Spectrum Technology, Inc.

IX350 with Bluetooth module GUBTC41M-TH

January 14, 2008

Report No. SPTE0070.1

Report Prepared By

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

EMC Test Report

NORTHWEST EMC

22975 NW Evergreen Parkway
Suite 400
Hillsboro, Oregon 97124

Certificate of Test

Issue Date: January 14, 2008
Spectrum Technology, Inc.
Model: IX350 with Bluetooth module GUBTC41M-TH

Emissions			
Test Description	**Specification**	**Test Method**	**Pass/Fail**
Spurious Radiated Emissions	FCC 15.247 (DTS):2006	ANSI C63.4:2003 KDB No. 558074	**Pass**
AC Powerline Conducted Emissions	FCC 15.207:2006	ANSI C63.4:2003	**Pass**

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

Test Facility

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

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

Phone: (503) 844-4066 Fax: 844-3826

This site has been fully described in a report filed with and accepted by the FCC (Federal Communications Commission) and Industry Canada.

Approved By:

Ethan Schoonover, Sultan Lab Manager

NVLAP Lab Code: 200630-0

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

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

Revision Number	Description	Date	Page Number
00	None		

Accreditations and Authorizations

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

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

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

Industry Canada: Accredited by NVLAP for performance of Industry Canada RSS and ICES testing. Our Open Area Test Sites and certification chambers comply with RSS 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 TUV Product Service Group's Listing of Recognized Laboratories. It qualifies in connection with the TUV Certification after Recognition of Agent's Testing Program for the product categories and/or standards shown in TUV's current Listing of CARAT Laboratories, available from TUV. A certificate was issued to represent that this laboratory continues to meet TUV'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).*

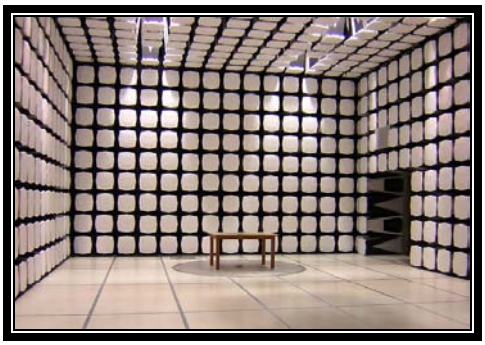
BSMI: Northwest EMC has been designated by NIST and validated by C-Taipei (BSMI) as a CAB to conduct tests as described in the APEC Mutual Recognition Agreement. License No.SL2-IN-E-1017.

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

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

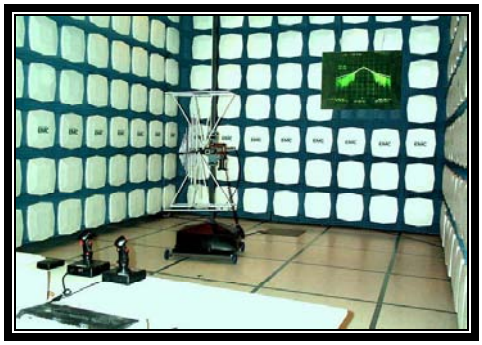
SCOPE

For details on the Scopes of our Accreditations, please visit:
http://www.nwemc.com/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, Inc.
Address:	209 Dayton Street Suite #205
City, State, Zip:	Edmonds, WA 98020
Test Requested By:	Rod Munro
Model:	IX350 with Bluetooth module GUBTC41M-TH
First Date of Test:	November 30, 2007
Last Date of Test:	November 30, 2007
Receipt Date of Samples:	November 19, 2007
Equipment Design Stage:	Preproduction
Equipment Condition:	No Damage

Information Provided by the Party Requesting the Test

Functional Description of the EUT (Equipment Under Test):

The Itronix Model IX350 is a tablet PC that can be used in a notebook configuration only. The IX350 can be configured with a WLAN (Model 4965AGN) or Bluetooth radio (GUBTC41M-TH) or both.

Testing Objective:

To demonstrate compliance to FCC requirements.

CONFIGURATION 1 SPTE0070

Software/Firmware Running during test	
Description	**Version**
Intel(r) PRO/Wireless 4965AGN - CRTU	4.1.34.0000
Bluetest	Bluecore firmware 4155

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
802.11(a)/(b)/(g)(n) radio	Intel Corporation	Itronix P/N: IX-4965AGN	Unknown
Bluetooth radio	Billionton	Itronix P/N: IX-GUBTC41MTH	Unknown
Duo Touch Tablet PC	General Dynamics Itronix Corporation	IX350	SY7200000658

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
USB Keyboard	Logitech	Y-UT76	SC7250Z
Mouse	Logitech	M-BE58	LZE02357693
AC Adapter	Delta Electronics, Inc.	ADP-90SB BB	VCW0632013286
Headset	Unknown	Boom Mic Headset	PDB

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
AC	No	1.8 m	No	AC Adapter	AC Mains
DC	No	1.3 m	Yes	Duo Touch Tablet PC	AC Adapter
Audio - bifurcated speaker and mic	No	1.6 m	No	Duo Touch Tablet PC	Headset
LAN	No	1.0 m	No	Duo Touch Tablet PC	Unterminated
Telecom	No	1.0 m	No	Duo Touch Tablet PC	Unterminated
USB	Yes	1.3 m	No	Duo Touch Tablet PC	Mouse
USB	No	1,8m	No	Duo Touch Tablet PC	Keyboard
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 2 SPTE0070

Software/Firmware Running during test	
Description	**Version**
Intel(r) PRO/Wireless 4965AGN - CRTU	4.1.34.0000
Bluetest	Bluecore firmware 4155

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
802.11(a)/(b)/(g)(n) radio	Intel Corporation	Itronix P/N: IX-4965AGN	Unknown
Bluetooth radio	Billionton	Itronix P/N: IX-GUBTC41MTH	Unknown

Peripherals in test setup boundary			
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Duo Touch Tablet PC	General Dynamics Itronix Corporation	IX350	SY7200000658
AC Adapter	Delta Electronics, Inc.	ADP-90SB BB	VCW0632013286

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Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
AC	No	1.8 m	No	AC Adapter	AC Mains
DC	No	1.3 m	Yes	Duo Touch Tablet PC	AC Adapter
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

Equipment modifications					
Item	Date	Test	Modification	Note	Disposition of EUT
1	11/30/2007	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
2	11/30/2007	AC Powerline Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing complete.

Spurious Radiated Emissions

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

CHANNELS INVESTIGATED
Low channel, 2402MHz
Mid channel, 2440MHz
High channel, 2480MHz

MODULATION TYPES INVESTIGATED
GFSK, DH5
pi/4-DQPSK, 2DH5
8DPSK, 3DH5

POWER SETTINGS INVESTIGATED
120VAC/60Hz

FREQUENCY RANGE INVESTIGATED			
Start Frequency	30 MHz	Stop Frequency	26 GHz

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
High Pass Filter	Micro-Tronics	HPM50111	HFO	12/29/2006	13
EV01 Cable D			EVD	7/25/2007	13
Pre-Amplifier	Miteq	JSD4-18002600-26-8P	APU	7/25/2007	13
Antenna, Horn	EMCO	3160-09	AHG	NCR	0
EV01 cables g,h,I			EVF	10/23/2007	13
Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVD	6/22/2007	13
Antenna, Horn	ETS	3160-08	AHV	NCR	0
EV01 cables g,h,j			EVB	10/23/2007	13
Pre-Amplifier	Miteq	AMF-4D-010100-24-10P	APW	5/10/2007	13
Antenna, Horn	EMCO	3115	AHC	8/24/2006	24
EV01 cables c,g, h			EVA	10/23/2007	13
Pre-Amplifier	Miteq	AM-1616-1000	AOL	12/29/2006	13
Antenna, Biconilog	EMCO	3141	AXE	12/28/2005	24
Spectrum Analyzer	Agilent	E4446A	AAT	12/7/2006	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

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

NORTHWEST EMC

Spurious Radiated Emissions

PSA 2007.05.07
EMI 2006.11.29

EUT:	IX350 with Bluetooth module GUBTC41M-TH			Work Order:	SPTE0070
Serial Number:	SY720000658			Date:	11/30/07
Customer:	Spectrum Technology, Inc.			Temperature:	20
Attendees:	Rod Munro			Humidity:	28%
Project:	None			Barometric Pres.:	1019
Tested by:	Greg Kiemel, 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

EUT OPERATING MODES

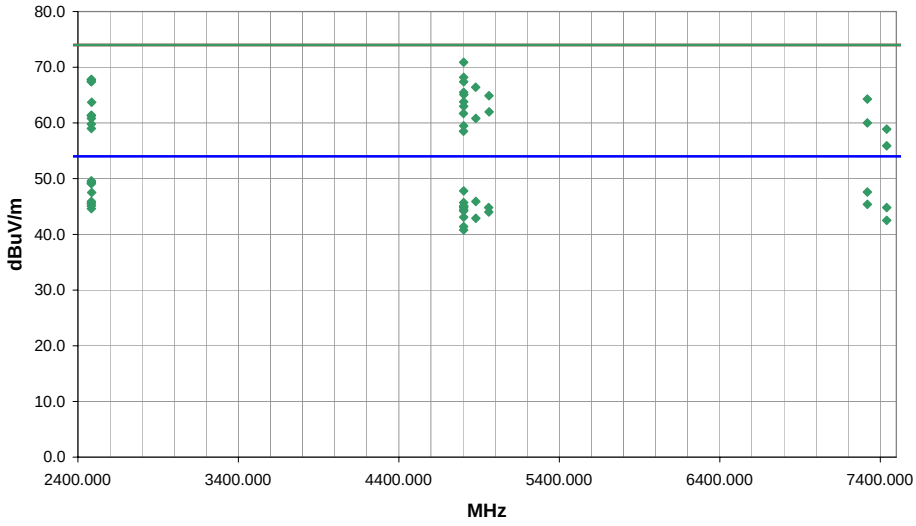
Bluetooth, see notes.

DEVIATIONS FROM TEST STANDARD

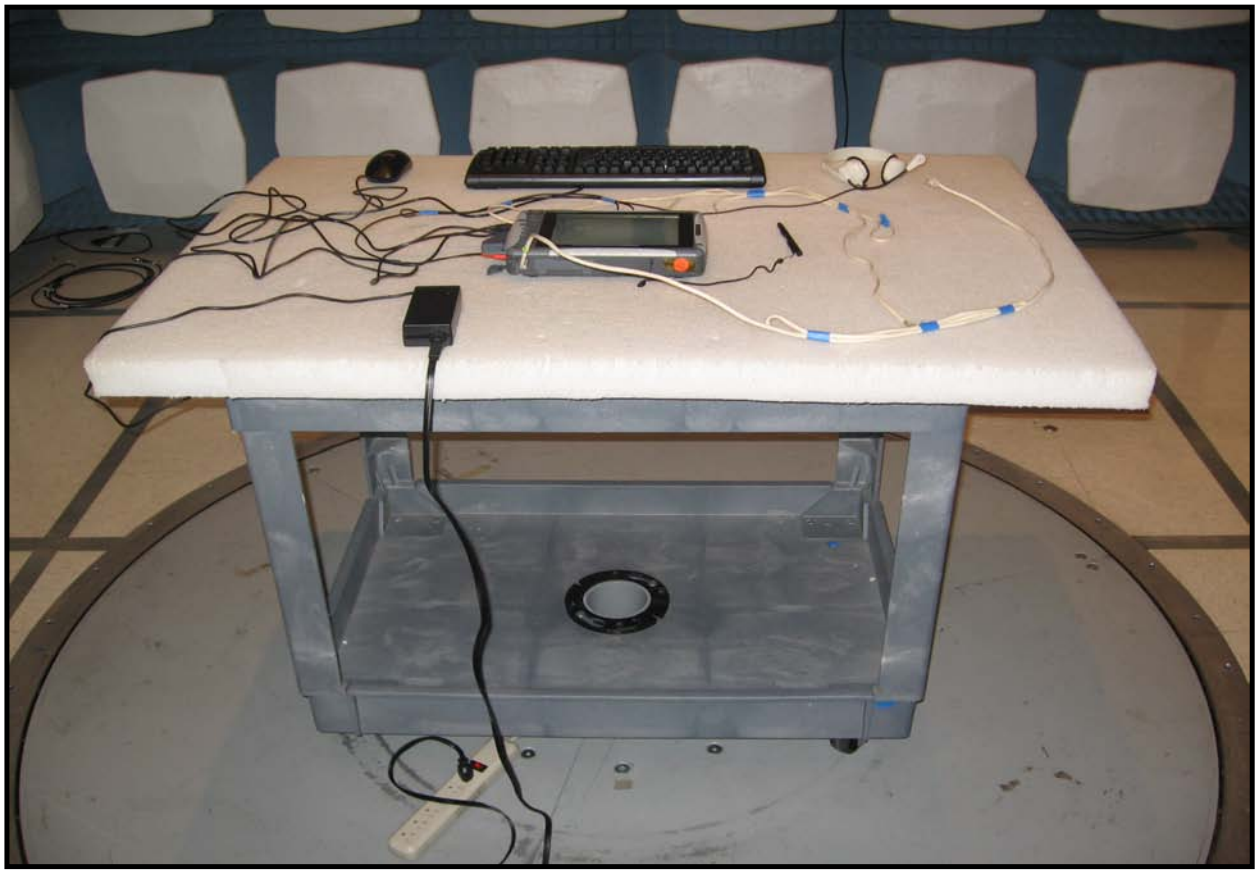
No deviations.

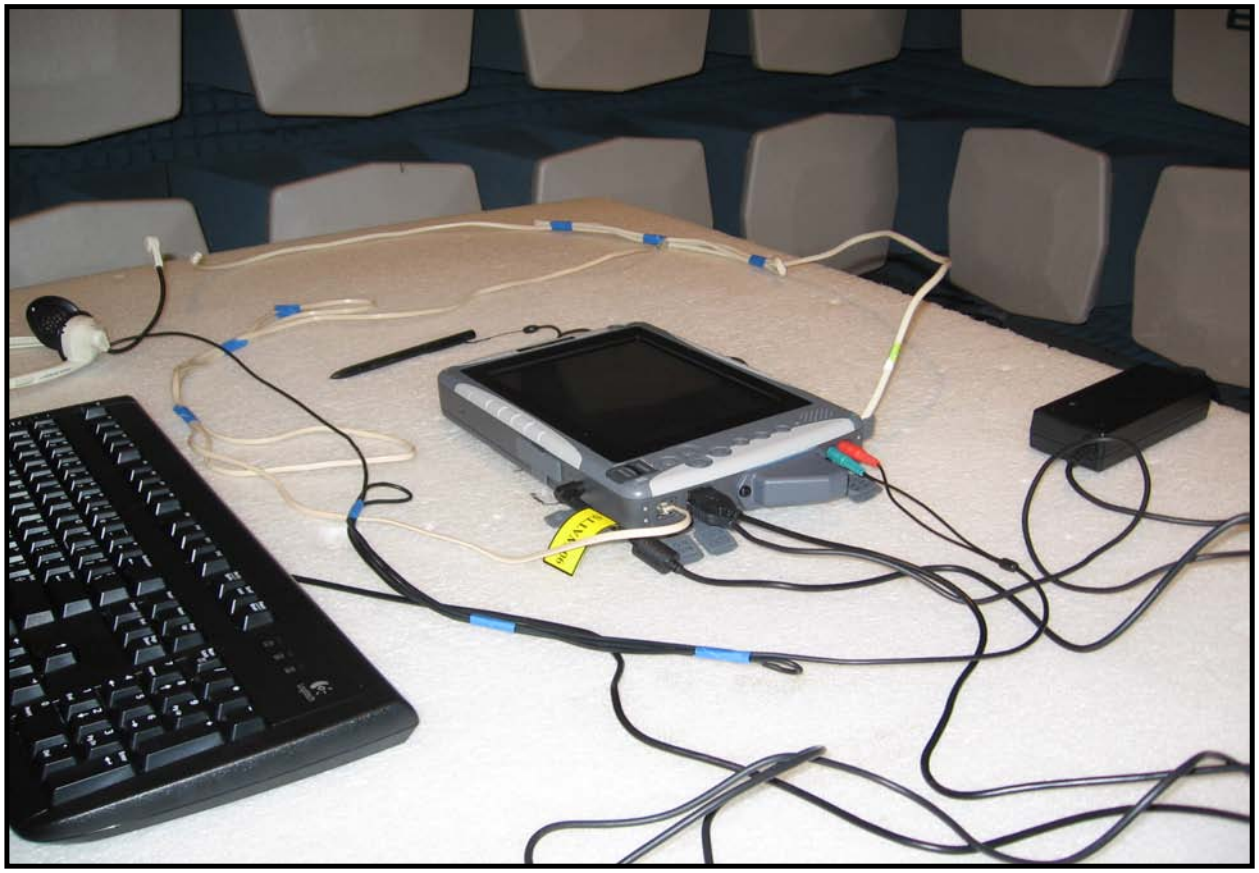
Run #	28
Configuration #	1
Results	Pass

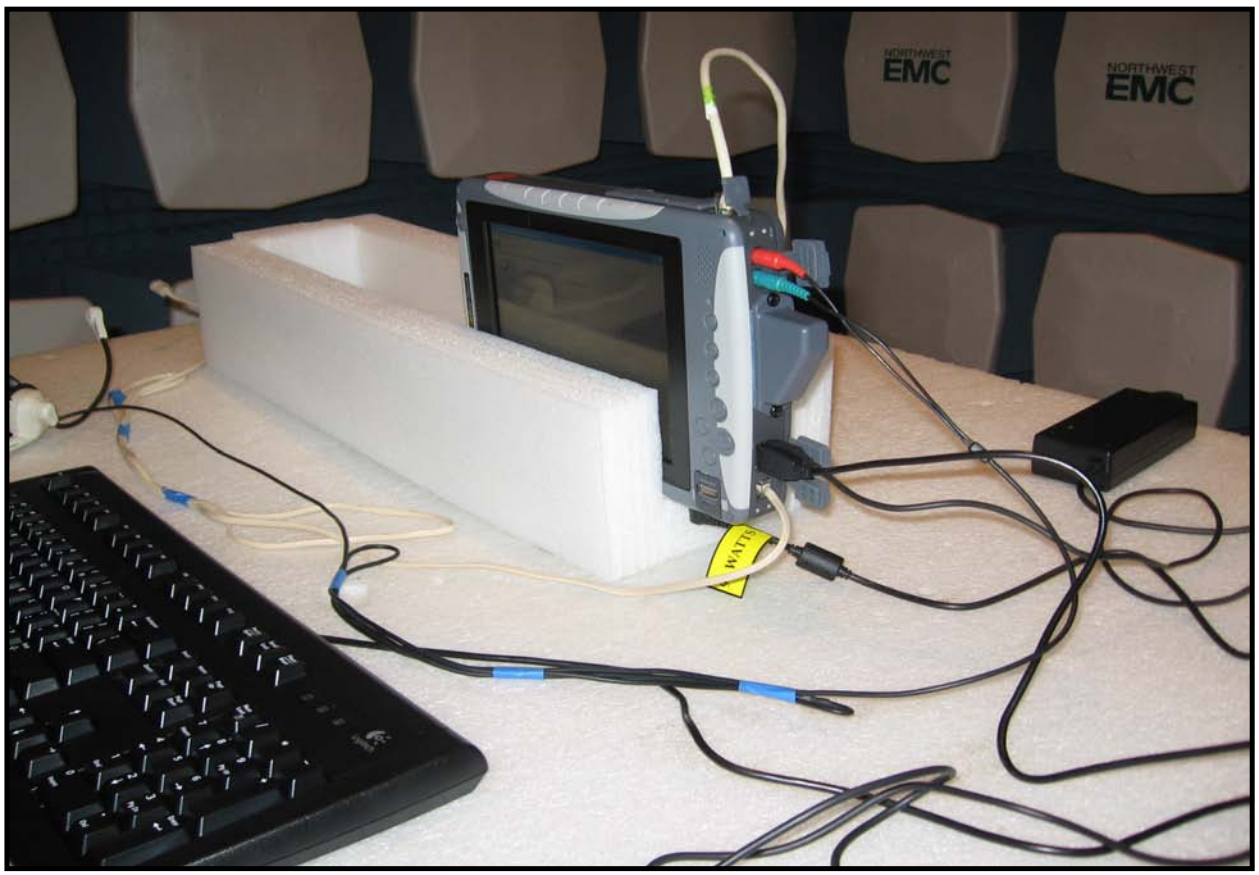
Signature



Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Azimuth (degrees)	Height (meters)	Distance (meters)	External Attenuation (dB)	Polarity	Detector	Distance Adjustment (dB)	Adjusted dBuV/m	Spec. Limit dBuV/m	Compared to Spec. (dB)	Comments
4803.900	61.4	9.5	355.0	1.0	3.0	0.0	H-Horn	PK	0.0	70.9	74.0	-3.1	Low Channel, DH5, Tablet Vertical
2483.500	27.4	2.2	353.0	1.7	3.0	20.0	V-Horn	AV	0.0	49.6	54.0	-4.4	High Channel, 2DH5, Tablet vertical
2483.500	27.2	2.2	360.0	1.7	3.0	20.0	H-Horn	AV	0.0	49.4	54.0	-4.6	High Channel, 2DH5, Tablet vertical
2483.500	27.0	2.2	358.0	1.7	3.0	20.0	V-Horn	AV	0.0	49.2	54.0	-4.8	High Channel, 3DH5, Tablet vertical
2483.500	26.9	2.2	-1.0	1.7	3.0	20.0	V-Horn	AV	0.0	49.1	54.0	-4.9	High Channel, 3DH5, Tablet vertical
4803.573	58.7	9.5	342.0	1.0	3.0	0.0	H-Horn	PK	0.0	68.2	74.0	-5.8	Low Channel, 3DH5, Tablet vertical
4803.980	38.3	9.5	355.0	1.0	3.0	0.0	H-Horn	AV	0.0	47.8	54.0	-6.2	Low Channel, DH5, Tablet Vertical
2483.500	45.6	2.2	358.0	1.7	3.0	20.0	V-Horn	PK	0.0	67.8	74.0	-6.2	High Channel, 3DH5, Tablet vertical
2483.500	45.6	2.2	353.0	1.7	3.0	20.0	V-Horn	PK	0.0	67.8	74.0	-6.2	High Channel, 2DH5, Tablet vertical
7320.005	30.3	17.3	222.0	1.0	3.0	0.0	H-Horn	AV	0.0	47.6	54.0	-6.4	Mid Channel, DH5, Tablet vertical
2483.500	45.3	2.2	360.0	1.7	3.0	20.0	H-Horn	PK	0.0	67.5	74.0	-6.5	High Channel, 2DH5, Tablet vertical
2485.810	25.3	2.2	78.0	1.3	3.0	20.0	H-Horn	AV	0.0	47.5	54.0	-6.5	High Channel, DH5, Tablet Vertical
2483.500	45.2	2.2	-1.0	1.7	3.0	20.0	V-Horn	PK	0.0	67.4	74.0	-6.6	High Channel, 3DH5, Tablet vertical
4803.910	57.9	9.5	329.0	1.0	3.0	0.0	H-Horn	PK	0.0	67.4	74.0	-6.6	Low Channel, 2DH5, Tablet vertical
4878.500	56.6	9.8	9.0	1.0	3.0	0.0	H-Horn	PK	0.0	66.4	74.0	-7.6	Mid Channel, DH5, Tablet Vertical
2483.500	23.7	2.2	332.0	2.1	3.0	20.0	V-Horn	AV	0.0	45.9	54.0	-8.1	High Channel, DH5, Tablet Vertical
4879.974	36.1	9.8	9.0	1.0	3.0	0.0	H-Horn	AV	0.0	45.9	54.0	-8.1	Mid Channel, DH5, Tablet Vertical
4803.987	36.2	9.5	342.0	1.0	3.0	0.0	H-Horn	AV	0.0	45.7	54.0	-8.3	Low Channel, 3DH5, Tablet vertical
2483.500	23.4	2.2	212.0	1.7	3.0	20.0	V-Horn	AV	0.0	45.6	54.0	-8.4	High Channel, DH5, tablet horizontal
4804.033	56.0	9.5	5.0	1.3	3.0	0.0	V-Horn	PK	0.0	65.5	74.0	-8.5	Low Channel, DH5, Tablet Vertical



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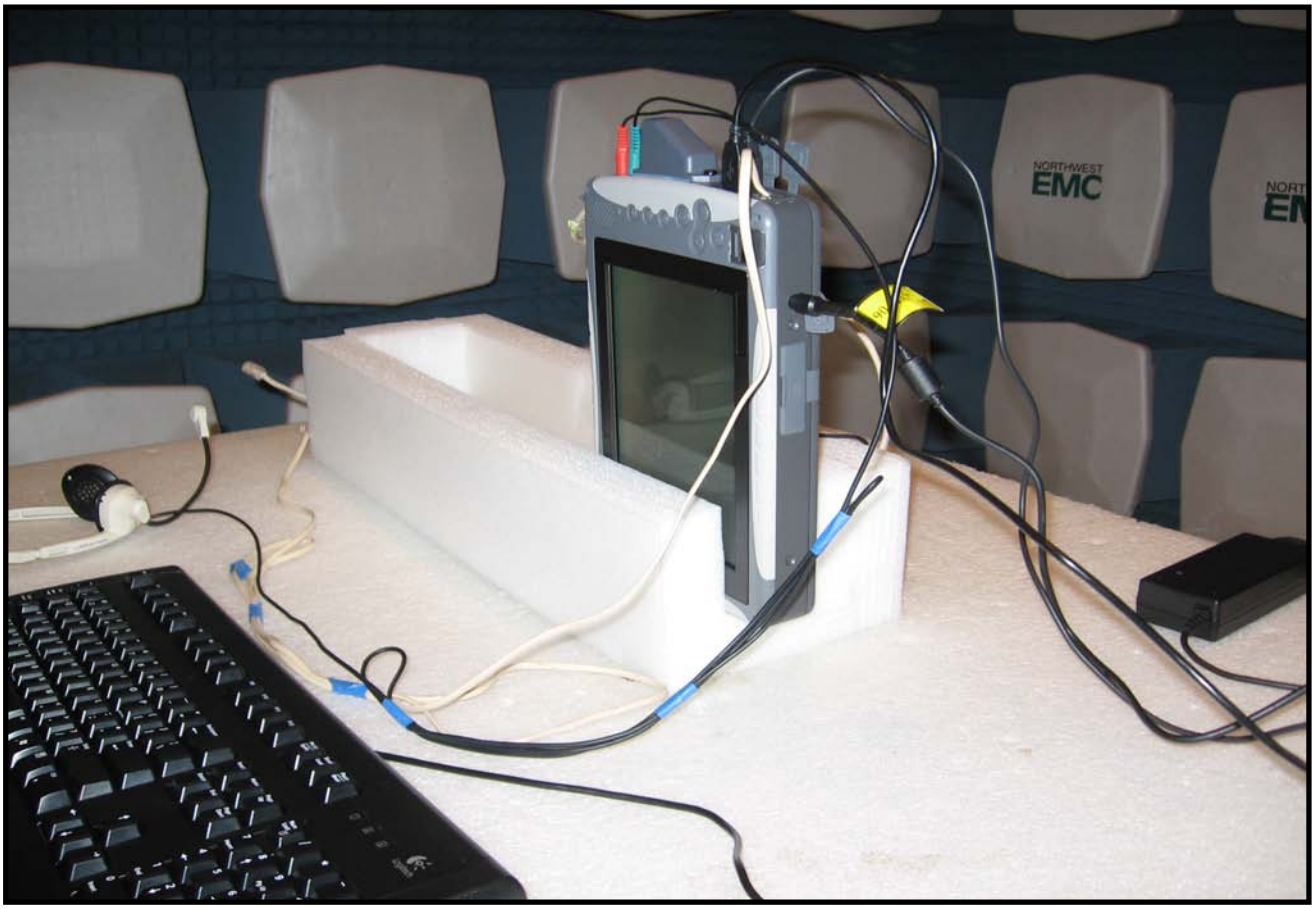
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Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual 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

Continuous Tx, Bluetooth, high channel, GFSK, DH5. 802.11G high @ 54MBit.
Continuous Tx, Bluetooth, mid channel, GFSK, DH5. 802.11G mid @ 54MBit.
Continuous Tx, Bluetooth, low channel, GFSK, DH5. 802.11G low @ 54MBit.
Continuous Tx, Bluetooth, low channel, GFSK, DH5. 802.11a (chain b, wide) low @ 54MBit.

POWER SETTINGS INVESTIGATED

120VAC/60Hz

CONFIGURATIONS INVESTIGATED

SPTE0070 - 2) Conducted Emissions

SAMPLE CALCULATIONS

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
LISN	Solar	9252-50-R-24-BNC	LIP	12/20/2006	13 mo
Attenuator	Tektronix	011-0059-02	ATC	12/27/2006	13 mo
High Pass Filter	TTE	H97-100K-50-720B	HFX	8/22/2006	24 mo
LISN	Solar	9252-50-R-24-BNC	LIR	11/20/2007	13 mo
Receiver	Rohde & Schwartz	ESCI	ARG	12/7/2006	13 mo

MEASUREMENT BANDWIDTHS

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

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

MEASUREMENT UNCERTAINTY

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

TEST DESCRIPTION

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

NORTHWEST

EMC

CONDUCTED EMISSIONS

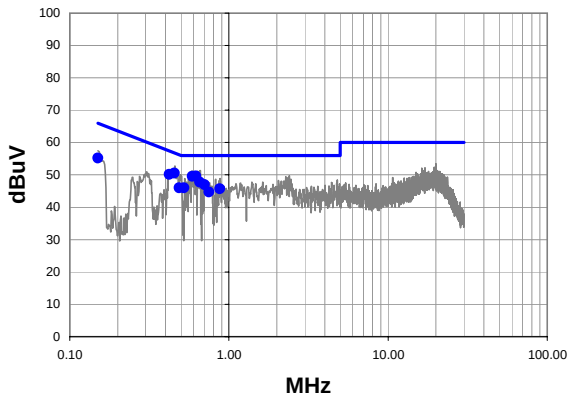
Version 2007.8.27
PSA-ESCI 2007.11.29

Work Order:	SPTE0070	**Date:**	11/30/07		
Project:	None	**Temperature:**	21°		
Job Site:	EV07	**Humidity:**	30		
Serial Number:	SY720000658	**Barometric Pres.:**	30.22	**Tested by:**	Ethan Schoonover
EUT:	IX350 with Bluetooth module GUBTC41M-TH				
Configuration:	2 - Conducted Emissions				
Customer:	Spectrum Technology, Inc.				
Attendees:	Rod Munro				
EUT Power:	120VAC/60Hz				
Operating Mode:	Continuous Tx, Bluetooth, Low channel, GFSK, DH5. 802.11G low @ 54MBit.				
Deviations:	No deviations.				
Comments:	Tablet Horizontal				

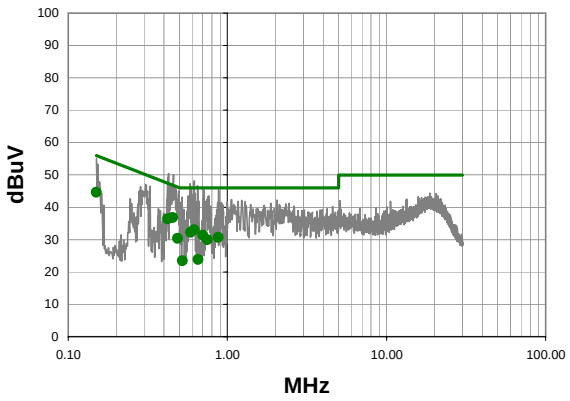
Test Specifications	**Class B**	**Test Method**
FCC 15.207:2006		ANSI C63.4:2003

Run #	1	**Line:**	High Line	**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)
0.454	29.7	0.8	50.5	56.8	-6.3
0.619	28.9	0.7	49.6	56.0	-6.4
0.588	28.8	0.8	49.6	56.0	-6.4
0.423	29.3	0.9	50.2	57.4	-7.2
0.654	27.1	0.7	47.8	56.0	-8.2
0.701	26.3	0.7	47.0	56.0	-9.0
0.521	25.2	0.8	46.0	56.0	-10.0
0.487	25.2	0.8	46.0	56.2	-10.2
0.877	25.1	0.6	45.7	56.0	-10.3
0.150	33.2	2.0	55.2	66.0	-10.8
0.751	24.1	0.7	44.8	56.0	-11.2

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.454	16.0	0.8	36.8	46.8	-10.0
0.423	15.5	0.9	36.4	47.4	-11.0
0.150	22.6	2.0	44.6	56.0	-11.4
0.619	12.3	0.7	33.0	46.0	-13.0
0.588	11.5	0.8	32.3	46.0	-13.7
0.701	10.7	0.7	31.4	46.0	-14.6
0.877	10.1	0.6	30.7	46.0	-15.3
0.487	9.5	0.8	30.3	46.2	-15.9
0.751	9.3	0.7	30.0	46.0	-16.0
0.654	3.1	0.7	23.8	46.0	-22.2
0.521	2.6	0.8	23.4	46.0	-22.6

NORTHWEST

EMC

CONDUCTED EMISSIONS

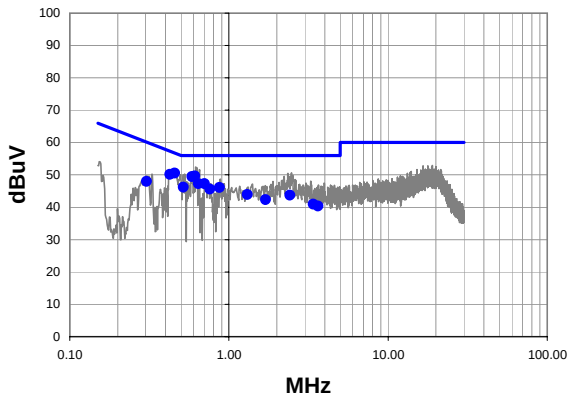
Version 2007.8.27
PSA-ESCI 2007.11.29

Work Order:	SPTE0070	**Date:**	11/30/07		
Project:	None	**Temperature:**	21°		
Job Site:	EV07	**Humidity:**	30		
Serial Number:	SY720000658	**Barometric Pres.:**	30.22	**Tested by:**	Ethan Schoonover
EUT:	IX350 with Bluetooth module GUBTC41M-TH				
Configuration:	2 - Conducted Emissions				
Customer:	Spectrum Technology, Inc.				
Attendees:	Rod Munro				
EUT Power:	120VAC/60Hz				
Operating Mode:	Continuous Tx, Bluetooth, Low channel, GFSK, DH5. 802.11G low @ 54MBit.				
Deviations:	No deviations.				
Comments:	Tablet Horizontal				

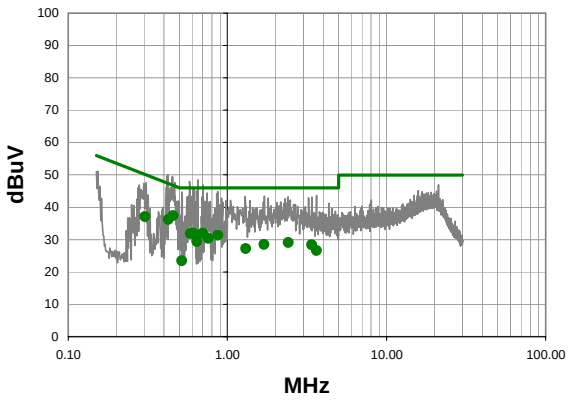
Test Specifications	**Class B**	**Test Method**
FCC 15.207:2006		ANSI C63.4:2003

Run #	2	**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)
0.457	29.7	0.8	50.5	56.7	-6.2
0.611	28.9	0.7	49.6	56.0	-6.4
0.586	28.7	0.8	49.5	56.0	-6.5
0.426	29.3	0.9	50.2	57.3	-7.2
0.644	26.6	0.7	47.3	56.0	-8.7
0.701	26.6	0.7	47.3	56.0	-8.7
0.517	25.4	0.8	46.2	56.0	-9.8
0.875	25.5	0.6	46.1	56.0	-9.9
0.759	24.9	0.7	45.6	56.0	-10.4
1.308	23.4	0.5	43.9	56.0	-12.1
0.304	27.0	0.9	47.9	60.1	-12.2
2.420	23.2	0.5	43.7	56.0	-12.3
1.700	21.8	0.5	42.3	56.0	-13.7
3.388	20.5	0.5	41.0	56.0	-15.0
3.640	19.9	0.5	40.4	56.0	-15.6

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.457	16.5	0.8	37.3	46.7	-9.4
0.426	15.3	0.9	36.2	47.3	-11.2
0.304	16.2	0.9	37.1	50.1	-13.0
0.701	11.3	0.7	32.0	46.0	-14.0
0.611	11.2	0.7	31.9	46.0	-14.1
0.586	11.1	0.8	31.9	46.0	-14.1
0.875	10.8	0.6	31.4	46.0	-14.6
0.759	9.7	0.7	30.4	46.0	-15.6
0.644	8.7	0.7	29.4	46.0	-16.6
2.420	8.6	0.5	29.1	46.0	-16.9
1.700	8.0	0.5	28.5	46.0	-17.5
3.388	7.9	0.5	28.4	46.0	-17.6
1.308	6.7	0.5	27.2	46.0	-18.8
3.640	6.1	0.5	26.6	46.0	-19.4
0.517	2.6	0.8	23.4	46.0	-22.6

NORTHWEST

EMC

CONDUCTED EMISSIONS

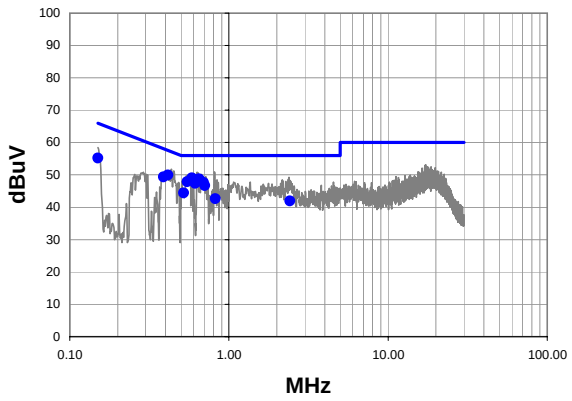
Version 2007.8.27
PSA-ESCI 2007.11.29

Work Order:	SPTE0070	**Date:**	11/30/07		
Project:	None	**Temperature:**	21°		
Job Site:	EV07	**Humidity:**	30		
Serial Number:	SY720000658	**Barometric Pres.:**	30.22	**Tested by:**	Ethan Schoonover
EUT:	IX350 with Bluetooth module GUBTC41M-TH				
Configuration:	2 - Conducted Emissions				
Customer:	Spectrum Technology, Inc.				
Attendees:	Rod Munro				
EUT Power:	120VAC/60Hz				
Operating Mode:	Continuous Tx, Bluetooth, mid channel, GFSK, DH5. 802.11G mid @ 54MBit.				
Deviations:	No deviations.				
Comments:	Tablet Horizontal				

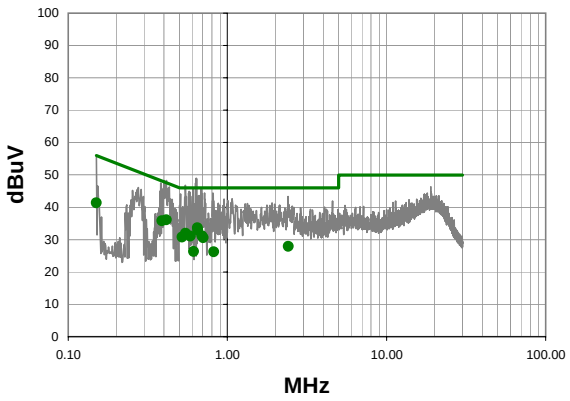
Test Specifications	**Class B**	**Test Method**
FCC 15.207:2006		ANSI C63.4:2003

Run #	5	**Line:**	High Line	**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)
0.587	28.3	0.8	49.1	56.0	-6.9
0.648	28.0	0.7	48.7	56.0	-7.3
0.651	27.8	0.7	48.5	56.0	-7.5
0.414	29.1	0.9	50.0	57.6	-7.6
0.548	27.1	0.8	47.9	56.0	-8.1
0.692	27.0	0.7	47.7	56.0	-8.3
0.615	26.6	0.7	47.3	56.0	-8.7
0.389	28.5	0.9	49.4	58.1	-8.7
0.706	26.0	0.7	46.7	56.0	-9.3
0.150	33.2	2.0	55.2	66.0	-10.8
0.519	23.6	0.8	44.4	56.0	-11.6
0.822	22.0	0.6	42.6	56.0	-13.4
2.416	21.4	0.5	41.9	56.0	-14.1

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.414	15.2	0.9	36.1	47.6	-11.5
0.389	14.9	0.9	35.8	48.1	-12.3
0.648	12.9	0.7	33.6	46.0	-12.4
0.651	12.2	0.7	32.9	46.0	-13.1
0.548	11.2	0.8	32.0	46.0	-14.0
0.150	19.3	2.0	41.3	56.0	-14.7
0.692	10.5	0.7	31.2	46.0	-14.8
0.587	10.3	0.8	31.1	46.0	-14.9
0.519	10.0	0.8	30.8	46.0	-15.2
0.706	9.9	0.7	30.6	46.0	-15.4
2.416	7.4	0.5	27.9	46.0	-18.1
0.615	5.6	0.7	26.3	46.0	-19.7
0.822	5.6	0.6	26.2	46.0	-19.8

NORTHWEST

EMC

CONDUCTED EMISSIONS

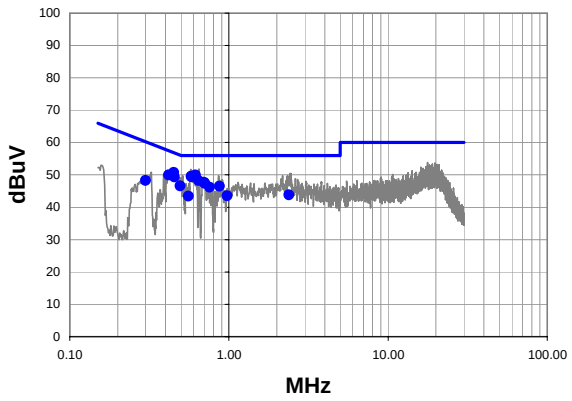
Version 2007.8.27
PSA-ESCI 2007.11.29

Work Order:	SPTE0070	**Date:**	11/30/07		
Project:	None	**Temperature:**	21°		
Job Site:	EV07	**Humidity:**	30		
Serial Number:	SY720000658	**Barometric Pres.:**	30.22	**Tested by:**	Ethan Schoonover
EUT:	IX350 with Bluetooth module GUBTC41M-TH				
Configuration:	2 - Conducted Emissions				
Customer:	Spectrum Technology, Inc.				
Attendees:	Rod Munro				
EUT Power:	120VAC/60Hz				
Operating Mode:	Continuous Tx, Bluetooth, mid channel, GFSK, DH5. 802.11G mid @ 54MBit.				
Deviations:	No deviations.				
Comments:	Tablet Horizontal				

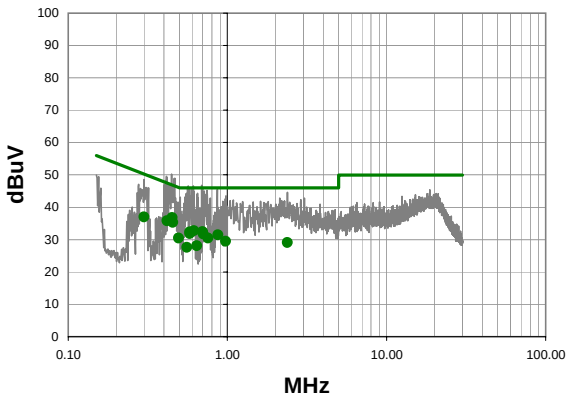
Test Specifications	**Class B**	**Test Method**
FCC 15.207:2006		ANSI C63.4:2003

Run #	6	**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)
0.616	29.2	0.7	49.9	56.0	-6.1
0.450	29.9	0.8	50.7	56.9	-6.1
0.580	28.8	0.8	49.6	56.0	-6.4
0.581	28.7	0.8	49.5	56.0	-6.5
0.454	28.5	0.8	49.3	56.8	-7.5
0.419	29.1	0.9	50.0	57.5	-7.5
0.644	27.5	0.7	48.2	56.0	-7.8
0.699	27.0	0.7	47.7	56.0	-8.3
0.704	26.7	0.7	47.4	56.0	-8.6
0.493	25.8	0.8	46.6	56.1	-9.5
0.872	25.9	0.6	46.5	56.0	-9.5
0.755	25.5	0.7	46.2	56.0	-9.8
0.300	27.3	0.9	48.2	60.2	-12.0
2.384	23.3	0.5	43.8	56.0	-12.2
0.974	23.0	0.5	43.5	56.0	-12.5
0.556	22.6	0.8	43.4	56.0	-12.6

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.450	16.0	0.8	36.8	46.9	-10.0
0.454	14.5	0.8	35.3	46.8	-11.5
0.419	14.9	0.9	35.8	47.5	-11.7
0.300	16.1	0.9	37.0	50.2	-13.2
0.616	12.0	0.7	32.7	46.0	-13.3
0.699	11.8	0.7	32.5	46.0	-13.5
0.581	11.6	0.8	32.4	46.0	-13.6
0.580	11.1	0.8	31.9	46.0	-14.1
0.704	11.1	0.7	31.8	46.0	-14.2
0.872	10.9	0.6	31.5	46.0	-14.5
0.755	9.8	0.7	30.5	46.0	-15.5
0.493	9.6	0.8	30.4	46.1	-15.7
0.974	9.0	0.5	29.5	46.0	-16.5
2.384	8.6	0.5	29.1	46.0	-16.9
0.644	7.4	0.7	28.1	46.0	-17.9
0.556	6.8	0.8	27.6	46.0	-18.4

NORTHWEST

EMC

CONDUCTED EMISSIONS

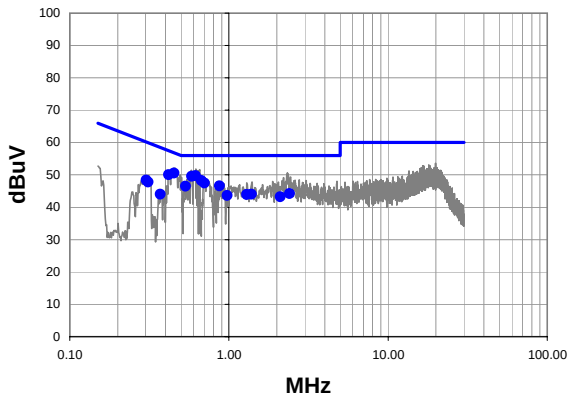
Version 2007.8.27
PSA-ESCI 2007.11.29

Work Order:	SPTE0070	**Date:**	11/30/07		
Project:	None	**Temperature:**	21°		
Job Site:	EV07	**Humidity:**	30		
Serial Number:	SY720000658	**Barometric Pres.:**	30.22	**Tested by:**	Ethan Schoonover
EUT:	IX350 with Bluetooth module GUBTC41M-TH				
Configuration:	2 - Conducted Emissions				
Customer:	Spectrum Technology, Inc.				
Attendees:	Rod Munro				
EUT Power:	120VAC/60Hz				
Operating Mode:	Continuous Tx, Bluetooth, high channel, GFSK, DH5. 802.11G high @ 54MBit.				
Deviations:	No deviations.				
Comments:	Tablet Horizontal				

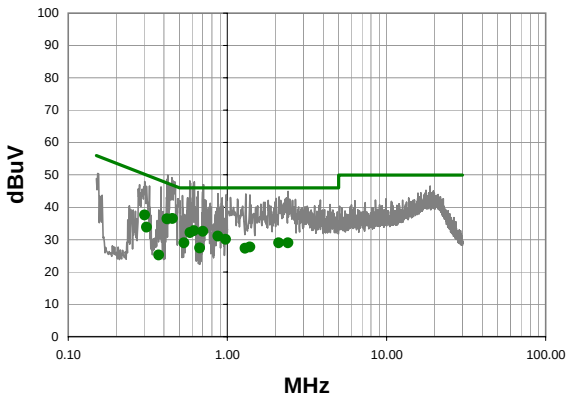
Test Specifications	**Class B**	**Test Method**
FCC 15.207:2006		ANSI C63.4:2003

Run #	7	**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)
0.617	29.0	0.7	49.7	56.0	-6.3
0.453	29.7	0.8	50.5	56.8	-6.3
0.584	28.8	0.8	49.6	56.0	-6.4
0.418	29.2	0.9	50.1	57.5	-7.4
0.669	27.6	0.7	48.3	56.0	-7.7
0.703	26.8	0.7	47.5	56.0	-8.5
0.872	26.0	0.6	46.6	56.0	-9.4
0.534	25.7	0.8	46.5	56.0	-9.5
2.404	23.7	0.5	44.2	56.0	-11.8
0.303	27.4	0.9	48.3	60.2	-11.8
1.384	23.5	0.5	44.0	56.0	-12.0
1.296	23.4	0.5	43.9	56.0	-12.1
0.311	26.8	0.9	47.7	59.9	-12.2
0.974	23.1	0.5	43.6	56.0	-12.4
2.100	22.7	0.5	43.2	56.0	-12.8
0.371	23.1	0.9	44.0	58.5	-14.5

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.453	15.7	0.8	36.5	46.8	-10.3
0.418	15.5	0.9	36.4	47.5	-11.1
0.303	16.7	0.9	37.6	50.2	-12.5
0.617	12.0	0.7	32.7	46.0	-13.3
0.703	11.9	0.7	32.6	46.0	-13.4
0.584	11.4	0.8	32.2	46.0	-13.8
0.872	10.5	0.6	31.1	46.0	-14.9
0.974	9.6	0.5	30.1	46.0	-15.9
0.311	12.9	0.9	33.8	49.9	-16.1
2.100	8.5	0.5	29.0	46.0	-17.0
2.404	8.5	0.5	29.0	46.0	-17.0
0.534	8.2	0.8	29.0	46.0	-17.0
1.384	7.2	0.5	27.7	46.0	-18.3
0.669	6.7	0.7	27.4	46.0	-18.6
1.296	6.8	0.5	27.3	46.0	-18.7
0.371	4.3	0.9	25.2	48.5	-23.3

NORTHWEST

EMC

CONDUCTED EMISSIONS

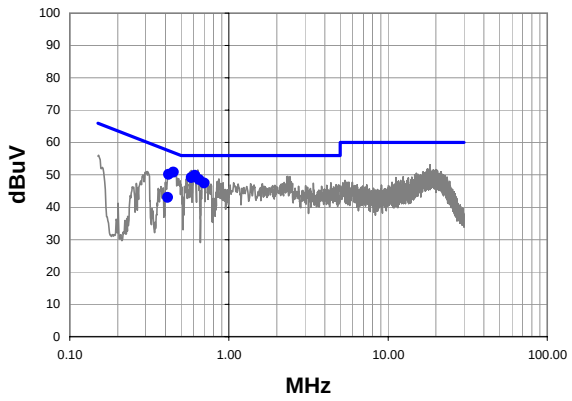
Version 2007.8.27
PSA-ESCI 2007.11.29

Work Order:	SPTE0070	**Date:**	11/30/07		
Project:	None	**Temperature:**	21°		
Job Site:	EV07	**Humidity:**	30		
Serial Number:	SY720000658	**Barometric Pres.:**	30.22	**Tested by:**	Ethan Schoonover
EUT:	IX350 with Bluetooth module GUBTC41M-TH				
Configuration:	2 - Conducted Emissions				
Customer:	Spectrum Technology, Inc.				
Attendees:	Rod Munro				
EUT Power:	120VAC/60Hz				
Operating Mode:	Continuous Tx, Bluetooth, high channel, GFSK, DH5. 802.11G high @ 54MBit.				
Deviations:	No deviations.				
Comments:	Tablet Horizontal				

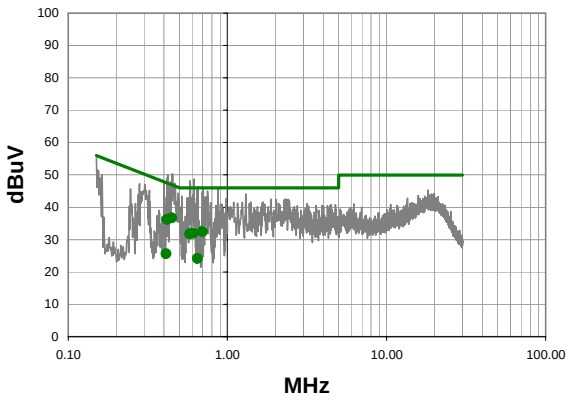
Test Specifications	**Class B**	**Test Method**
FCC 15.207:2006		ANSI C63.4:2003

Run #	8	**Line:**	High Line	**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)
0.449	30.0	0.8	50.8	56.9	-6.0
0.612	29.1	0.7	49.8	56.0	-6.2
0.580	28.4	0.8	49.2	56.0	-6.8
0.418	29.3	0.9	50.2	57.5	-7.3
0.648	27.8	0.7	48.5	56.0	-7.5
0.699	26.8	0.7	47.5	56.0	-8.5
0.412	22.2	0.9	43.1	57.6	-14.5

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.449	15.9	0.8	36.7	46.9	-10.1
0.418	15.3	0.9	36.2	47.5	-11.3
0.699	11.8	0.7	32.5	46.0	-13.5
0.612	11.2	0.7	31.9	46.0	-14.1
0.580	11.0	0.8	31.8	46.0	-14.2
0.648	3.4	0.7	24.1	46.0	-21.9
0.412	4.8	0.9	25.7	47.6	-21.9

NORTHWEST

EMC

CONDUCTED EMISSIONS

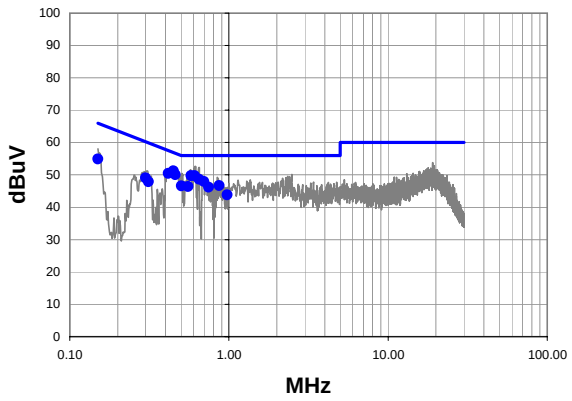
Version 2007.8.27
PSA-ESCI 2007.11.29

Work Order:	SPTE0070	**Date:**	11/30/07		
Project:	None	**Temperature:**	21°		
Job Site:	EV07	**Humidity:**	30		
Serial Number:	SY720000658	**Barometric Pres.:**	30.22	**Tested by:**	Ethan Schoonover
EUT:	IX350 with Bluetooth module GUBTC41M-TH				
Configuration:	2 - Conducted Emissions				
Customer:	Spectrum Technology, Inc.				
Attendees:	Rod Munro				
EUT Power:	120VAC/60Hz				
Operating Mode:	Continuous Tx, Bluetooth, low channel, GFSK, DH5. 802.11a (chain b, wide) low @ 54MBit.				
Deviations:	No deviations.				
Comments:	Tablet Horizontal				

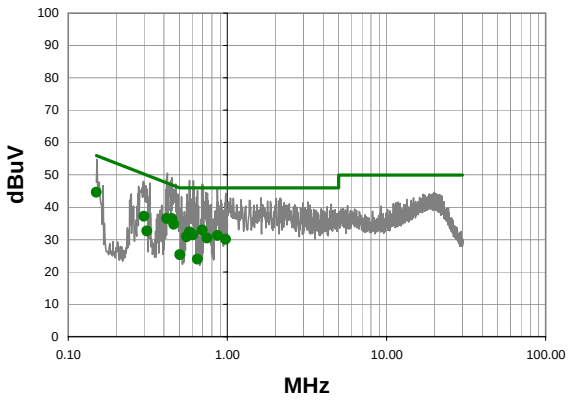
Test Specifications	**Class B**	**Test Method**
FCC 15.207:2006		ANSI C63.4:2003

Run #	17	**Line:**	High Line	**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)
0.448	30.4	0.8	51.2	56.9	-5.7
0.578	29.0	0.8	49.8	56.0	-6.2
0.608	29.0	0.7	49.7	56.0	-6.3
0.461	29.2	0.8	50.0	56.7	-6.6
0.416	29.6	0.9	50.5	57.5	-7.1
0.648	27.9	0.7	48.6	56.0	-7.4
0.696	27.3	0.7	48.0	56.0	-8.0
0.870	26.1	0.6	46.7	56.0	-9.3
0.504	25.8	0.8	46.6	56.0	-9.4
0.554	25.6	0.8	46.4	56.0	-9.6
0.745	25.5	0.7	46.2	56.0	-9.8
0.150	32.9	2.0	54.9	66.0	-11.1
0.300	28.1	0.9	49.0	60.2	-11.2
0.313	26.9	0.9	47.8	59.9	-12.1
0.974	23.3	0.5	43.8	56.0	-12.2

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.448	15.7	0.8	36.5	46.9	-10.4
0.416	15.6	0.9	36.5	47.5	-11.1
0.150	22.6	2.0	44.6	56.0	-11.4
0.461	13.9	0.8	34.7	46.7	-11.9
0.300	16.3	0.9	37.2	50.2	-13.0
0.696	12.2	0.7	32.9	46.0	-13.1
0.578	11.6	0.8	32.4	46.0	-13.6
0.608	10.7	0.7	31.4	46.0	-14.6
0.870	10.7	0.6	31.3	46.0	-14.7
0.554	10.1	0.8	30.9	46.0	-15.1
0.745	9.8	0.7	30.5	46.0	-15.5
0.974	9.6	0.5	30.1	46.0	-15.9
0.313	11.7	0.9	32.6	49.9	-17.3
0.504	4.5	0.8	25.3	46.0	-20.7
0.648	3.2	0.7	23.9	46.0	-22.1

NORTHWEST

EMC

CONDUCTED EMISSIONS

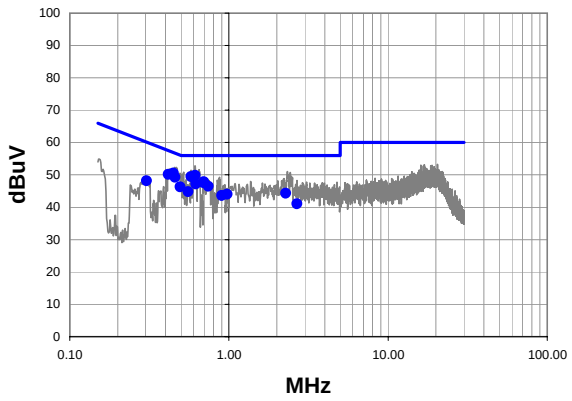
Version 2007.8.27
PSA-ESCI 2007.11.29

Work Order:	SPTE0070	**Date:**	11/30/07		
Project:	None	**Temperature:**	21°		
Job Site:	EV07	**Humidity:**	30		
Serial Number:	SY720000658	**Barometric Pres.:**	30.22	**Tested by:**	Ethan Schoonover
EUT:	IX350 with Bluetooth module GUBTC41M-TH				
Configuration:	2 - Conducted Emissions				
Customer:	Spectrum Technology, Inc.				
Attendees:	Rod Munro				
EUT Power:	120AC/60Hz				
Operating Mode:	Continuous Tx, Bluetooth, low channel, GFSK, DH5. 802.11a (chain b, wide) low @ 54MBit.				
Deviations:	No deviations.				
Comments:	Tablet Horizontal				

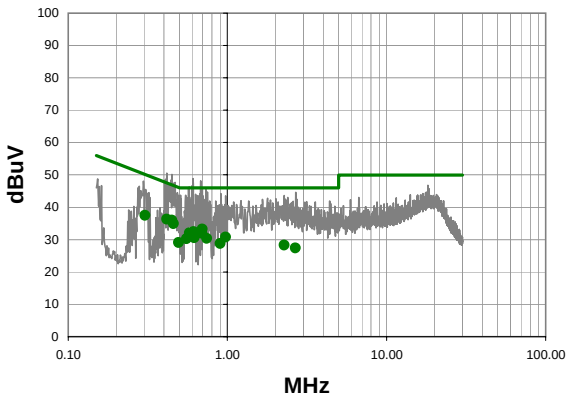
Test Specifications	**Class B**	**Test Method**
FCC 15.207:2006		ANSI C63.4:2003

Run #	21	**Line:**	High Line	**Ext. Attenuation:**	20	**Results**	Pass

Quasi Peak Data - vs - Quasi Peak Limit



Average Data - vs - Average Limit

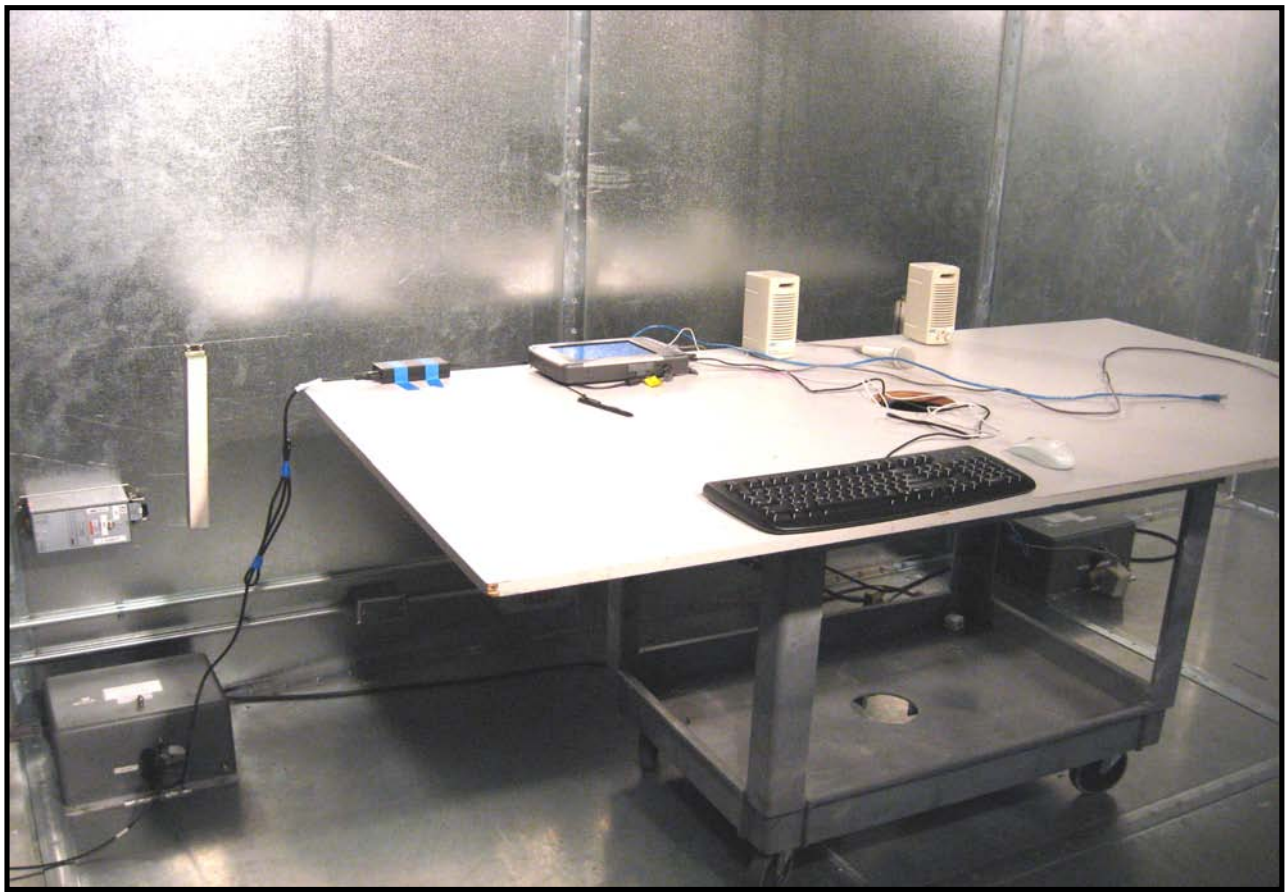


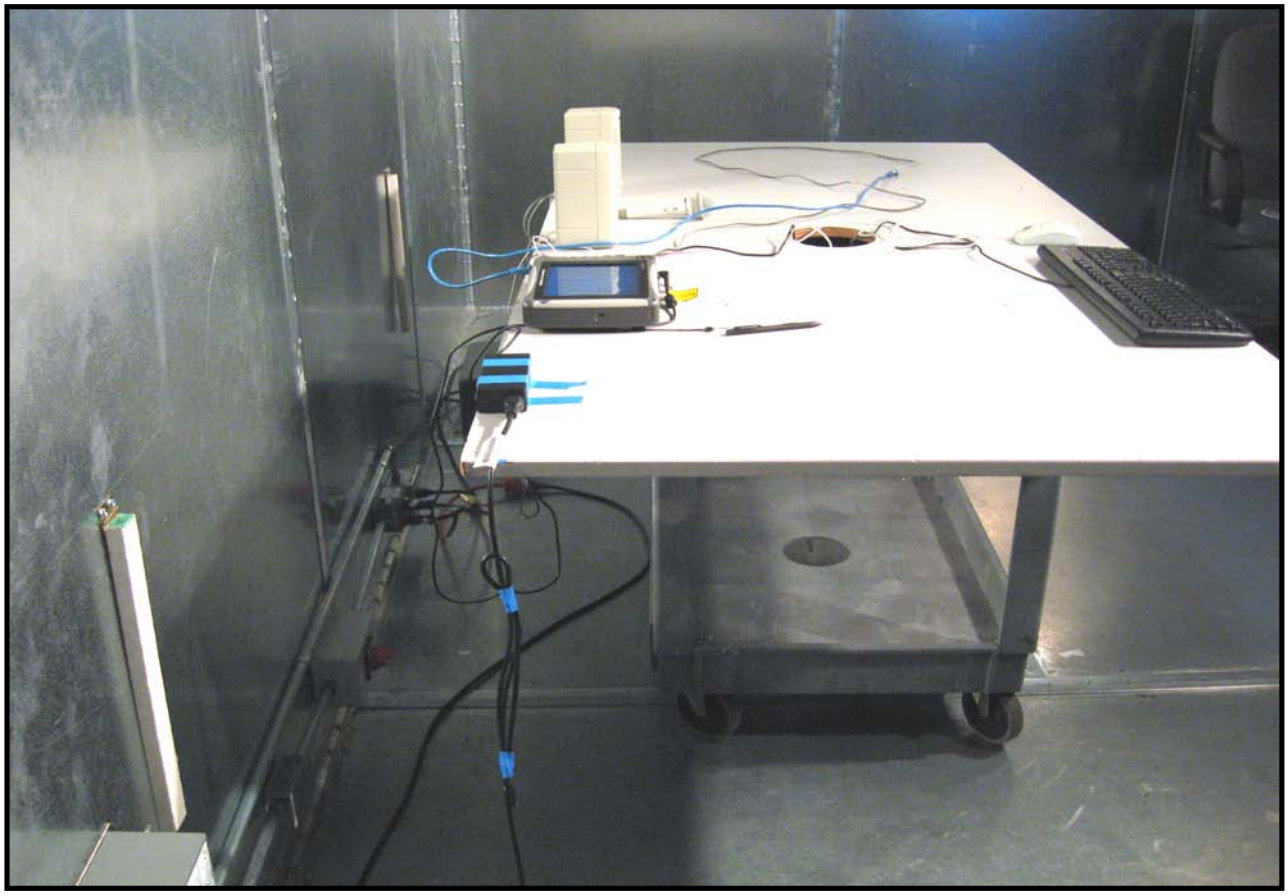
Quasi Peak Data - vs - Quasi Peak Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.613	29.1	0.7	49.8	56.0	-6.2
0.448	29.7	0.8	50.5	56.9	-6.4
0.579	28.7	0.8	49.5	56.0	-6.5
0.417	29.3	0.9	50.2	57.5	-7.3
0.458	28.4	0.8	49.2	56.7	-7.5
0.697	27.2	0.7	47.9	56.0	-8.1
0.691	26.9	0.7	47.6	56.0	-8.4
0.621	26.4	0.7	47.1	56.0	-8.9
0.743	25.8	0.7	46.5	56.0	-9.5
0.495	25.5	0.8	46.3	56.1	-9.8
0.554	24.0	0.8	44.8	56.0	-11.2
2.280	23.8	0.5	44.3	56.0	-11.7
0.976	23.5	0.5	44.0	56.0	-12.0
0.304	27.2	0.9	48.1	60.1	-12.0
0.900	23.1	0.6	43.7	56.0	-12.3
2.680	20.6	0.5	41.1	56.0	-14.9

Average Data - vs - Average Limit

Freq (MHz)	Amplitude (dBuV)	Factor (dB)	Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.448	15.2	0.8	36.0	46.9	-10.9
0.417	15.4	0.9	36.3	47.5	-11.2
0.458	14.1	0.8	34.9	46.7	-11.8
0.304	16.6	0.9	37.5	50.1	-12.6
0.697	12.5	0.7	33.2	46.0	-12.8
0.613	11.7	0.7	32.4	46.0	-13.6
0.579	11.3	0.8	32.1	46.0	-13.9
0.691	11.3	0.7	32.0	46.0	-14.0
0.976	10.2	0.5	30.7	46.0	-15.3
0.621	9.8	0.7	30.5	46.0	-15.5
0.743	9.7	0.7	30.4	46.0	-15.6
0.554	9.5	0.8	30.3	46.0	-15.7
0.495	8.3	0.8	29.1	46.1	-17.0
0.900	8.2	0.6	28.8	46.0	-17.2
2.280	7.8	0.5	28.3	46.0	-17.7
2.680	6.9	0.5	27.4	46.0	-18.6





Conducted Emissions