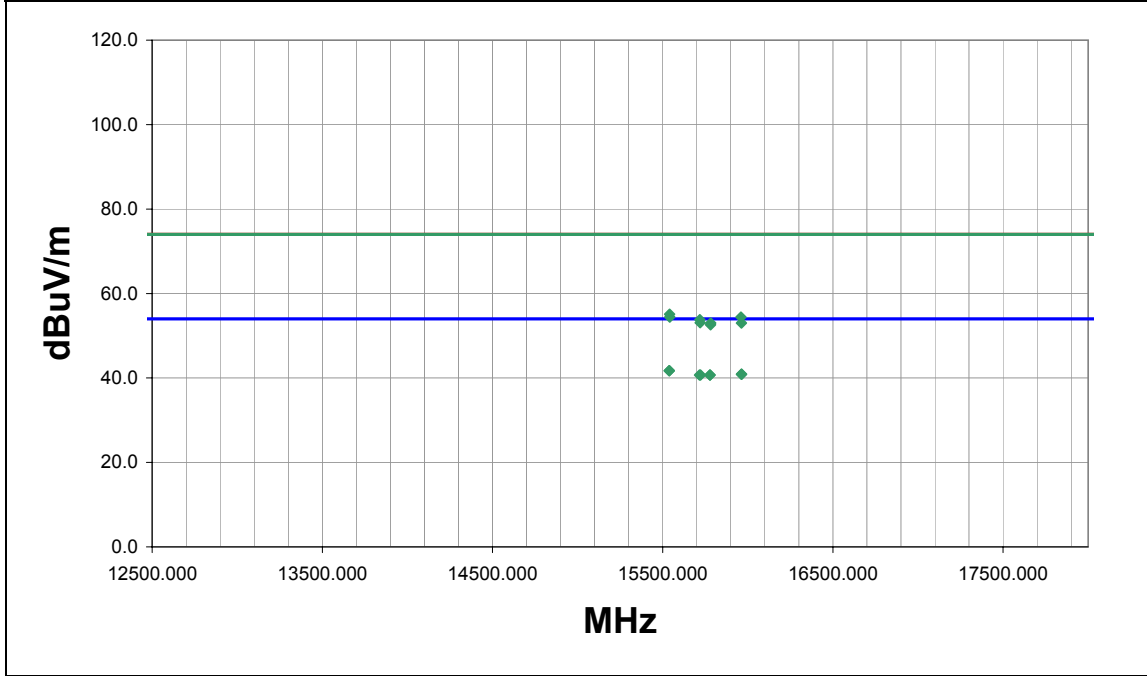
TEST PARAMETERS			
Antenna Height(s) (m)	1 - 4	Test Distance (m)	3

COMMENTS
Notebook configuration. This satisfies the requirements for 15.407(b)(7) for this configuration.

EUT OPERATING MODES
802.11(n), 20MHz wide, 5GHz band. see comments for channel, Chain A

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	94	NVLAP Lab Code 200630-0	Signature <i>Holy Ashkannejhad</i>
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)	Comments
15538.530	24.4	17.3	82.0	1.0	3.0	0.0	V-Horn	AV	0.0	41.7	54.0	-12.3	Ch. 36
15538.640	24.4	17.3	182.0	1.0	3.0	0.0	H-Horn	AV	0.0	41.7	54.0	-12.3	Ch. 36
15963.110	23.2	17.7	73.0	1.0	3.0	0.0	H-Horn	AV	0.0	40.9	54.0	-13.1	Ch. 64
15963.470	23.2	17.7	210.0	1.0	3.0	0.0	V-Horn	AV	0.0	40.9	54.0	-13.1	Ch. 64
15716.150	23.2	17.5	265.0	1.0	3.0	0.0	H-Horn	AV	0.0	40.7	54.0	-13.3	Ch. 48
15721.630	23.2	17.5	110.0	1.2	3.0	0.0	V-Horn	AV	0.0	40.7	54.0	-13.3	Ch. 48
15777.720	23.2	17.5	52.0	1.2	3.0	0.0	H-Horn	AV	0.0	40.7	54.0	-13.3	Ch. 52
15778.550	23.2	17.5	13.0	1.0	3.0	0.0	V-Horn	AV	0.0	40.7	54.0	-13.3	Ch. 52
15540.310	37.8	17.3	82.0	1.0	3.0	0.0	V-Horn	PK	0.0	55.1	74.0	-18.9	Ch. 36
15959.500	36.7	17.7	73.0	1.0	3.0	0.0	H-Horn	PK	0.0	54.4	74.0	-19.6	Ch. 64
15541.380	37.1	17.3	182.0	1.0	3.0	0.0	H-Horn	PK	0.0	54.4	74.0	-19.6	Ch. 36
15717.880	36.3	17.5	110.0	1.2	3.0	0.0	V-Horn	PK	0.0	53.8	74.0	-20.2	Ch. 48
15719.630	35.6	17.5	265.0	1.0	3.0	0.0	H-Horn	PK	0.0	53.1	74.0	-20.9	Ch. 48
15782.040	35.5	17.5	52.0	1.2	3.0	0.0	H-Horn	PK	0.0	53.0	74.0	-21.0	Ch. 52
15962.360	35.3	17.7	210.0	1.0	3.0	0.0	V-Horn	PK	0.0	53.0	74.0	-21.0	Ch. 64
15781.150	35.1	17.5	13.0	1.0	3.0	0.0	V-Horn	PK	0.0	52.6	74.0	-21.4	Ch. 52

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPT0049
Serial Number:	None	Date:	04/04/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	30%
Project:	None	Barometric Pres.:	30.42
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 15.407:2006	ANSI C63.4:2003, DA 02-2138:2002

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

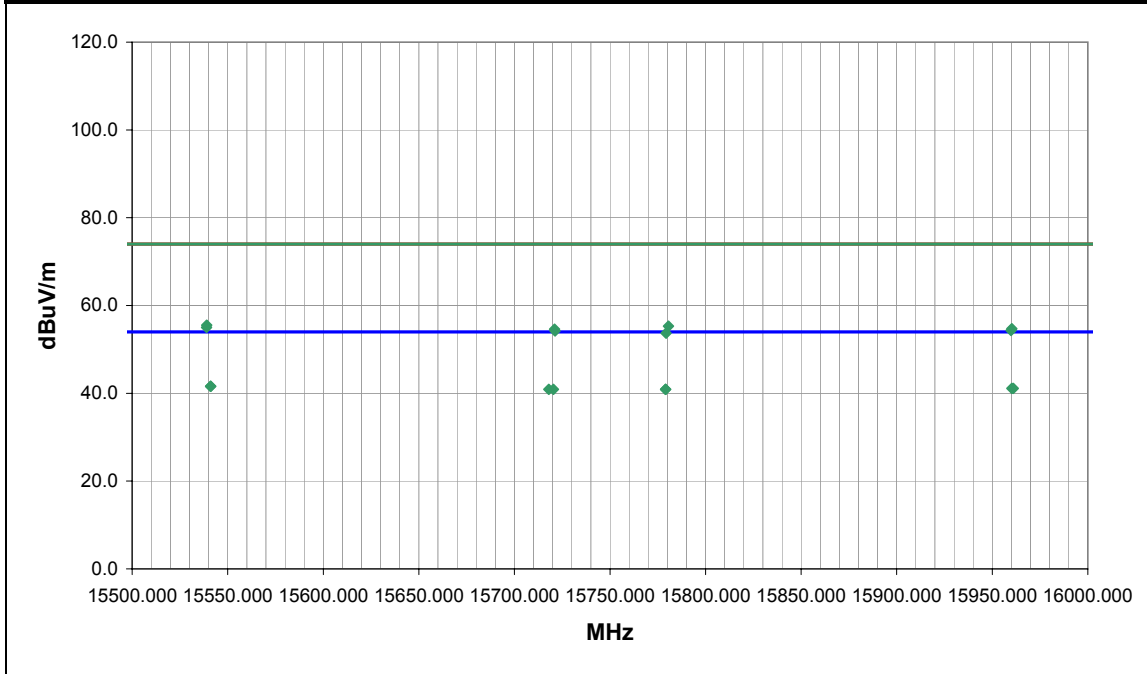
COMMENTS
Notebook configuration. This satisfies the requirements for 15.407(b)(7) for this configuration.

EUT OPERATING MODES
802.11(n), 20MHz wide, 5GHz band, see comments for channel, Chain AB

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	95	Signature <i>Holly Ashkannejhad</i>
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)	Comments
15541.010	24.3	17.3	51.0	1.0	3.0	0.0	H-Horn	AV	0.0	41.6	54.0	-12.4	Ch. 36
15541.080	24.3	17.3	123.0	1.0	3.0	0.0	V-Horn	AV	0.0	41.6	54.0	-12.4	Ch. 36
15960.250	23.4	17.7	259.0	1.0	3.0	0.0	H-Horn	AV	0.0	41.1	54.0	-12.9	Ch. 64
15960.980	23.4	17.7	194.0	1.0	3.0	0.0	V-Horn	AV	0.0	41.1	54.0	-12.9	Ch. 64
15718.010	23.4	17.5	208.0	1.2	3.0	0.0	H-Horn	AV	0.0	40.9	54.0	-13.1	Ch. 48
15720.380	23.4	17.5	257.0	1.2	3.0	0.0	V-Horn	AV	0.0	40.9	54.0	-13.1	Ch. 48
15779.080	23.4	17.5	359.0	2.1	3.0	0.0	V-Horn	AV	0.0	40.9	54.0	-13.1	Ch. 52
15779.120	23.4	17.5	261.0	1.2	3.0	0.0	H-Horn	AV	0.0	40.9	54.0	-13.1	Ch. 52
15539.010	38.2	17.3	123.0	1.0	3.0	0.0	V-Horn	PK	0.0	55.5	74.0	-18.5	Ch. 36
15780.580	37.8	17.5	359.0	2.1	3.0	0.0	V-Horn	PK	0.0	55.3	74.0	-18.7	Ch. 52
15538.910	37.7	17.3	51.0	1.0	3.0	0.0	H-Horn	PK	0.0	55.0	74.0	-19.0	Ch. 36
15960.220	37.0	17.7	194.0	1.0	3.0	0.0	V-Horn	PK	0.0	54.7	74.0	-19.3	Ch. 64
15721.030	37.1	17.5	208.0	1.2	3.0	0.0	H-Horn	PK	0.0	54.6	74.0	-19.4	Ch. 48
15959.800	36.6	17.7	259.0	1.0	3.0	0.0	H-Horn	PK	0.0	54.3	74.0	-19.7	Ch. 64
15721.260	36.7	17.5	257.0	1.2	3.0	0.0	V-Horn	PK	0.0	54.2	74.0	-19.8	Ch. 48
15779.380	36.2	17.5	261.0	1.2	3.0	0.0	H-Horn	PK	0.0	53.7	74.0	-20.3	Ch. 52

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPT0049
Serial Number:	None	Date:	04/03/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	30%
Project:	None	Barometric Pres.:	30.42
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 15.407:2006	ANSI C63.4:2003, DA 02-2138:2002

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

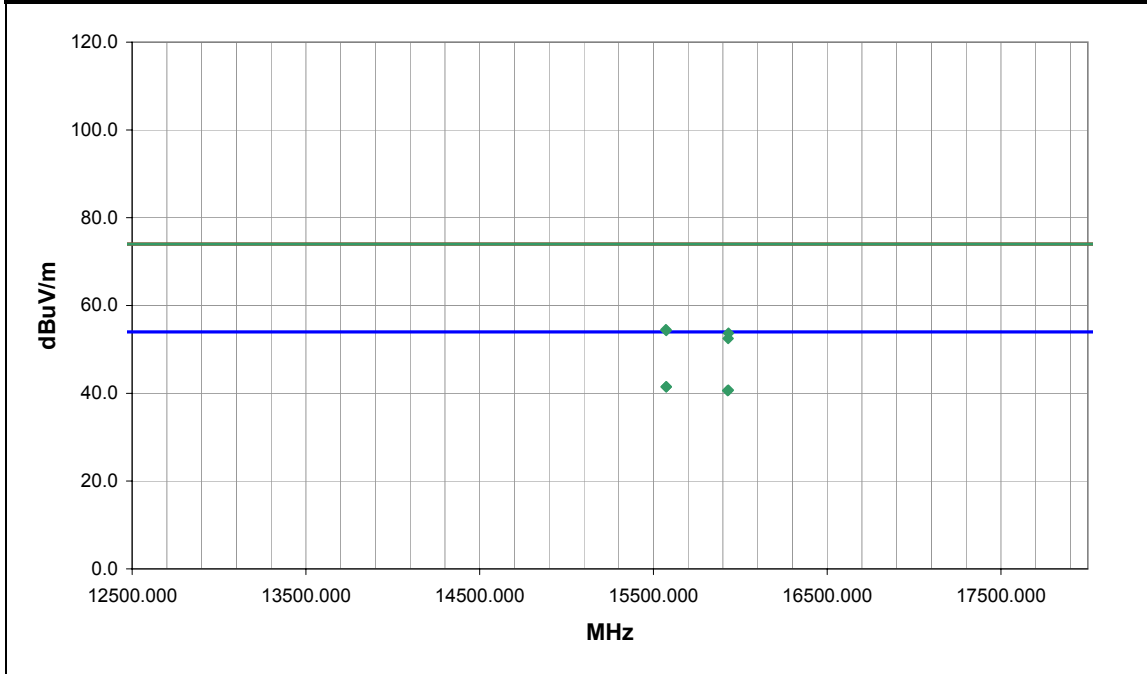
COMMENTS
Notebook configuration. This satisfies the requirements for 15.407(b)(7) for this configuration.

EUT OPERATING MODES
802.11(n), 40MHz wide, 5GHz band, see comments for channel, Chain A

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	83	NVLAP Lab Code 200630-0	Signature <i>Holly Ashkannejhad</i>
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)	Comments
15573.220	24.2	17.3	99.0	1.2	3.0	0.0	V-Horn	AV	0.0	41.5	54.0	-12.5	Ch. 38
15573.720	24.2	17.3	94.0	2.1	3.0	0.0	H-Horn	AV	0.0	41.5	54.0	-12.5	Ch. 38
15931.130	23.0	17.7	147.0	1.2	3.0	0.0	H-Horn	AV	0.0	40.7	54.0	-13.3	Ch. 62
15927.130	22.9	17.7	300.0	1.2	3.0	0.0	V-Horn	AV	0.0	40.6	54.0	-13.4	Ch. 62
15572.120	37.2	17.3	94.0	2.1	3.0	0.0	H-Horn	PK	0.0	54.5	74.0	-19.5	Ch. 38
15573.690	37.0	17.3	99.0	1.2	3.0	0.0	V-Horn	PK	0.0	54.3	74.0	-19.7	Ch. 38
15931.780	36.0	17.7	147.0	1.2	3.0	0.0	H-Horn	PK	0.0	53.7	74.0	-20.3	Ch. 62
15930.130	34.8	17.7	300.0	1.2	3.0	0.0	V-Horn	PK	0.0	52.5	74.0	-21.5	Ch. 62

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPT0049
Serial Number:	None	Date:	04/04/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	30%
Project:	None	Barometric Pres.:	30.42
Tested by:	Holy Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS		Test Method	
FCC 15.407:2006		ANSI C63.4:2003, DA 02-2138:2002	

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

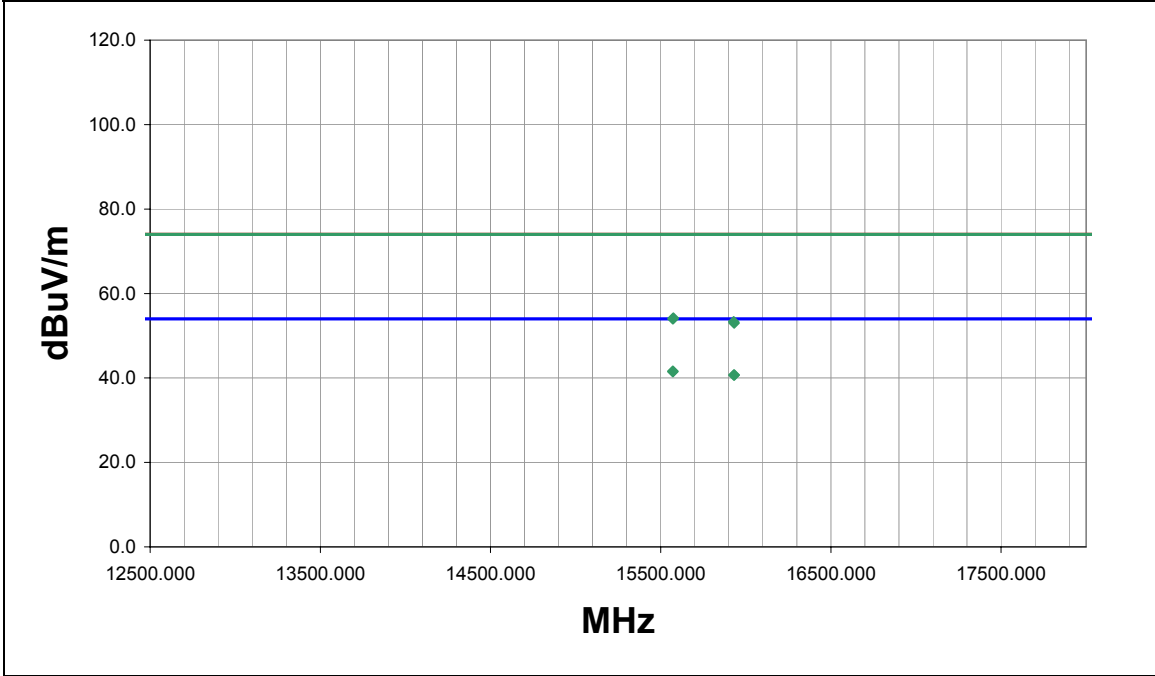
COMMENTS
Notebook configuration. This satisfies the requirements for 15.407(b)(7) for this configuration.

EUT OPERATING MODES
802.11(n), 40MHz wide, 5GHz band. see comments for channel, Chain AB

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	84	NVLAP Lab Code 200630-0	Signature <i>Holy Ashkannejhad</i>
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)	Comments
15571.670	24.3	17.3	198.0	1.2	3.0	0.0	H-Horn	AV	0.0	41.6	54.0	-12.4	Ch. 38
15571.550	24.2	17.3	277.0	1.2	3.0	0.0	V-Horn	AV	0.0	41.5	54.0	-12.5	Ch. 38
15929.590	23.0	17.7	306.0	1.2	3.0	0.0	V-Horn	AV	0.0	40.7	54.0	-13.3	Ch. 62
15932.380	23.0	17.7	114.0	1.4	3.0	0.0	H-Horn	AV	0.0	40.7	54.0	-13.3	Ch. 62
15574.620	36.9	17.3	198.0	1.2	3.0	0.0	H-Horn	PK	0.0	54.2	74.0	-19.8	Ch. 38
15571.990	36.7	17.3	277.0	1.2	3.0	0.0	V-Horn	PK	0.0	54.0	74.0	-20.0	Ch. 38
15928.670	35.6	17.7	114.0	1.4	3.0	0.0	H-Horn	PK	0.0	53.3	74.0	-20.7	Ch. 62
15931.320	35.3	17.7	306.0	1.2	3.0	0.0	V-Horn	PK	0.0	53.0	74.0	-21.0	Ch. 62

EUT: Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.		Work Order: SPT0049
Serial Number: None		Date: 04/04/07
Customer: Spectrum Technology		Temperature: 22
Attendees: Rod Munro		Humidity: 30%
Project: None		Barometric Pres.: 30.42
Tested by: Rod Peloquin	Power: 120VAC/60Hz	Job Site: EV01

TEST SPECIFICATIONS		Test Method
FCC 15.407:2006		ANSI C63.4:2003, DA 02-2138:2002

TEST PARAMETERS			
Antenna Height(s) (m)	1 - 4	Test Distance (m)	0

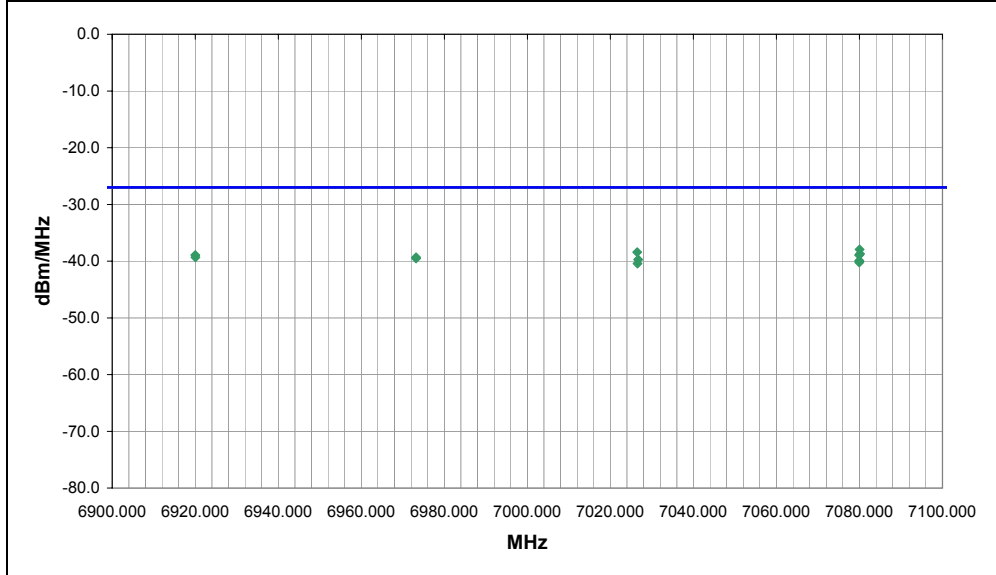
COMMENTS
Notebook configuration. This satisfies 15.407(b)(1-2) for this configuration.

EUT OPERATING MODES
802.11(n), 40MHz wide, Chain A

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	87	 Signature
Configuration #	2	
Results	Pass	

NVLAP Lab Code 200630-0



Freq (MHz)	Azimuth (degrees)	Height (meters)	Polarity	Detector	EIRP (Watts/MHz)	EIRP (dBm/MHz)	Spec. Limit (dBm/MHz)	Compared to Spec. (dB)	Comments
7080.028	174.0	1.0	V-Horn	PK	1.61E-07	-37.9	-27.0	-10.9	Ch. 62, Notebook typical orientation
7026.455	176.0	1.1	V-Horn	PK	1.44E-07	-38.4	-27.0	-11.4	Ch. 54, Notebook typical orientation
7080.145	180.0	1.0	V-Horn	PK	1.34E-07	-38.7	-27.0	-11.7	Ch. 62, Notebook on side
6919.993	176.0	1.2	H-Horn	PK	1.28E-07	-38.9	-27.0	-11.9	Ch. 38, Notebook on side
7079.924	228.0	1.7	H-Horn	PK	1.28E-07	-38.9	-27.0	-11.9	Ch. 62, Notebook on side
6920.032	179.0	1.2	V-Horn	PK	1.17E-07	-39.3	-27.0	-12.3	Ch. 38, Notebook typical orientation
6973.190	5.0	1.2	H-Horn	PK	1.17E-07	-39.3	-27.0	-12.3	Ch. 46, Notebook on side
6973.200	179.0	1.2	V-Horn	PK	1.11E-07	-39.5	-27.0	-12.5	Ch. 46, Notebook typical orientation
7026.694	8.0	1.0	H-Horn	PK	1.06E-07	-39.7	-27.0	-12.7	Ch. 54, Notebook on side
7079.966	241.0	1.7	H-Horn	PK	1.02E-07	-39.9	-27.0	-12.9	Ch. 62, Notebook lid horizontal
7079.980	53.0	1.3	V-Horn	PK	9.93E-08	-40.0	-27.0	-13.0	Ch. 62, Notebook lid horizontal
7079.953	181.0	1.2	H-Horn	PK	9.49E-08	-40.2	-27.0	-13.2	Ch. 62, Notebook typical orientation
7026.544	163.0	1.2	H-Horn	PK	9.06E-08	-40.4	-27.0	-13.4	Ch. 54, Notebook typical orientation

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPT0049
Serial Number:	None	Date:	04/04/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	30%
Project:	None	Barometric Pres.:	30.42
Tested by:	Rod Peloquin	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS		Test Method	
FCC 15.407:2006		ANSI C63.4:2003, DA 02-2138:2002	

TEST PARAMETERS			
Antenna Height(s) (m)	1 - 4	Test Distance (m)	0

COMMENTS
Notebook configuration. This satisfies 15.407(b)(1-2) for this configuration.

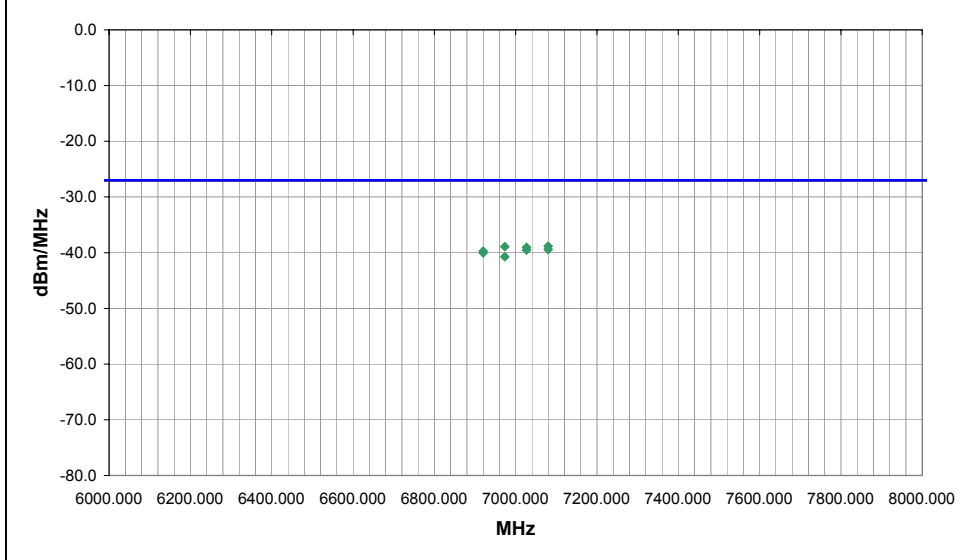
EUT OPERATING MODES
802.11(n), 40MHz wide, Chain A

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	88	
Configuration #	2	
Results	Pass	NVLAP Lab Code 200630-0

Rod Peloquin
Signature



Freq (MHz)	Azimuth (degrees)	Height (meters)	Polarity	Detector	EIRP (Watts/MHz)	EIRP (dBm/MHz)	Spec. Limit (dBm/MHz)	Compared to Spec. (dB)	Comments
7080.083	147.0	1.2	V-Horn	PK	1.31E-07	-38.8	-27.0	-11.8	Ch. 62, Notebook in typical orientation
6973.412	196.0	1.1	V-Horn	PK	1.28E-07	-38.9	-27.0	-11.9	Ch. 46, Notebook typical orientation
7026.679	169.0	1.2	V-Horn	PK	1.25E-07	-39.0	-27.0	-12.0	Ch. 54, Notebook typical orientation
7080.059	227.0	1.2	H-Horn	PK	1.14E-07	-39.4	-27.0	-12.4	Ch. 62, Notebook on side
7026.625	314.0	1.2	H-Horn	PK	1.11E-07	-39.5	-27.0	-12.5	Ch. 54, Notebook on side
6920.017	178.0	1.2	H-Horn	PK	1.06E-07	-39.7	-27.0	-12.7	Ch. 38, Notebook on side
6919.987	172.0	1.1	V-Horn	PK	9.93E-08	-40.0	-27.0	-13.0	Ch. 38, Notebook typical orientation
6973.257	143.0	1.2	H-Horn	PK	8.46E-08	-40.7	-27.0	-13.7	Ch. 46, Notebook on side

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPT0049
Serial Number:	None	Date:	04/04/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	39%
Project:	None	Barometric Pres.:	30.2
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS		Test Method	
FCC 15.407:2006		ANSI C63.4:2003, DA 02-2138:2002	

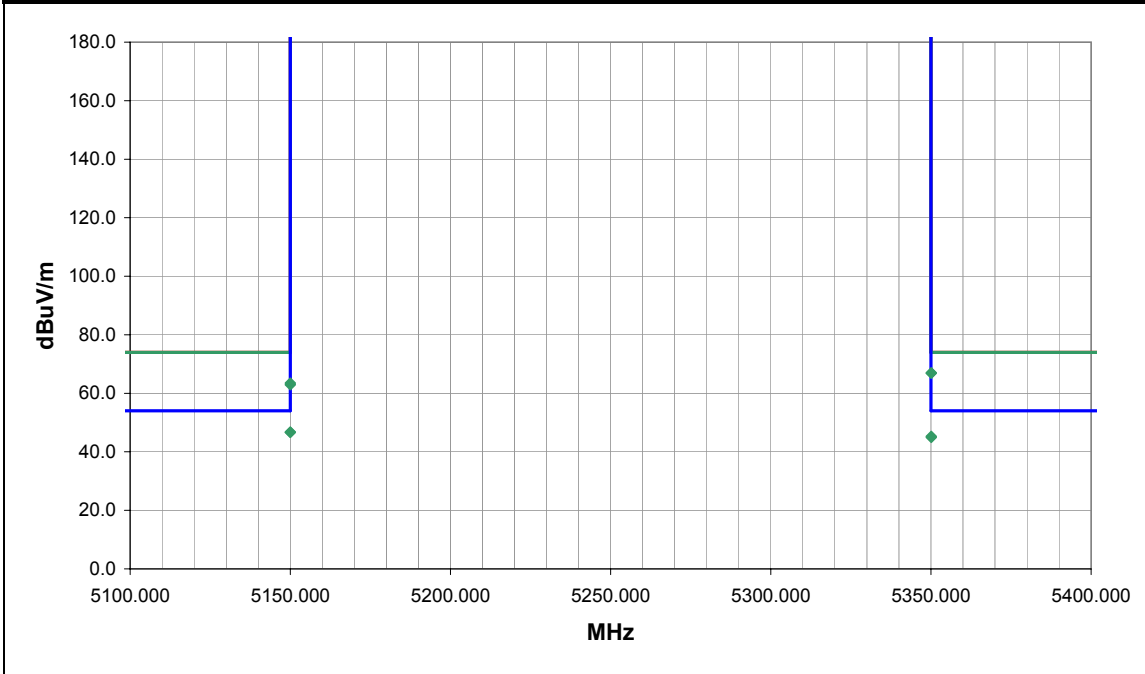
TEST PARAMETERS			
Antenna Height(s) (m)	1 - 4	Test Distance (m)	3

COMMENTS
Notebook configuration. This satisfies the requirements for 15.407(b)(7) for this configuration.

EUT OPERATING MODES
Transmitting 802.11(n), 5GHz band, Chain A, 40MHz wide, see comments for channel

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	92	NVLAP Lab Code 200630-0	Signature <i>Holly Ashkannejhad</i>
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)	Comments
5350.100	39.6	36.9	220.0	1.1	1.0	0.0	H-Horn	PK	-9.5	67.0	74.0	-7.0	Ch. 62
5350.100	39.5	36.9	25.0	1.1	1.0	0.0	V-Horn	PK	-9.5	66.9	74.0	-7.1	Ch. 62
5150.000	20.0	36.3	94.0	1.1	1.0	0.0	V-Horn	AV	-9.5	46.8	54.0	-7.2	Ch. 38
5150.000	19.9	36.3	253.0	1.1	1.0	0.0	H-Horn	AV	-9.5	46.7	54.0	-7.3	Ch. 38
5350.100	17.9	36.9	25.0	1.1	1.0	0.0	V-Horn	AV	-9.5	45.3	54.0	-8.7	Ch. 62
5350.100	17.6	36.9	220.0	1.1	1.0	0.0	H-Horn	AV	-9.5	45.0	54.0	-9.0	Ch. 62
5150.000	36.7	36.3	94.0	1.1	1.0	0.0	V-Horn	PK	-9.5	63.5	74.0	-10.5	Ch. 38
5150.000	36.2	36.3	253.0	1.1	1.0	0.0	H-Horn	PK	-9.5	63.0	74.0	-11.0	Ch. 38

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPT0049
Serial Number:	None	Date:	04/04/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	39%
Project:	None	Barometric Pres.:	30.2
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 15.407:2005	ANSI C63.4:2003, DA 02-2138:2002

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

COMMENTS
Notebook configuration. This satisfies the requirements for 15.407(b)(7) for this configuration.

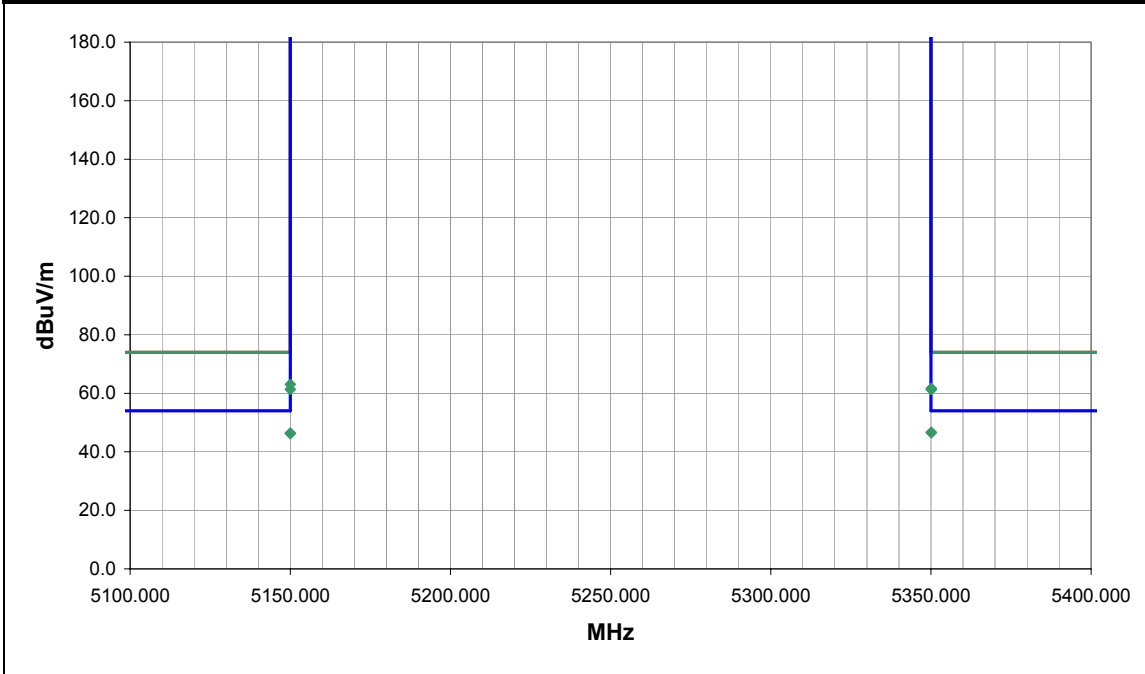
EUT OPERATING MODES
Transmitting 802.11(n), 5GHz band, Chain AB, 40MHz wide

DEVIATIONS FROM TEST STANDARD

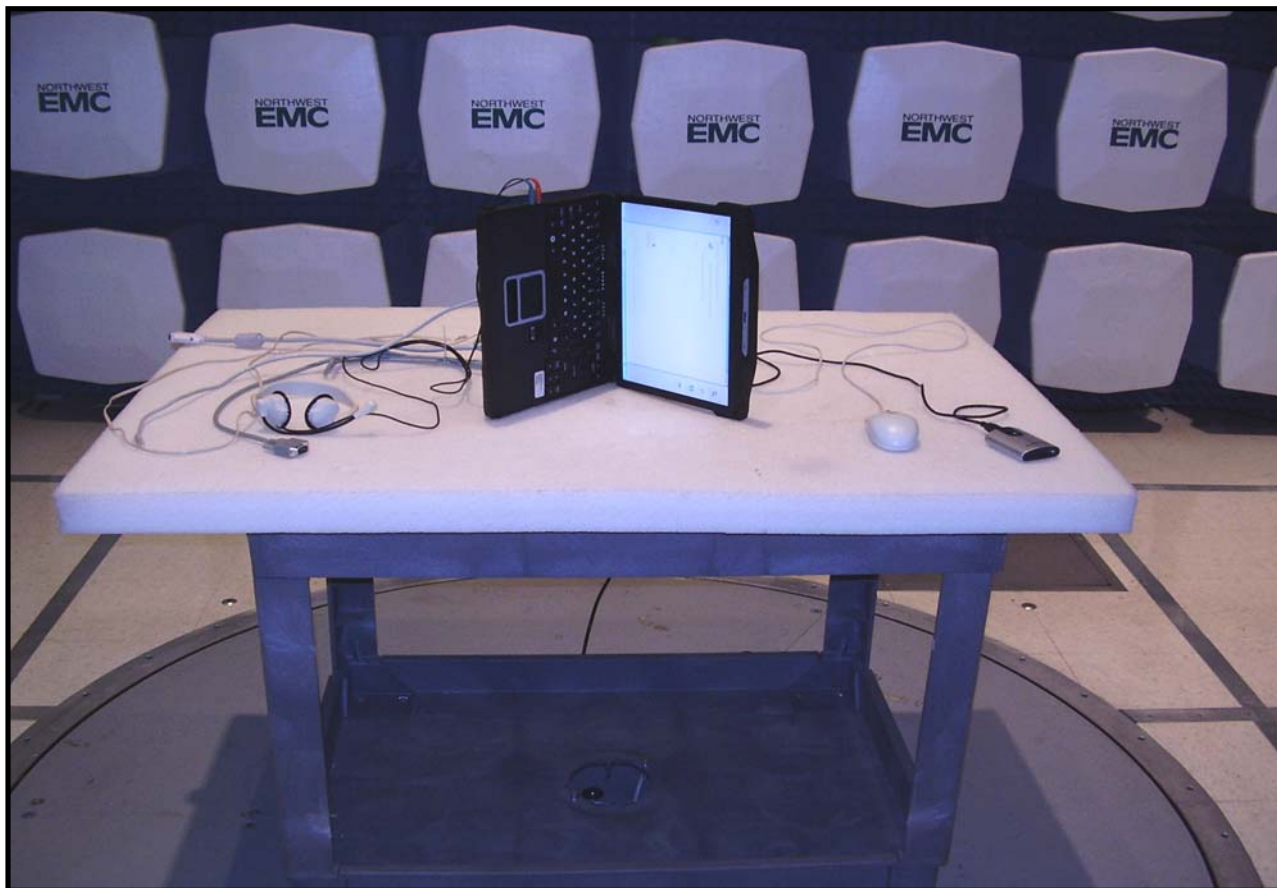
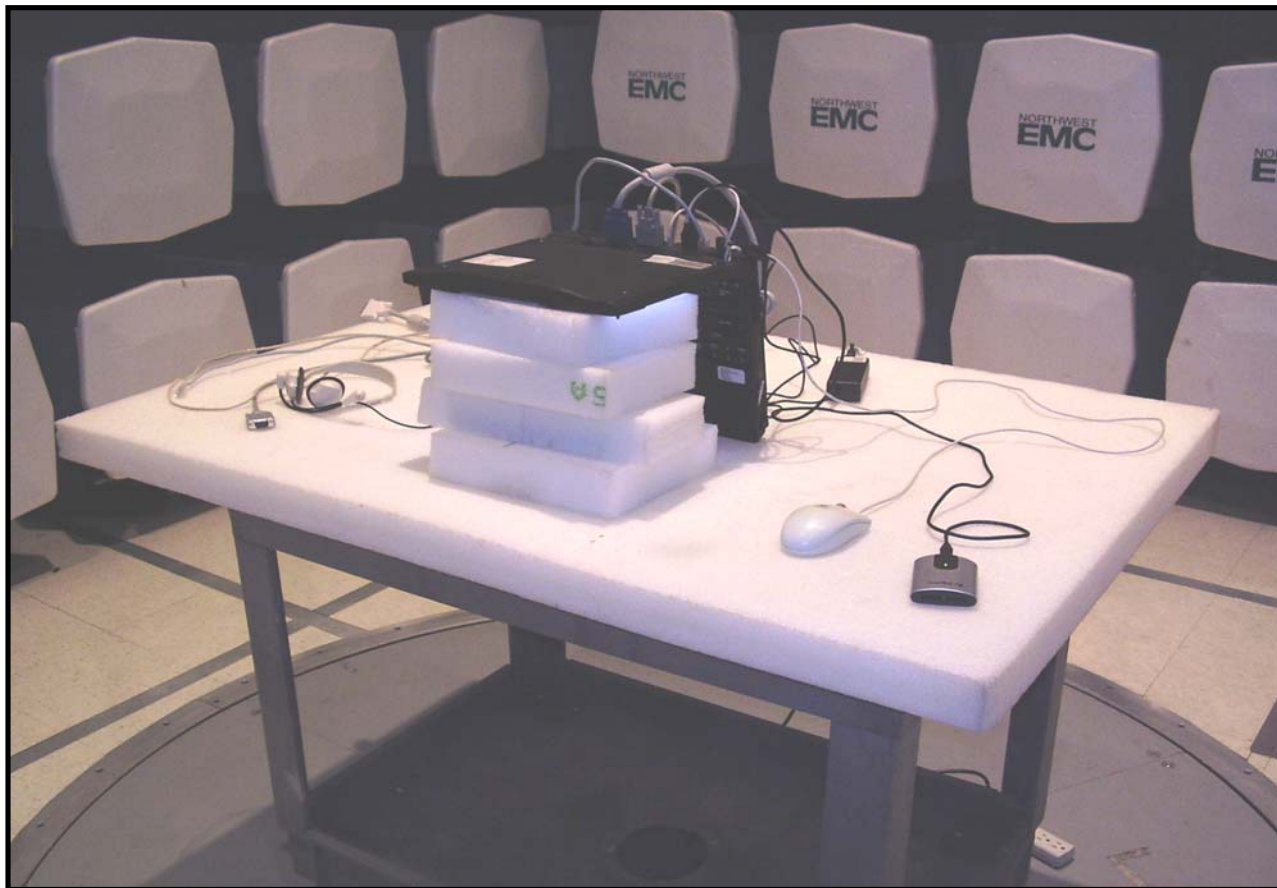
No deviations.

Run #	93	Signature <i>Holly Ashkannejhad</i>
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)	Comments
5350.100	14.2	42.0	137.0	1.0	1.0	0.0	H-Horn	AV	-9.5	46.7	54.0	-7.3	Ch. 62
5350.100	14.1	42.0	249.0	1.1	1.0	0.0	V-Horn	AV	-9.5	46.6	54.0	-7.4	Ch. 62
5150.000	14.2	41.7	113.0	1.1	1.0	0.0	V-Horn	AV	-9.5	46.4	54.0	-7.6	Ch. 38
5150.000	14.1	41.7	256.0	1.1	1.0	0.0	H-Horn	AV	-9.5	46.3	54.0	-7.7	Ch. 38
5150.000	30.9	41.7	113.0	1.1	1.0	0.0	V-Horn	PK	-9.5	63.1	74.0	-10.9	Ch. 38
5350.100	29.2	42.0	137.0	1.0	1.0	0.0	H-Horn	PK	-9.5	61.7	74.0	-12.3	Ch. 62
5150.000	29.2	41.7	256.0	1.1	1.0	0.0	H-Horn	PK	-9.5	61.4	74.0	-12.6	Ch. 38
5350.100	28.8	42.0	249.0	1.1	1.0	0.0	V-Horn	PK	-9.5	61.3	74.0	-12.7	Ch. 62





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 INVESTIGATED

802.11(b)
802.11(g)
802.11(a)
802.11(n), 2.4GHz band
802.11(n), 5GHz band

MIMO SETTINGS INVESTIGATED

20MHz wide
40MHz wide

ANTENNA CONFIGURATIONS INVESTIGATED

Chain A
Chain AB

CHANNELS INVESTIGATED

2400-2483.5MHz band
Low channel = Ch. 1, 2412MHz
Mid channel = Ch. 6, 2437MHz
High channel = Ch. 11, 2462MHz
5725-5850MHz band
Low channel = Ch. 149, 5745MHz
Mid channel = Ch. 157, 5785MHz
High channel = Ch. 165, 5825MHz

CHANNELS INVESTIGATED (40MHz 'Fat channel' mode)

5755-5795MHz band
Low channel = Ch. 151, 5755MHz
High channel = Ch. 159, 5795MHz

DATA RATES INVESTIGATED

2.4GHz band
1Mbps, 11Mbps, 6Mbps, 36Mbps, 54Mbps
5GHz band
6Mbps, 36Mbps, 54Mbps

POWER SETTINGS INVESTIGATED

120VAC/60Hz

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	40 GHz
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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 cable B			EVE	3/30/2006	13
Pre-Amplifier	Miteq	JS4-26004000-50-5A	AON	3/29/2006	13
Pre-Amplifier	Miteq	JS4-26004000-40-8P	APV	3/29/2006	13
Antenna, Horn	EMCO	3160-10	AHI	NCR	0
EV01 Cable D			EVD	3/30/2006	13

Pre-Amplifier	Miteq	JSD4-18002600-26-8P	APU	3/23/2006	13
Antenna, Horn	EMCO	3160-09	AHG	NCR	0
EV01 cables g,h,i			EVF	4/17/2006	13
Pre-Amplifier	Miteq	AMF-4D-005180-24-10P	APC	5/12/2006	13
Antenna, Horn	EMCO	3160-08	AHK	NCR	0
Spectrum Analyzer	Agilent	E4446A	AAT	12/7/2006	13
Low Pass Filter 0-1000 MHz	Micro-Tronics	LPM50004	LFD	12/29/2006	13
High Pass Filter	Micro-Tronics	HPM50111	HFO	12/29/2006	13
High Pass Filter	K&L Microwave	1WP01-15000/E6000-O/O	HFJ	4/3/2006	24
7.5-9.5 GHZ Bandpass Filter	K&L Microwave	7ED20-8500/E2000-O/O	HFL	4/3/2006	24
5.8 GHz Notch Filter	Micro-Tronics	BRC50705	HFQ	1/12/2007	13
5.25 GHz Notch Filter	K&L Microwave	8N50-5250/X200-0/0	HFK	4/3/2006	24
Pre-Amplifier	Miteq	AMF-4D-010100-24-10P	APW	12/29/2006	13
Antenna, Horn	EMCO	3115	AHC	8/24/2006	12
EV01 cables g,h,j			EVB	12/29/2006	13
Pre-Amplifier	Miteq	AM-1616-1000	AOL	12/29/2006	13
Antenna, Biconilog	EMCO	3141	AXE	12/28/2005	24
EV01 cables c,g, h			EVA	12/29/2006	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

TEST DESCRIPTION

The highest gain of each type of antenna to be used with the EUT was tested. In this case, both antennas available were of the same type and gain, so a single antenna, Chain A, was tested for 802.11(b)/(g)/(a) mode, while the combo Chain AB and Chain A were tested for 802.11(n) mode. The EUT was configured for low, mid, or high transmit frequencies of each applicable band. For each configuration, the spectrum was scanned throughout the specified range. In addition, measurements were made in the restricted bands to verify compliance. While scanning, emissions from the EUT were maximized by rotating the EUT on a turntable, adjusting the position of the EUT and the EUT antenna in three orthogonal axis, and adjusting measurement antenna height and polarization, and manipulating the EUT antenna in 3 orthogonal planes (per ANSI C63.4:2003). A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)(g)(a)(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPT0049
Serial Number:	None	Date:	03/19/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	39%
Project:	None	Barometric Pres.:	30.2
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS		Test Method	
FCC 15.247:2006 DTS		ANSI C63.4:2003 KDB No. 558074	

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

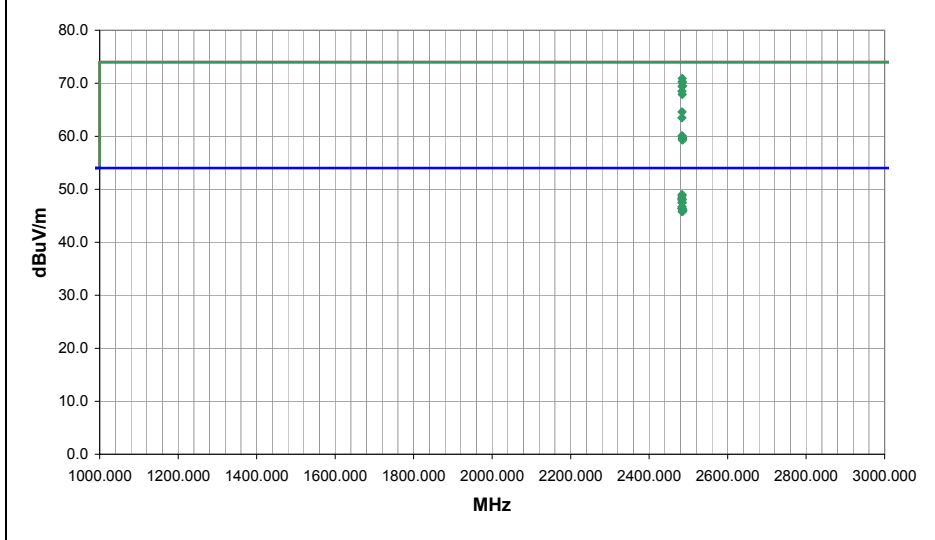
COMMENTS
Notebook configuration, Chain A.

EUT OPERATING MODES
Transmitting 802.11(b)(g), high channel of 2.4GHz band, 2462MHz, see comments for data rate

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	1	Signature <i>Holly Ashkannejhad</i>
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)	Comments
2484.240	48.8	2.1	12.0	1.0	3.0	20.0	V-Horn	PK	0.0	70.9	74.0	-3.1	802.11(g), 36Mbps, Notebook on side
2484.237	48.2	2.1	-1.0	1.0	3.0	20.0	V-Horn	PK	0.0	70.3	74.0	-3.7	802.11(g), 6Mbps, Notebook on side
2484.206	48.1	2.1	215.0	1.0	3.0	20.0	H-Horn	PK	0.0	70.2	74.0	-3.8	802.11(g), 6Mbps, Notebook on side
2485.311	47.4	2.1	95.0	1.0	3.0	20.0	H-Horn	PK	0.0	69.5	74.0	-4.5	802.11(g), 6Mbps, Notebook typical position
2483.718	47.3	2.1	89.0	1.0	3.0	20.0	H-Horn	PK	0.0	69.4	74.0	-4.6	802.11(g), 6Mbps, Notebook screen horizontal
2483.743	26.9	2.1	215.0	1.0	3.0	20.0	H-Horn	AV	0.0	49.0	54.0	-5.0	802.11(g), 6Mbps, Notebook on side
2484.017	26.7	2.1	95.0	1.0	3.0	20.0	H-Horn	AV	0.0	48.8	54.0	-5.2	802.11(g), 6Mbps, Notebook typical position
2483.572	46.4	2.1	0.0	2.0	3.0	20.0	V-Horn	PK	0.0	68.5	74.0	-5.5	802.11(g), 6Mbps, Notebook typical position
2482.911	26.2	2.1	12.0	1.0	3.0	20.0	V-Horn	AV	0.0	48.3	54.0	-5.7	802.11(g), 36Mbps, Notebook on side
2484.380	26.0	2.1	-1.0	1.0	3.0	20.0	V-Horn	AV	0.0	48.1	54.0	-5.9	802.11(g), 6Mbps, Notebook on side
2483.525	25.9	2.1	89.0	1.0	3.0	20.0	H-Horn	AV	0.0	48.0	54.0	-6.0	802.11(g), 6Mbps, Notebook screen horizontal
2484.424	45.8	2.1	214.0	1.0	3.0	20.0	H-Horn	PK	0.0	67.9	74.0	-6.1	802.11(g), 36Mbps, Notebook on side
2483.930	25.4	2.1	214.0	1.0	3.0	20.0	H-Horn	AV	0.0	47.5	54.0	-6.5	802.11(g), 36Mbps, Notebook on side
2484.250	25.4	2.1	0.0	2.0	3.0	20.0	V-Horn	AV	0.0	47.5	54.0	-6.5	802.11(g), 6Mbps, Notebook typical position
2483.753	24.6	2.1	2.0	1.0	3.0	20.0	V-Horn	AV	0.0	46.7	54.0	-7.3	802.11(g), 54Mbps, Notebook on side
2482.881	24.3	2.1	190.0	2.0	3.0	20.0	V-Horn	AV	0.0	46.4	54.0	-7.6	802.11(g), 6Mbps, Notebook screen horizontal
2484.130	24.2	2.1	283.0	1.0	3.0	20.0	V-Horn	AV	0.0	46.3	54.0	-7.7	802.11(b), 1Mbps
2484.611	24.2	2.1	230.0	1.0	3.0	20.0	H-Horn	AV	0.0	46.3	54.0	-7.7	802.11(b), 11Mbps
2486.367	23.9	2.1	294.0	1.0	3.0	20.0	V-Horn	AV	0.0	46.0	54.0	-8.0	802.11(b), 11Mbps
2484.121	23.7	2.1	218.0	1.0	3.0	20.0	H-Horn	AV	0.0	45.8	54.0	-8.2	802.11(b), 1Mbps

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)(g)(a)(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPT0049
Serial Number:	None	Date:	03/19/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	39%
Project:	None	Barometric Pres.:	30.2
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS		Test Method	
FCC 15.247:2006 DTS		ANSI C63.4:2003 KDB No. 558074	

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

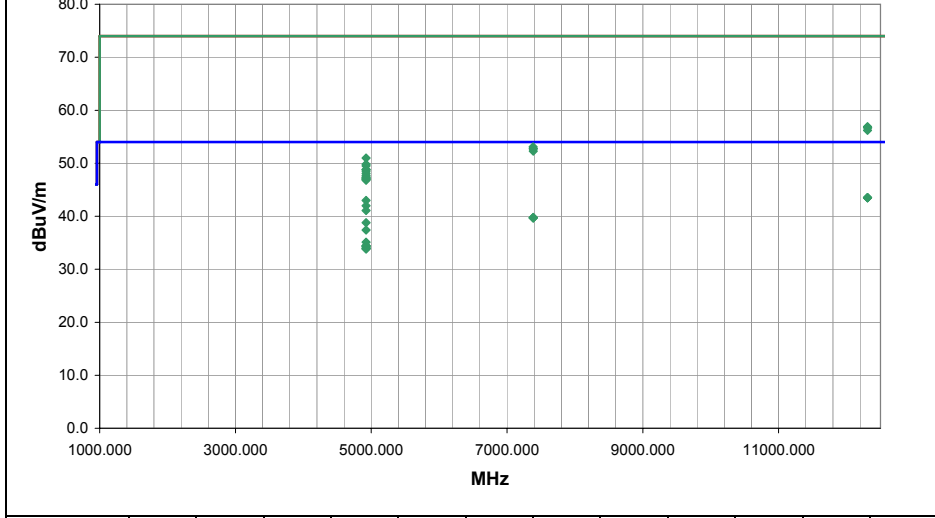
COMMENTS
 Notebook configuration. Chain A.

EUT OPERATING MODES
 Transmitting 802.11(b)(g), high channel of 2.4GHz band, 2462MHz, see comments for data rate

DEVIATIONS FROM TEST STANDARD
 No deviations.

Run #	2
Configuration #	2
Results	Pass

NVLAP Lab Code 200630-0 Signature *Holly Ashkannejhad*



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
12308.370	24.6	18.9	309.0	1.0	3.0	0.0	H-Horn	AV	0.0	43.5	54.0	-10.5	802.11(b), 1Mbps, Notebook screen horizontal
12309.590	24.6	18.9	15.0	1.0	3.0	0.0	V-Horn	AV	0.0	43.5	54.0	-10.5	802.11(b), 1Mbps, Notebook typical position
12309.610	24.6	18.9	146.0	2.5	3.0	0.0	H-Horn	AV	0.0	43.5	54.0	-10.5	802.11(g), 54Mbps
12309.970	24.6	18.9	37.0	1.0	3.0	0.0	V-Horn	AV	0.0	43.5	54.0	-10.5	802.11(g), 54Mbps
4924.043	33.2	9.8	89.0	1.0	3.0	0.0	V-Horn	AV	0.0	43.0	54.0	-11.0	802.11(b), 1Mbps, Notebook typical position
4924.007	32.2	9.8	342.0	1.0	3.0	0.0	V-Horn	AV	0.0	42.0	54.0	-12.0	802.11(b), 1Mbps, Notebook screen horizontal
4923.957	31.3	9.8	85.0	1.0	3.0	0.0	H-Horn	AV	0.0	41.1	54.0	-12.9	802.11(b), 1Mbps, Notebook screen horizontal
7385.516	24.4	15.4	265.0	1.0	3.0	0.0	V-Horn	AV	0.0	39.8	54.0	-14.2	802.11(g), 54Mbps
7384.957	24.3	15.4	321.0	1.0	3.0	0.0	V-Horn	AV	0.0	39.7	54.0	-14.3	802.11(b), 1Mbps, Notebook typical position
7386.053	24.3	15.4	260.0	1.0	3.0	0.0	H-Horn	AV	0.0	39.7	54.0	-14.3	802.11(g), 54Mbps
7387.123	24.3	15.4	43.0	1.0	3.0	0.0	H-Horn	AV	0.0	39.7	54.0	-14.3	802.11(b), 1Mbps, Notebook screen horizontal
4924.060	29.0	9.8	256.0	1.0	3.0	0.0	H-Horn	AV	0.0	38.8	54.0	-15.2	802.11(b), 1Mbps, Notebook on side
4923.980	27.6	9.8	258.0	1.0	3.0	0.0	H-Horn	AV	0.0	37.4	54.0	-16.6	802.11(b), 1Mbps, Notebook typical position
12309.870	38.0	18.9	309.0	1.0	3.0	0.0	H-Horn	PK	0.0	56.9	74.0	-17.1	802.11(b), 1Mbps, Notebook screen horizontal
12309.520	37.9	18.9	146.0	2.5	3.0	0.0	H-Horn	PK	0.0	56.8	74.0	-17.2	802.11(g), 54Mbps
12310.450	37.8	18.9	15.0	1.0	3.0	0.0	V-Horn	PK	0.0	56.7	74.0	-17.3	802.11(b), 1Mbps, Notebook typical position
12310.130	37.3	18.9	37.0	1.0	3.0	0.0	V-Horn	PK	0.0	56.2	74.0	-17.8	802.11(g), 54Mbps
4923.957	25.3	9.8	18.0	1.0	3.0	0.0	H-Horn	AV	0.0	35.1	54.0	-18.9	802.11(b), 1Mbps
4923.646	24.6	9.8	312.0	1.0	3.0	0.0	H-Horn	AV	0.0	34.4	54.0	-19.6	802.11(g), 6Mbps
4923.923	24.6	9.8	330.0	1.0	3.0	0.0	V-Horn	AV	0.0	34.4	54.0	-19.6	802.11(b), 1Mbps, Notebook on side

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPT0049
Serial Number:	None	Date:	03/19/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	39%
Project:	None	Barometric Pres.:	30.2
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS		Test Method	
FCC 15.247:2006 DTS		ANSI C63.4:2003 KDB No. 558074	

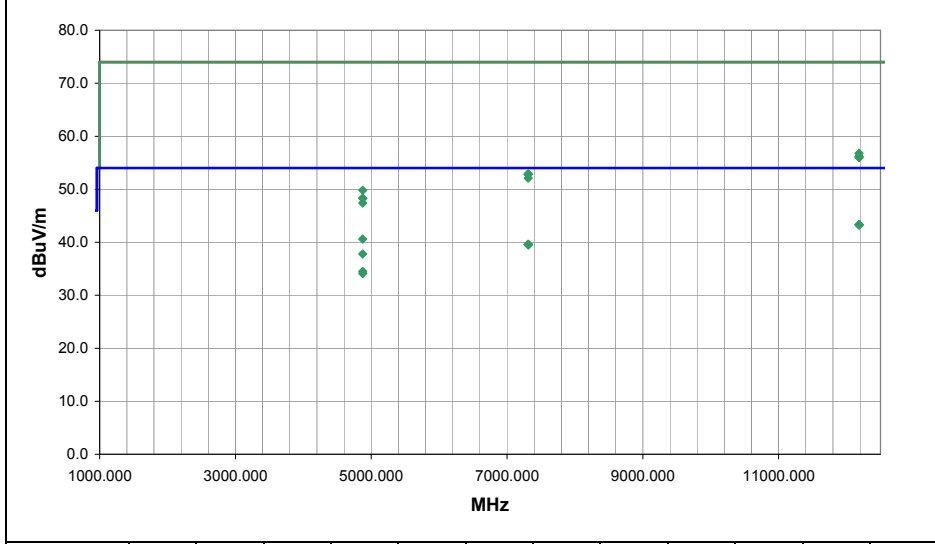
TEST PARAMETERS			
Antenna Height(s) (m)	1 - 4	Test Distance (m)	3

COMMENTS
 Notebook configuration. Chain A.

EUT OPERATING MODES
 Transmitting 802.11(b)/(g), mid channel of 2.4GHz band, 2437MHz, see comments for data rate

DEVIATIONS FROM TEST STANDARD
 No deviations.

Run #	3	NVLAP Lab Code 200630-0	Signature <i>Holly Ashkannejhad</i>
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)	Comments
12185.350	24.6	18.7	280.0	1.0	3.0	0.0	H-Horn	AV	0.0	43.3	54.0	-10.7	802.11(b), 1Mbps, Notebook screen horizontal
12185.380	24.6	18.7	226.0	1.0	3.0	0.0	H-Horn	AV	0.0	43.3	54.0	-10.7	802.11(g), 6Mbps, Notebook screen horizontal
12185.680	24.6	18.7	91.0	1.0	3.0	0.0	V-Horn	AV	0.0	43.3	54.0	-10.7	802.11(g), 6Mbps, Notebook typical position
12185.930	24.6	18.7	6.0	1.0	3.0	0.0	V-Horn	AV	0.0	43.3	54.0	-10.7	802.11(b), 1Mbps, Notebook typical position
4874.047	31.1	9.5	334.0	1.0	3.0	0.0	V-Horn	AV	0.0	40.6	54.0	-13.4	802.11(b), 1Mbps, Notebook typical position
7311.180	24.6	15.0	295.0	3.7	3.0	0.0	V-Horn	AV	0.0	39.6	54.0	-14.4	802.11(g), 6Mbps, Notebook typical position
7311.233	24.6	15.0	216.0	3.0	3.0	0.0	H-Horn	AV	0.0	39.6	54.0	-14.4	802.11(g), 6Mbps, Notebook screen horizontal
7311.897	24.6	15.0	31.0	2.2	3.0	0.0	V-Horn	AV	0.0	39.6	54.0	-14.4	802.11(b), 1Mbps, Notebook typical position
7312.447	24.5	15.0	300.0	3.1	3.0	0.0	H-Horn	AV	0.0	39.5	54.0	-14.5	802.11(b), 1Mbps, Notebook screen horizontal
4873.987	28.3	9.5	106.0	1.0	3.0	0.0	H-Horn	AV	0.0	37.8	54.0	-16.2	802.11(b), 1Mbps, Notebook screen horizontal
12184.340	38.1	18.7	226.0	1.0	3.0	0.0	H-Horn	PK	0.0	56.8	74.0	-17.2	802.11(g), 6Mbps, Notebook screen horizontal
12184.230	37.5	18.7	280.0	1.0	3.0	0.0	H-Horn	PK	0.0	56.2	74.0	-17.8	802.11(b), 1Mbps, Notebook screen horizontal
12184.590	37.3	18.7	91.0	1.0	3.0	0.0	V-Horn	PK	0.0	56.0	74.0	-18.0	802.11(g), 6Mbps, Notebook typical position
12185.220	37.3	18.7	6.0	1.0	3.0	0.0	V-Horn	PK	0.0	56.0	74.0	-18.0	802.11(b), 1Mbps, Notebook typical position
4874.033	25.0	9.5	19.0	1.0	3.0	0.0	V-Horn	AV	0.0	34.5	54.0	-19.5	802.11(g), 6Mbps, Notebook typical position
4873.823	24.6	9.5	182.0	1.0	3.0	0.0	H-Horn	AV	0.0	34.1	54.0	-19.9	802.11(g), 6Mbps, Notebook screen horizontal
7310.030	37.9	15.0	31.0	2.2	3.0	0.0	V-Horn	PK	0.0	52.9	74.0	-21.1	802.11(b), 1Mbps, Notebook typical position
7311.567	37.9	15.0	300.0	3.1	3.0	0.0	H-Horn	PK	0.0	52.9	74.0	-21.1	802.11(b), 1Mbps, Notebook screen horizontal
7311.023	37.8	15.0	216.0	3.0	3.0	0.0	H-Horn	PK	0.0	52.8	74.0	-21.2	802.11(g), 6Mbps, Notebook screen horizontal
7311.570	37.1	15.0	295.0	3.7	3.0	0.0	V-Horn	PK	0.0	52.1	74.0	-21.9	802.11(g), 6Mbps, Notebook typical position

EUT: Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.		Work Order: SPTE0049
Serial Number: None		Date: 03/20/07
Customer: Spectrum Technology		Temperature: 22
Attendees: Rod Munro		Humidity: 33%
Project: None		Barometric Pres.: 30.17
Tested by: Holly Ashkannejhad	Power: 120VAC/60Hz	Job Site: EV01

TEST SPECIFICATIONS	Test Method
FCC 15.247:2006 DTS	ANSI C63.4:2003 KDB No. 558074

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

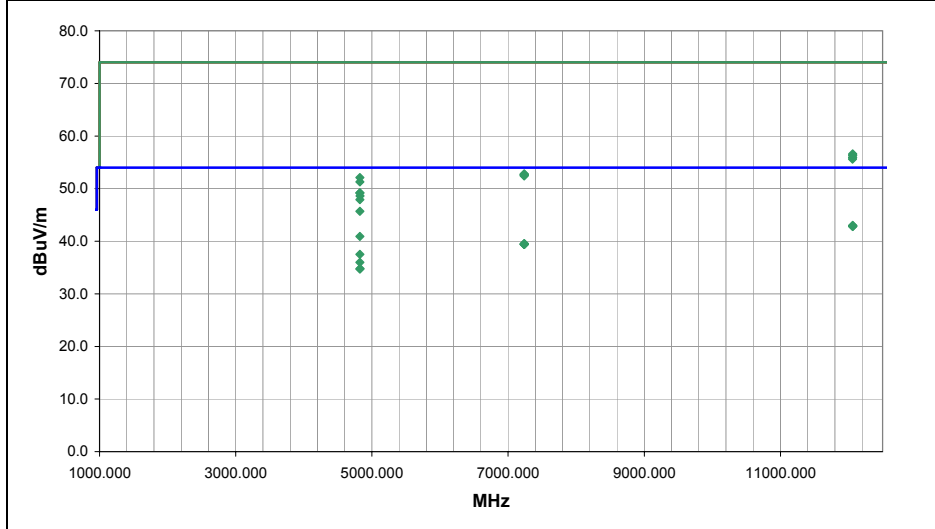
COMMENTS
Notebook configuration. Chain A.

EUT OPERATING MODES
Transmitting 802.11(b)(g), low channel of 2.4GHz band, 2412MHz, see comments for data rate

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	4
Configuration #	2
Results	Pass NVLAP Lab Code 200630-0

Signature *Holly Ashkannejhad*



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
4823.963	36.4	9.3	44.0	1.0	3.0	0.0	V-Horn	AV	0.0	45.7	54.0	-8.3	802.11(b), 1Mbps, Notebook typical position
12060.150	24.5	18.5	38.0	1.0	3.0	0.0	H-Horn	AV	0.0	43.0	54.0	-11.0	802.11(b), 11Mbps, Notebook screen horizontal
12060.190	24.4	18.5	0.0	1.9	3.0	0.0	H-Horn	AV	0.0	42.9	54.0	-11.1	802.11(b), 1Mbps, Notebook screen horizontal
12061.170	24.4	18.5	48.0	1.0	3.0	0.0	V-Horn	AV	0.0	42.9	54.0	-11.1	802.11(b), 1Mbps, Notebook typical position
12061.270	24.4	18.5	283.0	1.0	3.0	0.0	V-Horn	AV	0.0	42.9	54.0	-11.1	802.11(b), 1Mbps, Notebook typical position
12061.600	24.4	18.5	146.0	1.0	3.0	0.0	H-Horn	AV	0.0	42.9	54.0	-11.1	802.11(g), 6Mbps, Notebook screen horizontal
12061.040	24.3	18.5	-1.0	1.4	3.0	0.0	V-Horn	AV	0.0	42.8	54.0	-11.2	802.11(g), 6Mbps, Notebook typical position
4823.983	31.6	9.3	87.0	1.5	3.0	0.0	H-Horn	AV	0.0	40.9	54.0	-13.1	802.11(b), 1Mbps, Notebook screen horizontal
7236.583	24.7	14.8	165.0	1.0	3.0	0.0	V-Horn	AV	0.0	39.5	54.0	-14.5	802.11(b), 1Mbps, Notebook typical position
7236.740	24.7	14.8	167.0	1.0	3.0	0.0	H-Horn	AV	0.0	39.5	54.0	-14.5	802.11(b), 1Mbps, Notebook screen horizontal
7237.733	24.7	14.8	75.0	2.3	3.0	0.0	V-Horn	AV	0.0	39.5	54.0	-14.5	802.11(b), 11Mbps, Notebook typical position
7236.210	24.6	14.8	346.0	1.0	3.0	0.0	H-Horn	AV	0.0	39.4	54.0	-14.6	802.11(g), 6Mbps, Notebook screen horizontal
7236.487	24.6	14.8	75.0	2.3	3.0	0.0	V-Horn	AV	0.0	39.4	54.0	-14.6	802.11(g), 6Mbps, Notebook typical position
7236.593	24.6	14.8	0.0	1.2	3.0	0.0	H-Horn	AV	0.0	39.4	54.0	-14.6	802.11(b), 1Mbps, Notebook screen horizontal
4824.067	28.2	9.3	34.0	1.0	3.0	0.0	V-Horn	AV	0.0	37.5	54.0	-16.5	802.11(b), 11Mbps, Notebook typical position
12060.530	38.1	18.5	38.0	1.0	3.0	0.0	H-Horn	PK	0.0	56.6	74.0	-17.4	802.11(b), 11Mbps, Notebook screen horizontal
12060.500	37.9	18.5	48.0	1.0	3.0	0.0	V-Horn	PK	0.0	56.4	74.0	-17.6	802.11(b), 11Mbps, Notebook typical position
12060.520	37.8	18.5	-1.0	1.4	3.0	0.0	V-Horn	PK	0.0	56.3	74.0	-17.7	802.11(g), 6Mbps, Notebook typical position
4824.040	26.7	9.3	248.0	1.5	3.0	0.0	H-Horn	AV	0.0	36.0	54.0	-18.0	802.11(b), 11Mbps, Notebook screen horizontal
12059.390	37.4	18.5	283.0	1.0	3.0	0.0	V-Horn	PK	0.0	55.9	74.0	-18.1	802.11(b), 1Mbps, Notebook typical position

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPT0049
Serial Number:	None	Date:	03/21/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	39%
Project:	None	Barometric Pres.:	30.2
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS		Test Method
FCC 15.247:2006 DTS		ANSI C63.4:2003 KDB No. 558074

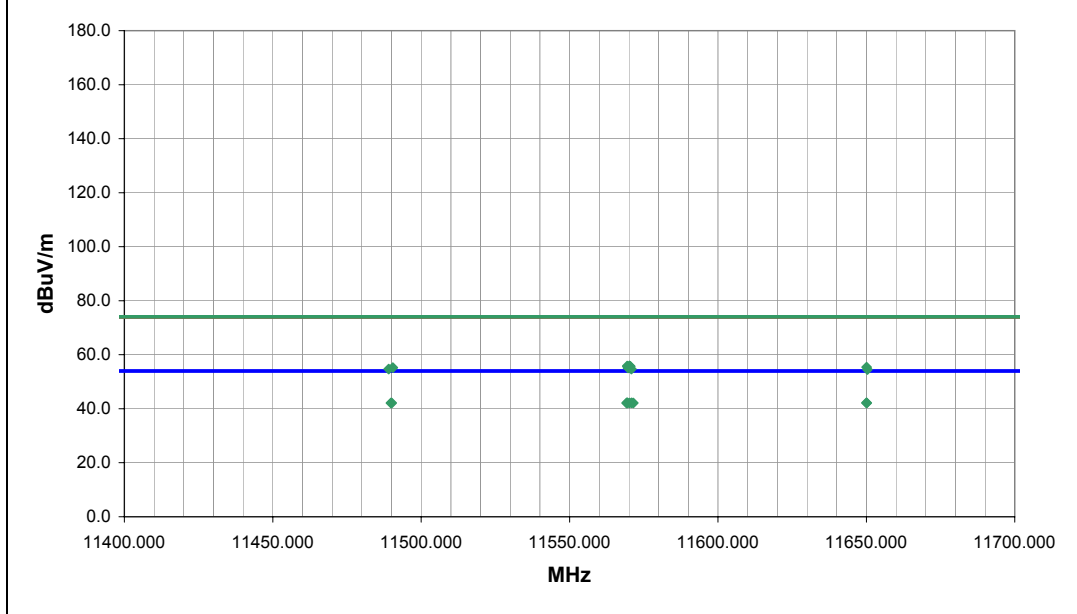
TEST PARAMETERS			
Antenna Height(s) (m)	1 - 4	Test Distance (m)	3

COMMENTS
Notebook configuration. Chain A.

EUT OPERATING MODES
Transmitting 802.11(a), 5725-5850MHz band, see comments for channel, data rate
DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	7	Signature <i>Holly Ashkannejhad</i>
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)	Comments
11569.470	24.1	18.1	336.0	1.0	3.0	0.0	H-Horn	AV	0.0	42.2	54.0	-11.8	Mid channel, 36Mbps
11570.870	24.1	18.1	162.0	1.0	3.0	0.0	H-Horn	AV	0.0	42.2	54.0	-11.8	Mid channel, 54Mbps
11650.010	23.9	18.3	76.0	1.0	3.0	0.0	V-Horn	AV	0.0	42.2	54.0	-11.8	High channel, 6Mbps
11489.800	24.0	18.1	232.0	1.0	3.0	0.0	V-Horn	AV	0.0	42.1	54.0	-11.9	Low channel, 6Mbps
11490.070	24.0	18.1	212.0	1.5	3.0	0.0	H-Horn	AV	0.0	42.1	54.0	-11.9	Low channel, 6Mbps
11569.210	24.0	18.1	26.0	1.0	3.0	0.0	V-Horn	AV	0.0	42.1	54.0	-11.9	Mid channel, 36Mbps
11569.390	24.0	18.1	322.0	1.0	3.0	0.0	H-Horn	AV	0.0	42.1	54.0	-11.9	Mid channel, 6Mbps
11570.170	24.0	18.1	125.0	1.0	3.0	0.0	V-Horn	AV	0.0	42.1	54.0	-11.9	Mid channel, 54Mbps
11571.460	24.0	18.1	158.0	1.0	3.0	0.0	V-Horn	AV	0.0	42.1	54.0	-11.9	Mid channel, 6Mbps
11650.130	23.8	18.3	219.0	2.5	3.0	0.0	H-Horn	AV	0.0	42.1	54.0	-11.9	High channel, 6Mbps
11570.200	37.8	18.1	158.0	1.0	3.0	0.0	V-Horn	PK	0.0	55.9	74.0	-18.1	Mid channel, 6Mbps
11569.430	37.7	18.1	162.0	1.0	3.0	0.0	H-Horn	PK	0.0	55.8	74.0	-18.2	Mid channel, 54Mbps
11570.450	37.6	18.1	336.0	1.0	3.0	0.0	H-Horn	PK	0.0	55.7	74.0	-18.3	Mid channel, 36Mbps
11569.610	37.5	18.1	125.0	1.0	3.0	0.0	V-Horn	PK	0.0	55.6	74.0	-18.4	Mid channel, 54Mbps
11650.100	37.1	18.3	76.0	1.0	3.0	0.0	V-Horn	PK	0.0	55.4	74.0	-18.6	High channel, 6Mbps
11490.480	37.1	18.1	232.0	1.0	3.0	0.0	V-Horn	PK	0.0	55.2	74.0	-18.8	Low channel, 6Mbps
11569.720	37.0	18.1	322.0	1.0	3.0	0.0	H-Horn	PK	0.0	55.1	74.0	-18.9	Mid channel, 6Mbps
11489.050	36.6	18.1	212.0	1.5	3.0	0.0	H-Horn	PK	0.0	54.7	74.0	-19.3	Low channel, 6Mbps
11570.840	36.6	18.1	26.0	1.0	3.0	0.0	V-Horn	PK	0.0	54.7	74.0	-19.3	Mid channel, 36Mbps
11650.330	36.2	18.3	219.0	2.5	3.0	0.0	H-Horn	PK	0.0	54.5	74.0	-19.5	High channel, 6Mbps

EUT: Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)(g)/(a)(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.		Work Order: SPT0049
Serial Number: None		Date: 04/03/07
Customer: Spectrum Technology		Temperature: 22
Attendees: Rod Munro		Humidity: 30%
Project: None		Barometric Pres.: 30.42
Tested by: Rod Peloquin	Power: 120VAC/60Hz	Job Site: EV01

TEST SPECIFICATIONS		Test Method
FCC 15.247:2006 DTS		ANSI C63.4:2003 KDB No. 558074

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

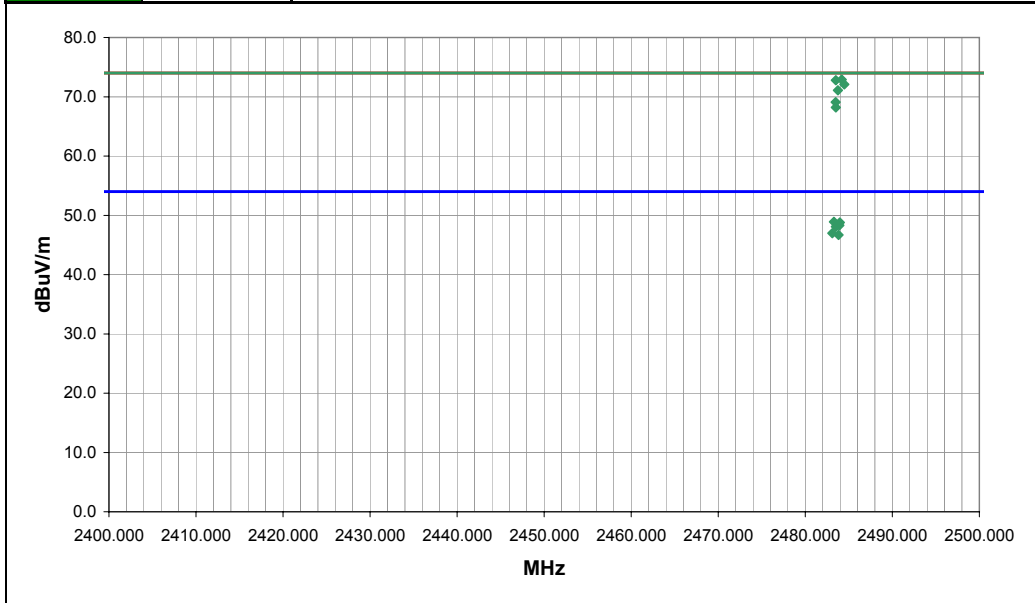
COMMENTS
Notebook configuration.

EUT OPERATING MODES
802.11(n), 20MHz wide, 2.4GHz band, high channel, 2462MHz, Chain A

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	71	Signature <i>Rod Peloquin</i>
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)	Comments
2484.198	50.8	2.1	111.0	1.2	3.0	20.0	H-Horn	PK	0.0	72.9	74.0	-1.1	Notebook screen horizontal
2483.503	50.7	2.1	275.0	1.2	3.0	20.0	H-Horn	PK	0.0	72.8	74.0	-1.2	Notebook typical position
2484.484	50.0	2.1	274.0	1.1	3.0	20.0	V-Horn	PK	0.0	72.1	74.0	-1.9	Notebook on side
2483.758	49.0	2.1	326.0	1.2	3.0	20.0	H-Horn	PK	0.0	71.1	74.0	-2.9	Notebook on side
2483.492	47.0	2.1	-1.0	1.1	3.0	20.0	V-Horn	PK	0.0	69.1	74.0	-4.9	Notebook typical position
2483.283	26.8	2.1	275.0	1.2	3.0	20.0	H-Horn	AV	0.0	48.9	54.0	-5.1	Notebook typical position
2483.978	26.7	2.1	111.0	1.2	3.0	20.0	H-Horn	AV	0.0	48.8	54.0	-5.2	Notebook screen horizontal
2483.908	26.2	2.1	274.0	1.1	3.0	20.0	V-Horn	AV	0.0	48.3	54.0	-5.7	Notebook on side
2483.513	46.1	2.1	190.0	1.8	3.0	20.0	V-Horn	PK	0.0	68.2	74.0	-5.8	Notebook screen horizontal
2483.512	26.0	2.1	327.0	1.2	3.0	20.0	H-Horn	AV	0.0	48.1	54.0	-5.9	Notebook on side
2483.107	24.9	2.1	190.0	1.8	3.0	20.0	V-Horn	AV	0.0	47.0	54.0	-7.0	Notebook screen horizontal
2483.829	24.6	2.1	6.0	1.1	3.0	20.0	V-Horn	AV	0.0	46.7	54.0	-7.3	Notebook typical position

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPTE0049
Serial Number:	None	Date:	04/03/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	30%
Project:	None	Barometric Pres.:	30.42
Tested by:	Rod Peloquin	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS		Test Method	
FCC 15.247:2006 DTS		ANSI C63.4:2003 KDB No. 558074	

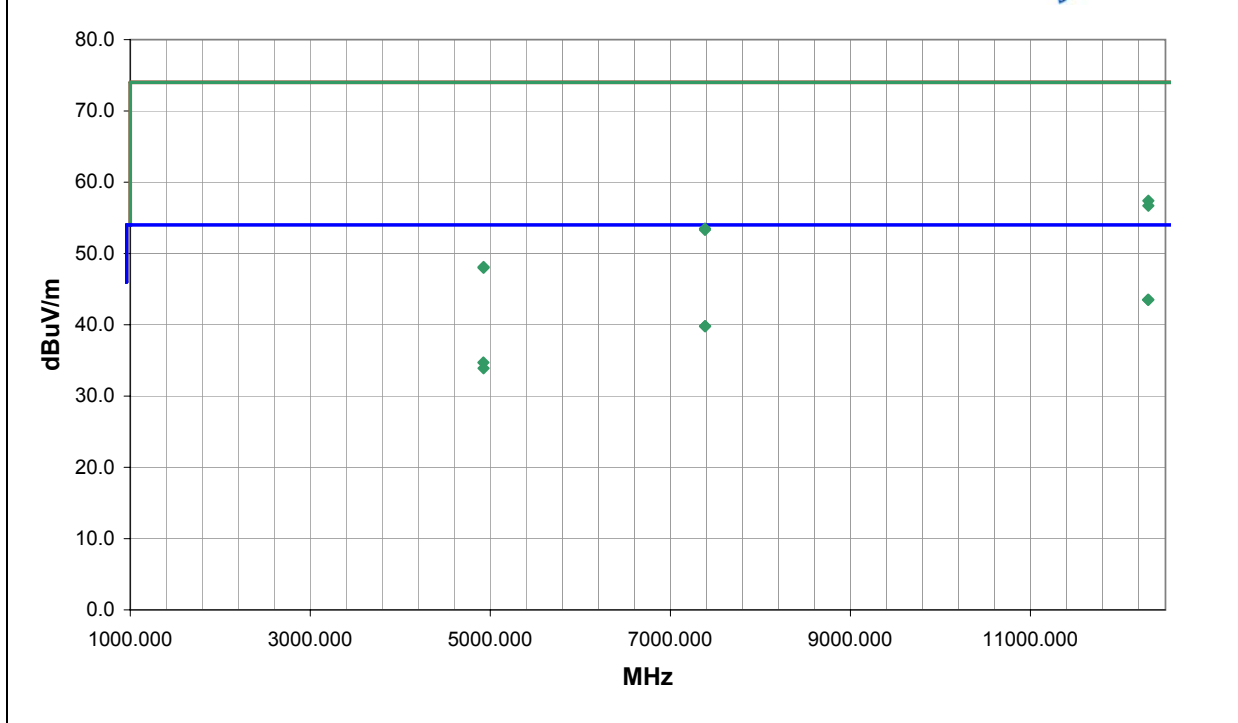
TEST PARAMETERS			
Antenna Height(s) (m)	1 - 4	Test Distance (m)	3

COMMENTS
Notebook configuration.

EUT OPERATING MODES
802.11(n), 20MHz wide, 2.4GHz band, high channel, 2462MHz, Chain A

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	72	NVLAP Lab Code 200630-0	Signature <i>Rodolfo L. Peloquin</i>
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)
12307.090	24.6	18.9	152.0	1.2	3.0	0.0	V-Horn	AV	0.0	43.5	54.0	-10.5
12310.390	24.6	18.9	32.0	1.2	3.0	0.0	H-Horn	AV	0.0	43.5	54.0	-10.5
7385.145	24.4	15.4	237.0	1.3	3.0	0.0	H-Horn	AV	0.0	39.8	54.0	-14.2
7385.670	24.4	15.4	237.0	1.2	3.0	0.0	V-Horn	AV	0.0	39.8	54.0	-14.2
12310.210	38.5	18.9	152.0	1.2	3.0	0.0	V-Horn	PK	0.0	57.4	74.0	-16.6
12309.930	37.8	18.9	32.0	1.2	3.0	0.0	H-Horn	PK	0.0	56.7	74.0	-17.3
4923.630	24.9	9.8	341.0	1.3	3.0	0.0	V-Horn	AV	0.0	34.7	54.0	-19.3
4925.225	24.1	9.8	132.0	1.2	3.0	0.0	H-Horn	AV	0.0	33.9	54.0	-20.1
7385.150	38.1	15.4	237.0	1.3	3.0	0.0	H-Horn	PK	0.0	53.5	74.0	-20.5
7384.630	37.9	15.4	237.0	1.2	3.0	0.0	V-Horn	PK	0.0	53.3	74.0	-20.7
4923.710	38.3	9.8	341.0	1.3	3.0	0.0	V-Horn	PK	0.0	48.1	74.0	-25.9
4925.145	38.2	9.8	132.0	1.2	3.0	0.0	H-Horn	PK	0.0	48.0	74.0	-26.0

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPTE0049
Serial Number:	None	Date:	04/03/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	30%
Project:	None	Barometric Pres.:	30.42
Tested by:	Rod Peloquin	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS Test Method

FCC 15.247:2006 DTS	ANSI C63.4:2003 KDB No. 558074
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TEST PARAMETERS

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

Notebook configuration.

EUT OPERATING MODES

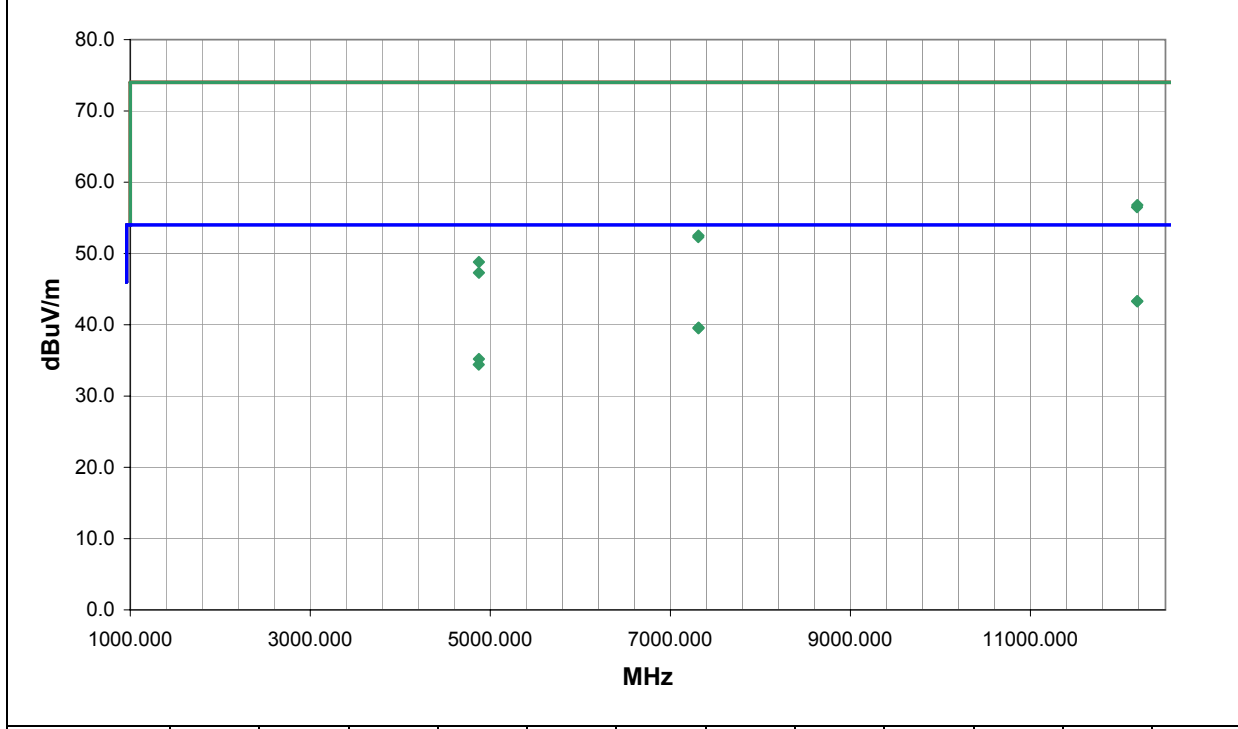
802.11(n), 20MHz wide, 2.4GHz band, mid channel, 2437MHz, Chain A

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	76	 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)
12185.290	24.6	18.7	67.0	1.2	3.0	0.0	H-Horn	AV	0.0	43.3	54.0	-10.7
12186.790	24.6	18.7	243.0	1.1	3.0	0.0	V-Horn	AV	0.0	43.3	54.0	-10.7
7312.575	24.6	15.0	298.0	1.2	3.0	0.0	H-Horn	AV	0.0	39.6	54.0	-14.4
7312.525	24.5	15.0	165.0	1.2	3.0	0.0	V-Horn	AV	0.0	39.5	54.0	-14.5
12186.480	38.1	18.7	243.0	1.1	3.0	0.0	V-Horn	PK	0.0	56.8	74.0	-17.2
12184.030	37.8	18.7	67.0	1.2	3.0	0.0	H-Horn	PK	0.0	56.5	74.0	-17.5
4872.496	25.7	9.5	48.0	1.2	3.0	0.0	V-Horn	AV	0.0	35.2	54.0	-18.8
4871.868	24.9	9.5	17.0	1.2	3.0	0.0	H-Horn	AV	0.0	34.4	54.0	-19.6
7311.785	37.5	15.0	165.0	1.2	3.0	0.0	V-Horn	PK	0.0	52.5	74.0	-21.5
7309.680	37.3	15.0	298.0	1.2	3.0	0.0	H-Horn	PK	0.0	52.3	74.0	-21.7
4873.215	39.3	9.5	48.0	1.2	3.0	0.0	V-Horn	PK	0.0	48.8	74.0	-25.2
4873.520	37.8	9.5	17.0	1.2	3.0	0.0	H-Horn	PK	0.0	47.3	74.0	-26.7

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPTE0049
Serial Number:	None	Date:	04/03/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	30%
Project:	None	Barometric Pres.:	30.42
Tested by:	Rod Peloquin	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS Test Method

FCC 15.247:2006 DTS	ANSI C63.4:2003 KDB No. 558074
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TEST PARAMETERS

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

Notebook configuration.

EUT OPERATING MODES

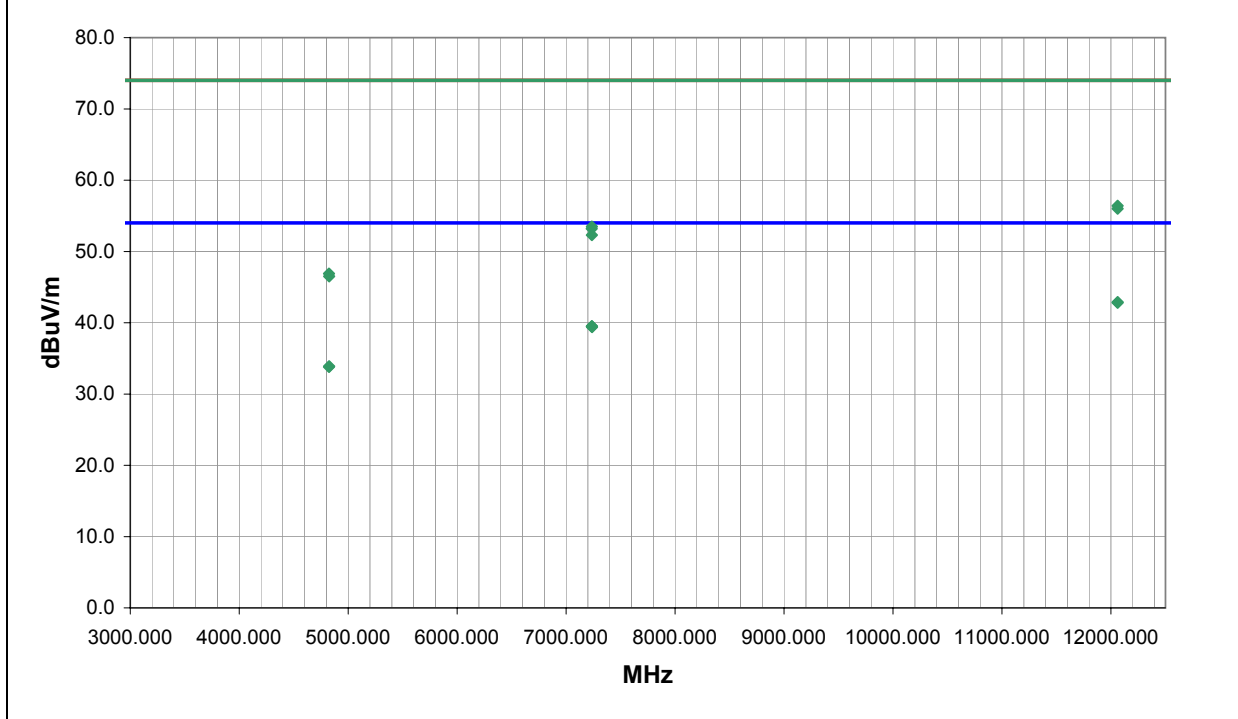
802.11(n), 20MHz wide, 2.4GHz band, low channel, 2412MHz, Chain A

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	77	 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)
12060.380	24.4	18.5	185.0	1.2	3.0	0.0	H-Horn	AV	0.0	42.9	54.0	-11.1
12060.630	24.3	18.5	162.0	1.0	3.0	0.0	V-Horn	AV	0.0	42.8	54.0	-11.2
7235.425	24.7	14.8	15.0	1.0	3.0	0.0	H-Horn	AV	0.0	39.5	54.0	-14.5
7236.092	24.7	14.8	13.0	1.2	3.0	0.0	H-Horn	AV	0.0	39.5	54.0	-14.5
7237.912	24.6	14.8	203.0	1.2	3.0	0.0	V-Horn	AV	0.0	39.4	54.0	-14.6
12060.970	37.9	18.5	185.0	1.2	3.0	0.0	H-Horn	PK	0.0	56.4	74.0	-17.6
12060.340	37.5	18.5	162.0	1.0	3.0	0.0	V-Horn	PK	0.0	56.0	74.0	-18.0
4824.604	24.6	9.3	4.0	1.2	3.0	0.0	V-Horn	AV	0.0	33.9	54.0	-20.1
4824.333	24.5	9.3	29.0	1.2	3.0	0.0	H-Horn	AV	0.0	33.8	54.0	-20.2
7236.154	38.7	14.8	13.0	1.2	3.0	0.0	H-Horn	PK	0.0	53.5	74.0	-20.5
7234.812	38.4	14.8	203.0	1.2	3.0	0.0	V-Horn	PK	0.0	53.2	74.0	-20.8
7236.208	37.5	14.8	15.0	1.0	3.0	0.0	H-Horn	PK	0.0	52.3	74.0	-21.7
4824.058	37.6	9.3	4.0	1.2	3.0	0.0	V-Horn	PK	0.0	46.9	74.0	-27.1
4825.067	37.2	9.3	29.0	1.2	3.0	0.0	H-Horn	PK	0.0	46.5	74.0	-27.5

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPT0049
Serial Number:	None	Date:	03/23/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	39%
Project:	None	Barometric Pres.:	30.2
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 15.247 (DTS):2006	ANSI C63.4:2003 KDB No. 558074

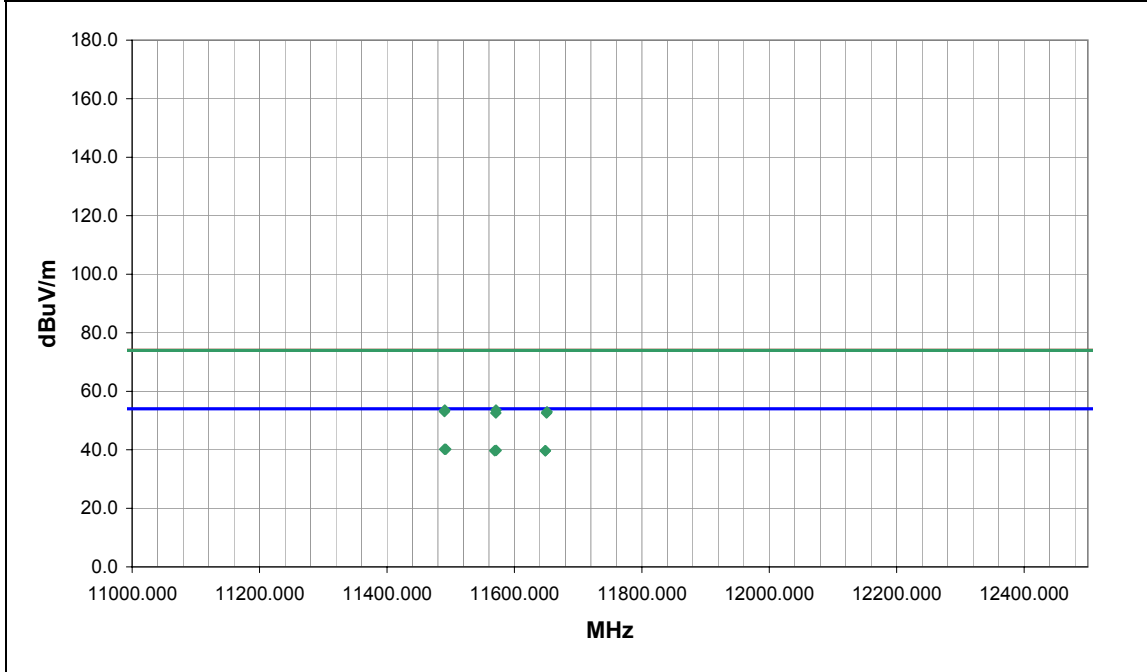
TEST PARAMETERS			
Antenna Height(s) (m)	1 - 4	Test Distance (m)	3

COMMENTS
Notebook configuration.

EUT OPERATING MODES
Transmitting 802.11(n), 5GHz band, Chain A, HT0, 20MHz wide

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	18	NVLAP Lab Code 200630-0	Signature <i>Holly Ashkannejhad</i>
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)	Comments
11490.510	22.1	18.1	331.0	1.0	3.0	0.0	H-Horn	AV	0.0	40.2	54.0	-13.8	Ch. 149
11492.110	22.1	18.1	30.0	1.0	3.0	0.0	V-Horn	AV	0.0	40.2	54.0	-13.8	Ch. 149
11571.270	21.7	18.1	71.0	3.3	3.0	0.0	V-Horn	AV	0.0	39.8	54.0	-14.2	Ch. 157
11569.120	21.6	18.1	198.0	1.0	3.0	0.0	H-Horn	AV	0.0	39.7	54.0	-14.3	Ch. 157
11648.430	21.4	18.3	169.0	1.0	3.0	0.0	H-Horn	AV	0.0	39.7	54.0	-14.3	Ch. 165
11648.750	21.4	18.3	296.0	1.0	3.0	0.0	V-Horn	AV	0.0	39.7	54.0	-14.3	Ch. 165
11490.760	35.5	18.1	331.0	1.0	3.0	0.0	H-Horn	PK	0.0	53.6	74.0	-20.4	Ch. 149
11571.190	35.5	18.1	198.0	1.0	3.0	0.0	H-Horn	PK	0.0	53.6	74.0	-20.4	Ch. 157
11490.090	35.0	18.1	30.0	1.0	3.0	0.0	V-Horn	PK	0.0	53.1	74.0	-20.9	Ch. 149
11651.110	34.7	18.3	296.0	1.0	3.0	0.0	V-Horn	PK	0.0	53.0	74.0	-21.0	Ch. 165
11570.890	34.5	18.1	71.0	3.3	3.0	0.0	V-Horn	PK	0.0	52.6	74.0	-21.4	Ch. 157
11650.460	34.3	18.3	169.0	1.0	3.0	0.0	H-Horn	PK	0.0	52.6	74.0	-21.4	Ch. 165

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPT0049
Serial Number:	None	Date:	03/23/07
Customer:	Spectrum Technology	Temperature:	22
Attendees:	Rod Munro	Humidity:	39%
Project:	None	Barometric Pres.:	30.2
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS		Test Method	
FCC 15.247 (DTS):2006	ANSI C63.4:2003 KDB No. 558074		

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

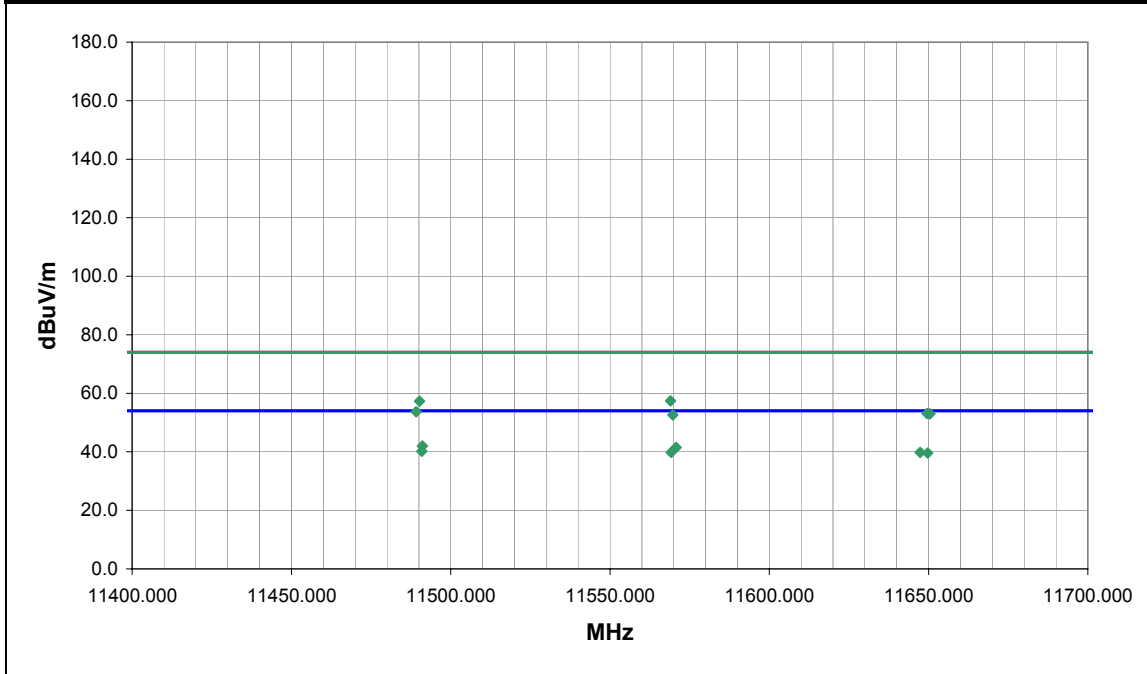
COMMENTS
Notebook configuration.

EUT OPERATING MODES
Transmitting 802.11(n), 5GHz band, Chain AB, HT15, 20MHz wide

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	19	NVLAP Lab Code 200630-0	Signature <i>Holly Ashkannejhad</i>
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)	Comments
11491.130	23.9	18.1	236.0	1.0	3.0	0.0	V-Horn	AV	0.0	42.0	54.0	-12.0	Ch. 149
11570.750	23.4	18.1	238.0	1.0	3.0	0.0	V-Horn	AV	0.0	41.5	54.0	-12.5	Ch. 157
11490.920	22.1	18.1	197.0	1.0	3.0	0.0	H-Horn	AV	0.0	40.2	54.0	-13.8	Ch. 149
11569.220	21.7	18.1	235.0	1.0	3.0	0.0	H-Horn	AV	0.0	39.8	54.0	-14.2	Ch. 157
11647.380	21.5	18.3	231.0	1.0	3.0	0.0	V-Horn	AV	0.0	39.8	54.0	-14.2	Ch. 165
11649.720	21.3	18.3	53.0	1.0	3.0	0.0	H-Horn	AV	0.0	39.6	54.0	-14.4	Ch. 165
11569.030	39.3	18.1	238.0	1.0	3.0	0.0	V-Horn	PK	0.0	57.4	74.0	-16.6	Ch. 157
11490.210	39.2	18.1	236.0	1.0	3.0	0.0	V-Horn	PK	0.0	57.3	74.0	-16.7	Ch. 149
11489.130	35.6	18.1	197.0	1.0	3.0	0.0	H-Horn	PK	0.0	53.7	74.0	-20.3	Ch. 149
11649.540	34.8	18.3	231.0	1.0	3.0	0.0	V-Horn	PK	0.0	53.1	74.0	-20.9	Ch. 165
11650.420	34.7	18.3	53.0	1.0	3.0	0.0	H-Horn	PK	0.0	53.0	74.0	-21.0	Ch. 165
11569.690	34.5	18.1	235.0	1.0	3.0	0.0	H-Horn	PK	0.0	52.6	74.0	-21.4	Ch. 157

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPTE0049
Serial Number:	None	Date:	04/05/07
Customer:	Spectrum Technology	Temperature:	21
Attendees:	Rod Munro	Humidity:	32%
Project:	None	Barometric Pres.:	30.42
Tested by:	Rod Peloquin	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS Test Method

FCC 15.247:2006 DTS	ANSI C63.4:2003 KDB No. 558074
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TEST PARAMETERS

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

Notebook configuration.

EUT OPERATING MODES

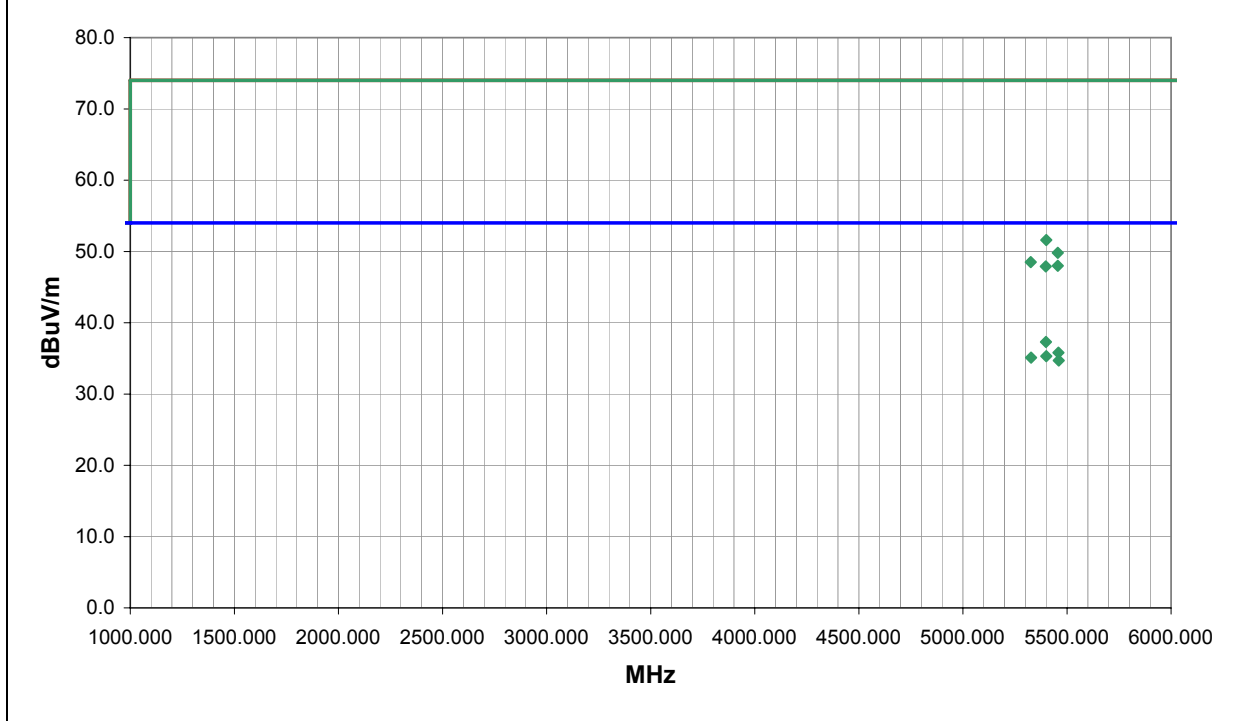
802.11(n), 40MHz wide, Chain A, Ch. 159

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	96	 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)
5398.541	26.3	11.0	252.0	1.2	3.0	0.0	H-Horn	AV	0.0	37.3	54.0	-16.7
5459.000	24.8	11.0	88.0	1.1	3.0	0.0	H-Horn	AV	0.0	35.8	54.0	-18.2
5400.224	24.3	11.0	-1.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.3	54.0	-18.7
5327.774	24.2	10.9	63.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.1	54.0	-18.9
5460.542	23.7	11.0	219.0	1.0	3.0	0.0	V-Horn	AV	0.0	34.7	54.0	-19.3
5400.482	40.6	11.0	252.0	1.2	3.0	0.0	H-Horn	PK	0.0	51.6	74.0	-22.4
5456.183	38.8	11.0	88.0	1.1	3.0	0.0	H-Horn	PK	0.0	49.8	74.0	-24.2
5325.841	37.6	10.9	63.0	1.0	3.0	0.0	V-Horn	PK	0.0	48.5	74.0	-25.5
5456.092	37.0	11.0	219.0	1.0	3.0	0.0	V-Horn	PK	0.0	48.0	74.0	-26.0
5398.407	36.9	11.0	-1.0	1.0	3.0	0.0	V-Horn	PK	0.0	47.9	74.0	-26.1

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPT0049
Serial Number:	None	Date:	04/05/07
Customer:	Spectrum Technology	Temperature:	21
Attendees:	Rod Munro	Humidity:	32%
Project:	None	Barometric Pres.:	30.42
Tested by:	Rod Peloquin	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS Test Method

FCC 15.247:2006 DTS	ANSI C63.4:2003 KDB No. 558074
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TEST PARAMETERS

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

Notebook configuration.

EUT OPERATING MODES

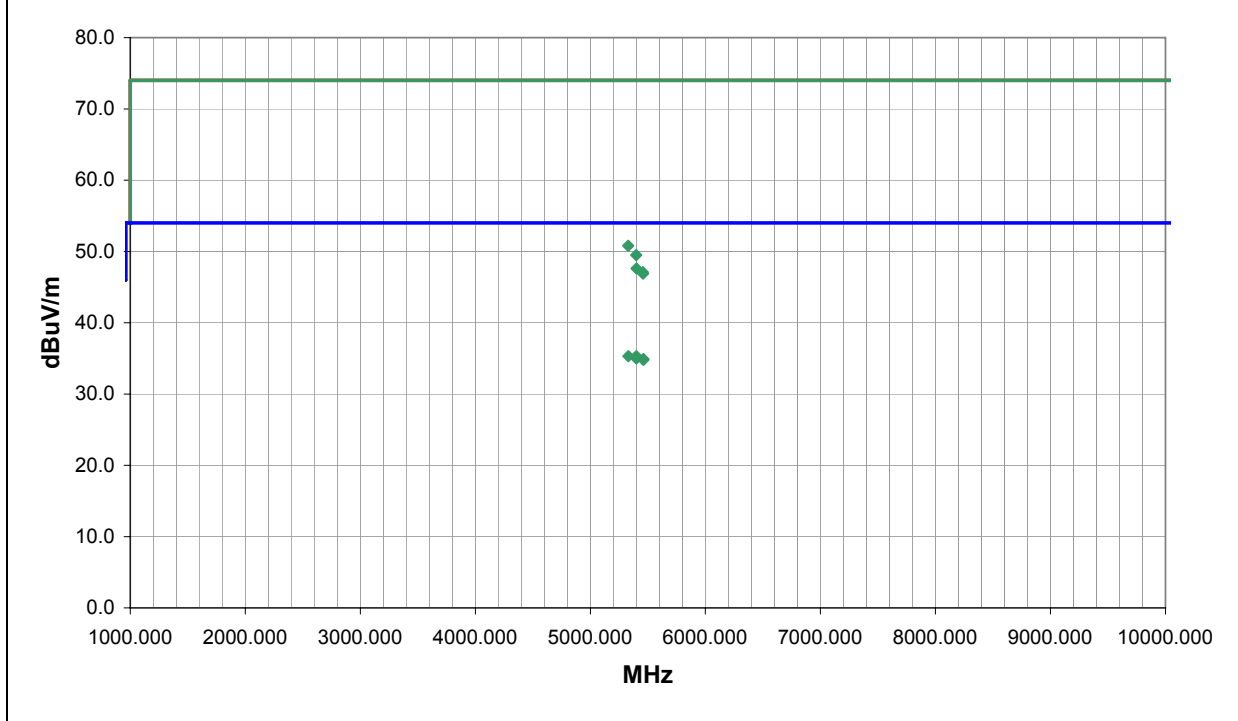
802.11(n), 40MHz wide, Chain AB, Ch. 159

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	97	 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)
5330.075	24.4	10.9	11.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.3	54.0	-18.7
5399.276	24.3	11.0	250.0	1.0	3.0	0.0	H-Horn	AV	0.0	35.3	54.0	-18.7
5400.092	24.0	11.0	63.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.0	54.0	-19.0
5461.423	23.9	11.0	124.0	1.0	3.0	0.0	H-Horn	AV	0.0	34.9	54.0	-19.1
5460.915	23.8	11.0	261.0	1.0	3.0	0.0	V-Horn	AV	0.0	34.8	54.0	-19.2
5328.332	39.9	10.9	11.0	1.0	3.0	0.0	V-Horn	PK	0.0	50.8	74.0	-23.2
5398.982	38.5	11.0	250.0	1.0	3.0	0.0	H-Horn	PK	0.0	49.5	74.0	-24.5
5401.599	36.6	11.0	63.0	1.0	3.0	0.0	V-Horn	PK	0.0	47.6	74.0	-26.4
5456.017	36.1	11.0	124.0	1.0	3.0	0.0	H-Horn	PK	0.0	47.1	74.0	-26.9
5458.933	35.9	11.0	261.0	1.0	3.0	0.0	V-Horn	PK	0.0	46.9	74.0	-27.1

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPTE0049
Serial Number:	None	Date:	04/05/07
Customer:	Spectrum Technology	Temperature:	21
Attendees:	Rod Munro	Humidity:	32%
Project:	None	Barometric Pres.:	30.42
Tested by:	Rod Peloquin	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS Test Method

FCC 15.247:2006 DTS	ANSI C63.4:2003 KDB No. 558074
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TEST PARAMETERS

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

Notebook configuration.

EUT OPERATING MODES

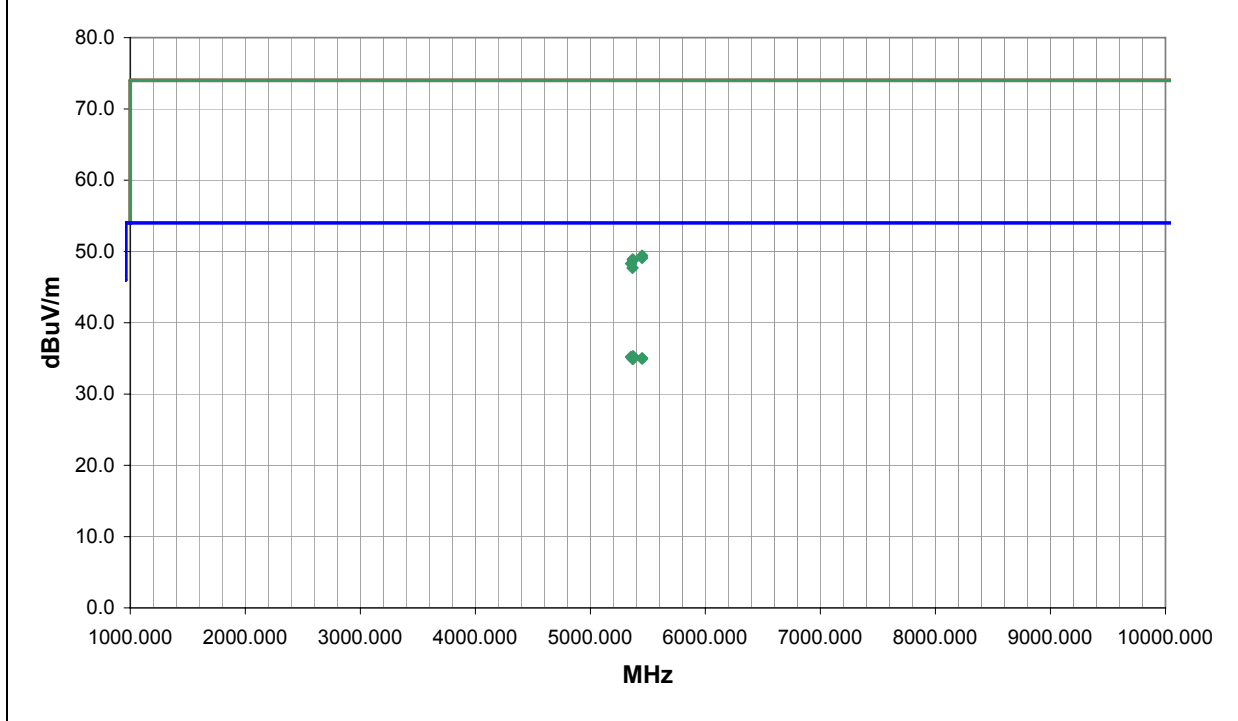
802.11(n), 40MHz wide, Chain AB, Ch. 151

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	98	 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)
5370.969	24.4	10.9	110.0	1.0	3.0	0.0	H-Horn	AV	0.0	35.3	54.0	-18.7
5352.919	24.3	10.9	5.0	1.2	3.0	0.0	V-Horn	AV	0.0	35.2	54.0	-18.8
5369.901	24.1	10.9	12.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.0	54.0	-19.0
5450.260	24.0	11.0	62.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.0	54.0	-19.0
5450.484	24.1	10.9	93.0	1.0	3.0	0.0	H-Horn	AV	0.0	35.0	54.0	-19.0
5368.749	24.0	10.9	202.0	1.1	3.0	0.0	H-Horn	AV	0.0	34.9	54.0	-19.1
5449.842	38.4	11.0	93.0	1.0	3.0	0.0	H-Horn	PK	0.0	49.4	74.0	-24.6
5450.375	38.1	11.0	62.0	1.0	3.0	0.0	V-Horn	PK	0.0	49.1	74.0	-24.9
5368.483	38.0	10.9	110.0	1.0	3.0	0.0	H-Horn	PK	0.0	48.9	74.0	-25.1
5372.083	37.9	10.9	12.0	1.0	3.0	0.0	V-Horn	PK	0.0	48.8	74.0	-25.2
5353.874	37.4	10.9	5.0	1.2	3.0	0.0	V-Horn	PK	0.0	48.3	74.0	-25.7
5367.016	36.8	10.9	202.0	1.1	3.0	0.0	H-Horn	PK	0.0	47.7	74.0	-26.3

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)/(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPTE0049
Serial Number:	None	Date:	04/05/07
Customer:	Spectrum Technology	Temperature:	21
Attendees:	Rod Munro	Humidity:	32%
Project:	None	Barometric Pres.:	30.42
Tested by:	Rod Peloquin	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS		Test Method	
FCC 15.247:2006 DTS		ANSI C63.4:2003 KDB No. 558074	

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

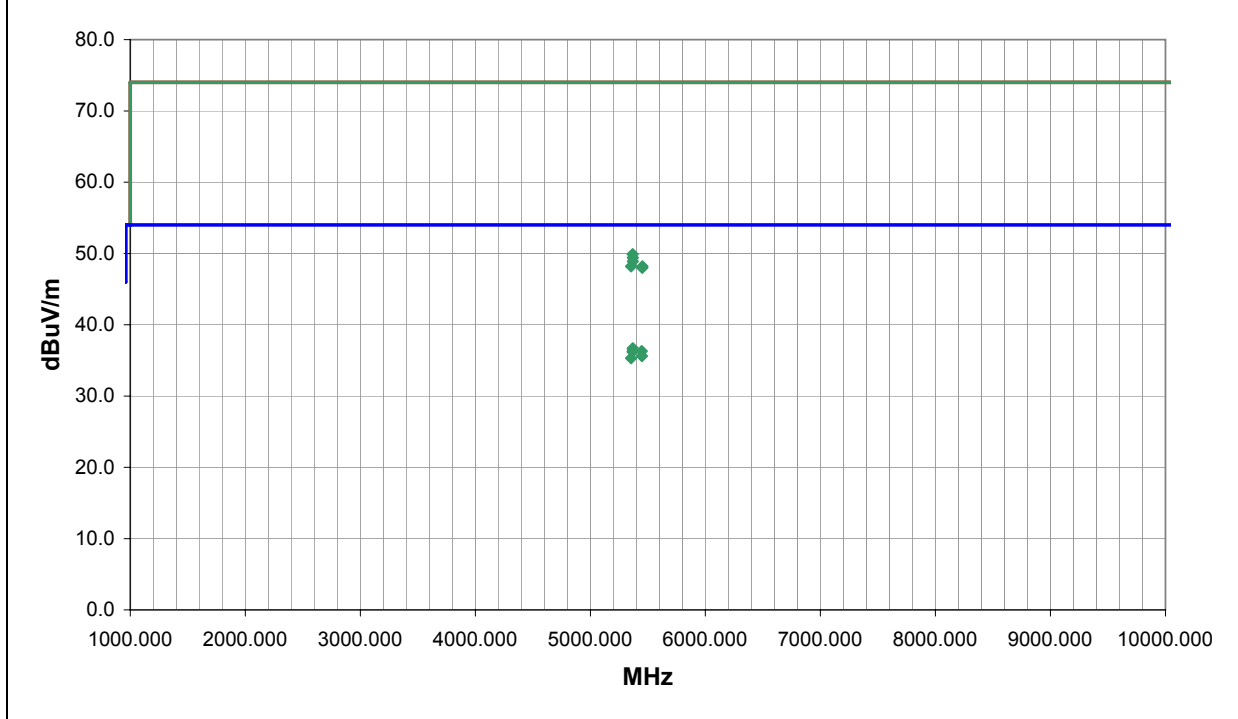
COMMENTS
Notebook configuration.

EUT OPERATING MODES
802.11(n), 40MHz wide, Chain A, Ch. 151

DEVIATIONS FROM TEST STANDARD
No deviations.

Run #	99	 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)
5369.775	25.8	10.9	126.0	1.0	3.0	0.0	V-Horn	AV	0.0	36.7	54.0	-17.3
5369.650	25.6	10.9	114.0	1.0	3.0	0.0	H-Horn	AV	0.0	36.5	54.0	-17.5
5447.037	25.3	11.0	47.0	1.0	3.0	0.0	V-Horn	AV	0.0	36.3	54.0	-17.7
5367.130	25.3	10.9	112.0	1.1	3.0	0.0	H-Horn	AV	0.0	36.2	54.0	-17.8
5449.179	24.6	11.0	90.0	1.0	3.0	0.0	H-Horn	AV	0.0	35.6	54.0	-18.4
5353.696	24.4	10.9	172.0	1.0	3.0	0.0	V-Horn	AV	0.0	35.3	54.0	-18.7
5368.258	39.0	10.9	126.0	1.0	3.0	0.0	V-Horn	PK	0.0	49.9	74.0	-24.1
5369.724	38.5	10.9	112.0	1.1	3.0	0.0	H-Horn	PK	0.0	49.4	74.0	-24.6
5369.175	38.0	10.9	114.0	1.0	3.0	0.0	H-Horn	PK	0.0	48.9	74.0	-25.1
5354.457	37.3	10.9	172.0	1.0	3.0	0.0	V-Horn	PK	0.0	48.2	74.0	-25.8
5452.283	37.2	11.0	90.0	1.0	3.0	0.0	H-Horn	PK	0.0	48.2	74.0	-25.8
5450.792	37.0	11.0	47.0	1.0	3.0	0.0	V-Horn	PK	0.0	48.0	74.0	-26.0

EUT:	Sierra Wireless MC5725 WAN radio, Intel 4965AGN 802.11(b)(g)/(a)/(n) radio, and Broadcom USB Bluetooth module BCM92035NMD in the IX605 notebook.	Work Order:	SPTE0049
Serial Number:	None	Date:	04/05/07
Customer:	Spectrum Technology	Temperature:	21
Attendees:	Rod Munro	Humidity:	32%
Project:	None	Barometric Pres.:	30.42
Tested by:	Rod Peloquin	Power:	120VAC/60Hz
		Job Site:	EV01

TEST SPECIFICATIONS		Test Method	
FCC 15.247:2006 DTS		ANSI C63.4:2003 KDB No. 558074	

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

COMMENTS

Notebook configuration.

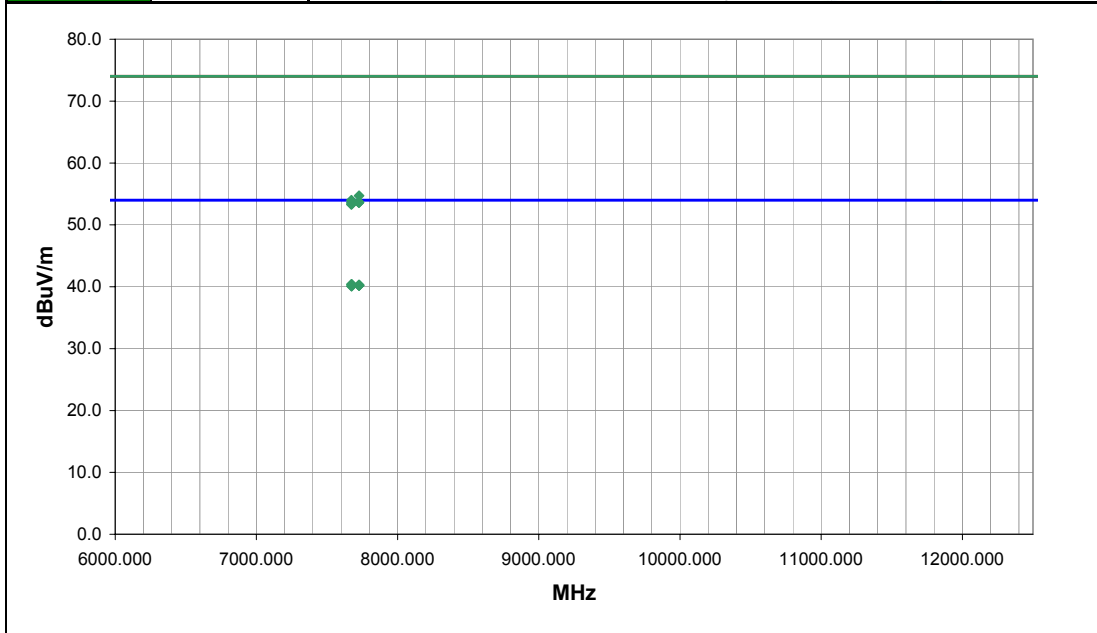
EUT OPERATING MODES

802.11(n), 40MHz wide, 5725MHz-5850MHz band

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	100	NVLAP Lab Code 200630-0	Signature <i>Rodry Le Peloquin</i>
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)	Comments
7673.225	24.6	15.8	204.0	1.0	0.0	0.0	V-Horn	AV	0.0	40.4	54.0	-13.6	Ch. 151, Chain AB
7673.373	24.6	15.8	300.0	1.0	0.0	0.0	V-Horn	AV	0.0	40.4	54.0	-13.6	Ch. 151, Chain A
7726.782	24.5	15.8	112.0	1.0	0.0	0.0	V-Horn	AV	0.0	40.3	54.0	-13.7	Ch. 159, Chain A
7726.252	24.4	15.8	223.0	2.0	0.0	0.0	H-Horn	AV	0.0	40.2	54.0	-13.8	Ch. 159, Chain A
7726.465	24.4	15.8	26.0	1.0	0.0	0.0	H-Horn	AV	0.0	40.2	54.0	-13.8	Ch. 159, Chain AB
7726.670	24.4	15.8	140.0	1.0	0.0	0.0	V-Horn	AV	0.0	40.2	54.0	-13.8	Ch. 159, Chain AB
7673.455	24.3	15.8	260.0	1.1	0.0	0.0	H-Horn	AV	0.0	40.1	54.0	-13.9	Ch. 151, Chain A
7673.868	24.3	15.8	345.0	1.0	0.0	0.0	H-Horn	AV	0.0	40.1	54.0	-13.9	Ch. 151, Chain AB
7727.167	38.9	15.8	112.0	1.0	0.0	0.0	V-Horn	PK	0.0	54.7	74.0	-19.3	Ch. 159, Chain A
7673.097	38.2	15.8	300.0	1.0	0.0	0.0	V-Horn	PK	0.0	54.0	74.0	-20.0	Ch. 151, Chain A
7726.210	37.9	15.8	26.0	1.0	0.0	0.0	H-Horn	PK	0.0	53.7	74.0	-20.3	Ch. 159, Chain AB
7673.110	37.8	15.8	260.0	1.1	0.0	0.0	H-Horn	PK	0.0	53.6	74.0	-20.4	Ch. 151, Chain A
7726.232	37.8	15.8	223.0	2.0	0.0	0.0	H-Horn	PK	0.0	53.6	74.0	-20.4	Ch. 159, Chain A
7726.393	37.8	15.8	140.0	1.0	0.0	0.0	V-Horn	PK	0.0	53.6	74.0	-20.4	Ch. 159, Chain AB
7673.428	37.6	15.8	204.0	1.0	0.0	0.0	V-Horn	PK	0.0	53.4	74.0	-20.6	Ch. 151, Chain AB
7672.967	37.5	15.8	345.0	1.0	0.0	0.0	H-Horn	PK	0.0	53.3	74.0	-20.7	Ch. 151, Chain AB

