Spectrum Technology

IX270-MC8765

June 25, 2006

Report No. SPTE0021.2

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: June 25, 2006
Spectrum Technology
Model: IX270-MC8765

Emissions				
Test Description	**Specification**	**Test Method**	**Pass**	**Fail**
ERP of the Fundamental	FCC 22.913:2005	TIA/EIA-603-B:2002	☒	☐
EIRP of the Fundamental	FCC 24.232:2005	TIA/EIA-603-B:2002	☒	☐
Spurious Radiated Emissions	FCC 22.917:2005	TIA/EIA-603-B:2002	☒	☐
Spurious Radiated Emissions	FCC 24.238:2005	TIA/EIA-603-B:2002	☒	☐
Receiver Spurious Emissions	FCC 15.109(a) Class B:2005	ANSI C63.4:2003	☒	☐
AC Powerline Conducted Emissions	FCC 15.107Class B:2005	ANSI C63.4:2003	☒	☐

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

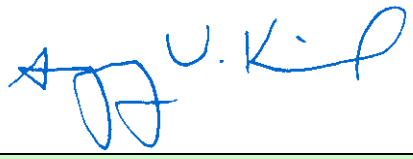
Test Facility

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

Northwest EMC, Inc.
22975 NW Evergreen Parkway, Suite 400; Hillsboro, OR 97124
Phone: (503) 844-4066
Fax: 844-3826

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

Approved By:



Greg Kiemel, Director of Engineering

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

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

Revision Number	Description	Date	Page Number
00	None		

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

NVLAP: Northwest EMC, Inc. is accredited under the United States Department of Commerce, National Institute of Standards and Technology, and National Voluntary Laboratory Accreditation Program for satisfactory compliance with the requirements of ISO/IEC 17025 for Testing Laboratories. The NVLAP accreditation encompasses Electromagnetic Compatibility Testing in accordance with the European Union EMC Directive 89/336/EEC, ANSI C63.4, MIL-STD 461E, DO-160D and SAE J1113. Additionally, Northwest EMC is accredited by NVLAP to perform radio testing in accordance with the European Union R&TTE Directive 1999/5/EEC, the requirements of FCC, and the RSS radio standards for Industry Canada.

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

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. USA0401C.

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

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

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

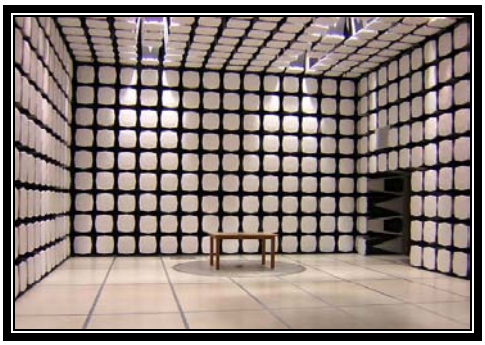
VCCI: Accepted as an Associate Member to the VCCI, Acceptance No. 564. Conducted and radiated measurement facilities have been registered in accordance with Regulations for Voluntary Control Measures, Article 8. *(Registration Numbers. - Hillsboro: C-1071, R-1025, and R-2318, Irvine: C-2094 and R-1943, Sultan: R-871, C-1784 and R-1761).*

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

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

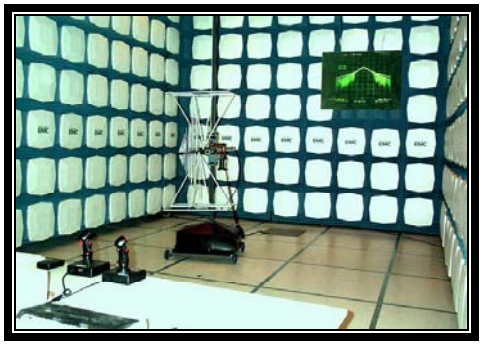
SCOPE

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



California – Orange County Facility
Labs OC01 – OC13

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



Oregon – Evergreen Facility
Labs EV01 – 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:	IX270-MC8765
First Date of Test:	05-30-2006
Last Date of Test:	06-13-2006
Receipt Date of Samples:	05-30-2006
Equipment Design Stage:	Production
Equipment Condition:	No visual damage.

Information Provided by the Party Requesting the Test

Clocks/Oscillators:	Not provided.
I/O Ports:	Mouse, Keyboard, Microphone input, Serial, USB, VGA, Audio Out, Ethernet, Telecom Port, Video

Functional Description of the EUT (Equipment Under Test):
GSM/GPRS radio installed in an Itronix notebook computer.

Client Justification for EUT Selection:
The product is an engineering sample, representative of the final product.

Client Justification for Test Selection:
These radiated and AC powerline conducted emissions tests are required to demonstrate compliance of the GSM/GPRS radio to FCC Parts 22 and 24, as well as the receiver requirement of FCC 15B. The GSM/GPRS radio was previously certified. The antenna port conducted emissions are still representative of those contained in the original filing.

EUT Photo

CONFIGURATION 1 SPTE0021

Software/Firmware Running during test	
Description	**Version**
Procomm Plus Terminal	**4.8 Build 71**

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
EUT	Itronix, Corp.	IX270-MC8765	Unknown

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Host IX270 Notebook PC	Itronix, Corp.	IX-270	None
Vehicle Mount	Itronix, Corp.	IX270 Vehicle Mount	None
CF Card Reader	Itronix, Corp.	SDDR-91	None
Mouse	Logitech	M-BE58	LZE02357693
Keyboard	Microsoft	E06401COMB	51061
Headphones	Unknown	None	None
Antenna Terminator	Unknown	None	None
USB Gamepad	Microsoft	X04-63237	00623744

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
13.8 Vdc Power Supply	Radio Shack	Unknown	Unknown

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
USB	Yes	1.0m	No	Vehicle Mount	Unterminated
USB	Yes	1.0m	No	Vehicle Mount	CF Card Reader
USB	Yes	1.0m	No	Vehicle Mount	Unterminated
USB	Yes	1.6m	No	Vehicle Mount	USB Gamepad
Keyboard	PA	1.8m	PA	Vehicle Mount	Keyboard
Mouse	PA	1.8m	PA	Vehicle Mount	Mouse
External antenna	Yes	1.0m	No	Vehicle Mount	Antenna Terminator
Audio	Yes	1.0m	No	Vehicle Mount	Unterminated
Serial	Yes	1.0m	No	Vehicle Mount	Unterminated
Serial	Yes	1.0m	No	Vehicle Mount	Unterminated
VGA	Yes	1.0m	No	Vehicle Mount	Unterminated
Microphone	Yes	1.0m	No	Vehicle Mount	Unterminated
Speaker	Yes	1.0m	No	Vehicle Mount	Headphones
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 2 SPTE0021

Software/Firmware Running during test	
Description	**Version**
Procomm Plus Terminal	**4.8 Build 71**

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
EUT	Itronix, Corp.	IX270-MC8765	Unknown

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Host IX270 Notebook PC	Itronix, Corp.	IX-270	None
AC Adapter	Delta Electronics	ADP-90SB BB	VCW0552024972
Vehicle Mount	Itronix, Corp.	IX270 Vehicle Mount	None
Vehicle Mount Antenna	MaxRad	BMLPVDB800/1900	Unknown
CF Card Reader	Itronix, Corp.	SDDR-91	None
Mouse	Logitech	M-BE58	LZE02357693
Keyboard	Microsoft	E06401COMB	51061
Headphones	Unknown	None	None
Antenna Terminator	Unknown	None	None
USB Gamepad	Microsoft	X04-63237	00623744

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
13.8 Vdc Power Supply	Radio Shack	Unknown	Unknown

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
USB	Yes	1.0m	No	Vehicle Mount	Unterminated
USB	Yes	1.0m	No	Vehicle Mount	CF Card Reader
USB	Yes	1.0m	No	Vehicle Mount	Unterminated
USB	Yes	1.6m	No	Vehicle Mount	USB Gamepad
Keyboard	PA	1.8m	PA	Vehicle Mount	Keyboard
Mouse	PA	1.8m	PA	Vehicle Mount	Mouse
External antenna	Yes	1.0m	No	Vehicle Mount	Vehicle Mount Antenna
Audio	Yes	1.0m	No	Vehicle Mount	Unterminated
Serial	Yes	1.0m	No	Vehicle Mount	Unterminated
Serial	Yes	1.0m	No	Vehicle Mount	Unterminated
VGA	Yes	1.0m	No	Vehicle Mount	Unterminated
Microphone	Yes	1.0m	No	Vehicle Mount	Unterminated
Speaker	Yes	1.0m	No	Vehicle Mount	Headphones
DC power leads	No	1.3m	No	Vehicle Mount	13.8 Vdc Power Supply
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATION 3 SPTE0021

Software/Firmware Running during test	
Description	**Version**
Procomm Plus Terminal	**4.8 Build 71**

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
EUT	Itronix, Corp.	IX270-MC8765	Unknown

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Internal Antenna	Well Green	22+600213+00R	Unknown
Host IX270 Notebook PC	Itronix, Corp.	IX-270	None
AC Adapter	Delta Electronics	ADP-90SB BB	VCW0552024972
CF Card Reader	Itronix, Corp.	SDDR-91	None
Mouse	Logitech	M-BE58	LZE02357693
Headphones	Unknown	None	None

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
AC Power	No	1.8m	No	AC Adapter	AC Mains
USB	Yes	1.0m	No	Host IX270 Notebook PC	Unterminated
USB	Yes	1.0m	No	Host IX270 Notebook PC	CF Card Reader
USB	Yes	1.0m	No	Host IX270 Notebook PC	Unterminated
Serial	Yes	1.0m	No	Host IX270 Notebook PC	Unterminated
Ethernet	Yes	1.0m	No	Host IX270 Notebook PC	Unterminated
Modem	Yes	1.0m	No	Host IX270 Notebook PC	Unterminated
Microphone	Yes	1.0m	No	Host IX270 Notebook PC	Unterminated
Speaker	Yes	1.0m	No	Host IX270 Notebook PC	Headphones
VGA	Yes	1.0m	No	Host IX270 Notebook PC	Unterminated
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

Equipment modifications					
Item	Date	Test	Modification	Note	Disposition of EUT
1	5/30/2006	Spurious Emissions of the Receiver	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	6/1/2006	AC Powerline 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	6/12/2006	Field Strength of Fundamental	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Northwest EMC following the test.
4	6/13/2006	Out of Band Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

Receiver Spurious Emissions

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

MODES OF OPERATION

Receive mode: Low, Mid, and High Channels in Cellular Band

POWER SETTINGS INVESTIGATED

120VAC/60Hz

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	10 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
Pre-Amplifier	Miteq	AMF-4D-010100-24-10P	APW	8/2/2005	13
Pre-Amplifier	Miteq	AM-1616-1000	AOL	1/4/2006	13
Antenna, Biconilog	EMCO	3141	AXE	12/28/2005	24
Antenna, Horn	EMCO	3115	AHC	8/30/2005	12
Spectrum Analyzer	Agilent	E4446A	AAT	4/4/2006	12

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, a final radiated emissions test was performed. The frequer range investigated (scanned), is also noted in this report. Radiated emissions measurements were made at the EUT azimuth and antenna height such that the maximum radiated emissions level will be detected. This requires the use of a turntable and an ante positioner. The preferred method of a continuous azimuth search is utilized for frequency scans of the EUT field strength with bot polarities of the measuring antenna. A calibrated, linearly polarized antenna was positioned at the specified distance from the per of the EUT.

Tests were made with the antenna positioned in both the horizontal and vertical planes of polarization. The antenna was varied in height above the conducting ground plane to obtain the maximum signal strength. Though specified in the report, the measurement distance shall be 3 meters or 10 meters. At any measurement distance, the antenna height was varied from 1 meter to 4 meters. These height scans apply for both horizontal and vertical polarization, except that for vertical polarization the minimum height of the center of the antenna shall be increased so that the lowest point of the bottom of the antenna clears the ground surface by at least 25 cm.

NORTHWEST EMC

Receiver Spurious Emissions

PSA 2006.05.30
EMI 2006.4.26

EUT:	IX270-MC8765	Work Order:	SPTE0021
Serial Number:	None	Date:	05/30/06
Customer:	Spectrum Technology, Inc.	Temperature:	23
Attendees:	None	Humidity:	36%
Project:	None	Barometric Pres.:	30.15
Tested by:	Holly Ashkannejhad	Power: 120VAC/60Hz	Job Site: EV01

TEST SPECIFICATIONS	Test Method
FCC 15.109(a) Class B:2005	ANSI C63.4:2003

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

COMMENTS

Internal antenna

EUT OPERATING MODES

Receive mode, low channel, cellular band

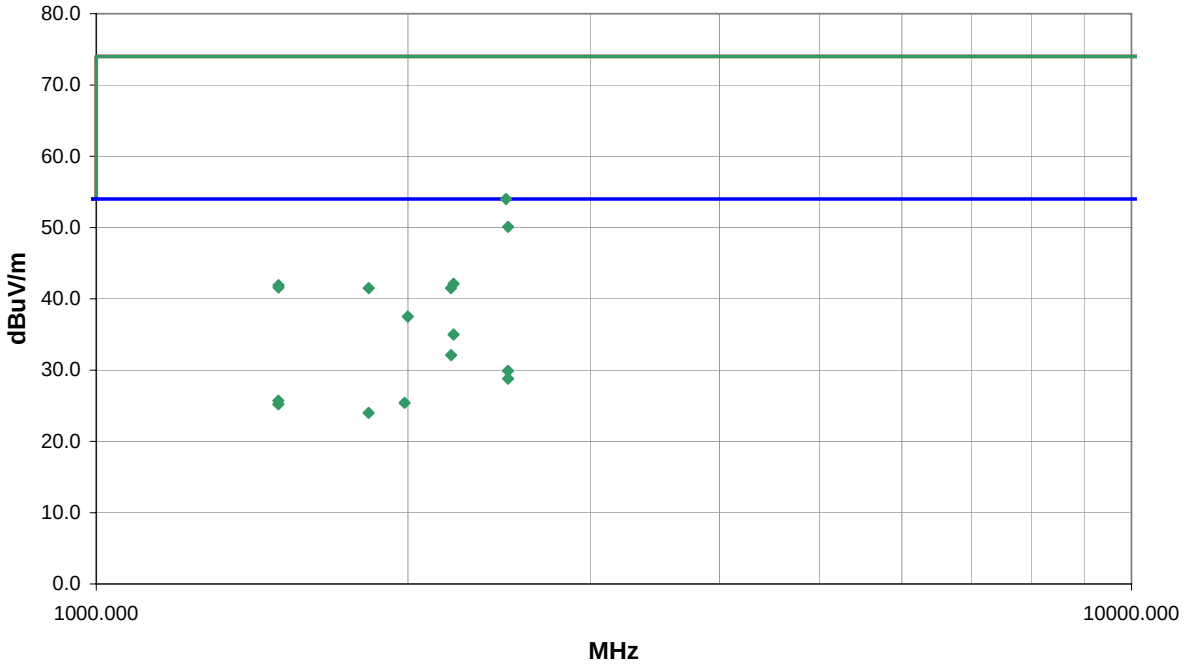
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	1
Configuration #	3
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)
2213.754	35.1	-0.1	149.0	1.2	3.0	0.0	H-Horn	AV	0.0	35.0	54.0	-19.0
2487.900	53.5	0.5	158.0	1.1	3.0	0.0	V-Horn	PK	0.0	54.0	74.0	-20.0
2201.737	32.2	-0.1	151.0	1.2	3.0	0.0	H-Horn	AV	0.0	32.1	54.0	-21.9
2499.810	49.6	0.5	275.0	1.2	3.0	0.0	H-Horn	PK	0.0	50.1	74.0	-23.9
2498.920	29.4	0.5	158.0	1.1	3.0	0.0	V-Horn	AV	0.0	29.9	54.0	-24.1
2499.270	28.3	0.5	275.0	1.2	3.0	0.0	H-Horn	AV	0.0	28.8	54.0	-25.2
1499.190	29.1	-3.4	345.0	1.1	3.0	0.0	V-Horn	AV	0.0	25.7	54.0	-28.3
1985.240	26.1	-0.7	19.0	1.2	3.0	0.0	H-Horn	AV	0.0	25.4	54.0	-28.6
1499.160	28.6	-3.4	57.0	1.1	3.0	0.0	V-Horn	AV	0.0	25.2	54.0	-28.8
1832.570	25.6	-1.6	220.0	1.2	3.0	0.0	H-Horn	AV	0.0	24.0	54.0	-30.0
2213.547	42.2	-0.1	149.0	1.2	3.0	0.0	H-Horn	PK	0.0	42.1	74.0	-31.9
1500.060	45.3	-3.4	57.0	1.1	3.0	0.0	V-Horn	PK	0.0	41.9	74.0	-32.1
1499.680	45.0	-3.4	345.0	1.1	3.0	0.0	V-Horn	PK	0.0	41.6	74.0	-32.4
1833.240	43.1	-1.6	220.0	1.2	3.0	0.0	H-Horn	PK	0.0	41.5	74.0	-32.5
2201.366	41.6	-0.1	151.0	1.2	3.0	0.0	H-Horn	PK	0.0	41.5	74.0	-32.5
1999.220	38.2	-0.7	19.0	1.2	3.0	0.0	H-Horn	PK	0.0	37.5	74.0	-36.5

NORTHWEST EMC

Receiver Spurious Emissions

PSA 2006.05.30
EMI 2006.4.26

EUT:	IX270-MC8765	Work Order:	SPTE0021
Serial Number:	None	Date:	05/30/06
Customer:	Spectrum Technology, Inc.	Temperature:	23
Attendees:	None	Humidity:	36%
Project:	None	Barometric Pres.:	30.15
Tested by:	Holly Ashkannejhad	Power: 120VAC/60Hz	Job Site: EV01

TEST SPECIFICATIONS	Test Method
FCC 15.109(a) Class B:2005	ANSI C63.4:2003

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

COMMENTS

Internal antenna

EUT OPERATING MODES

Receive mode, low channel, cellular band

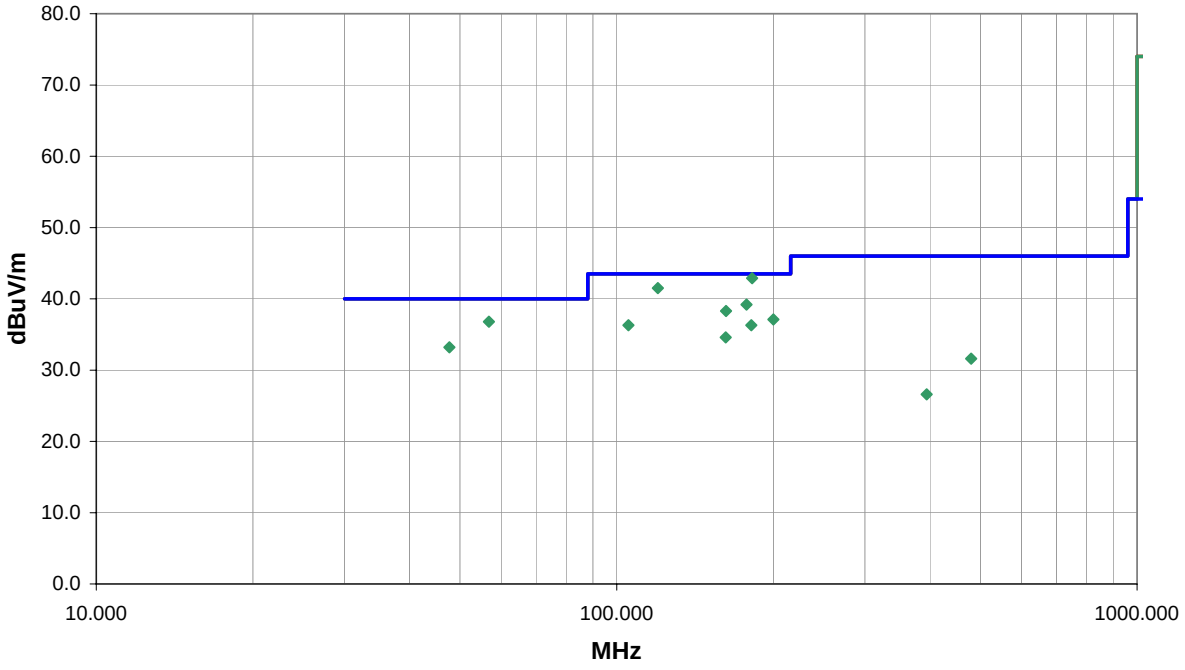
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	3
Configuration #	3
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)
182.023	47.4	-4.5	230.0	1.7	3.0	0.0	H-Bilog	QP	0.0	42.9	43.5	-0.6
120.020	48.3	-6.8	125.0	3.0	3.0	0.0	H-Bilog	QP	0.0	41.5	43.5	-2.0
56.824	42.7	-5.9	194.0	1.0	3.0	0.0	V-Bilog	QP	0.0	36.8	40.0	-3.2
177.588	44.0	-4.8	229.0	1.5	3.0	0.0	H-Bilog	QP	0.0	39.2	43.5	-4.3
162.252	43.6	-5.3	198.0	1.7	3.0	0.0	H-Bilog	QP	0.0	38.3	43.5	-5.2
200.032	39.8	-2.7	115.0	1.7	3.0	0.0	H-Bilog	QP	0.0	37.1	43.5	-6.4
47.692	37.3	-4.1	106.0	1.0	3.0	0.0	V-Bilog	QP	0.0	33.2	40.0	-6.8
105.361	42.4	-6.1	311.0	2.1	3.0	0.0	H-Bilog	QP	0.0	36.3	43.5	-7.2
181.499	40.9	-4.6	73.0	1.0	3.0	0.0	V-Bilog	QP	0.0	36.3	43.5	-7.2
162.001	39.9	-5.3	156.0	1.0	3.0	0.0	V-Bilog	QP	0.0	34.6	43.5	-8.9
480.055	26.4	5.2	121.0	1.0	3.0	0.0	V-Bilog	QP	0.0	31.6	46.0	-14.4
394.310	23.5	3.1	165.0	1.0	3.0	0.0	V-Bilog	QP	0.0	26.6	46.0	-19.4

NORTHWEST
EMC

Receiver Spurious Emissions

PSA 2006.05.30
EMI 2006.4.26

EUT:	IX270-MC8765			**Work Order:**	SPTE0021
Serial Number:	None			**Date:**	05/31/06
Customer:	Spectrum Technology, Inc.			**Temperature:**	23
Attendees:	None			**Humidity:**	36%
Project:	None			**Barometric Pres.:**	30.15
Tested by:	Holly Ashkannejhad	**Power:**	120VAC/60Hz	**Job Site:**	EV01

TEST SPECIFICATIONS	Test Method
FCC 15.109(a) Class B:2005	ANSI C63.4:2003

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

COMMENTS

Internal antenna

EUT OPERATING MODES

Receive mode, mid channel, cellular band

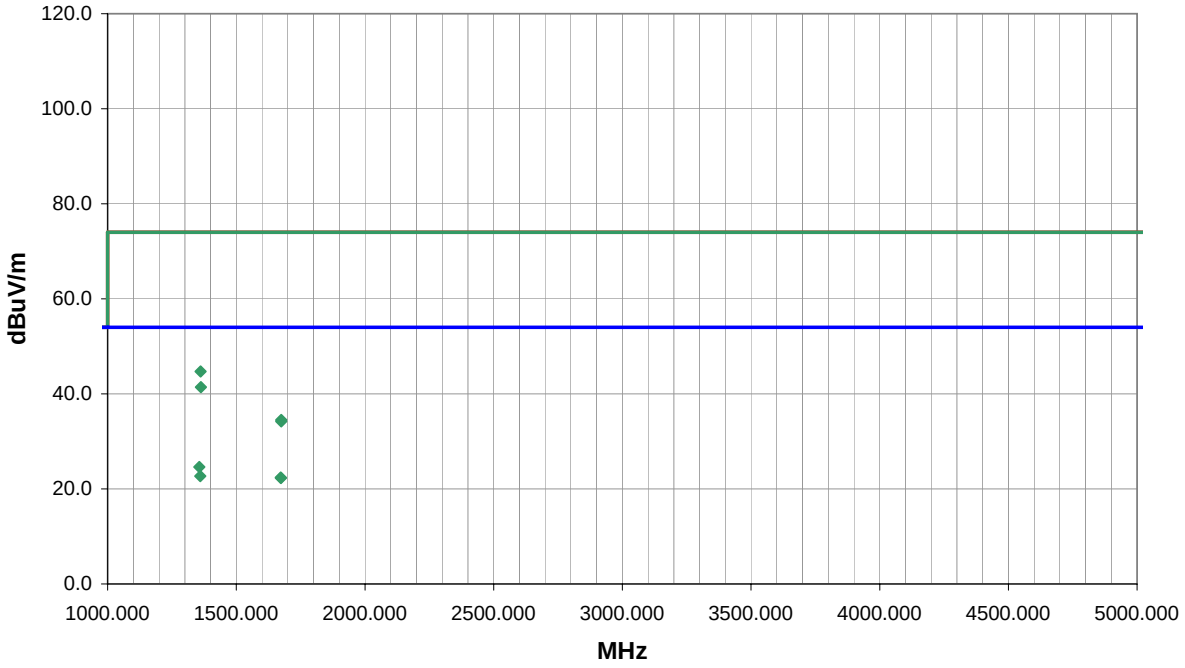
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	9
Configuration #	3
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)
1361.110	48.7	-4.0	153.0	1.0	3.0	0.0	V-Horn	PK	0.0	44.7	74.0	-29.3
1356.390	28.6	-4.0	153.0	1.0	3.0	0.0	V-Horn	AV	0.0	24.6	54.0	-29.4
1359.880	26.7	-4.0	166.0	1.0	3.0	0.0	H-Horn	AV	0.0	22.7	54.0	-31.3
1672.796	24.9	-2.5	52.0	1.0	3.0	0.0	V-Horn	AV	0.0	22.4	54.0	-31.6
1673.002	24.8	-2.5	297.0	1.6	3.0	0.0	H-Horn	AV	0.0	22.3	54.0	-31.7
1362.350	45.4	-4.0	166.0	1.0	3.0	0.0	H-Horn	PK	0.0	41.4	74.0	-32.6
1674.754	37.0	-2.5	52.0	1.0	3.0	0.0	V-Horn	PK	0.0	34.5	74.0	-39.5
1674.318	36.7	-2.5	297.0	1.6	3.0	0.0	H-Horn	PK	0.0	34.2	74.0	-39.8

NORTHWEST EMC

Receiver Spurious Emissions

PSA 2006.05.30
EMI 2006.4.26

EUT:	IX270-MC8765	Work Order:	SPTE0021
Serial Number:	None	Date:	05/31/06
Customer:	Spectrum Technology, Inc.	Temperature:	23
Attendees:	None	Humidity:	36%
Project:	None	Barometric Pres.:	30.15
Tested by:	Holly Ashkannejhad	Power: 120VAC/60Hz	Job Site: EV01

TEST SPECIFICATIONS	Test Method
FCC 15.109(a) Class B:2005	ANSI C63.4:2003

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

COMMENTS

Internal antenna

EUT OPERATING MODES

Receive mode, high channel, cellular band

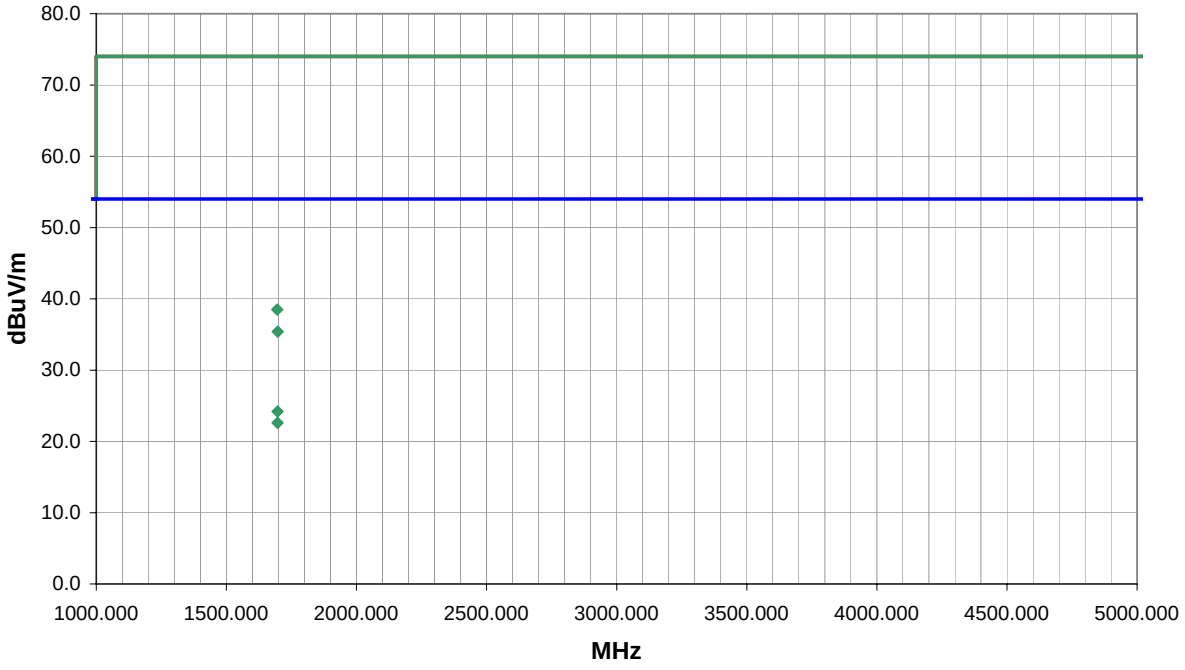
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	10
Configuration #	3
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)
1696.868	26.5	-2.3	9.0	1.0	3.0	0.0	V-Horn	AV	0.0	24.2	54.0	-29.8
1696.890	24.9	-2.3	191.0	1.0	3.0	0.0	H-Horn	AV	0.0	22.6	54.0	-31.4
1695.648	40.8	-2.3	9.0	1.0	3.0	0.0	V-Horn	PK	0.0	38.5	74.0	-35.5
1697.130	37.7	-2.3	191.0	1.0	3.0	0.0	H-Horn	PK	0.0	35.4	74.0	-38.6


NORTHWEST
EMC


NORTHWEST
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Spurious Radiated Emissions

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

MODES OF OPERATION
WCDMA PCS band
WCDMA Cellular band
Edge PCS band
Edge Cellular band
GSM PCS band
GSM Cellular band

CHANNELS INVESTIGATED IN EACH BAND
Low channel
Mid channel
High channel

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
Antenna, Dipole (part of ADA)	ETS	3121C-DB4	ADAA	1/6/2005	24
Antenna, Dipole (ADAA included)	Roberts	Roberts	ADA	1/6/2005	24
Signal Generator	Hewlett Packard	8341B	TGN	1/26/2006	13
Antenna, Horn	EMCO	3115	AHJ	5/20/2005	24
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
EV01 cables g,h,j			EVB	3/30/2006	13
EV01 cables c,g, h			EVA	3/30/2006	13
Low Pass Filter 0-1000 MHz	Micro-Tronics	LPM50004	LFD	9/28/2005	13
High Pass Filter 1.2 - 18 GHz	Micro-Tronics	HPM50108	HFV	9/28/2005	13
High Pass Filter	Micro-Tronics	HPM50111	HFO	4/4/2006	13
Pre-Amplifier	Miteq	AMF-4D-010100-24-10P	APW	8/2/2005	13
Pre-Amplifier	Miteq	AM-1616-1000	AOL	1/4/2006	13
Antenna, Horn	EMCO	3115	AHC	8/30/2005	12
Antenna, Biconilog	EMCO	3141	AXE	12/28/2005	24
Spectrum Analyzer	Agilent	E4446A	AAT	4/4/2006	12

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 antennas to be used with the EUT were tested. The EUT was transmitting while set at the lowest channel, a middle channel, and the highest channel available of each band and each modulation type. While scanning, emissions from the EUT were maximized by rotating the EUT, adjusting the measurement antenna height and polarization, and manipulating the EUT antenna in 3 orthogonal planes.

The amplitude and frequency of the highest emissions were noted. The EUT was then replaced with a horn antenna. A signal generator was connected to the horn antenna and its output was adjusted to match the level previously noted for each frequency. The output of the signal generator was recorded, and by factoring in the cable loss to the dipole antenna and its gain (dBi); the effective radiated power for each radiated spurious emission was determined.

NORTHWEST EMC

Spurious Radiated Emissions

PSA 2006.05.30
EMI 2006.4.26

EUT:	IX270-MC8765			Work Order:	SPTE0021
Serial Number:	None			Date:	05/31/06
Customer:	Spectrum Technology, Inc.			Temperature:	23
Attendees:	Rod Munro			Humidity:	36%
Project:	None			Barometric Pres.:	30.15
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 22.917:2005	TIA/EIA-603-B:2002

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

COMMENTS

Internal antenna

EUT OPERATING MODES

GSM Cellular band, see comments for channel

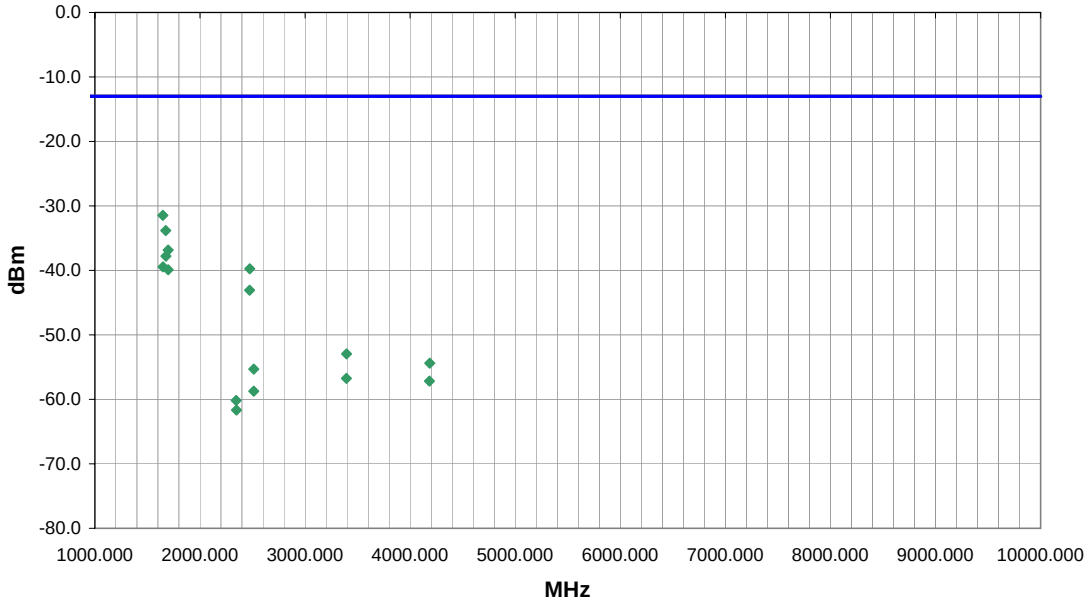
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	5
Configuration #	3
Results	Pass

NVLAP Lab Code 200630-0

Signature Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector		EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
1647.173			28.0	1.0			V-Horn	PK		-31.5	-13.0	-18.5	Low channel
1673.775			24.0	1.0			V-Horn	PK		-33.8	-13.0	-20.8	Mid channel
1675.293			177.0	1.0			H-Horn	PK		-37.8	-13.0	-24.8	Mid channel
1696.679			360.0	1.3			V-Horn	PK		-36.9	-13.0	-23.9	High channel
1648.497			101.0	1.8			H-Horn	PK		-39.5	-13.0	-26.5	Low channel
1697.795			174.0	1.0			H-Horn	PK		-39.9	-13.0	-26.9	High channel
2473.392			41.0	1.0			V-Horn	PK		-39.7	-13.0	-26.7	Low channel
2472.882			123.0	1.0			H-Horn	PK		-43.1	-13.0	-30.1	Low channel
3394.889			203.0	1.0			V-Horn	PK		-52.9	-13.0	-39.9	High channel
4186.222			24.0	1.0			V-Horn	PK		-54.4	-13.0	-41.4	Mid channel
3394.060			113.0	2.5			H-Horn	PK		-56.8	-13.0	-43.8	High channel
4183.701			181.0	1.0			H-Horn	PK		-57.2	-13.0	-44.2	Mid channel
2511.220			253.0	1.0			V-Horn	PK		-55.3	-13.0	-42.3	Mid channel
2512.166			56.0	1.0			H-Horn	PK		-58.7	-13.0	-45.7	Mid channel
2347.635			198.0	1.6			H-Horn	PK		-61.7	-13.0	-48.7	High channel
2345.014			210.0	1.6			V-Horn	PK		-60.2	-13.0	-47.2	High channel

NORTHWEST EMC

Spurious Radiated Emissions

PSA 2006.05.30
EMI 2006.4.26

EUT:	IX270-MC8765			**Work Order:**	SPTE0021
Serial Number:	None			**Date:**	05/31/06
Customer:	Spectrum Technology, Inc.			**Temperature:**	23
Attendees:	Rod Munro			**Humidity:**	36%
Project:	None			**Barometric Pres.:**	30.15
Tested by:	Holly Ashkannejhad	**Power:**	120VAC/60Hz	**Job Site:**	EV01

TEST SPECIFICATIONS	Test Method
FCC 22.917:2005	TIA/EIA-603-B:2002

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

COMMENTS

Internal antenna

EUT OPERATING MODES

Edge Cellular band, see comments for channel

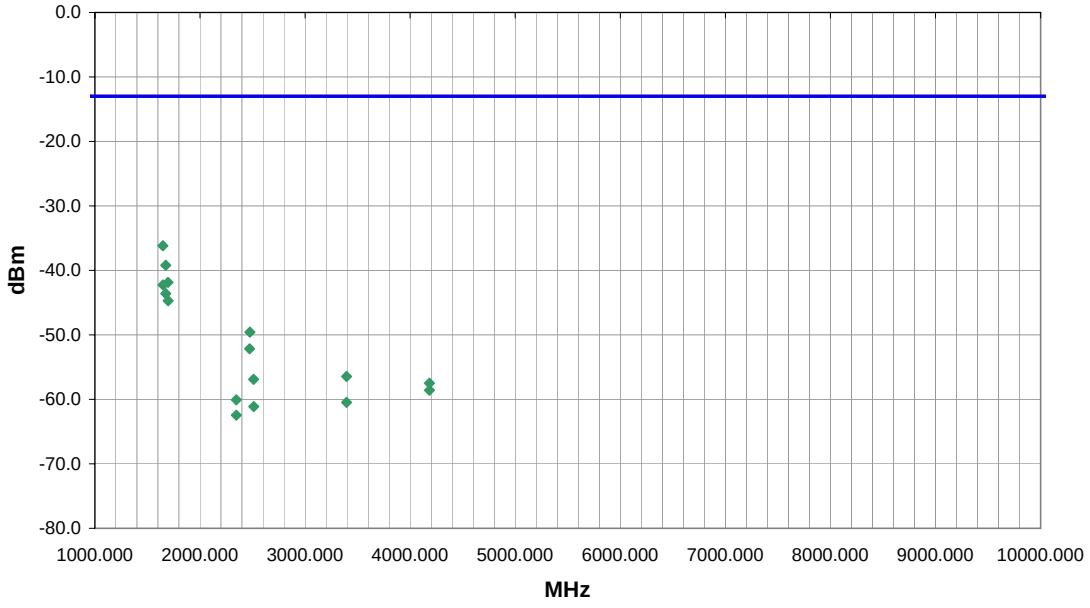
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	6
Configuration #	3
Results	Pass

NVLAP Lab Code 200630-0

Signature Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector		EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
1647.331			336.0	1.0			V-Horn	PK		-36.2	-13.0	-23.2	Low channel
1674.360			27.0	1.0			V-Horn	PK		-39.2	-13.0	-26.2	Mid channel
1647.949			119.0	1.0			H-Horn	PK		-42.3	-13.0	-29.3	Low channel
1673.887			193.0	1.0			H-Horn	PK		-43.6	-13.0	-30.6	Mid channel
1695.377			360.0	1.6			V-Horn	PK		-41.9	-13.0	-28.9	High channel
1697.765			198.0	1.0			H-Horn	PK		-44.7	-13.0	-31.7	High channel
2475.005			245.0	1.0			H-Horn	PK		-49.6	-13.0	-36.6	Low channel
2472.215			360.0	1.6			V-Horn	PK		-52.1	-13.0	-39.1	Low channel
3394.957			273.0	1.0			V-Horn	PK		-56.4	-13.0	-43.4	High channel
4184.030			333.0	1.0			H-Horn	PK		-58.6	-13.0	-45.6	Mid channel
4183.310			122.0	1.5			V-Horn	PK		-57.5	-13.0	-44.5	Mid channel
2509.891			79.0	1.0			V-Horn	PK		-56.9	-13.0	-43.9	Mid channel
3395.759			318.0	1.0			H-Horn	PK		-60.5	-13.0	-47.5	High channel
2512.608			12.0	1.0			H-Horn	PK		-61.1	-13.0	-48.1	Mid channel
2346.599			122.0	1.0			V-Horn	PK		-60.1	-13.0	-47.1	High channel
2346.333			224.0	1.0			H-Horn	PK		-62.5	-13.0	-49.5	High channel

NORTHWEST EMC

Spurious Radiated Emissions

PSA 2006.05.30
EMI 2006.4.26

EUT:	IX270-MC8765			Work Order:	SPTE0021
Serial Number:	None			Date:	06/01/06
Customer:	Spectrum Technology, Inc.			Temperature:	23
Attendees:	Rod Munro			Humidity:	36%
Project:	None			Barometric Pres.:	30.15
Tested by:	Rod Peloquin	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 22.917:2005	TIA/EIA-603-B:2002

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

COMMENTS

External antenna terminated with dummy load. Vehicle mount configuration.

EUT OPERATING MODES

GSM Cellular band, see comments for channel

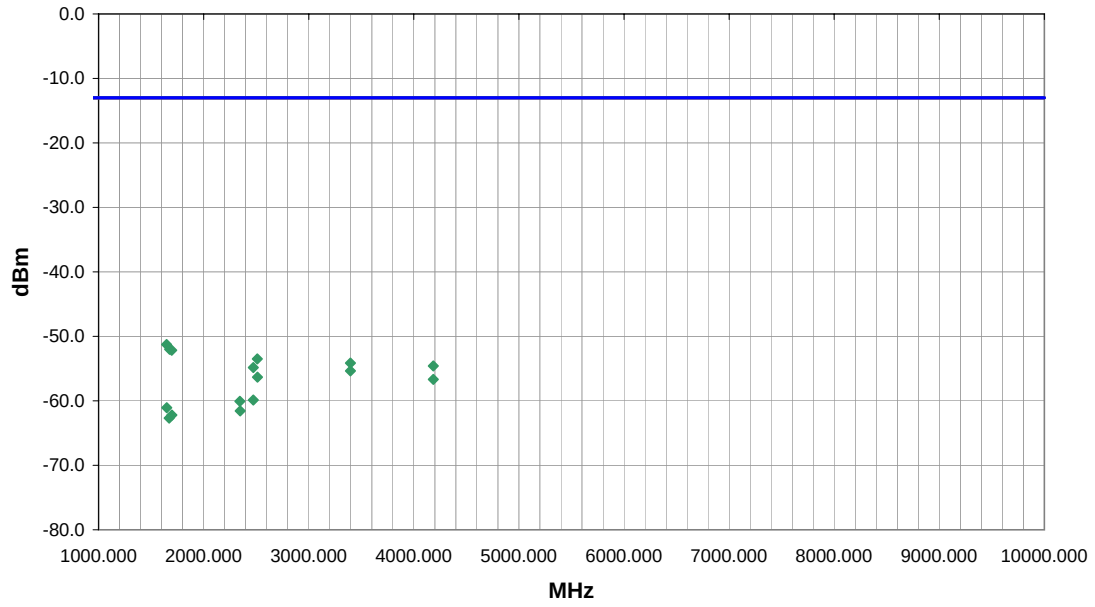
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	12
Configuration #	1
Results	Pass

NVLAP Lab Code 200630-0

Signature



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
1647.337			339.0	1.0			V-Horn	PK	7.46E-09	-51.3	-13.0	-38.3	Low Channel
1675.449			338.0	1.0			V-Horn	PK	6.28E-09	-52.0	-13.0	-39.0	Mid Channel
1695.564			333.0	1.0			V-Horn	PK	6.09E-09	-52.2	-13.0	-39.2	High Channel
2510.941			221.0	1.0			V-Horn	PK	4.47E-09	-53.5	-13.0	-40.5	Mid Channel
3395.963			360.0	1.2			V-Horn	PK	3.85E-09	-54.2	-13.0	-41.2	High Channel
4184.585			301.0	1.0			V-Horn	PK	3.47E-09	-54.6	-13.0	-41.6	Mid Channel
2472.684			353.0	1.0			V-Horn	PK	3.28E-09	-54.8	-13.0	-41.8	Low Channel
3396.860			102.0	1.0			H-Horn	PK	2.91E-09	-55.4	-13.0	-42.4	High Channel
2511.613			200.0	1.0			H-Horn	PK	2.33E-09	-56.3	-13.0	-43.3	Mid Channel
4185.000			179.0	2.1			H-Horn	PK	2.15E-09	-56.7	-13.0	-43.7	Mid Channel
2473.014			104.0	1.8			H-Horn	PK	1.03E-09	-59.9	-13.0	-46.9	Low Channel
2345.191			165.0	1.0			V-Horn	PK	9.85E-10	-60.1	-13.0	-47.1	High Channel
1648.327			181.0	1.0			H-Horn	PK	7.83E-10	-61.1	-13.0	-48.1	Low Channel
2347.166			167.0	1.8			H-Horn	PK	6.98E-10	-61.6	-13.0	-48.6	High Channel
1697.832			95.0	1.0			H-Horn	PK	6.01E-10	-62.2	-13.0	-49.2	High Channel
1672.021			146.0	1.2			H-Horn	PK	5.39E-10	-62.7	-13.0	-49.7	Mid Channel

NORTHWEST EMC

Spurious Radiated Emissions

PSA 2006.05.30
EMI 2006.6.2

EUT:	IX270-MC8765			**Work Order:**	SPTE0021
Serial Number:	None			**Date:**	06/07/06
Customer:	Spectrum Technology, Inc.			**Temperature:**	23
Attendees:	Rod Munro			**Humidity:**	36%
Project:	None			**Barometric Pres.:**	30.15
Tested by:	Holly Ashkannejhad	**Power:**	120VAC/60Hz	**Job Site:**	EV01

TEST SPECIFICATIONS	Test Method
FCC 22.917:2005	TIA/EIA-603-B:2002

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

COMMENTS

Internal antenna

EUT OPERATING MODES

WCDMA Cellular band, low channel

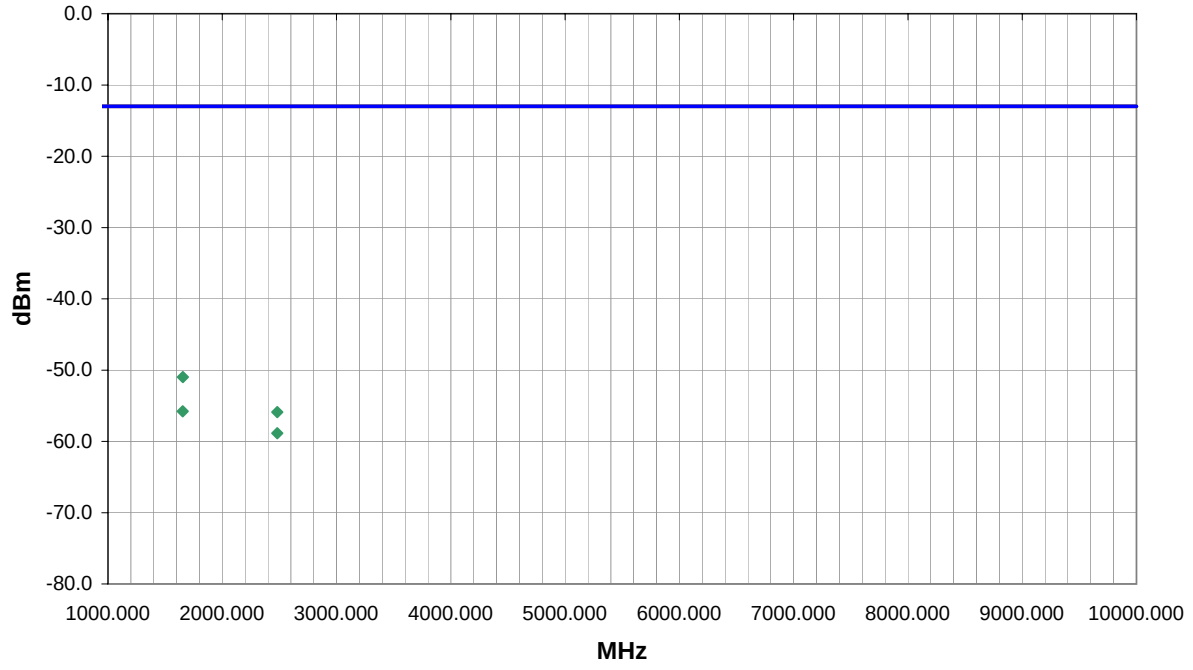
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	16
Configuration #	3
Results	Pass

NVLAP Lab Code 200630-0

Signature Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
1655.318			311.0	1.0			V-Horn	PK	7.97E-09	-51.0	-13.0	-38.0
2481.319			101.0	1.0			H-Horn	PK	2.57E-09	-55.9	-13.0	-42.9
1654.276			86.0	1.0			H-Horn	PK	2.65E-09	-55.8	-13.0	-42.8
2481.477			119.0	1.0			V-Horn	PK	1.30E-09	-58.9	-13.0	-45.9

NORTHWEST EMC

Spurious Radiated Emissions

PSA 2006.05.30
EMI 2006.6.2

EUT:	IX270-MC8765			Work Order:	SPTE0021
Serial Number:	None			Date:	06/07/06
Customer:	Spectrum Technology, Inc.			Temperature:	23
Attendees:	Rod Munro			Humidity:	36%
Project:	None			Barometric Pres.:	30.15
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 22.917:2005	TIA/EIA-603-B:2002

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

COMMENTS

Internal antenna

EUT OPERATING MODES

WCDMA Cellular band, high channel

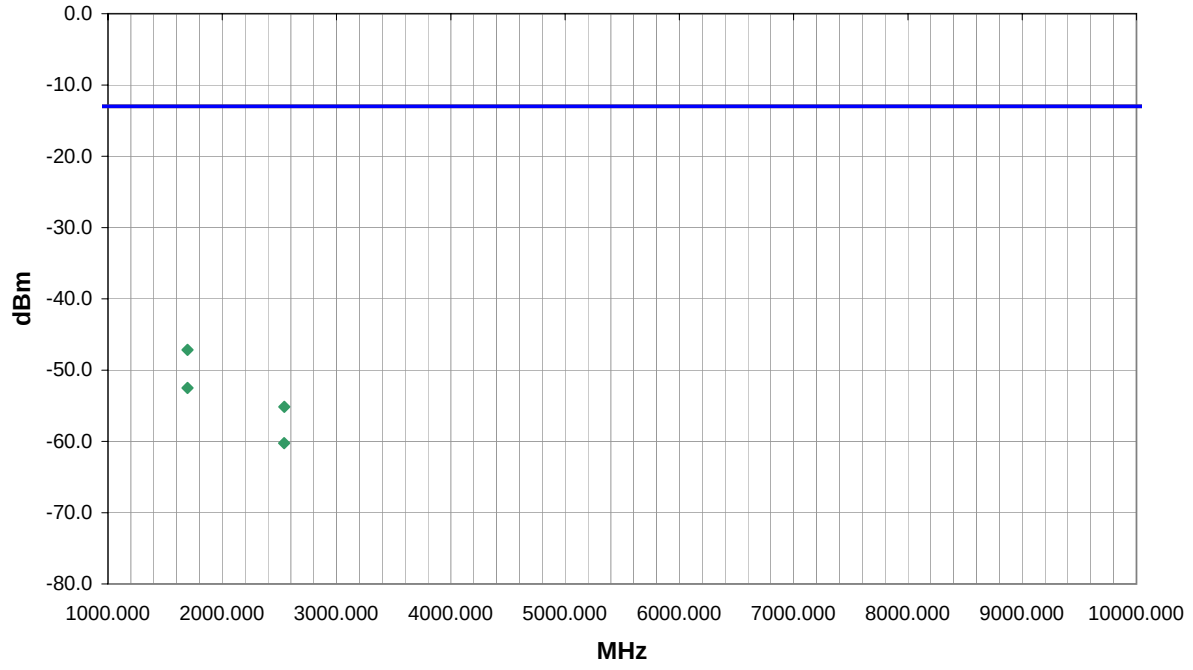
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	17
Configuration #	3
Results	Pass

NVLAP Lab Code 200630-0

Signature Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
1695.614			283.0	1.0			V-Horn	PK	1.93E-08	-47.2	-13.0	-34.2
1695.264			109.0	1.0			H-Horn	PK	5.61E-09	-52.5	-13.0	-39.5
2543.456			153.0	1.0			V-Horn	PK	3.06E-09	-55.1	-13.0	-42.1
2542.131			84.0	1.2			H-Horn	PK	9.43E-10	-60.3	-13.0	-47.3

NORTHWEST EMC

Spurious Radiated Emissions

PSA 2006.05.30
EMI 2006.6.2

EUT:	IX270-MC8765			**Work Order:**	SPTE0021
Serial Number:	None			**Date:**	06/08/06
Customer:	Spectrum Technology, Inc.			**Temperature:**	23
Attendees:	Rod Munro			**Humidity:**	36%
Project:	None			**Barometric Pres.:**	30.15
Tested by:	Rod Peloquin	**Power:**	120VAC/60Hz	**Job Site:**	EV01

TEST SPECIFICATIONS	Test Method
FCC 22.917:2005	TIA/EIA-603-B:2002

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

COMMENTS

Internal antenna

EUT OPERATING MODES

WCDMA Cellular band, mid channel

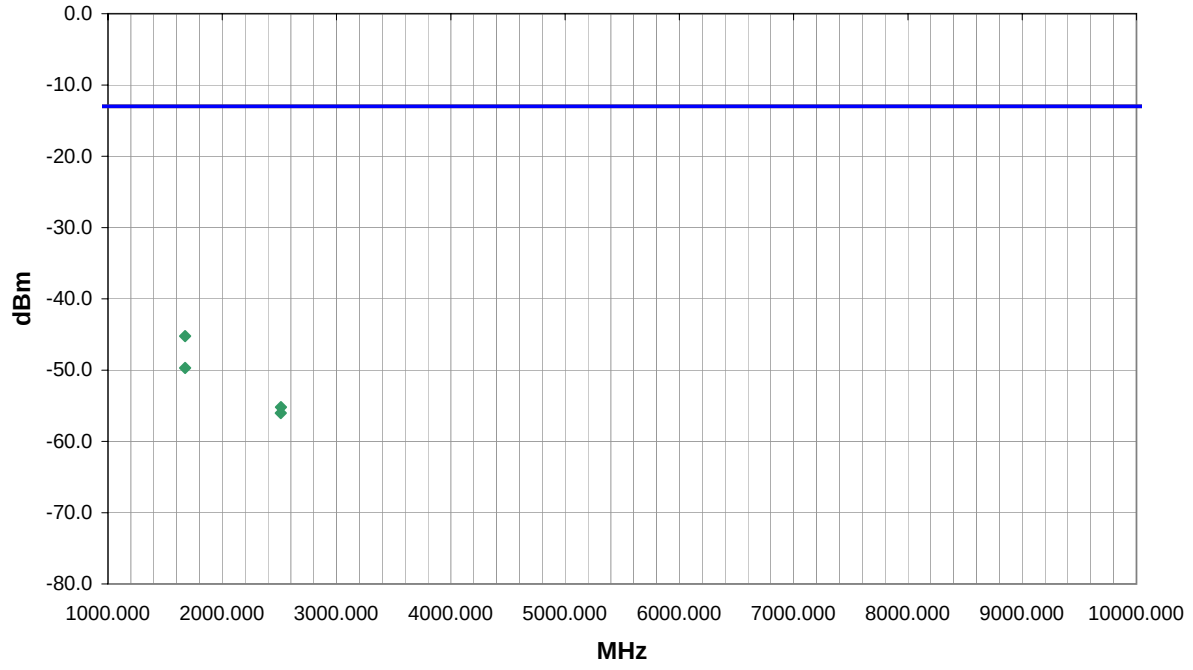
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	21
Configuration #	3
Results	Pass

NVLAP Lab Code 200630-0

Signature



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
1675.110			154.0	1.1			V-Horn	PK	3.01E-08	-45.2	-13.0	-32.2
1675.300			86.0	1.2			H-Horn	PK	1.07E-08	-49.7	-13.0	-36.7
2514.100			142.0	1.2			V-Horn	PK	3.02E-09	-55.2	-13.0	-42.2
2511.690			78.0	1.3			H-Horn	PK	2.50E-09	-56.0	-13.0	-43.0

NORTHWEST EMC

Spurious Radiated Emissions

PSA 2006.05.30
EMI 2006.6.8

EUT:	IX270-MC8765			**Work Order:**	SPTE0021
Serial Number:	None			**Date:**	06/09/06
Customer:	Spectrum Technology, Inc.			**Temperature:**	23
Attendees:	Rod Munro			**Humidity:**	36%
Project:	None			**Barometric Pres.:**	30.15
Tested by:	Holly Ashkannejhad	**Power:**	120VAC/60Hz	**Job Site:**	EV01

TEST SPECIFICATIONS	Test Method
FCC 22.917:2005	TIA/EIA-603-B:2002

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

COMMENTS

External antenna. Vehicle mount configuration.

EUT OPERATING MODES

WCDMA Cellular band, low channel

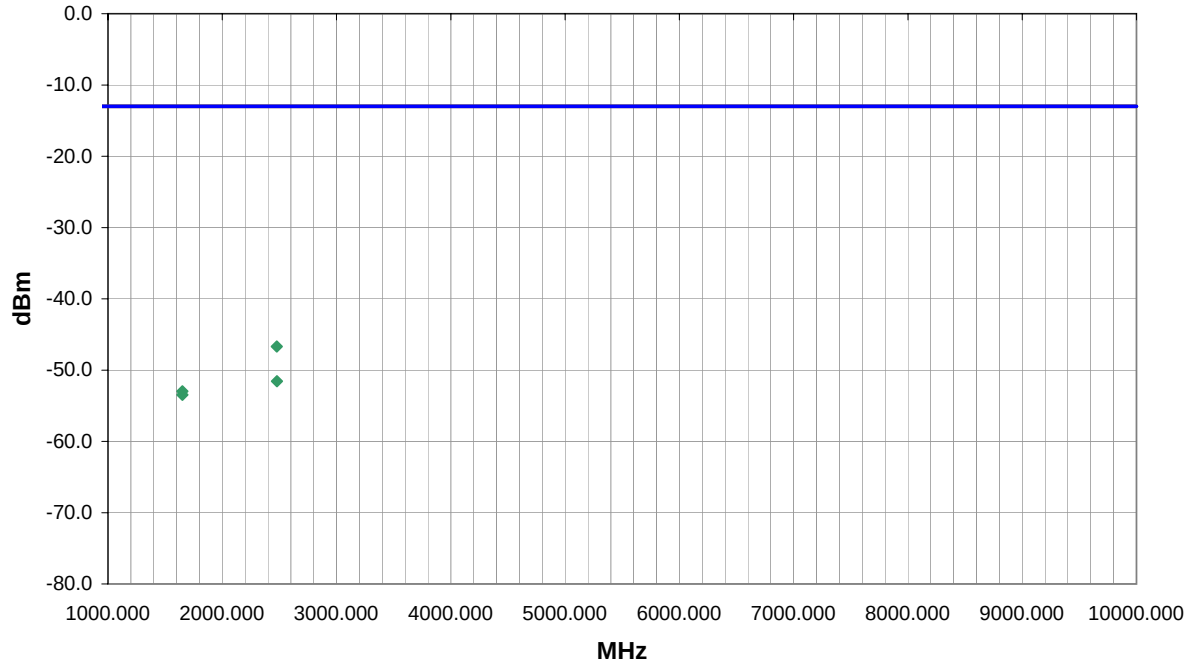
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	26
Configuration #	2
Results	Pass

NVLAP Lab Code 200630-0

Signature Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
2476.580			185.0	2.6			H-Horn	PK	2.14E-08	-46.7	-13.0	-33.7
2478.220			327.0	1.0			V-Horn	PK	6.99E-09	-51.6	-13.0	-38.6
1651.170			211.0	1.5			H-Horn	PK	5.05E-09	-53.0	-13.0	-40.0
1651.190			285.0	1.0			V-Horn	PK	4.49E-09	-53.5	-13.0	-40.5

NORTHWEST EMC

Spurious Radiated Emissions

PSA 2006.05.30
EMI 2006.6.8

EUT:	IX270-MC8765			Work Order:	SPTE0021
Serial Number:	None			Date:	06/09/06
Customer:	Spectrum Technology, Inc.			Temperature:	23
Attendees:	Rod Munro			Humidity:	36%
Project:	None			Barometric Pres.:	30.15
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 22.917:2005	TIA/EIA-603-B:2002

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

COMMENTS

External antenna. Vehicular mount configuration.

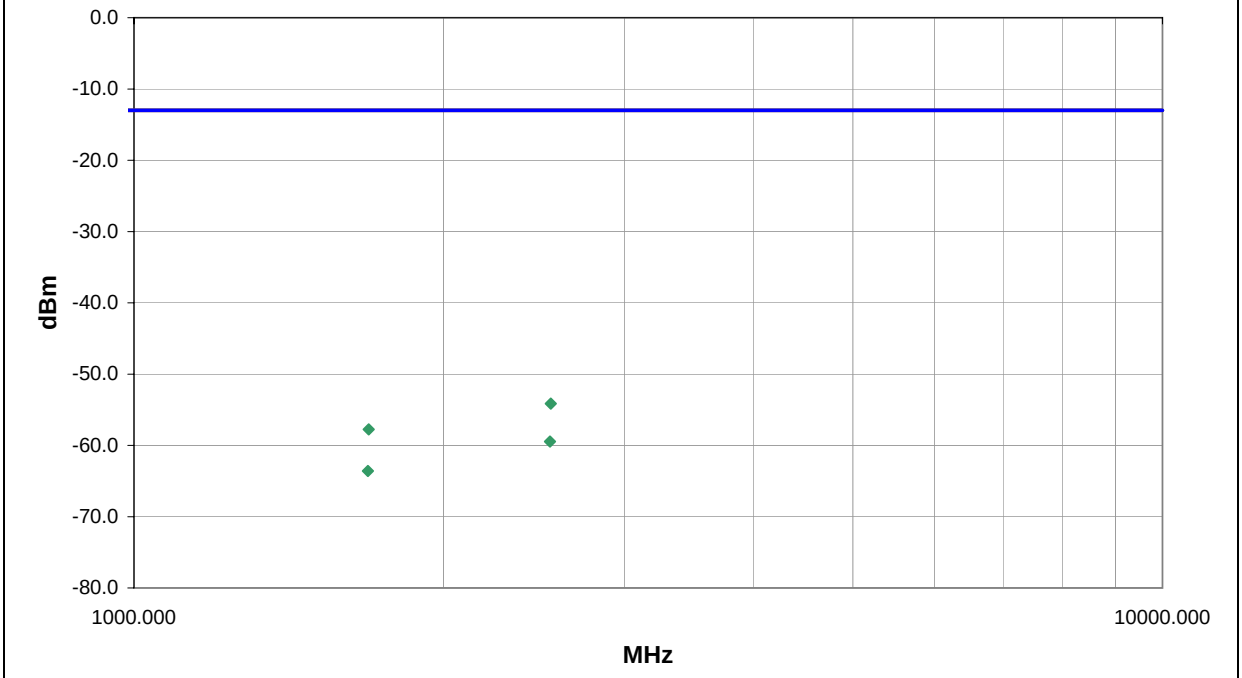
EUT OPERATING MODES

WCDMA Cellular band, high channel

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	27		
Configuration #	2		
Results	Pass	NVLAP Lab Code 200630-0	Signature



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
2542.520			119.0	1.6			V-Horn	PK	3.85E-09	-54.1	-13.0	-41.1
1691.560			76.0	1.0			V-Horn	PK	1.68E-09	-57.7	-13.0	-44.7
2538.260			290.0	2.2			H-Horn	PK	1.13E-09	-59.5	-13.0	-46.5
1688.480			110.0	2.4			H-Horn	PK	4.36E-10	-63.6	-13.0	-50.6

NORTHWEST EMC

Spurious Radiated Emissions

PSA 2006.05.30
EMI 2006.6.9

EUT:	IX270-MC8765			Work Order:	SPTE0021
Serial Number:	None			Date:	06/12/06
Customer:	Spectrum Technology			Temperature:	23
Attendees:	None			Humidity:	47%
Project:	None			Barometric Pres.:	29.98
Tested by:	RodPeloquin	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 22.917:2005	TIA/EIA-603-B:2002

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

COMMENTS

External antenna. Vehicle mount configuration.

EUT OPERATING MODES

W-CDMA Cellular band, mid channel (4189/4414, 837.81 MHz)

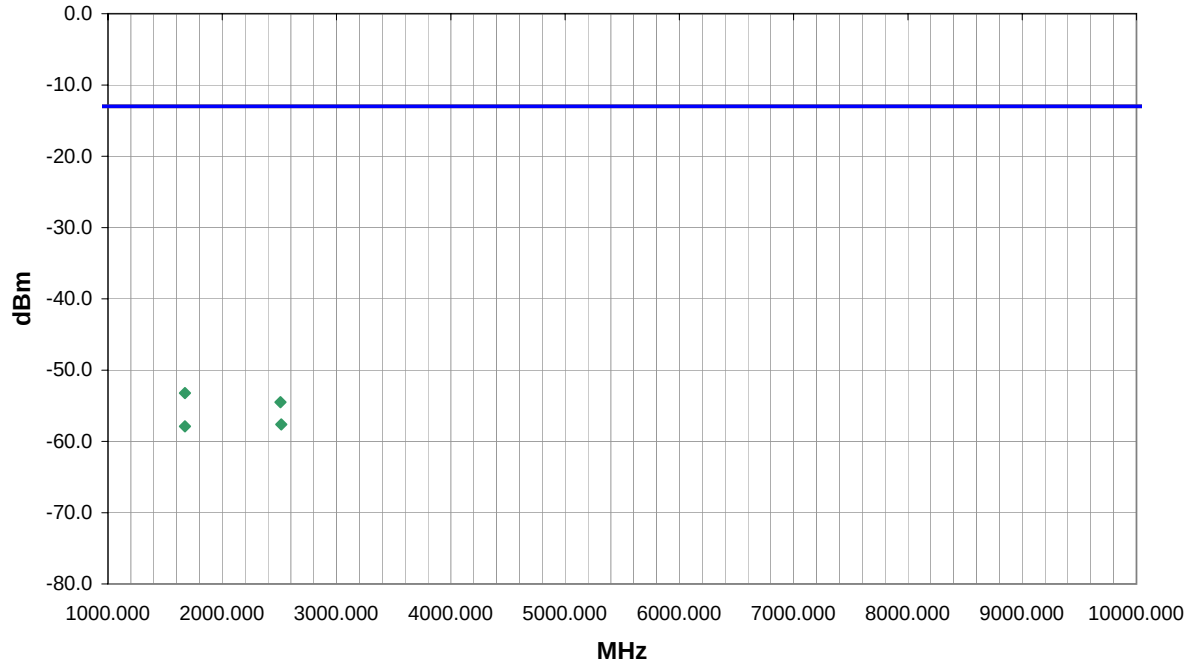
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	35
Configuration #	2
Results	Pass

NVLAP Lab Code 200630-0

Signature



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
1673.070			305.0	1.1			V-Horn	PK	4.77E-09	-53.2	-13.0	-40.2
2509.190			156.0	1.2			V-Horn	PK	3.55E-09	-54.5	-13.0	-41.5
2516.850			15.0	1.2			H-Horn	PK	1.73E-09	-57.6	-13.0	-44.6
1673.620			206.0	1.2			H-Horn	PK	1.63E-09	-57.9	-13.0	-44.9

NORTHWEST EMC

Spurious Radiated Emissions

PSA 2006.05.30
EMI 2006.4.26

EUT:	IX270-MC8765	Work Order:	SPTE0021
Serial Number:	None	Date:	05/31/06
Customer:	Spectrum Technology, Inc.	Temperature:	23
Attendees:	Rod Munro	Humidity:	36%
Project:	None	Barometric Pres.:	30.15
Tested by:	Holly Ashkannejhad	Power: 120VAC/60Hz	Job Site: EV01

TEST SPECIFICATIONS	Test Method
FCC 24.238:2005	TIA/EIA-603-B:2002

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

COMMENTS

Internal antenna

EUT OPERATING MODES

GSM PCS band, see comments for channel

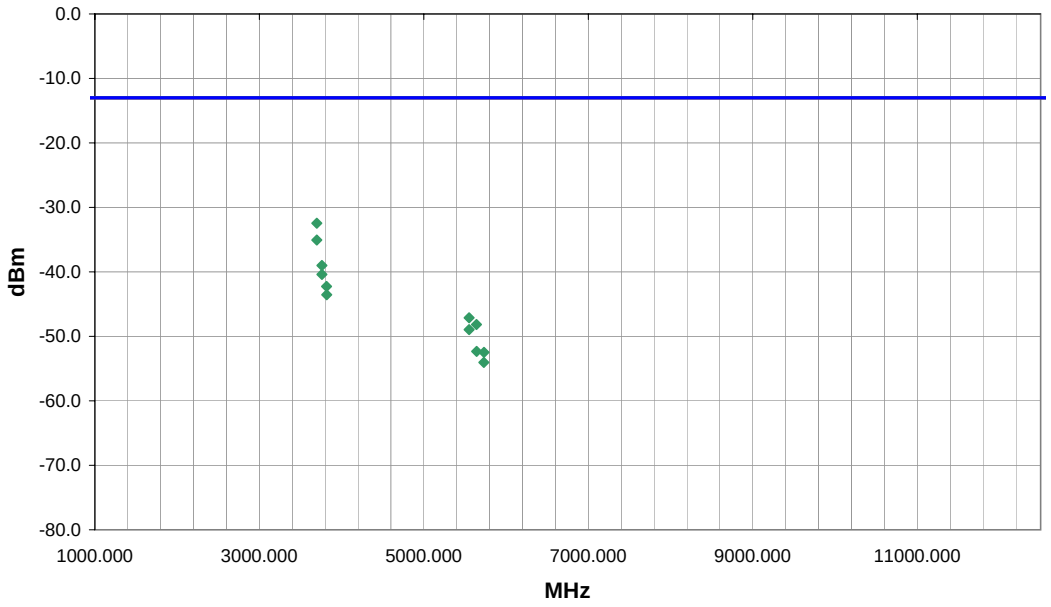
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	7
Configuration #	3
Results	Pass

NVLAP Lab Code 200630-0

Signature Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
3697.916			187.0	1.0			V-Horn	PK	5.69E-07	-32.4	-13.0	-19.4	Low channel
3697.713			174.0	1.0			H-Horn	PK	3.11E-07	-35.1	-13.0	-22.1	Low channel
3759.743			148.0	1.0			H-Horn	PK	1.26E-07	-39.0	-13.0	-26.0	Mid channel
3759.862			71.0	1.0			V-Horn	PK	9.11E-08	-40.4	-13.0	-27.4	Mid channel
3817.005			61.0	1.0			V-Horn	PK	5.95E-08	-42.3	-13.0	-29.3	High channel
3820.025			236.0	1.0			H-Horn	PK	4.42E-08	-43.5	-13.0	-30.5	High channel
5550.213			229.0	1.3			H-Horn	PK	1.94E-08	-47.1	-13.0	-34.1	Low channel
5640.136			201.0	1.0			V-Horn	PK	1.53E-08	-48.2	-13.0	-35.2	Mid channel
5550.171			232.0	1.0			V-Horn	PK	1.27E-08	-49.0	-13.0	-36.0	Low channel
5642.343			250.0	1.4			H-Horn	PK	5.83E-09	-52.3	-13.0	-39.3	Mid channel
5731.368			175.0	1.0			H-Horn	PK	5.65E-09	-52.5	-13.0	-39.5	High channel
5729.982			235.0	1.0			V-Horn	PK	3.93E-09	-54.1	-13.0	-41.1	High channel

NORTHWEST EMC

Spurious Radiated Emissions

PSA 2006.05.30
EMI 2006.4.26

EUT:	IX270-MC8765	Work Order:	SPTE0021
Serial Number:	None	Date:	05/31/06
Customer:	Spectrum Technology, Inc.	Temperature:	23
Attendees:	None	Humidity:	36%
Project:	None	Barometric Pres.:	30.15
Tested by:	Holly Ashkannejhad	Power: 120VAC/60Hz	Job Site: EV01

TEST SPECIFICATIONS	Test Method
FCC 24.238:2005	TIA/EIA-603-B:2002

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

COMMENTS

Internal antenna

EUT OPERATING MODES

Edge PCS band, see comments for channel

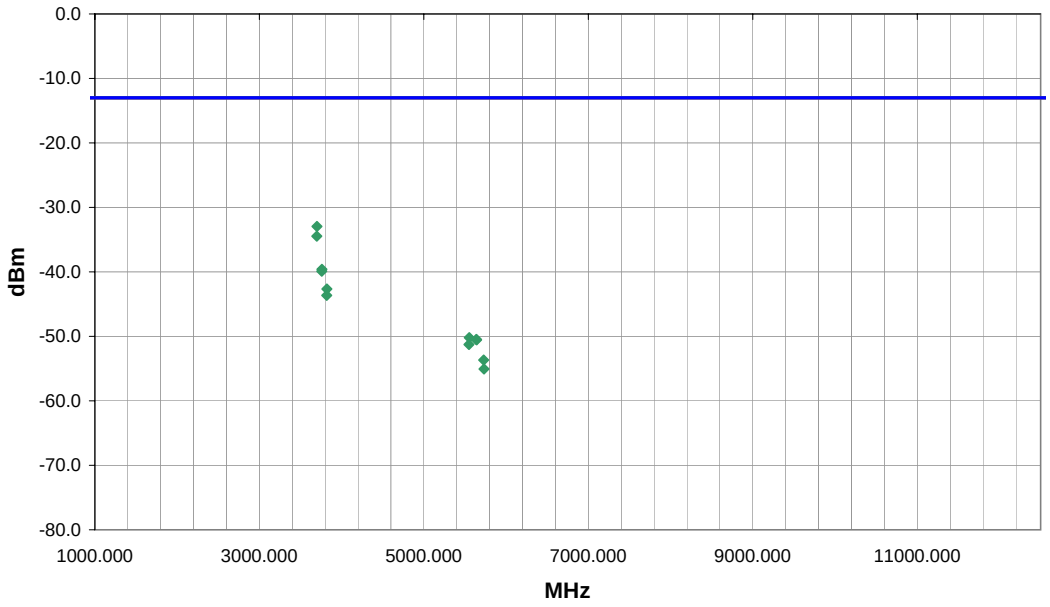
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	8
Configuration #	3
Results	Pass

NVLAP Lab Code 200630-0

Signature Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
3700.702			201.0	1.0			V-Horn	PK	5.07E-07	-32.9	-13.0	-19.9	Low channel
3697.612			169.0	1.0			H-Horn	PK	3.57E-07	-34.5	-13.0	-21.5	Low channel
3760.835			176.0	1.0			H-Horn	PK	1.09E-07	-39.6	-13.0	-26.6	Mid channel
3759.531			271.0	1.0			V-Horn	PK	1.02E-07	-39.9	-13.0	-26.9	Mid channel
3820.322			61.0	1.0			V-Horn	PK	5.42E-08	-42.7	-13.0	-29.7	High channel
3819.716			236.0	1.0			H-Horn	PK	4.32E-08	-43.6	-13.0	-30.6	High channel
5551.817			259.0	1.0			H-Horn	PK	9.53E-09	-50.2	-13.0	-37.2	Low channel
5638.805			192.0	1.0			V-Horn	PK	9.00E-09	-50.5	-13.0	-37.5	Mid channel
5641.967			171.0	1.0			H-Horn	PK	8.82E-09	-50.5	-13.0	-37.5	Mid channel
5548.279			159.0	1.7			V-Horn	PK	7.47E-09	-51.3	-13.0	-38.3	Low channel
5727.085			193.0	1.0			H-Horn	PK	4.28E-09	-53.7	-13.0	-40.7	High channel
5730.642			83.0	1.0			V-Horn	PK	3.12E-09	-55.1	-13.0	-42.1	High channel

NORTHWEST EMC

Spurious Radiated Emissions

PSA 2006.05.30
EMI 2006.4.26

EUT:	IX270-MC8765	Work Order:	SPTE0021
Serial Number:	None	Date:	06/01/06
Customer:	Spectrum Technology, Inc.	Temperature:	23
Attendees:	Rod Munro	Humidity:	36%
Project:	None	Barometric Pres.:	30.15
Tested by:	Holly Ashkannejhad	Power: 120VAC/60Hz	Job Site: EV01

TEST SPECIFICATIONS	Test Method
FCC 24.238:2005	TIA/EIA-603-B:2002

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

COMMENTS

External antenna terminated with dummy load. Vehicle mount configuration.

EUT OPERATING MODES

Edge PCS band, see comments for channel

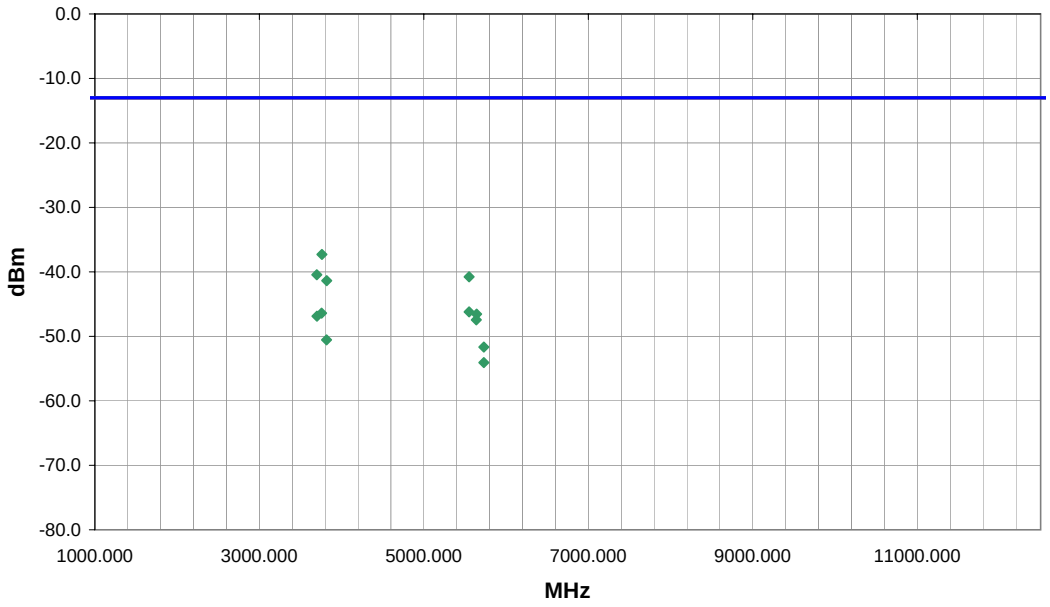
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	14
Configuration #	1
Results	Pass

NVLAP Lab Code 200630-0

Signature Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
3760.388			341.0	1.0			V-Horn	PK	1.86E-07	-37.3	-13.0	-24.3	Mid channel
3699.117			-1.0	1.2			V-Horn	PK	9.02E-08	-40.4	-13.0	-27.4	Low channel
5550.993			339.0	1.0			V-Horn	PK	8.38E-08	-40.8	-13.0	-27.8	Low channel
3819.740			201.0	1.0			V-Horn	PK	7.31E-08	-41.4	-13.0	-28.4	High channel
5550.686			190.0	1.0			H-Horn	PK	2.39E-08	-46.2	-13.0	-33.2	Low channel
3757.338			28.0	1.9			H-Horn	PK	2.29E-08	-46.4	-13.0	-33.4	Mid channel
5642.651			341.0	1.0			V-Horn	PK	2.21E-08	-46.6	-13.0	-33.6	Mid channel
3699.558			213.0	1.5			H-Horn	PK	2.06E-08	-46.9	-13.0	-33.9	Low channel
5638.416			187.0	1.0			H-Horn	PK	1.80E-08	-47.4	-13.0	-34.4	Mid channel
3817.908			316.0	1.5			H-Horn	PK	8.82E-09	-50.5	-13.0	-37.5	High channel
5729.726			97.0	1.0			V-Horn	PK	6.84E-09	-51.7	-13.0	-38.7	High channel
5729.893			153.0	1.6			H-Horn	PK	3.91E-09	-54.1	-13.0	-41.1	High channel

NORTHWEST EMC

Spurious Radiated Emissions

PSA 2006.05.30
EMI 2006.4.26

EUT:	IX270-MC8765	Work Order:	SPTE0021
Serial Number:	None	Date:	06/01/06
Customer:	Spectrum Technology, Inc.	Temperature:	23
Attendees:	Rod Munro	Humidity:	36%
Project:	None	Barometric Pres.:	30.15
Tested by:	Holly Ashkannejhad	Power: 120VAC/60Hz	Job Site: EV01

TEST SPECIFICATIONS	Test Method
FCC 24.238:2005	TIA/EIA-603-B:2002

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

COMMENTS

External antenna terminated with dummy load. Vehicle mount configuration.

EUT OPERATING MODES

GSM PCS band, see comments for channel

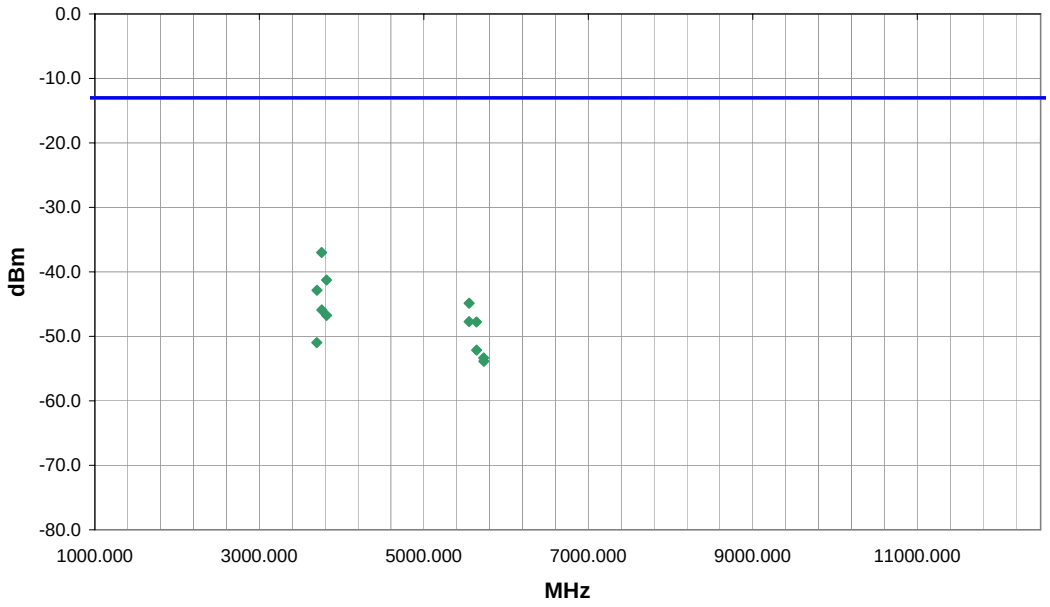
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	15
Configuration #	1
Results	Pass

NVLAP Lab Code 200630-0

Signature Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
3756.868			342.0	1.0			V-Horn	PK	1.99E-07	-37.0	-13.0	-24.0	Mid channel
3818.018			202.0	1.0			V-Horn	PK	7.48E-08	-41.3	-13.0	-28.3	High channel
3700.443			331.0	1.0			V-Horn	PK	5.19E-08	-42.8	-13.0	-29.8	Low channel
5550.609			255.0	1.0			V-Horn	PK	3.26E-08	-44.9	-13.0	-31.9	Low channel
3759.155			337.0	2.2			H-Horn	PK	2.57E-08	-45.9	-13.0	-32.9	Mid channel
3816.446			319.0	2.2			H-Horn	PK	2.12E-08	-46.7	-13.0	-33.7	High channel
5550.651			192.0	1.0			H-Horn	PK	1.69E-08	-47.7	-13.0	-34.7	Low channel
5639.210			341.0	1.0			V-Horn	PK	1.68E-08	-47.8	-13.0	-34.8	Mid channel
3698.457			214.0	1.5			H-Horn	PK	8.00E-09	-51.0	-13.0	-38.0	Low channel
5641.366			274.0	1.0			H-Horn	PK	6.10E-09	-52.1	-13.0	-39.1	Mid channel
5728.558			334.0	1.0			V-Horn	PK	4.62E-09	-53.4	-13.0	-40.4	High channel
5729.915			206.0	1.0			H-Horn	PK	4.09E-09	-53.9	-13.0	-40.9	High channel

NORTHWEST EMC

Spurious Radiated Emissions

PSA 2006.05.30
EMI 2006.6.2

EUT:	IX270-MC8765			Work Order:	SPTE0021
Serial Number:	None			Date:	06/07/06
Customer:	Spectrum Technology, Inc.			Temperature:	23
Attendees:	Rod Munro			Humidity:	36%
Project:	None			Barometric Pres.:	30.15
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 24.238:2005	TIA/EIA-603-B:2002

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

COMMENTS

Internal antenna

EUT OPERATING MODES

WCDMA PCS band, low channel

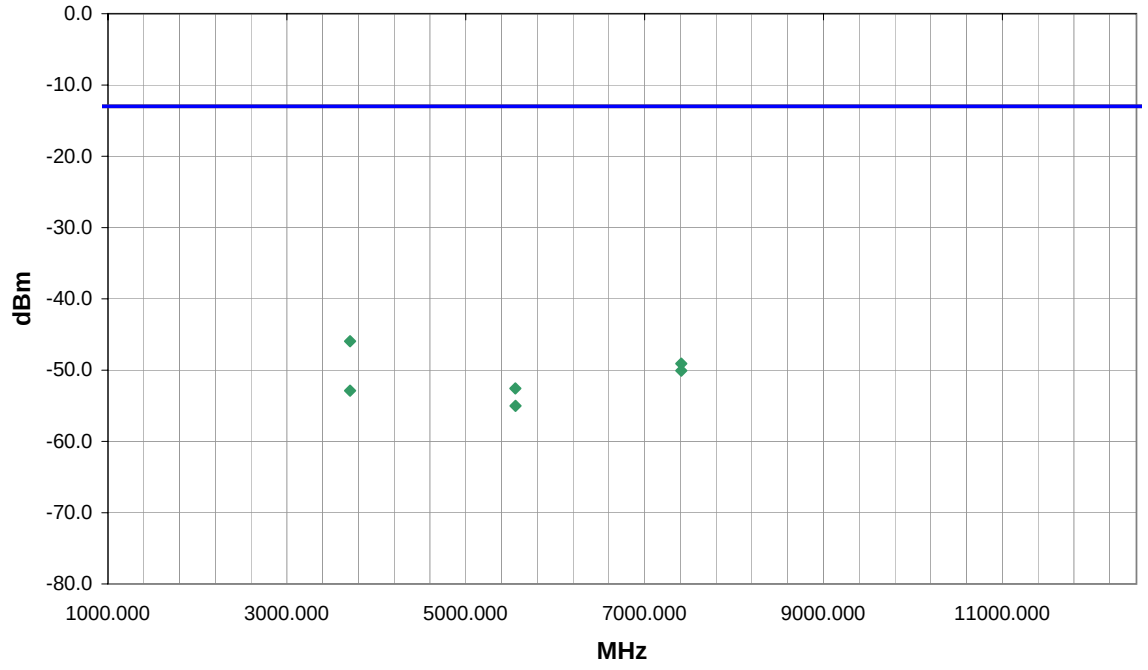
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	18
Configuration #	3
Results	Pass

NVLAP Lab Code 200630-0

Signature Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
3706.853			150.0	1.0			V-Horn	PK	2.54E-08	-46.0	-13.0	-33.0
7409.693			278.0	1.0			H-Horn	PK	1.23E-08	-49.1	-13.0	-36.1
7410.627			34.0	2.9			V-Horn	PK	9.84E-09	-50.1	-13.0	-37.1
3706.320			76.0	1.0			H-Horn	PK	5.16E-09	-52.9	-13.0	-39.9
5555.640			322.0	1.0			V-Horn	PK	5.54E-09	-52.6	-13.0	-39.6
5556.467			146.0	3.2			H-Horn	PK	3.16E-09	-55.0	-13.0	-42.0

NORTHWEST EMC

Spurious Radiated Emissions

PSA 2006.05.30
EMI 2006.6.2

EUT:	IX270-MC8765			Work Order:	SPTE0021
Serial Number:	None			Date:	06/07/06
Customer:	Spectrum Technology, Inc.			Temperature:	23
Attendees:	Rod Munro			Humidity:	36%
Project:	None			Barometric Pres.:	30.15
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 24.238:2005	TIA/EIA-603-B:2002

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

COMMENTS

Internal antenna

EUT OPERATING MODES

WCDMA PCS band, high channel

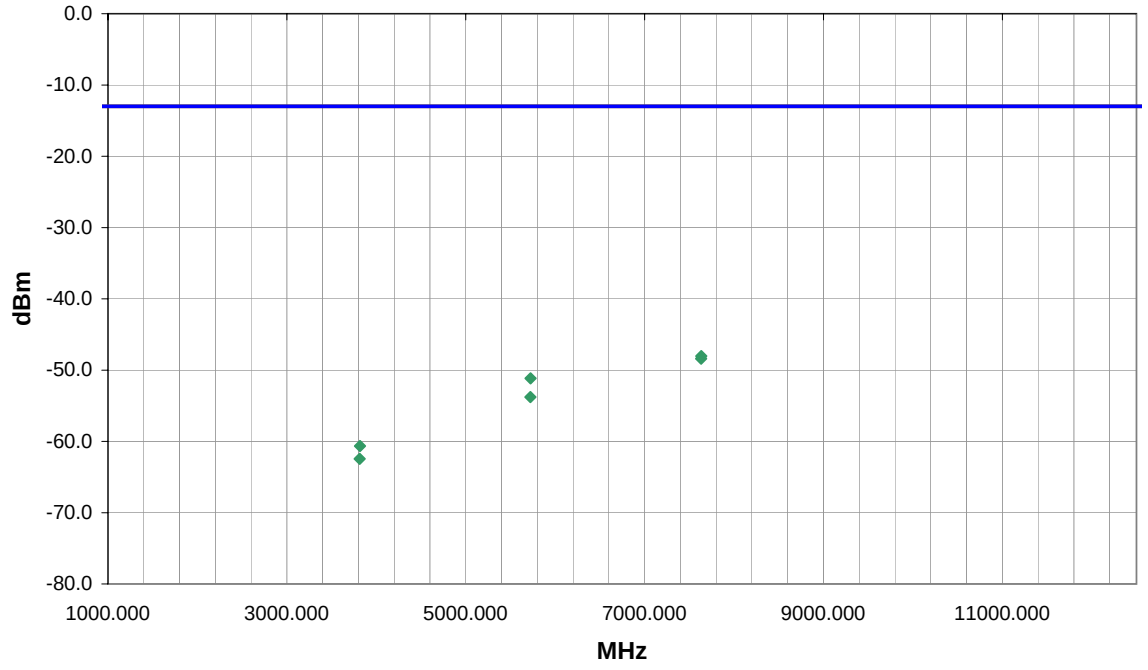
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	19
Configuration #	3
Results	Pass

NVLAP Lab Code 200630-0

Signature Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
7632.133			238.0	1.0			V-Horn	PK	1.45E-08	-48.4	-13.0	-35.4
7633.640			44.0	3.0			H-Horn	PK	1.57E-08	-48.0	-13.0	-35.0
5725.310			133.0	1.0			V-Horn	PK	7.67E-09	-51.2	-13.0	-38.2
5722.897			244.0	1.0			H-Horn	PK	4.18E-09	-53.8	-13.0	-40.8
3817.647			-1.0	1.1			V-Horn	PK	8.59E-10	-60.7	-13.0	-47.7
3813.620			57.0	1.0			H-Horn	PK	5.70E-10	-62.4	-13.0	-49.4

NORTHWEST
EMC

Spurious Radiated Emissions

PSA 2006.05.30
EMI 2006.6.2

EUT:	IX270-MC8765			**Work Order:**	SPTE0021
Serial Number:	None			**Date:**	06/08/06
Customer:	Spectrum Technology, Inc.			**Temperature:**	23
Attendees:	Rod Munro			**Humidity:**	36%
Project:	None			**Barometric Pres.:**	30.15
Tested by:	Rod Peloquin	**Power:**	120VAC/60Hz	**Job Site:**	EV01

TEST SPECIFICATIONS	Test Method
FCC 24.238:2005	TIA/EIA-603-B:2002

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

COMMENTS

Internal antenna

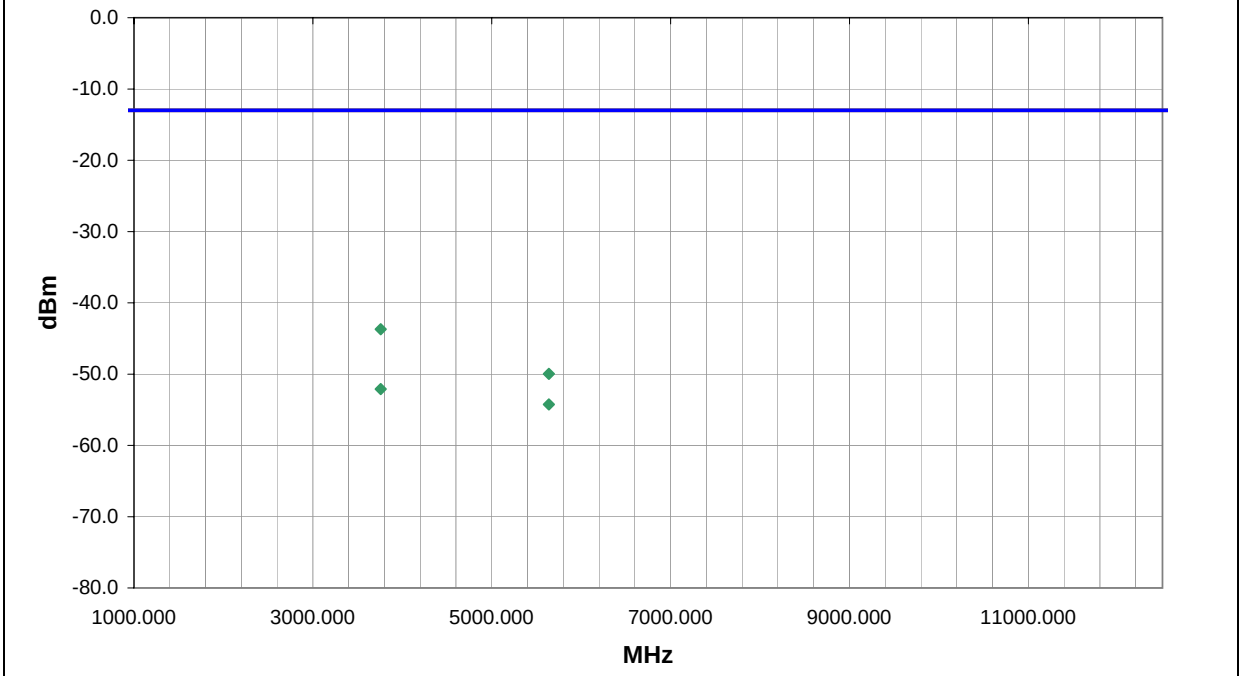
EUT OPERATING MODES

WCDMA PCS band, mid channel

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	20		
Configuration #	3		
Results	Pass	NVLAP Lab Code 200630-0	*Signature*



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
3758.490			133.0	1.1			V-Horn	PK	4.26E-08	-43.7	-13.0	-30.7
5638.560			304.0	1.1			V-Horn	PK	1.01E-08	-50.0	-13.0	-37.0
3758.080			0.0	2.4			H-Horn	PK	6.15E-09	-52.1	-13.0	-39.1
5638.730			154.0	1.6			H-Horn	PK	3.76E-09	-54.2	-13.0	-41.2

NORTHWEST EMC

Spurious Radiated Emissions

PSA 2006.05.30
EMI 2006.6.8

EUT:	IX270-MC8765			Work Order:	SPTE0021
Serial Number:	None			Date:	06/09/06
Customer:	Spectrum Technology, Inc.			Temperature:	23
Attendees:	Rod Munro			Humidity:	36%
Project:	None			Barometric Pres.:	30.15
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 24.238:2005	TIA/EIA-603-B:2002

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

COMMENTS

External antenna. Vehicular mount configuration.

EUT OPERATING MODES

WCDMA PCS band, low channel

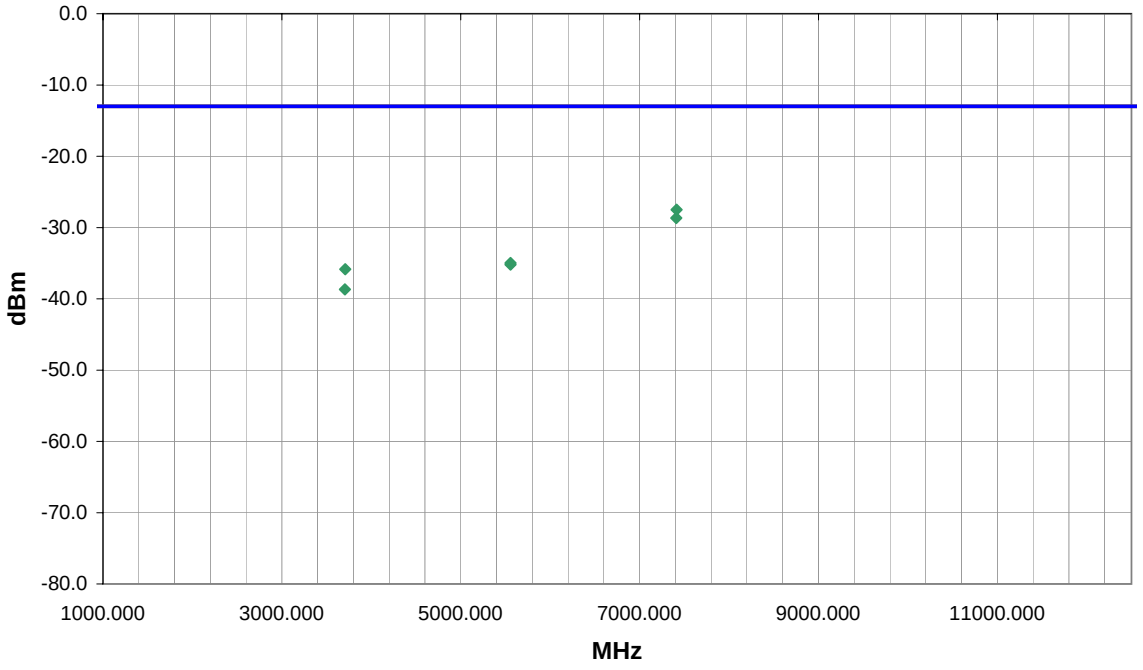
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	28
Configuration #	2
Results	Pass

NVLAP Lab Code 200630-0

Signature Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
7413.820			140.0	1.8			H-Horn	PK	1.78E-06	-27.5	-13.0	-14.5
7410.770			17.0	2.0			V-Horn	PK	1.36E-06	-28.7	-13.0	-15.7
5556.030			56.0	1.0			V-Horn	PK	3.19E-07	-35.0	-13.0	-22.0
5557.580			312.0	1.7			H-Horn	PK	3.02E-07	-35.2	-13.0	-22.2
3708.910			108.0	1.3			V-Horn	PK	2.60E-07	-35.9	-13.0	-22.9
3704.440			153.0	1.6			H-Horn	PK	1.36E-07	-38.7	-13.0	-25.7

NORTHWEST EMC

Spurious Radiated Emissions

PSA 2006.05.30
EMI 2006.6.8

EUT:	IX270-MC8765			Work Order:	SPTE0021
Serial Number:	None			Date:	06/09/06
Customer:	Spectrum Technology, Inc.			Temperature:	23
Attendees:	Rod Munro			Humidity:	36%
Project:	None			Barometric Pres.:	30.15
Tested by:	Holly Ashkannejhad	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 24.238:2005	TIA/EIA-603-B:2002

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

COMMENTS

External antenna. Vehicular mount configuration.

EUT OPERATING MODES

WCDMA PCS band, high channel

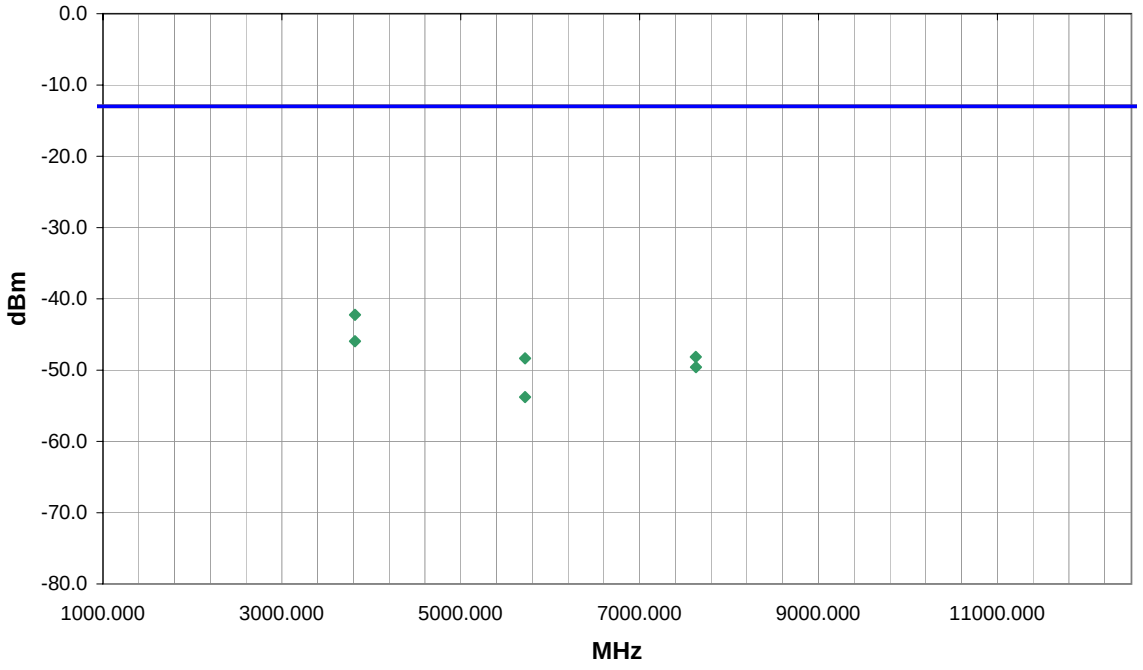
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	29
Configuration #	2
Results	Pass

NVLAP Lab Code 200630-0

Signature Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
3818.120			327.0	2.1			H-Horn	PK	5.96E-08	-42.2	-13.0	-29.2
3817.120			326.0	1.0			V-Horn	PK	2.54E-08	-46.0	-13.0	-33.0
7627.720			160.0	2.5			H-Horn	PK	1.53E-08	-48.1	-13.0	-35.1
5718.900			302.0	1.0			V-Horn	PK	1.46E-08	-48.4	-13.0	-35.4
7629.340			352.0	2.9			V-Horn	PK	1.10E-08	-49.6	-13.0	-36.6
5720.050			212.0	2.4			H-Horn	PK	4.18E-09	-53.8	-13.0	-40.8

NORTHWEST EMC

Spurious Radiated Emissions

PSA 2006.05.30
EMI 2006.6.9

EUT:	IX270-MC8765			**Work Order:**	SPTE0021
Serial Number:	None			**Date:**	06/12/06
Customer:	Spectrum Technology, Inc.			**Temperature:**	24
Attendees:	None			**Humidity:**	46%
Project:	None			**Barometric Pres.:**	29.99
Tested by:	Holly Ashkannejhad	**Power:**	120VAC/60Hz	**Job Site:**	EV01

TEST SPECIFICATIONS	Test Method
FCC 24.238:2005	TIA/EIA-603-B:2002

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

COMMENTS

External antenna. Vehicle mount configuration.

EUT OPERATING MODES

WCDMA PCS band, mid channel

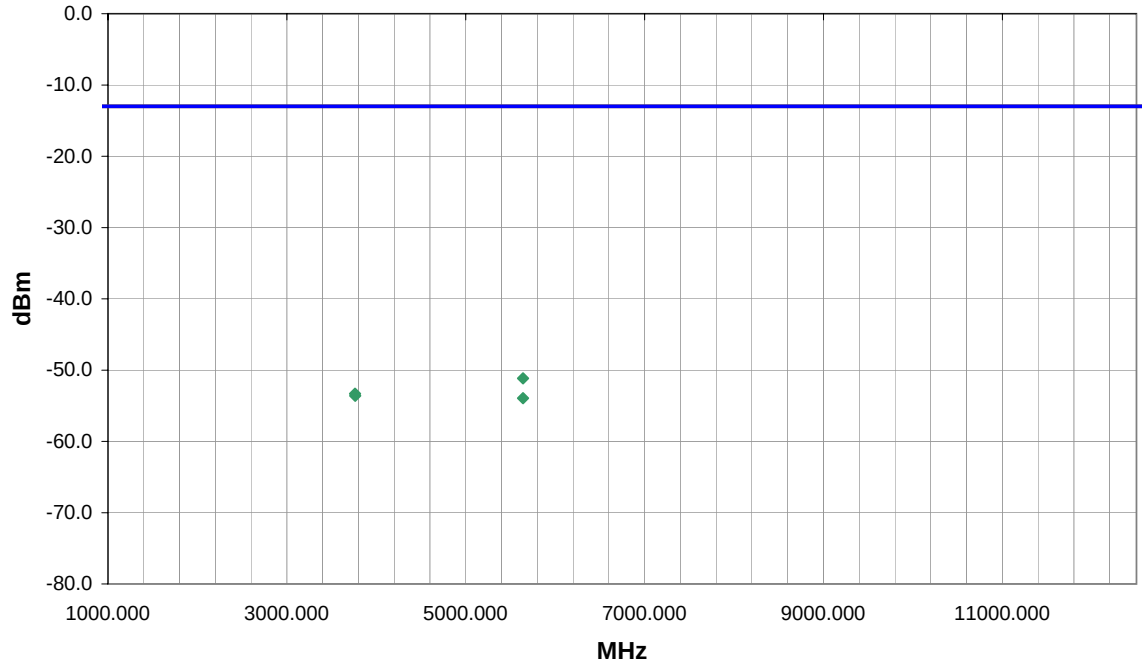
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	38
Configuration #	2
Results	Pass

NVLAP Lab Code 200630-0

Signature Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
5640.390			238.0	1.1			V-Horn	PK	7.66E-09	-51.2	-13.0	-38.2
3761.570			89.0	1.2			H-Horn	PK	4.67E-09	-53.3	-13.0	-40.3
3764.700			228.0	1.1			V-Horn	PK	4.36E-09	-53.6	-13.0	-40.6
5641.500			45.0	1.2			H-Horn	PK	4.03E-09	-53.9	-13.0	-40.9

NORTHWEST EMC

Spurious Radiated Emissions

PSA 2006.05.30
EMI 2006.6.9

EUT:	IX270-MC8765			Work Order:	SPTE0021
Serial Number:	None			Date:	06/13/06
Customer:	Spectrum Technology, Inc.			Temperature:	23
Attendees:	None			Humidity:	36%
Project:	None			Barometric Pres.:	30.15
Tested by:	Rod Peloquin	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 22.917:2002	TIA/EIA-603-B:2002

TEST PARAMETERS

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

COMMENTS

External antenna. Vehicle mount configuration.

EUT OPERATING MODES

EDGE Cellular band, see comments for channel

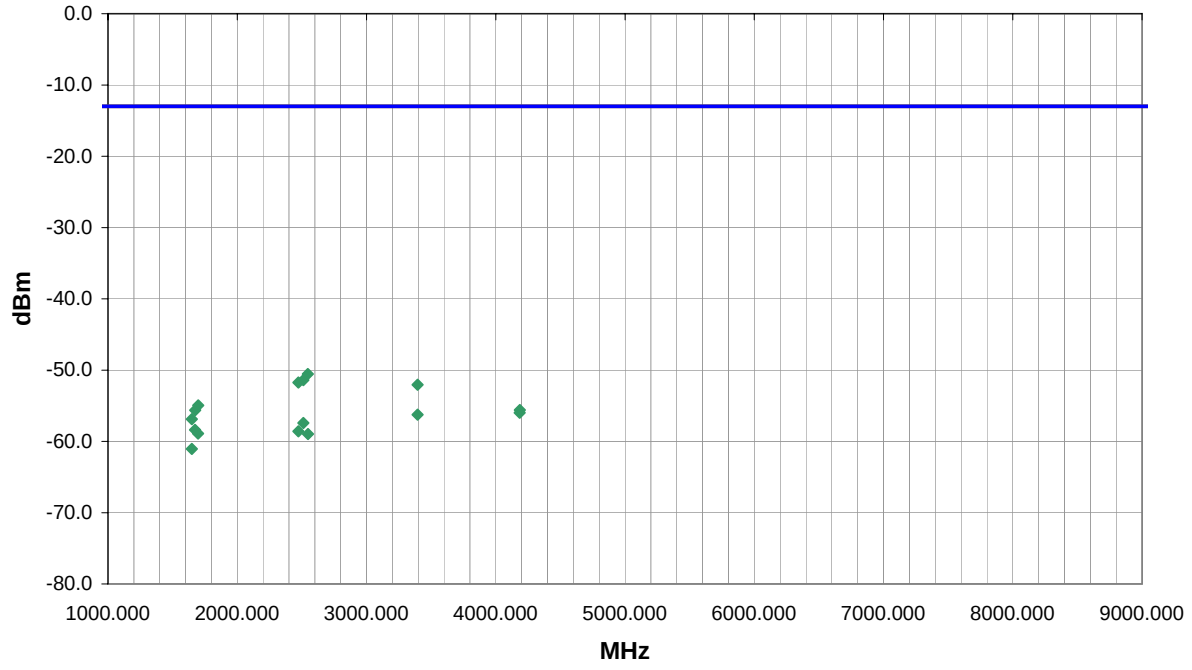
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	39
Configuration #	1
Results	Pass

NVLAP Lab Code 200630-0

Signature



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
2546.270			227.0	1.0			V-Horn	PK	8.81E-09	-50.5	-13.0	-37.5
2510.948			302.0	1.0			V-Horn	PK	7.24E-09	-51.4	-13.0	-38.4
2472.656			300.0	1.0			V-Horn	PK	6.69E-09	-51.7	-13.0	-38.7
3395.163			342.0	1.4			V-Horn	PK	6.24E-09	-52.0	-13.0	-39.0
1697.856			301.0	1.0			V-Horn	PK	3.19E-09	-55.0	-13.0	-42.0
4185.575			231.0	1.0			V-Horn	PK	2.76E-09	-55.6	-13.0	-42.6
1674.036			14.0	1.0			V-Horn	PK	2.74E-09	-55.6	-13.0	-42.6
4184.515			14.0	1.6			H-Horn	PK	2.53E-09	-56.0	-13.0	-43.0
3395.317			301.0	3.3			H-Horn	PK	2.37E-09	-56.3	-13.0	-43.3
1648.489			313.0	1.0			V-Horn	PK	2.05E-09	-56.9	-13.0	-43.9
2511.285			35.0	1.0			H-Horn	PK	1.81E-09	-57.4	-13.0	-44.4
1672.756			219.0	1.0			H-Horn	PK	1.45E-09	-58.4	-13.0	-45.4
2472.449			162.0	1.5			H-Horn	PK	1.38E-09	-58.6	-13.0	-45.6
1697.446			175.0	1.0			H-Horn	PK	1.29E-09	-58.9	-13.0	-45.9
2546.910			264.0	1.1			H-Horn	PK	1.27E-09	-59.0	-13.0	-46.0
1648.316			329.0	1.7			H-Horn	PK	7.83E-10	-61.1	-13.0	-48.1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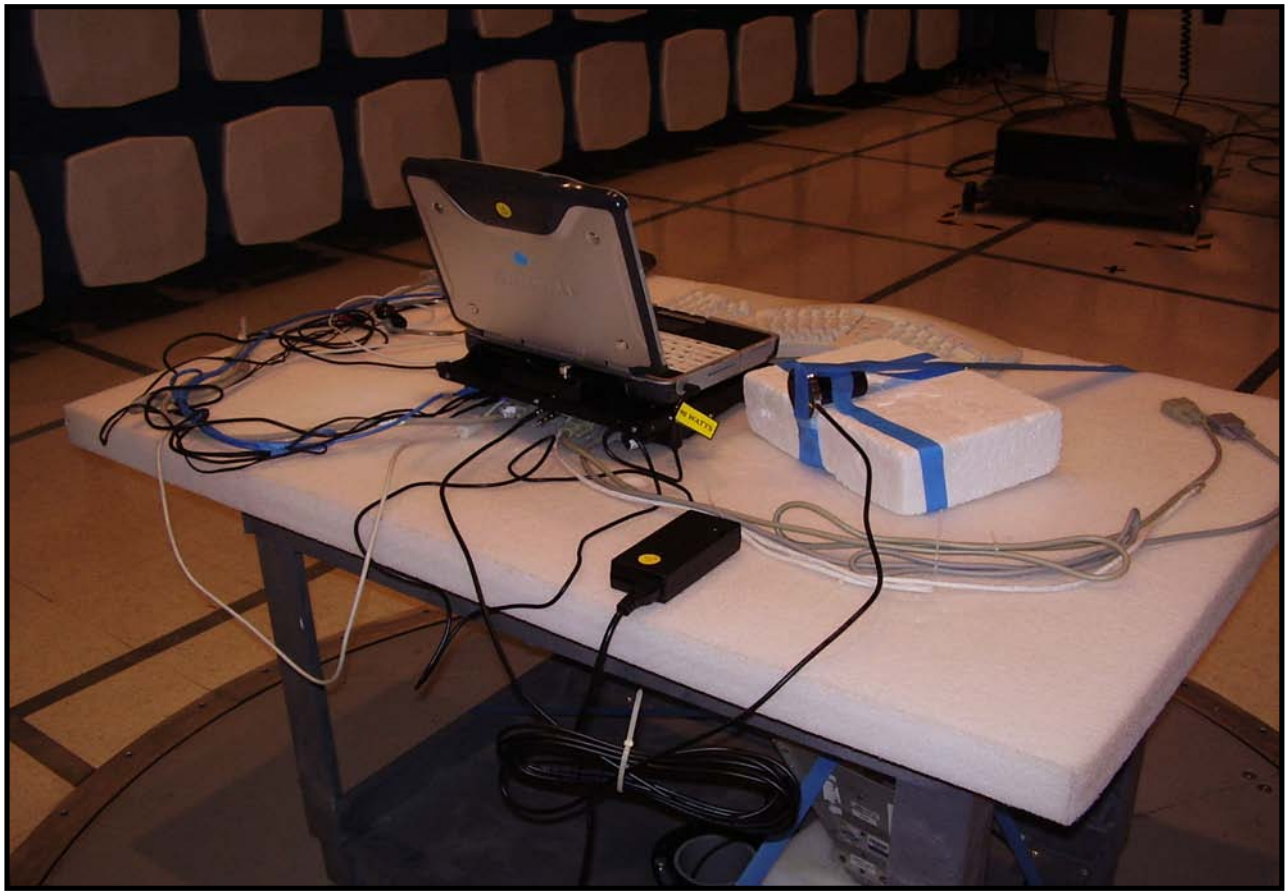


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ERP and EIRP of the Fundamental

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
Edge PCS band
Edge Cellular band
WCDMA PCS band
W-CDMA Cellular band
GSM PCS band
GSM Cellular band

POWER SETTINGS INVESTIGATED
120VAC/60Hz

FREQUENCY RANGE INVESTIGATED			
Start Frequency	800MHz	Stop Frequency	1950MHz

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

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
EV01 cables g,h,j			EVB	3/30/2006	13
EV01 cables c,g, h			EVA	3/30/2006	13
Antenna, Horn	EMCO	3115	AHC	8/30/2005	12
Antenna, Biconilog	EMCO	3141	AXE	12/28/2005	24
Antenna, Dipole (part of ADA)	ETS	3121C-DB4	ADAA	1/6/2005	24
Antenna, Dipole (ADAA included)	Roberts	Roberts	ADA	1/6/2005	24
Signal Generator	Hewlett Packard	8341B	TGN	1/26/2006	13
Antenna, Horn	EMCO	3115	AHJ	5/20/2005	24
Spectrum Analyzer	Agilent	E4446A	AAT	4/4/2006	12

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 antennas to be used with the EUT were tested. The EUT was transmitting while set at the lowest channel, a middle channel, and the highest channel available. The fundamental emissions from the EUT were maximized by rotating the EUT, adjusting the measurement antenna height and polarization, and manipulating the EUT antenna in 3 orthogonal planes.

The amplitude and frequency of the highest emissions were noted. The EUT was then replaced with an antenna. A signal generator was connected to the antenna and its output was adjusted to match the level previously noted for each frequency. The output of the signal generator was recorded, and by factoring in the cable loss to the dipole antenna and its gain (dBi); the effective radiated power for each emission was determined.

NORTHWEST EMC

Effective Radiated Power (ERP)

PSA 2006.05.30
EMI 2006.4.26

EUT:	IX270-MC8765			**Work Order:**	SPTE0021
Serial Number:	None			**Date:**	05/30/06
Customer:	Spectrum Technology, Inc.			**Temperature:**	23
Attendees:	Rod Munro			**Humidity:**	36%
Project:	None			**Barometric Pres.:**	30.15
Tested by:	Holly Ashkannejhad	**Power:**	120VAC/60Hz	**Job Site:**	EV01

TEST SPECIFICATIONS	Test Method
FCC 22.913:2005	TIA/EIA-603-B:2002

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

COMMENTS

Internal antenna

EUT OPERATING MODES

GSM Cellular band

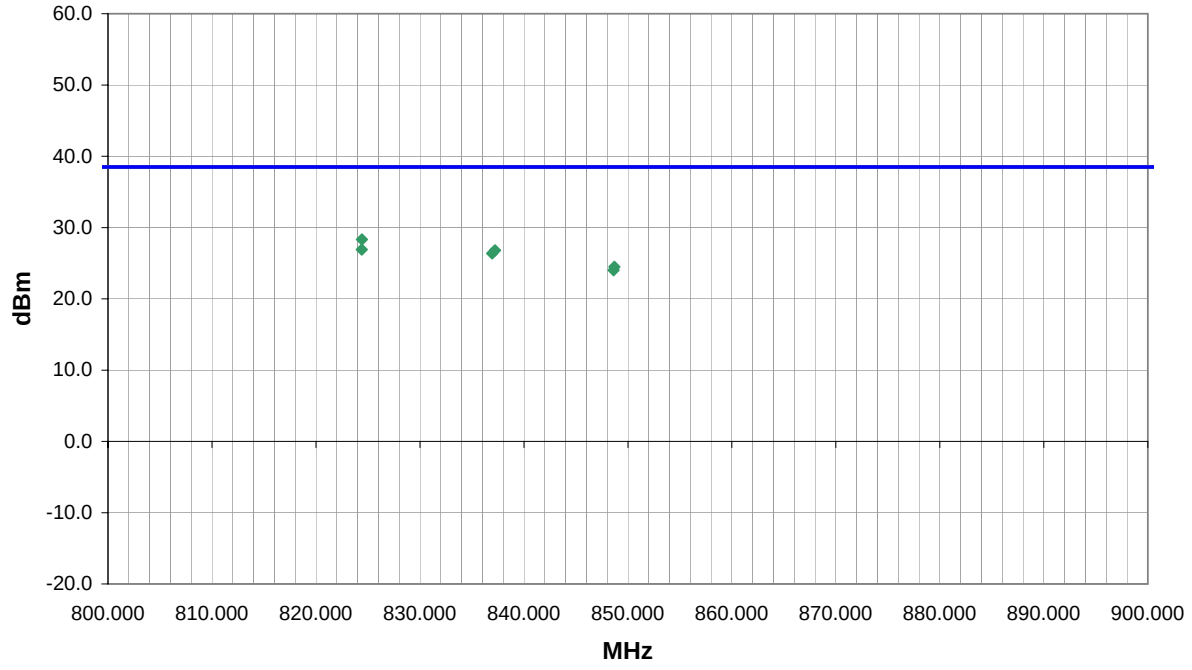
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	1
Configuration #	3
Results	Pass

NVLAP Lab Code 200630-0

Signature Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	ERP (Watts)	ERP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
824.413			43.0	1.0			V-Bilog	PK	6.79E-01	28.3	38.5	-10.2
824.411			124.0	1.0			H-Bilog	PK	4.91E-01	26.9	38.5	-11.6
837.214			205.0	1.6			H-Bilog	PK	4.79E-01	26.8	38.5	-11.7
836.941			81.0	1.7			V-Bilog	PK	4.34E-01	26.4	38.5	-12.1
848.705			320.0	1.0			H-Bilog	PK	2.81E-01	24.5	38.5	-14.0
848.626			284.0	1.0			V-Bilog	PK	2.52E-01	24.0	38.5	-14.5

NORTHWEST EMC

Effective Radiated Power (EIRP)

PSA 2006.05.30
EMI 2006.4.26

EUT:	IX270-MC8765			**Work Order:**	SPTE0021
Serial Number:	None			**Date:**	05/30/06
Customer:	Spectrum Technology, Inc.			**Temperature:**	23
Attendees:	Rod Munro			**Humidity:**	36%
Project:	None			**Barometric Pres.:**	30.15
Tested by:	Holly Ashkannejhad	**Power:**	120VAC/60Hz	**Job Site:**	EV01

TEST SPECIFICATIONS	Test Method
FCC 24.232:2005	TIA/EIA-603-B:2002

TEST PARAMETERS

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

COMMENTS

Internal antenna

EUT OPERATING MODES

GSM PCS band

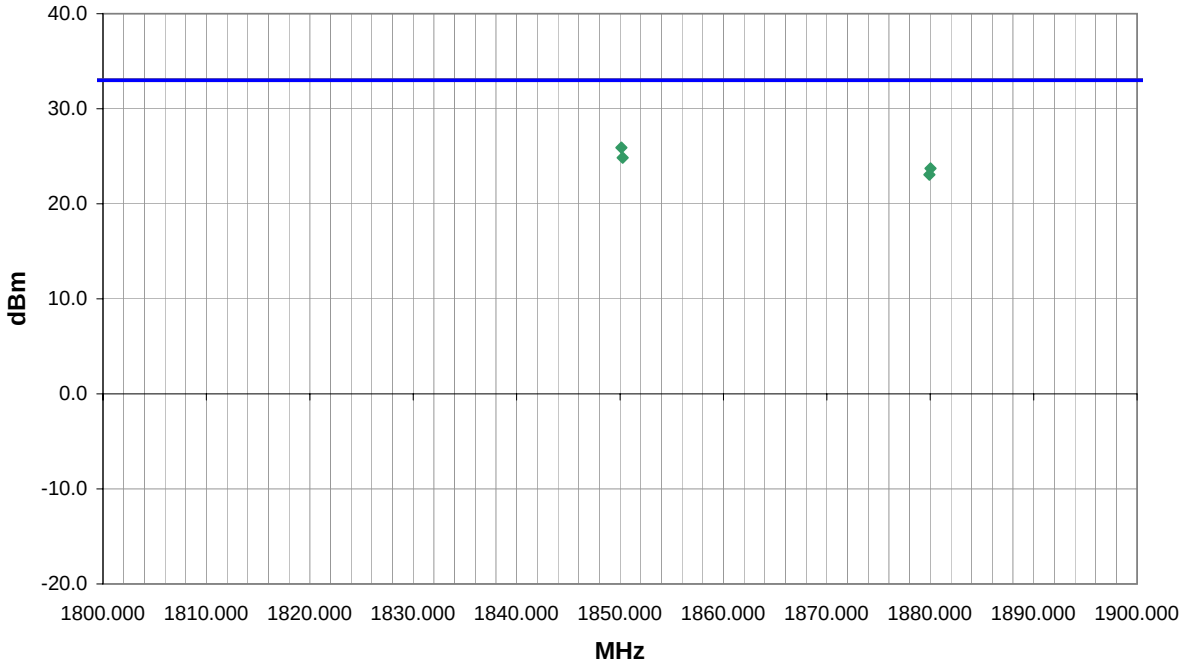
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	**3**
Configuration #	**3**
Results	**Pass**

NVLAP Lab Code 200630-0

Signature Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
1850.136			167.0	1.0			V-Horn	PK	3.90E-01	25.9	33.0	-7.1
1850.259			121.0	1.2			H-Horn	PK	3.06E-01	24.9	33.0	-8.1
1880.030			111.0	1.5			H-Horn	PK	2.36E-01	23.7	33.0	-9.3
1879.924			55.0	2.3			V-Horn	PK	2.02E-01	23.1	33.0	-9.9
1909.729			350.0	1.0			V-Horn	PK	7.62E-02	18.8	33.0	-14.2
1909.877			98.0	1.5			H-Horn	PK	7.25E-02	18.6	33.0	-14.4

NORTHWEST EMC

Effective Radiated Power (ERP)

PSA 2006.05.30
EMI 2006.4.26

EUT:	IX270-MC8765			**Work Order:**	SPTE0021
Serial Number:	None			**Date:**	05/30/06
Customer:	Spectrum Technology, Inc.			**Temperature:**	23
Attendees:	Rod Munro			**Humidity:**	36%
Project:	None			**Barometric Pres.:**	30.15
Tested by:	Holly Ashkannejhad	**Power:**	120VAC/60Hz	**Job Site:**	EV01

TEST SPECIFICATIONS	Test Method
FCC 22.913:2005	TIA/EIA-603-B:2002

TEST PARAMETERS

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

COMMENTS

Internal antenna

EUT OPERATING MODES

Edge Cellular band

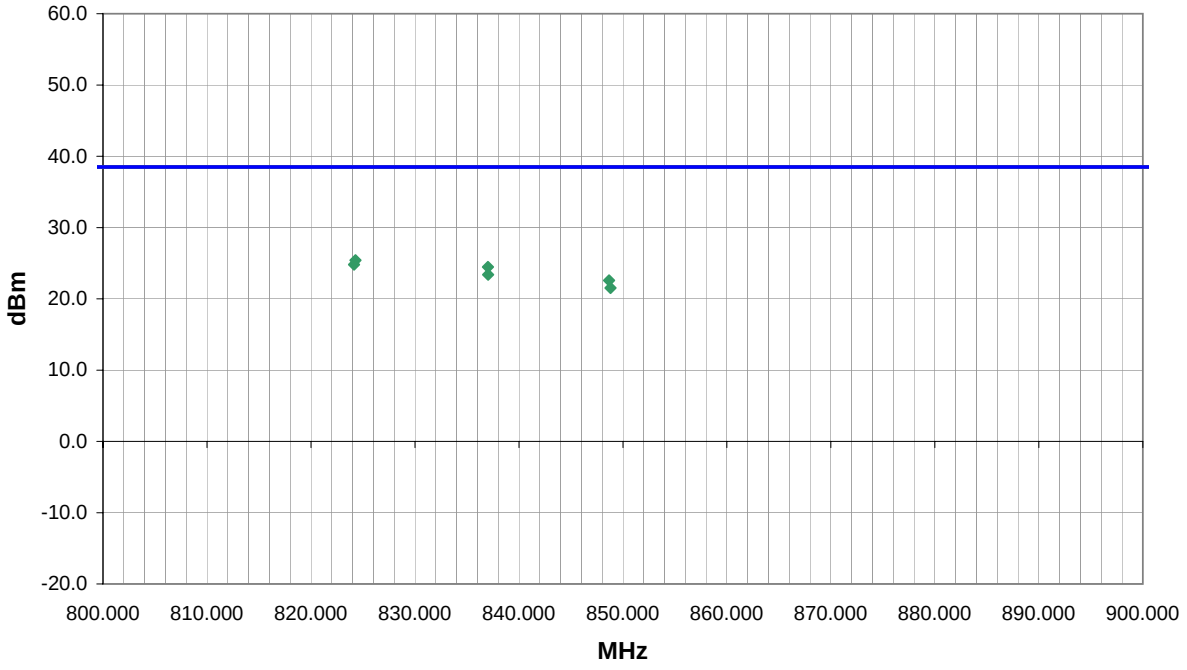
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	**2**
Configuration #	**3**
Results	**Pass**

NVLAP Lab Code 200630-0

Signature Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	ERP (Watts)	ERP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
824.278			83.0	1.8			V-Bilog	PK	3.48E-01	25.4	38.5	-13.1
824.149			325.0	1.8			H-Bilog	PK	3.03E-01	24.8	38.5	-13.7
837.023			82.0	1.7			V-Bilog	PK	2.80E-01	24.5	38.5	-14.0
837.031			22.0	1.0			H-Bilog	PK	2.19E-01	23.4	38.5	-15.1
848.674			218.0	1.4			H-Bilog	PK	1.82E-01	22.6	38.5	-15.9
848.813			274.0	1.0			V-Bilog	PK	1.42E-01	21.5	38.5	-17.0

NORTHWEST EMC

Effective Radiated Power (EIRP)

PSA 2006.05.30
EMI 2006.4.26

EUT:	IX270-MC8765			**Work Order:**	SPTE0021
Serial Number:	None			**Date:**	05/30/06
Customer:	Spectrum Technology, Inc.			**Temperature:**	23
Attendees:	Rod Munro			**Humidity:**	36%
Project:	None			**Barometric Pres.:**	30.15
Tested by:	Holly Ashkannejhad	**Power:**	120VAC/60Hz	**Job Site:**	EV01

TEST SPECIFICATIONS	Test Method
FCC 24.232:2005	TIA/EIA-603-B:2002

TEST PARAMETERS

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

COMMENTS

Internal antenna

EUT OPERATING MODES

Edge PCS band

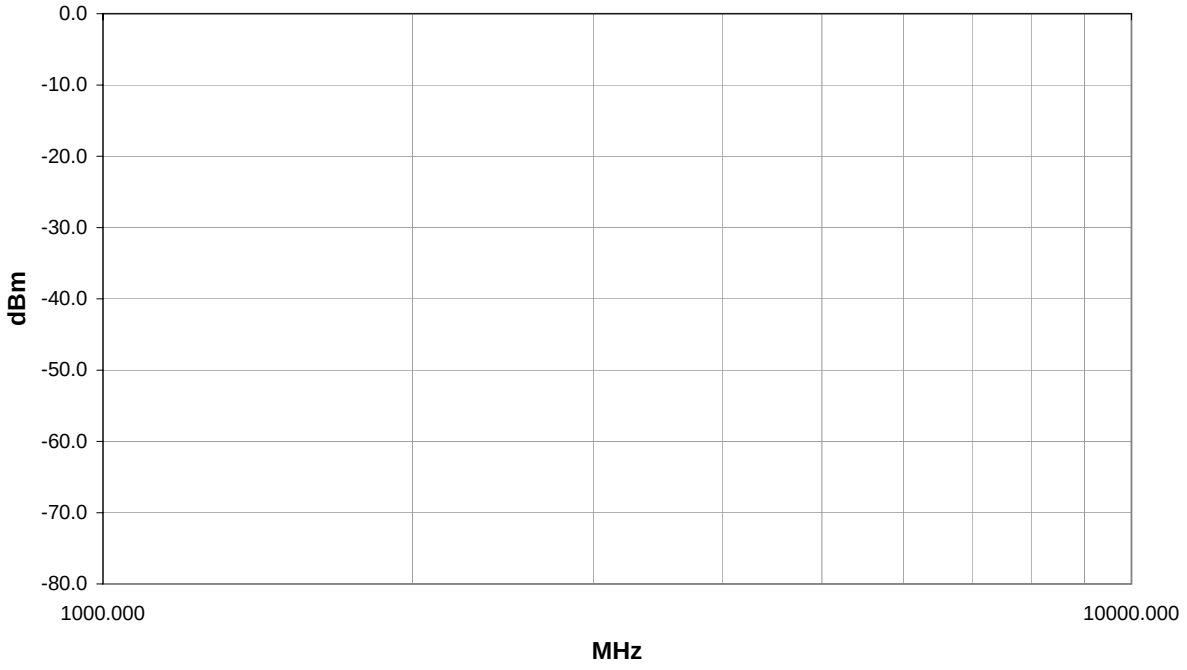
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	4
Configuration #	3
Results	Pass

NVLAP Lab Code 200630-0

Signature Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
1879.879			168.0	2.0			V-Horn	PK	2.67E-02	14.3	33.0	-18.7
1910.006			134.0	1.0			V-Horn	PK	2.46E-02	13.9	33.0	-19.1
1849.947			103.0	1.0			H-Horn	PK	1.93E-02	12.9	33.0	-20.1
1909.831			160.0	1.0			H-Horn	PK	1.35E-02	11.3	33.0	-21.7
1850.289			162.0	1.0			V-Horn	PK	1.23E-02	10.9	33.0	-22.1
1879.953			92.0	1.8			H-Horn	PK	8.77E-03	9.4	33.0	-23.6

NORTHWEST EMC

Effective Radiated Power (ERP)

PSA 2006.05.30
EMI 2006.6.8

EUT:	IX270-MC8765	Work Order:	SPTE0021
Serial Number:	None	Date:	06/09/06
Customer:	Spectrum Technology	Temperature:	23
Attendees:	None	Humidity:	47%
Project:	None	Barometric Pres.:	29.98
Tested by:	Holly Ashkannejhad	Power: 120VAC/60Hz	Job Site: EV01

TEST SPECIFICATIONS	Test Method
FCC 22.913:2005	TIA/EIA-603-B:2002

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

COMMENTS

Internal antenna. Notebook standalone configuration.

EUT OPERATING MODES

WCDMA Cellular band, see comments for channel

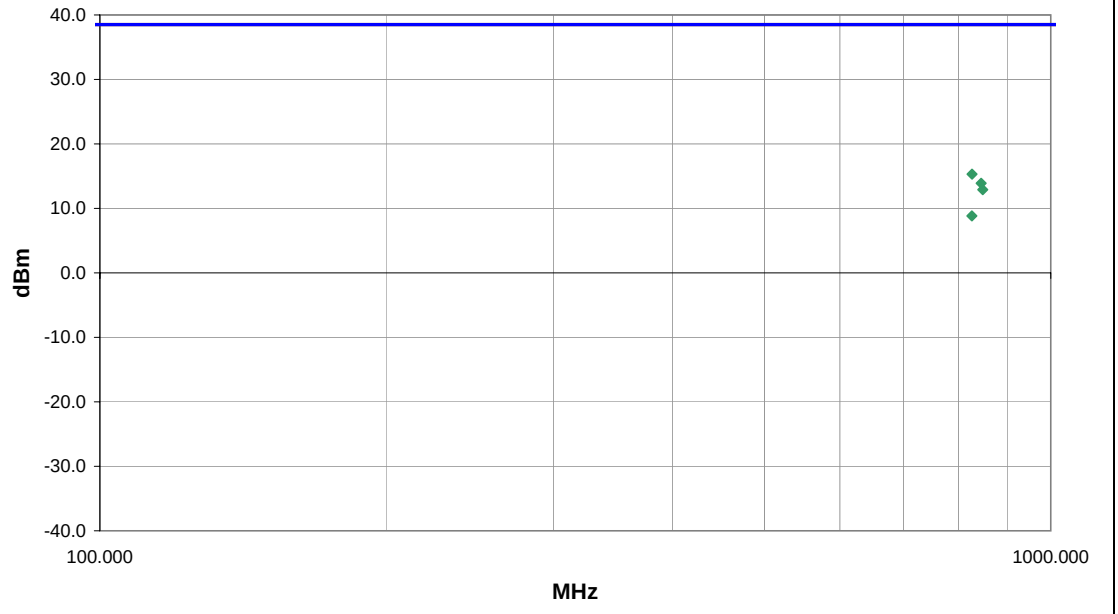
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	30
Configuration #	3
Results	Pass

NVLAP Lab Code 200630-0

Signature Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	ERP (Watts)	ERP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
826.433			187.0	1.1			H-Bilog	PK	3.39E-02	15.3	38.5	-23.2	Low channel
845.017			349.0	1.0			H-Bilog	PK	2.45E-02	13.9	38.5	-24.6	High channel
848.242			0.0	2.1			V-Bilog	PK	1.95E-02	12.9	38.5	-25.6	High channel
826.275			57.0	2.2			V-Bilog	PK	7.66E-03	8.8	38.5	-29.7	Low channel

NORTHWEST EMC

Effective Radiated Power (ERP)

PSA 2006.05.30
EMI 2006.6.9

EUT:	IX270-MC8765	Work Order:	SPTE0021
Serial Number:	None	Date:	06/12/06
Customer:	Spectrum Technology	Temperature:	24
Attendees:	None	Humidity:	49%
Project:	None	Barometric Pres.:	29.88
Tested by:	Holly Ashkannejhad	Power: 120VAC/60Hz	Job Site: EV01

TEST SPECIFICATIONS	Test Method
FCC 22.913:2005	TIA/EIA-603-B:2002

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

COMMENTS

Internal antenna.

EUT OPERATING MODES

W-CDMA Cellular band, see comments for channel

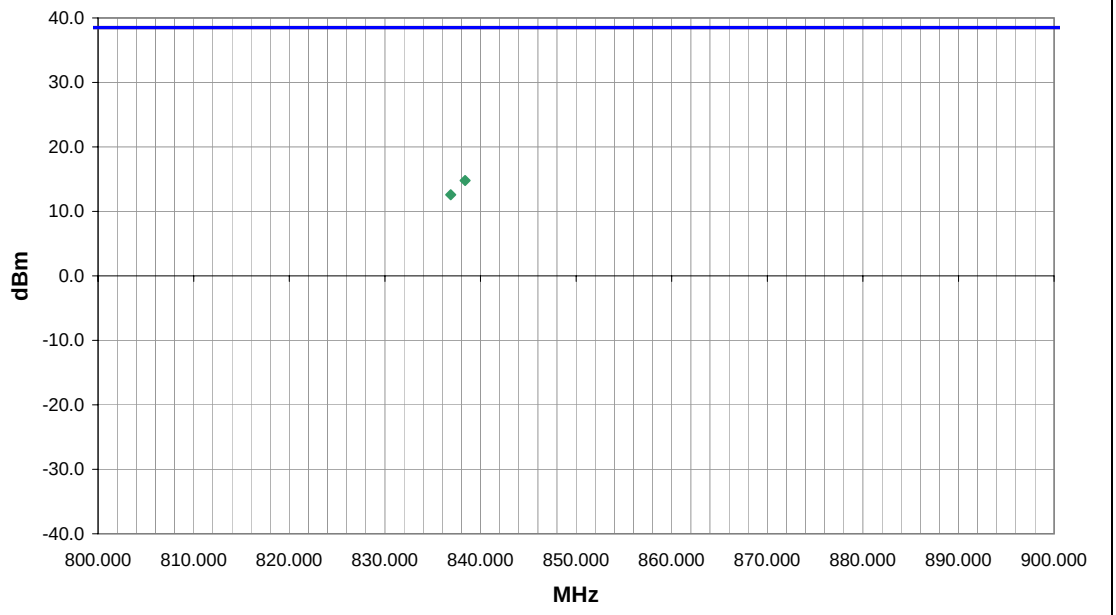
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	36
Configuration #	3
Results	Pass

NVLAP Lab Code 200630-0

Signature Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	ERP (Watts)	ERP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
838.385			135.0	1.0			H-Bilog	PK	3.02E-02	14.8	38.5	-23.7	Mid channel
836.893			159.0	3.4			V-Bilog	PK	1.81E-02	12.6	38.5	-25.9	Mid channel

NORTHWEST EMC

Effective Radiated Power (EIRP)

PSA 2006.05.30
EMI 2006.6.8

EUT:	IX270-MC8765	Work Order:	SPTE0021
Serial Number:	None	Date:	06/09/06
Customer:	Spectrum Technology	Temperature:	23
Attendees:	Rod Munro	Humidity:	47%
Project:	None	Barometric Pres.:	29.98
Tested by:	Holly Ashkannejhad	Power: 120VAC/60Hz	Job Site: EV01

TEST SPECIFICATIONS	Test Method
FCC 24.232:2005	TIA/EIA-603-B:2002

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

COMMENTS

Internal antenna. Notebook standalone configuration.

EUT OPERATING MODES

WCDMA PCS band, see comments for channel

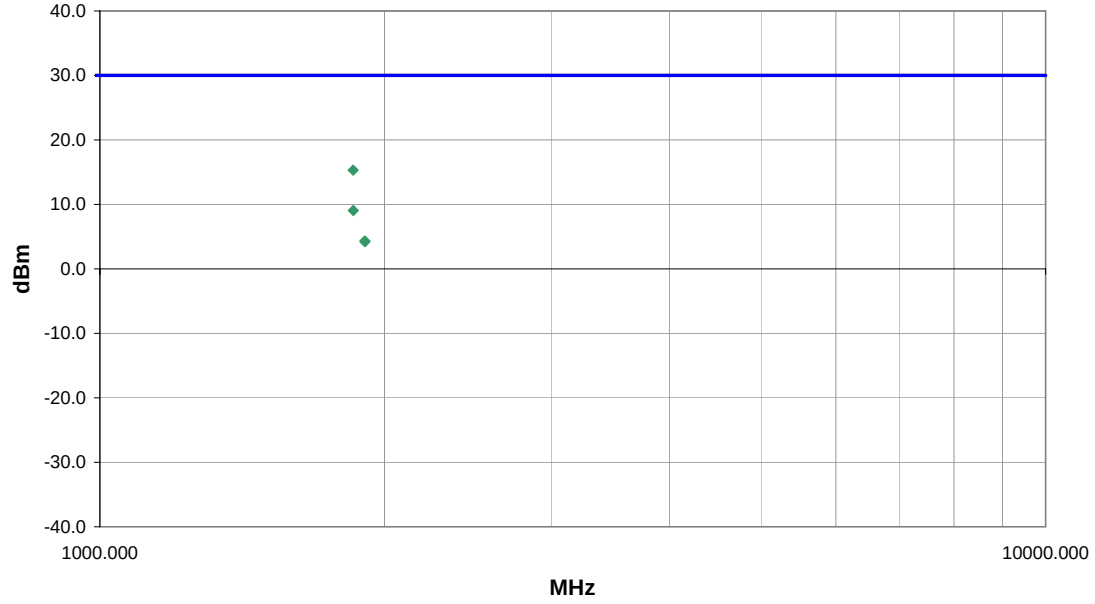
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	31
Configuration #	3
Results	Pass

NVLAP Lab Code 200630-0

Signature Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
1853.050			52.0	1.0			V-Horn	PK	3.39E-02	15.3	30.0	-14.7	Low channel
1853.630			31.0	2.1			H-Horn	PK	8.04E-03	9.1	30.0	-20.9	Low channel
1906.280			289.0	1.4			H-Horn	PK	2.70E-03	4.3	30.0	-25.7	High channel
1906.700			360.0	1.8			V-Horn	PK	2.64E-03	4.2	30.0	-25.8	High channel

NORTHWEST EMC

Effective Radiated Power (EIRP)

PSA 2006.05.30
EMI 2006.6.9

EUT:	IX270-MC8765			**Work Order:**	SPTE0021
Serial Number:	None			**Date:**	06/12/06
Customer:	Spectrum Technology			**Temperature:**	24
Attendees:	None			**Humidity:**	50%
Project:	None			**Barometric Pres.:**	29.99
Tested by:	Holly Ashkannejhad	**Power:**	120VAC/60Hz	**Job Site:**	EV01

TEST SPECIFICATIONS	Test Method
FCC 24.232:2005	TIA/EIA-603-B:2002

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

COMMENTS

Internal antenna.

EUT OPERATING MODES

WCDMA PCS band, see comments for channel

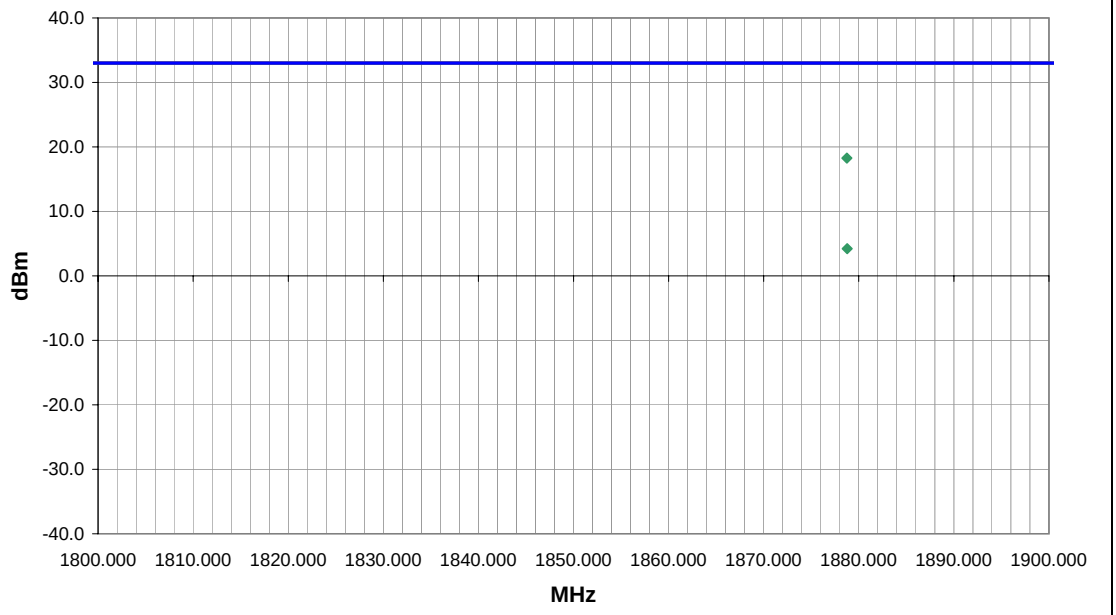
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	37
Configuration #	3
Results	Pass

NVLAP Lab Code 200630-0

Signature Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
1878.740			256.0	1.8			V-Horn	PK	6.70E-02	18.3	33.0	-14.7	Mid channel
1878.790			360.0	1.4			H-Horn	PK	2.65E-03	4.2	33.0	-28.8	Mid channel

NORTHWEST EMC

Effective Radiated Power (ERP)

PSA 2006.05.30
EMI 2006.6.8

EUT:	IX270-MC8765			**Work Order:**	SPTE0021
Serial Number:	None			**Date:**	06/09/06
Customer:	Spectrum Technology			**Temperature:**	23
Attendees:	Rod Munro			**Humidity:**	47%
Project:	None			**Barometric Pres.:**	29.98
Tested by:	RodPeloquin	**Power:**	120VAC/60Hz	**Job Site:**	EV01

TEST SPECIFICATIONS	Test Method
FCC 22.913:2005	TIA/EIA-603-B:2002

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

COMMENTS

External antenna. Vehicle mount configuration.

EUT OPERATING MODES

GSM Cellular band, see comments for channel

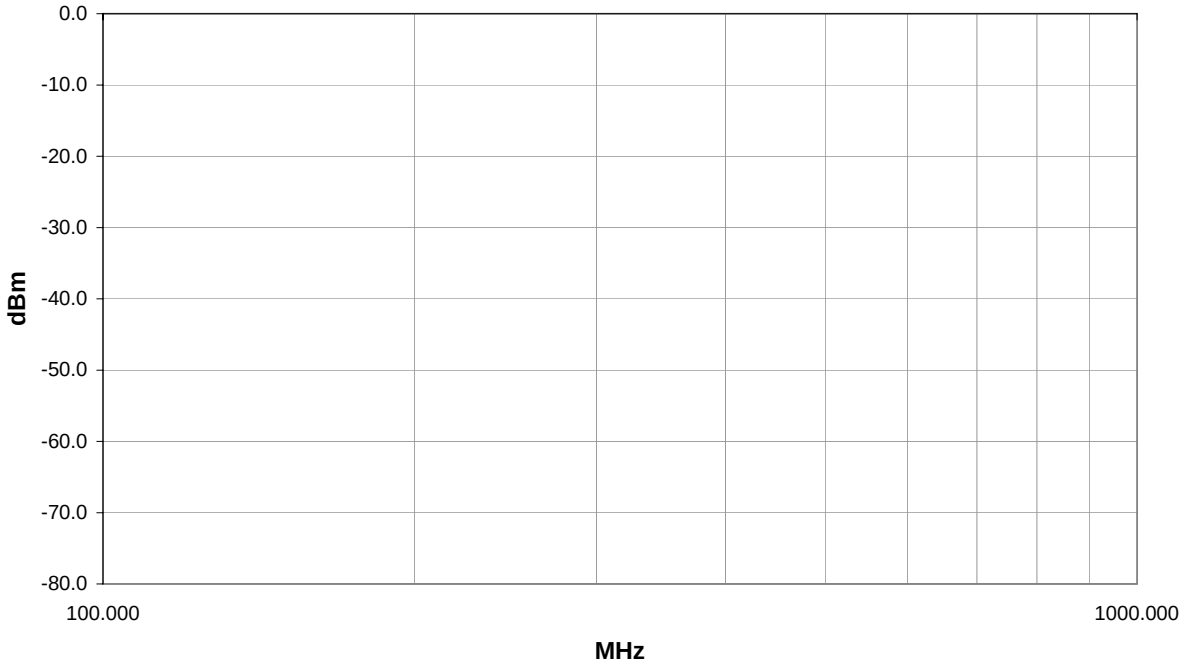
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	22
Configuration #	3
Results	Pass

NVLAP Lab Code 200630-0

Signature



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	ERP (Watts)	ERP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
848.868			275.0	1.2			V-Bilog	PK	6.19E-01	27.9	38.5	-10.6
824.268			166.0	1.4			V-Bilog	PK	4.19E-01	26.2	38.5	-12.3
848.871			318.0	1.8			H-Bilog	PK	4.16E-01	26.2	38.5	-12.3
836.934			267.0	1.3			V-Bilog	PK	3.87E-01	25.9	38.5	-12.6
836.931			318.0	1.9			H-Bilog	PK	2.88E-01	24.6	38.5	-13.9
824.268			322.0	1.8			H-Bilog	PK	2.19E-01	23.4	38.5	-15.1

NORTHWEST EMC

Effective Radiated Power (EIRP)

PSA 2006.05.30
EMI 2006.6.9

EUT:	IX270-MC8765			Work Order:	SPTE0021
Serial Number:	None			Date:	06/12/06
Customer:	Spectrum Technology			Temperature:	32
Attendees:	none			Humidity:	44%
Project:	None			Barometric Pres.:	29.78
Tested by:	Rod Peloquin	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 24.232:2005	TIA/EIA-603-B:2002

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

COMMENTS

External antenna. Vehicle configuration.

EUT OPERATING MODES

GSM PCS band, see comments for channel

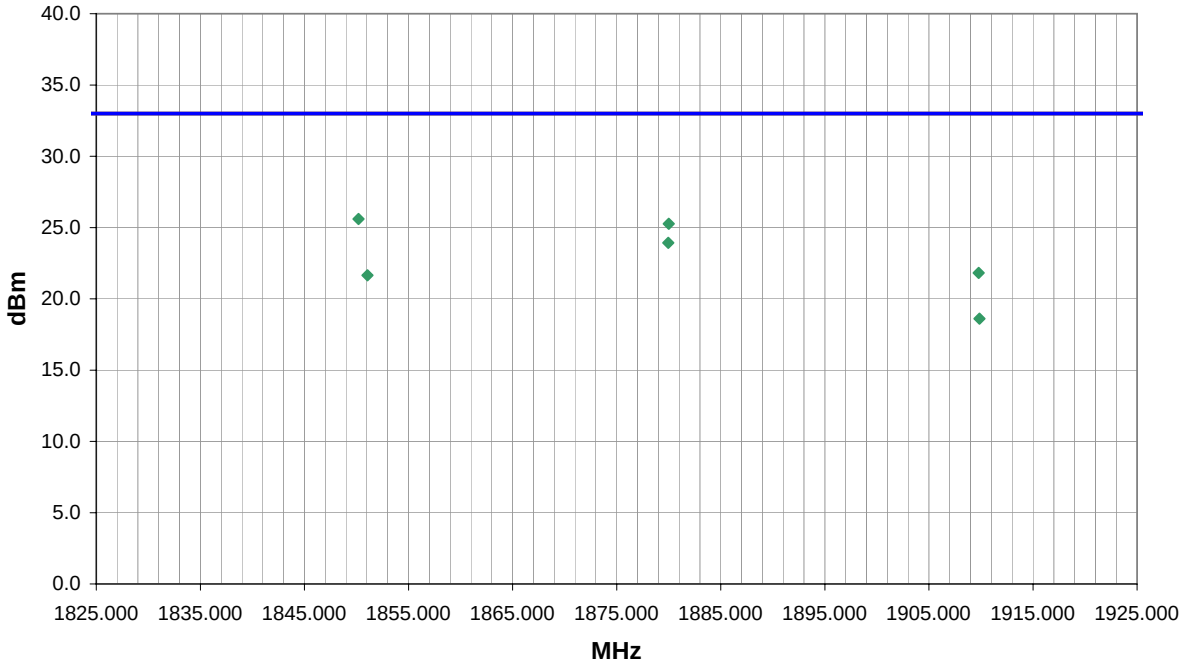
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	32
Configuration #	2
Results	Pass

NVLAP Lab Code 200630-0

Signature



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
1850.193			187.0	1.0			V-Horn	PK	3.64E-01	25.6	33.0	-7.4
1880.010			179.0	1.0			V-Horn	PK	3.36E-01	25.3	33.0	-7.7
1879.963			297.0	1.0			H-Horn	PK	2.47E-01	23.9	33.0	-9.1
1909.783			190.0	1.3			V-Horn	PK	1.52E-01	21.8	33.0	-11.2
1851.053			262.0	1.7			H-Horn	PK	1.46E-01	21.7	33.0	-11.3
1909.860			297.0	1.0			H-Horn	PK	7.25E-02	18.6	33.0	-14.4

NORTHWEST EMC

Effective Radiated Power (ERP)

PSA 2006.05.30
EMI 2006.6.8

EUT:	IX270-MC8765			Work Order:	SPTE0021
Serial Number:	None			Date:	06/09/06
Customer:	Spectrum Technology			Temperature:	23
Attendees:	Rod Munro			Humidity:	47%
Project:	None			Barometric Pres.:	29.98
Tested by:	RodPeloquin	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 22.913:2005	TIA/EIA-603-B:2002

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

COMMENTS

External antenna. Vehicle mount configuration.

EUT OPERATING MODES

EDGE Cellular band, see comments for channel

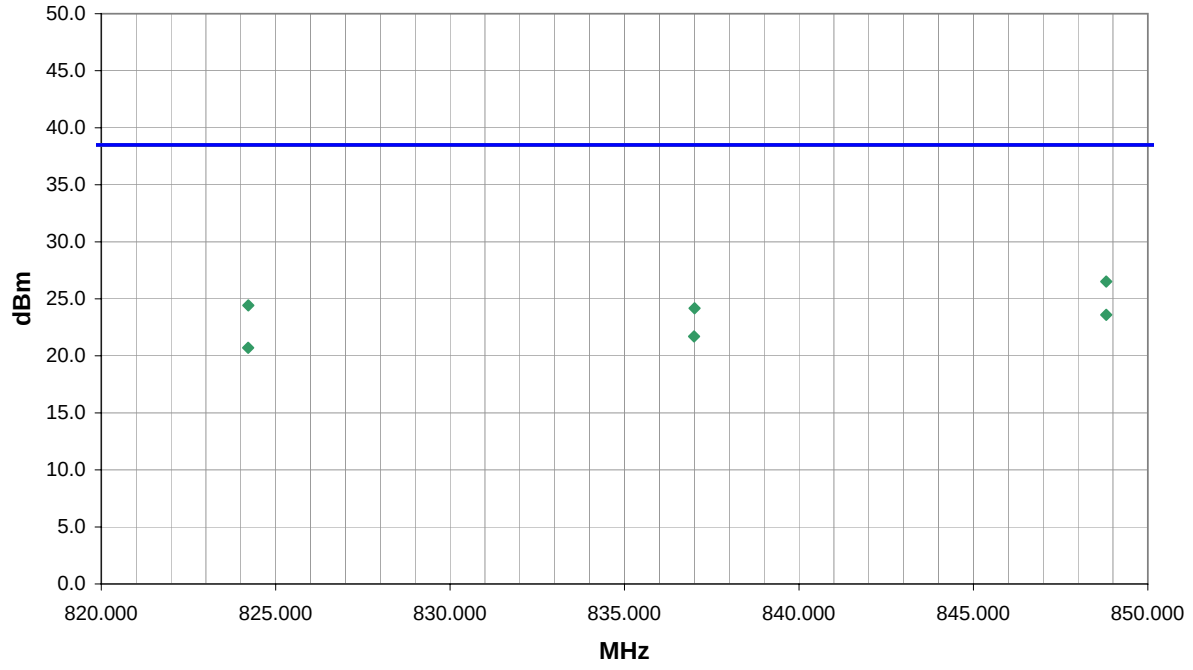
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	23
Configuration #	3
Results	Pass

NVLAP Lab Code 200630-0

Signature



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	ERP (Watts)	ERP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
848.808			11.0	1.2			V-Bilog	PK	4.48E-01	26.5	38.5	-12.0
824.215			-1.0	1.3			V-Bilog	PK	2.77E-01	24.4	38.5	-14.1
837.006			360.0	1.3			V-Bilog	PK	2.61E-01	24.2	38.5	-14.3
848.808			157.0	1.7			H-Bilog	PK	2.29E-01	23.6	38.5	-14.9
836.991			165.0	1.7			H-Bilog	PK	1.48E-01	21.7	38.5	-16.8
824.208			157.0	1.8			H-Bilog	PK	1.18E-01	20.7	38.5	-17.8

NORTHWEST EMC

Effective Radiated Power (EIRP)

PSA 2006.05.30
EMI 2006.6.9

EUT:	IX270-MC8765			Work Order:	SPTE0021
Serial Number:	None			Date:	06/12/06
Customer:	Spectrum Technology			Temperature:	23
Attendees:	none			Humidity:	47%
Project:	None			Barometric Pres.:	29.98
Tested by:	RodPeloquin	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 24.232:2005	TIA/EIA-603-B:2002

TEST PARAMETERS

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

COMMENTS

External antenna. Vehicle mount configuration.

EUT OPERATING MODES

Edge PCS band, see comments for channel

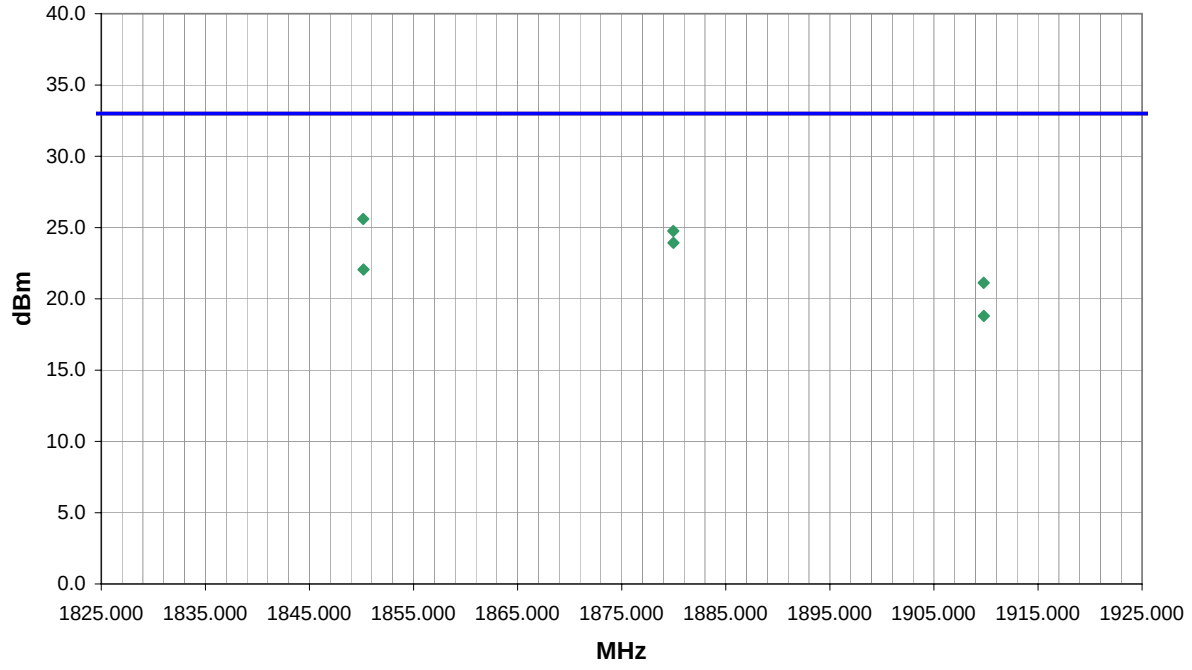
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	33
Configuration #	2
Results	Pass

NVLAP Lab Code 200630-0

Signature



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
1850.160			204.0	1.0			V-Horn	PK	3.64E-01	25.6	33.0	-7.4
1879.963			339.0	1.0			V-Horn	PK	2.99E-01	24.8	33.0	-8.2
1879.980			298.0	1.0			H-Horn	PK	2.47E-01	23.9	33.0	-9.1
1850.193			294.0	1.0			H-Horn	PK	1.60E-01	22.1	33.0	-10.9
1909.787			331.0	1.3			V-Horn	PK	1.29E-01	21.1	33.0	-11.9
1909.797			287.0	1.0			H-Horn	PK	7.59E-02	18.8	33.0	-14.2

NORTHWEST EMC

Effective Radiated Power (ERP)

PSA 2006.05.30
EMI 2006.6.8

EUT:	IX270-MC8765			Work Order:	SPTE0021
Serial Number:	None			Date:	06/09/06
Customer:	Spectrum Technology			Temperature:	23
Attendees:	Rod Munro			Humidity:	47%
Project:	None			Barometric Pres.:	29.98
Tested by:	RodPeloquin	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 22.913:2005	TIA/EIA-603-B:2002

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

COMMENTS

External antenna. Vehicle mount configuration.

EUT OPERATING MODES

W-CDMA Cellular band, see comments for channel

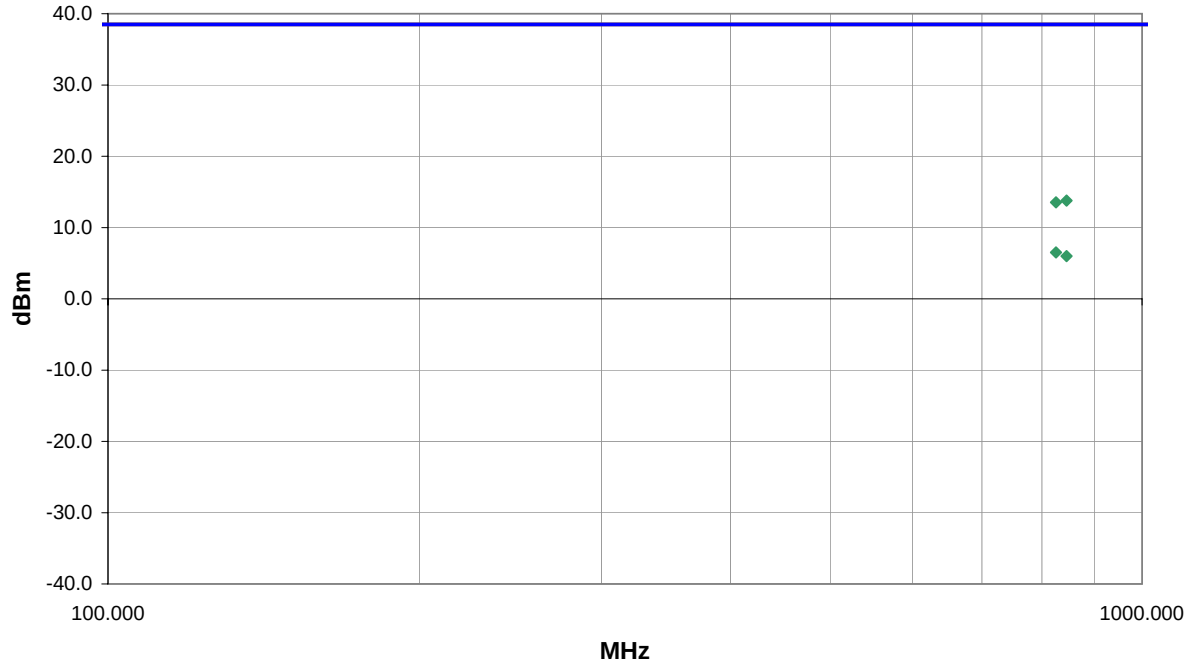
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	24
Configuration #	2
Results	Pass

NVLAP Lab Code 200630-0

Signature



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	ERP (Watts)	ERP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
845.208			296.0	1.2			V-Bilog	PK	2.38E-02	13.8	38.5	-24.7
825.542			285.0	1.3			V-Bilog	PK	2.26E-02	13.5	38.5	-25.0
825.475			227.0	1.8			H-Bilog	PK	4.48E-03	6.5	38.5	-32.0
845.258			54.0	1.1			H-Bilog	PK	3.98E-03	6.0	38.5	-32.5

NORTHWEST EMC

Effective Radiated Power (ERP)

PSA 2006.05.30
EMI 2006.6.9

EUT:	IX270-MC8765			Work Order:	SPTE0021
Serial Number:	None			Date:	06/12/06
Customer:	Spectrum Technology			Temperature:	23
Attendees:	Rod Munro			Humidity:	47%
Project:	None			Barometric Pres.:	29.98
Tested by:	RodPeloquin	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 22.913:2005	TIA/EIA-603-B:2002

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

COMMENTS

External antenna. Vehicle mount configuration.

EUT OPERATING MODES

W-CDMA Cellular band, see comments for channel

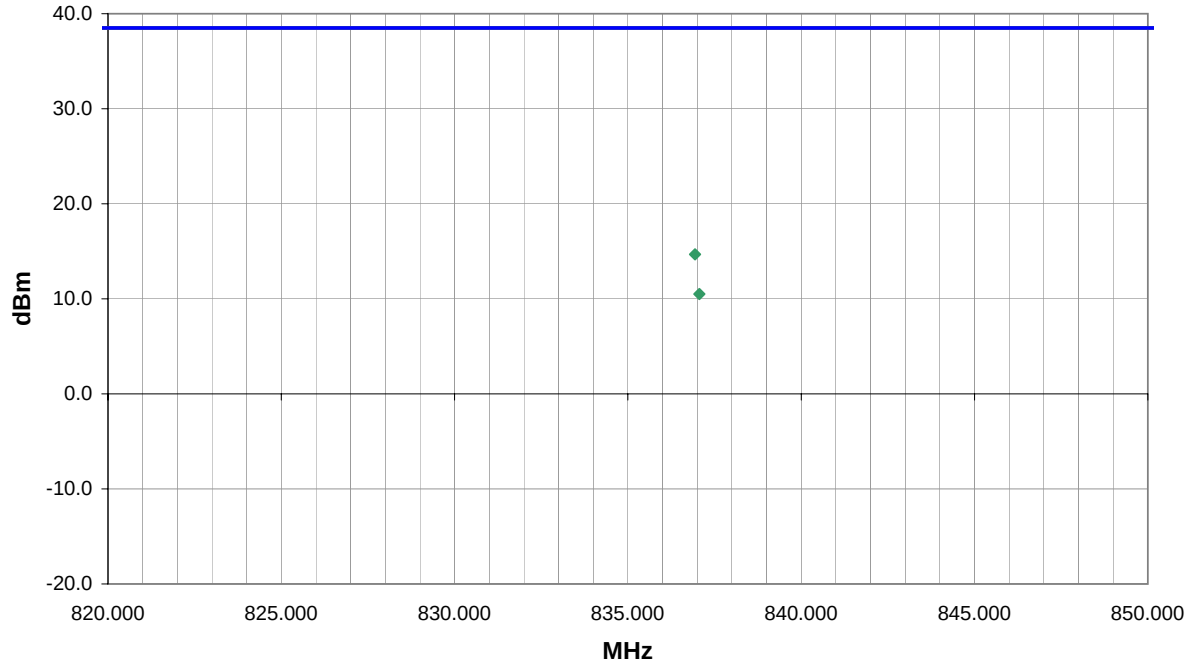
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	34
Configuration #	2
Results	Pass

NVLAP Lab Code 200630-0

Signature



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	ERP (Watts)	ERP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
836.935			44.0	1.3			V-Bilog	PK	2.93E-02	14.7	38.5	-23.8
837.060			117.0	1.0			H-Bilog	PK	1.12E-02	10.5	38.5	-28.0

NORTHWEST EMC

Effective Radiated Power (EIRP)

PSA 2006.05.30
EMI 2006.6.8

EUT:	IX270-MC8765	Work Order:	SPTE0021
Serial Number:	None	Date:	06/09/06
Customer:	Spectrum Technology	Temperature:	23
Attendees:	Rod Munro	Humidity:	47%
Project:	None	Barometric Pres.:	29.98
Tested by:	Holly Ashkannejhad	Power: 120VAC/60Hz	Job Site: EV01

TEST SPECIFICATIONS	Test Method
FCC 24.232:2005	TIA/EIA-603-B:2002

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

COMMENTS

External antenna. Vehicle mount configuration.

EUT OPERATING MODES

GSM PCS band, see comments for channel

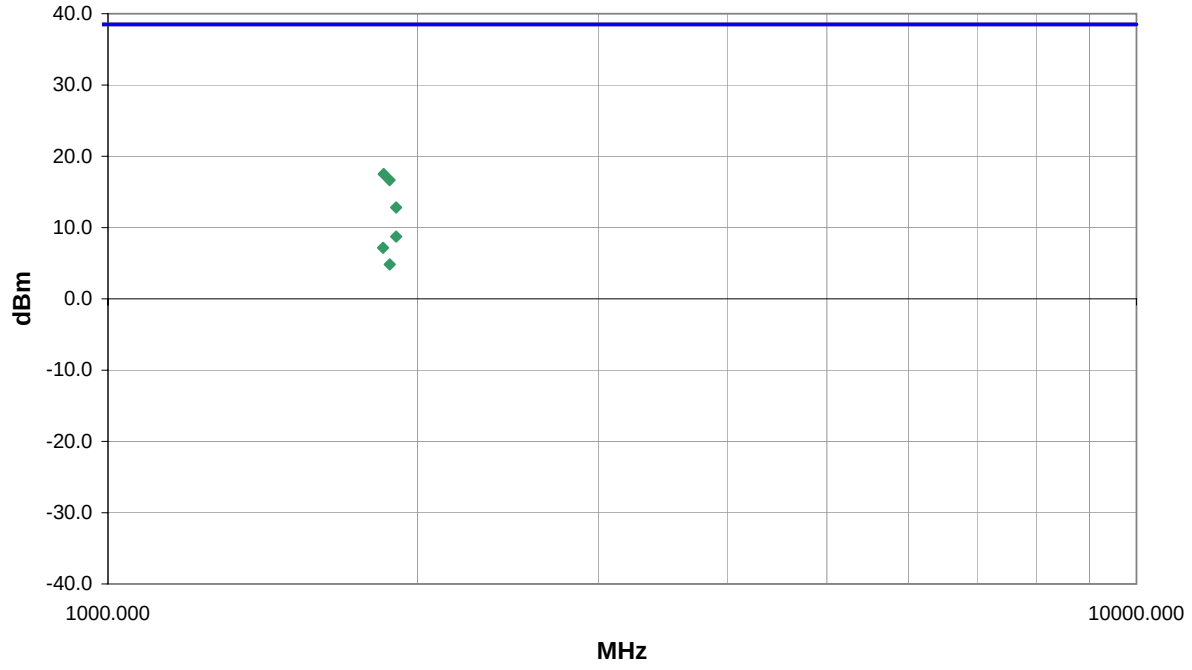
DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	25
Configuration #	3
Results	Pass

NVLAP Lab Code 200630-0

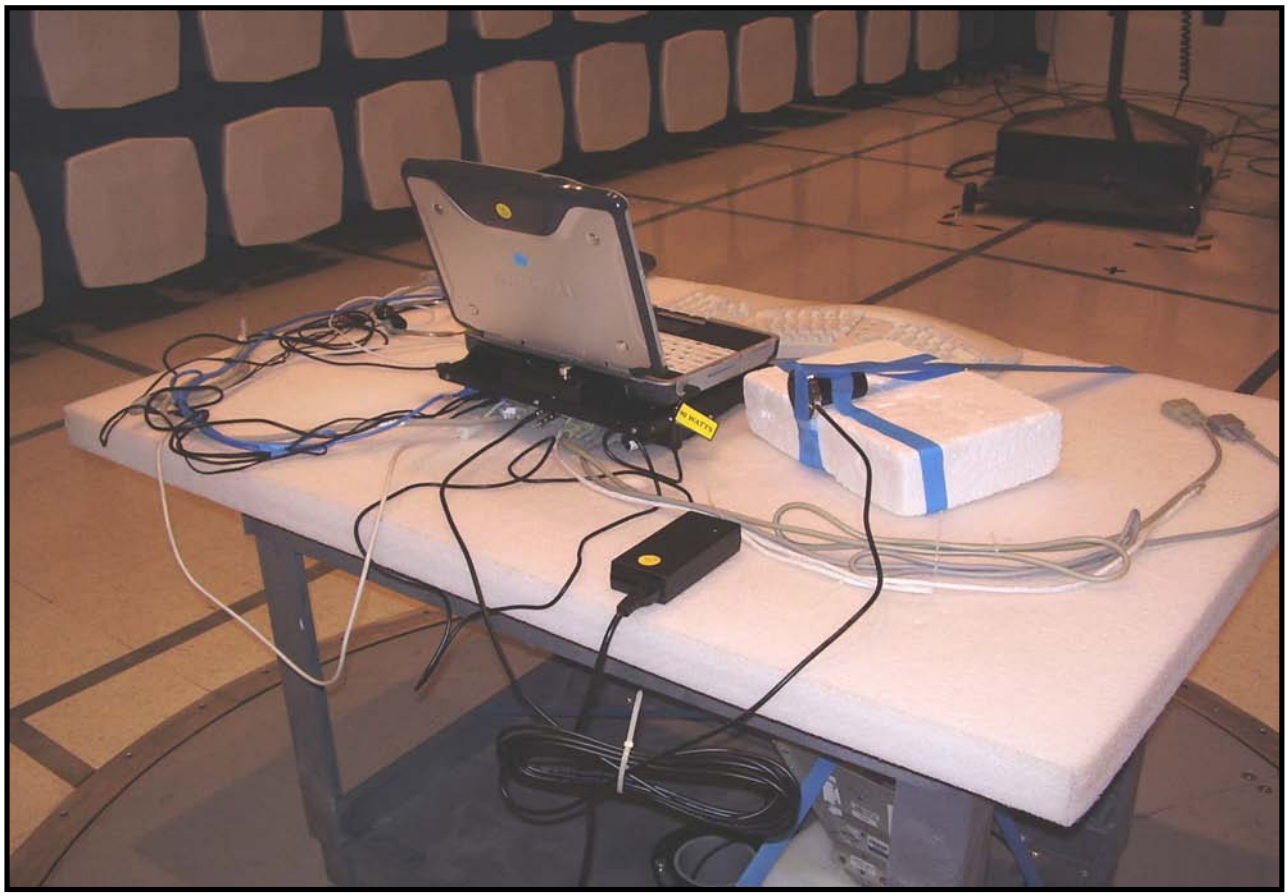
Signature Holly Ashkannejhad



Freq (MHz)			Azimuth (degrees)	Height (meters)			Polarity	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)
1853.408			109.0	1.3			V-Horn	PK	5.62E-02	17.5	33.0	-15.5
1878.750			84.0	1.0			V-Horn	PK	4.64E-02	16.7	33.0	-16.3
1906.408			187.0	1.7			H-Horn	PK	1.91E-02	12.8	33.0	-20.2
1906.358			321.0	1.0			V-Horn	PK	7.45E-03	8.7	33.0	-24.3
1851.150			246.0	1.0			H-Horn	PK	5.19E-03	7.2	33.0	-25.8
1879.008			103.0	1.1			H-Horn	PK	3.04E-03	4.8	33.0	-28.2

ERP and EIRP of the Fundamental

ERP and EIRP of the Fundamental



CONDUCTED EMISSIONS

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

MODES OF OPERATION
Receive Mode mid channel, GSM PCS band
Receive Mode mid channel, GSM Cellular band

POWER SETTINGS INVESTIGATED
120VAC/60Hz

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Spectrum Analyzer	Agilent	E4446A	AAT	4/4/2006	12
High Pass Filter	TTE	H97-100k-50-720B	HFC	12/19/2005	13
LISN	Solar	9252-50-R-24-BNC	LIN	12/13/2005	13

MEASUREMENT UNCERTAINTY

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

TEST DESCRIPTION

The EUT will be powered either directly or indirectly from the AC power line. Therefore measurements were made on the AC input of the EUT, or on the AC input of the device power line conducted emissions were measured with the EUT operating at the middle c receive mode of operation. For each mode, the spectrum was scanned from 150 kHz to procedures were in accordance with ANSI C63.4-2003.

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

PSA 2006.05.30
EMI 2006.4.26

EUT:	IX270-MC8765			Work Order:	SPTE0021
Serial Number:	None			Date:	06/01/06
Customer:	Spectrum Technology, Inc.			Temperature:	23
Attendees:	None			Humidity:	36%
Project:	None			Barometric Pres.:	30.15
Tested by:	Rod Peloquin	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 15.107 Class B:2005-10	ANSI C63.4:2003

TEST PARAMETERS	
Cable or Line Tested	L1

COMMENTS

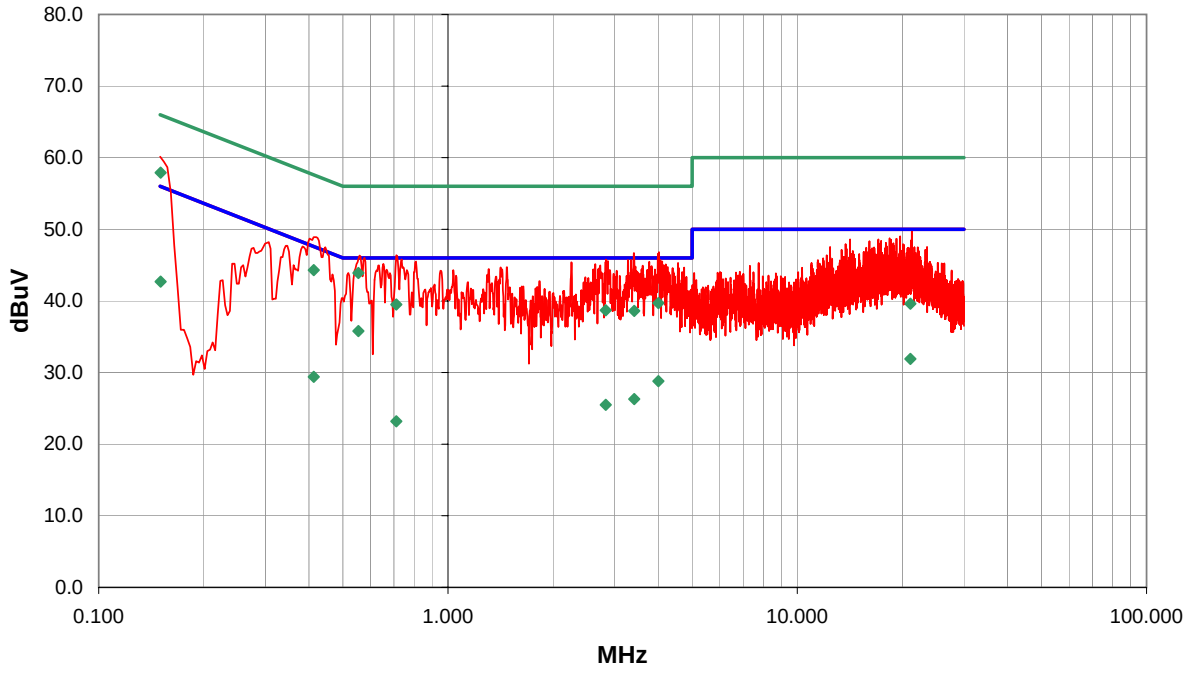
EUT OPERATING MODES

Receive Mode mid channel, GSM Cellular band

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	3		
Configuration #	3		
Results	Pass	NVLAP Lab Code 200630-0	*Signature*



Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)		Detector (blank equal peaks [PK] from scan)		Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.150	37.9			0.0	0.0	20.0		QP		57.9	66.0	-8.1
0.554	15.8			0.0	0.0	20.0		AV		35.8	46.0	-10.2
0.554	23.9			0.0	0.0	20.0		QP		43.9	56.0	-12.1
0.150	22.7			0.0	0.0	20.0		AV		42.7	56.0	-13.3
0.413	24.3			0.0	0.0	20.0		QP		44.3	57.6	-13.3
4.004	19.0			0.0	0.7	20.0		QP		39.7	56.0	-16.3
0.711	19.5			0.0	0.0	20.0		QP		39.5	56.0	-16.5
4.004	8.1			0.0	0.7	20.0		AV		28.8	46.0	-17.2
2.829	18.1			0.0	0.6	20.0		QP		38.7	56.0	-17.3
3.412	18.0			0.0	0.6	20.0		QP		38.6	56.0	-17.4
21.074	10.4			0.0	1.5	20.0		AV		31.9	50.0	-18.1
0.413	9.4			0.0	0.0	20.0		AV		29.4	47.6	-18.2
3.412	5.7			0.0	0.6	20.0		AV		26.3	46.0	-19.7
21.074	18.1			0.0	1.5	20.0		QP		39.6	60.0	-20.4
2.829	4.9			0.0	0.6	20.0		AV		25.5	46.0	-20.5
0.711	3.2			0.0	0.0	20.0		AV		23.2	46.0	-22.8
0.737	25.5			0.0	0.3	20.0				45.8	46.0	-0.2
2.832	25.2			0.0	0.6	20.0				45.8	46.0	-0.2
3.277	25.1			0.0	0.6	20.0				45.7	46.0	-0.3

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

PSA 2006.05.30
EMI 2006.4.26

EUT:	IX270-MC8765			Work Order:	SPTE0021
Serial Number:	None			Date:	06/01/06
Customer:	Spectrum Technology, Inc.			Temperature:	23
Attendees:	None			Humidity:	36%
Project:	None			Barometric Pres.:	30.15
Tested by:	Rod Peloquin	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 15.107 Class B:2005-10	ANSI C63.4:2003

TEST PARAMETERS	
Cable or Line Tested	N

COMMENTS

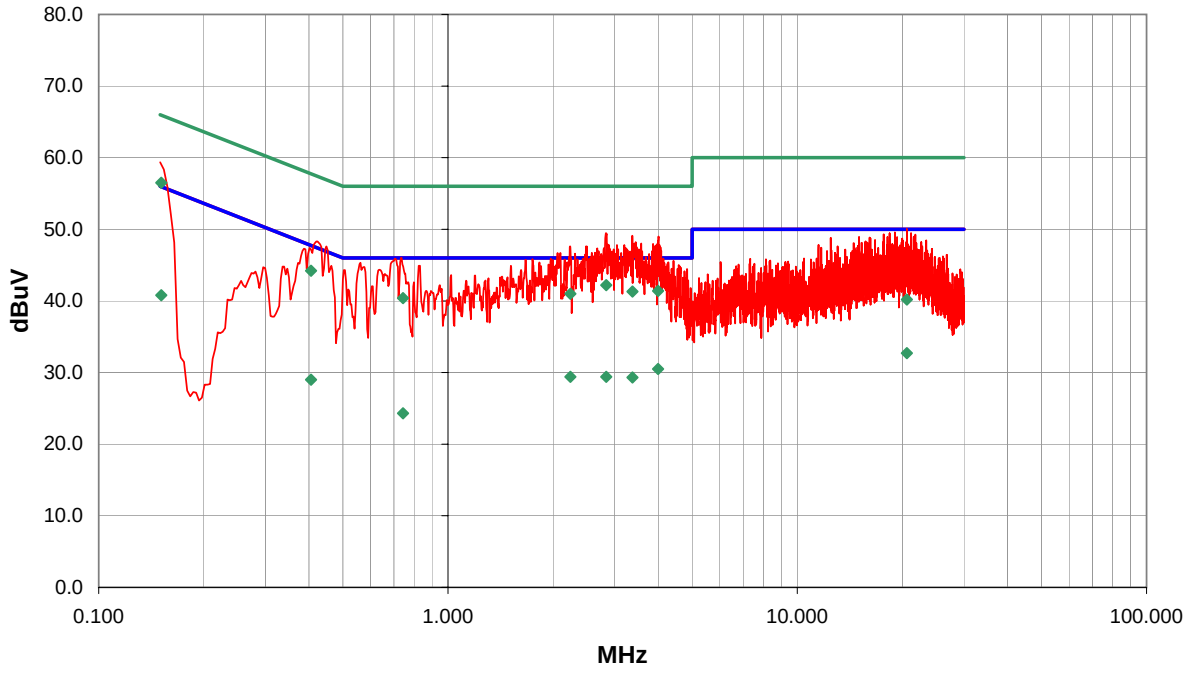
EUT OPERATING MODES

Receive Mode mid channel, GSM Cellular band

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	4		
Configuration #	3		
Results	Pass	NVLAP Lab Code 200630-0	*Signature*



Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)		Detector (blank equal peaks [PK] from scan)		Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.151	36.5			0.0	0.0	20.0		QP		56.5	65.9	-9.4
0.405	24.2			0.0	0.0	20.0		QP		44.2	57.7	-13.5
2.838	21.6			0.0	0.6	20.0		QP		42.2	56.0	-13.8
3.996	20.7			0.0	0.7	20.0		QP		41.4	56.0	-14.6
3.374	20.7			0.0	0.6	20.0		QP		41.3	56.0	-14.7
2.240	20.5			0.0	0.5	20.0		QP		41.0	56.0	-15.0
0.151	20.8			0.0	0.0	20.0		AV		40.8	55.9	-15.1
3.996	9.8			0.0	0.7	20.0		AV		30.5	46.0	-15.5
0.744	20.4			0.0	0.0	20.0		QP		40.4	56.0	-15.6
2.838	8.8			0.0	0.6	20.0		AV		29.4	46.0	-16.6
2.240	8.9			0.0	0.5	20.0		AV		29.4	46.0	-16.6
3.374	8.7			0.0	0.6	20.0		AV		29.3	46.0	-16.7
20.593	11.2			0.0	1.5	20.0		AV		32.7	50.0	-17.3
0.405	9.0			0.0	0.0	20.0		AV		29.0	47.7	-18.7
20.593	18.7			0.0	1.5	20.0		QP		40.2	60.0	-19.8
0.744	4.3			0.0	0.0	20.0		AV		24.3	46.0	-21.7
0.737	25.7			0.0	0.3	20.0				46.0	46.0	0.0
2.435	25.4			0.0	0.5	20.0				45.9	46.0	-0.1
4.137	25.2			0.0	0.7	20.0				45.9	46.0	-0.1

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

PSA 2006.05.30
EMI 2006.4.26

EUT:	IX270-MC8765			Work Order:	SPTE0021
Serial Number:	None			Date:	06/01/06
Customer:	Spectrum Technology, Inc.			Temperature:	23
Attendees:	None			Humidity:	36%
Project:	None			Barometric Pres.:	30.15
Tested by:	Rod Peloquin	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 15.107 Class B:2005-10	ANSI C63.4:2003

TEST PARAMETERS	
Cable or Line Tested	L1

COMMENTS

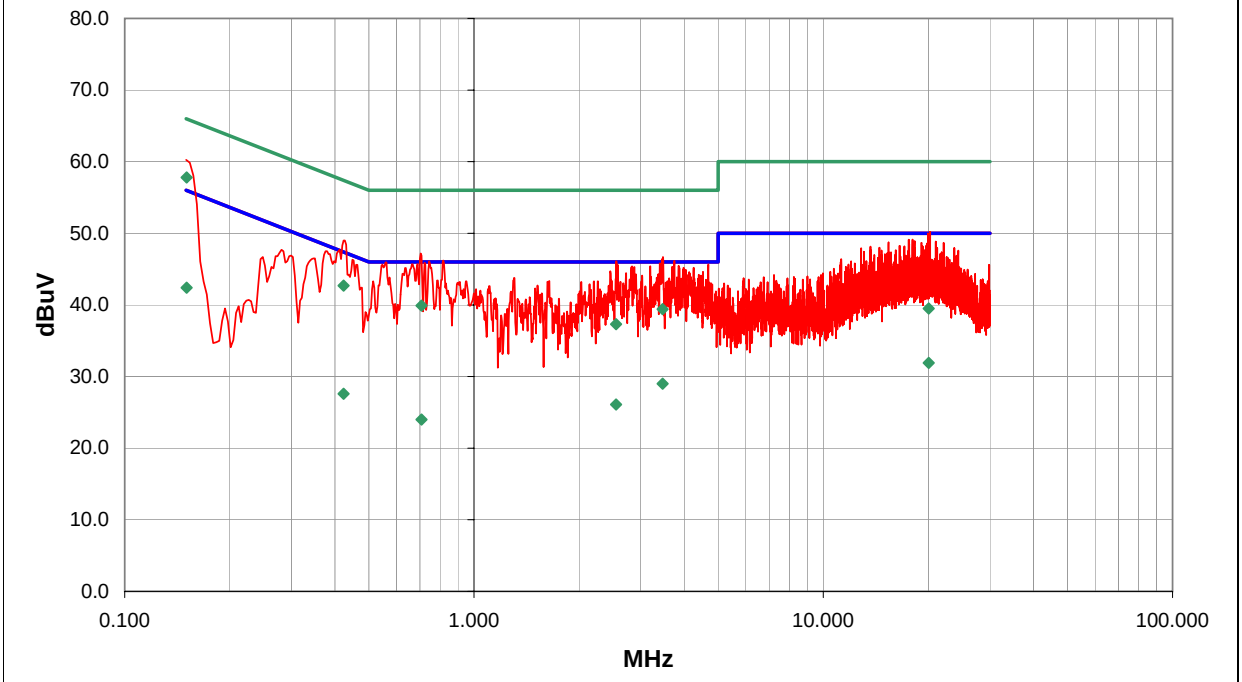
EUT OPERATING MODES

Receive Mode mid channel, GSM PCS band

DEVIATIONS FROM TEST STANDARD

No deviations.

Run #	5		
Configuration #	3		
Results	Pass	NVLAP Lab Code 200630-0	*Signature*



Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)		Detector (blank equal peaks [PK] from scan)		Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.150	37.8			0.0	0.0	20.0		QP		57.8	66.0	-8.2
0.150	22.4			0.0	0.0	20.0		AV		42.4	56.0	-13.6
0.423	22.7			0.0	0.0	20.0		QP		42.7	57.4	-14.7
0.707	19.9			0.0	0.0	20.0		QP		39.9	56.0	-16.1
3.468	18.8			0.0	0.6	20.0		QP		39.4	56.0	-16.6
3.468	8.4			0.0	0.6	20.0		AV		29.0	46.0	-17.0
20.038	10.4			0.0	1.5	20.0		AV		31.9	50.0	-18.1
2.551	16.8			0.0	0.5	20.0		QP		37.3	56.0	-18.7
0.423	7.6			0.0	0.0	20.0		AV		27.6	47.4	-19.8
2.551	5.6			0.0	0.5	20.0		AV		26.1	46.0	-19.9
20.038	18.0			0.0	1.5	20.0		QP		39.5	60.0	-20.5
0.707	4.0			0.0	0.0	20.0		AV		24.0	46.0	-22.0
19.942	28.5			0.0	1.5	20.0				50.0	50.0	0.0
0.562	25.7			0.0	0.2	20.0				45.9	46.0	-0.1
0.722	25.6			0.0	0.3	20.0				45.9	46.0	-0.1
3.404	25.2			0.0	0.6	20.0				45.8	46.0	-0.2
0.689	25.4			0.0	0.3	20.0				45.7	46.0	-0.3
0.667	25.4			0.0	0.3	20.0				45.7	46.0	-0.3
4.687	24.9			0.0	0.7	20.0				45.6	46.0	-0.4

NORTHWEST EMC

CONDUCTED EMISSIONS DATA SHEET

PSA 2006.05.30
EMI 2006.4.26

EUT:	IX270-MC8765			Work Order:	SPTE0021
Serial Number:	None			Date:	06/01/06
Customer:	Spectrum Technology, Inc.			Temperature:	23
Attendees:	None			Humidity:	36%
Project:	None			Barometric Pres.:	30.15
Tested by:	Rod Peloquin	Power:	120VAC/60Hz	Job Site:	EV01

TEST SPECIFICATIONS	Test Method
FCC 15.107 Class B:2005-10	ANSI C63.4:2003

TEST PARAMETERS	
Cable or Line Tested	N

COMMENTS

EUT OPERATING MODES

Receive Mode mid channel, GSM PCS band

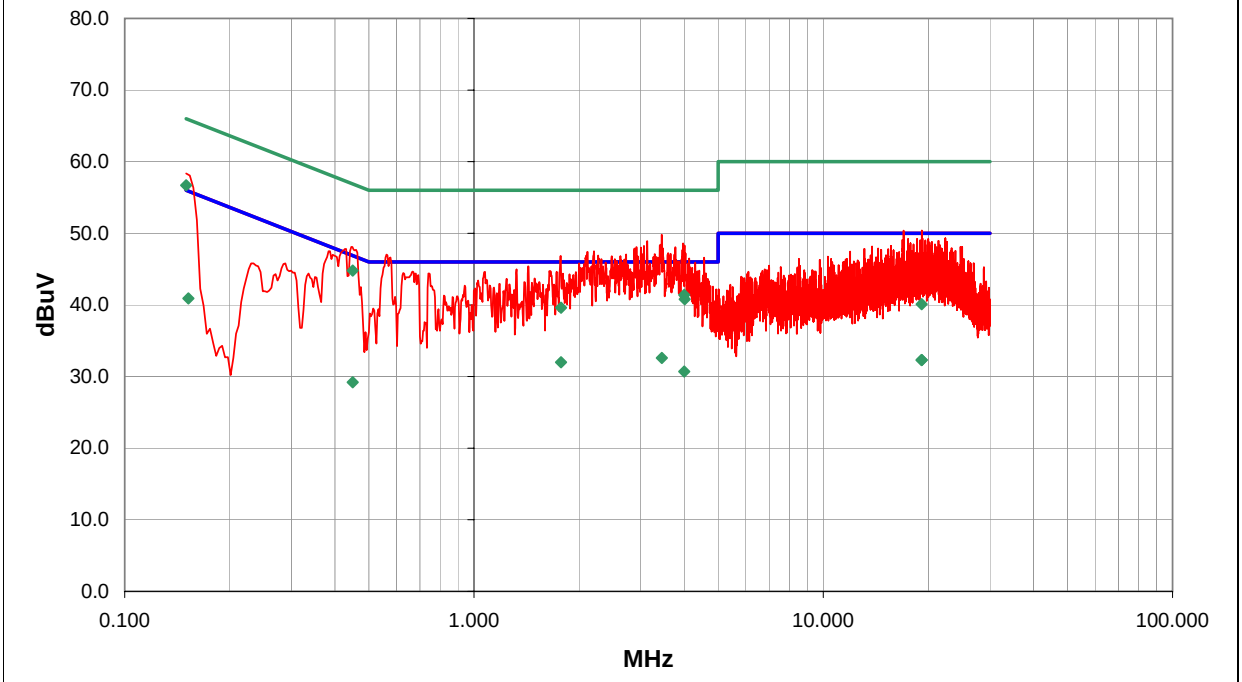
DEVIATIONS FROM TEST STANDARD

No deviations.

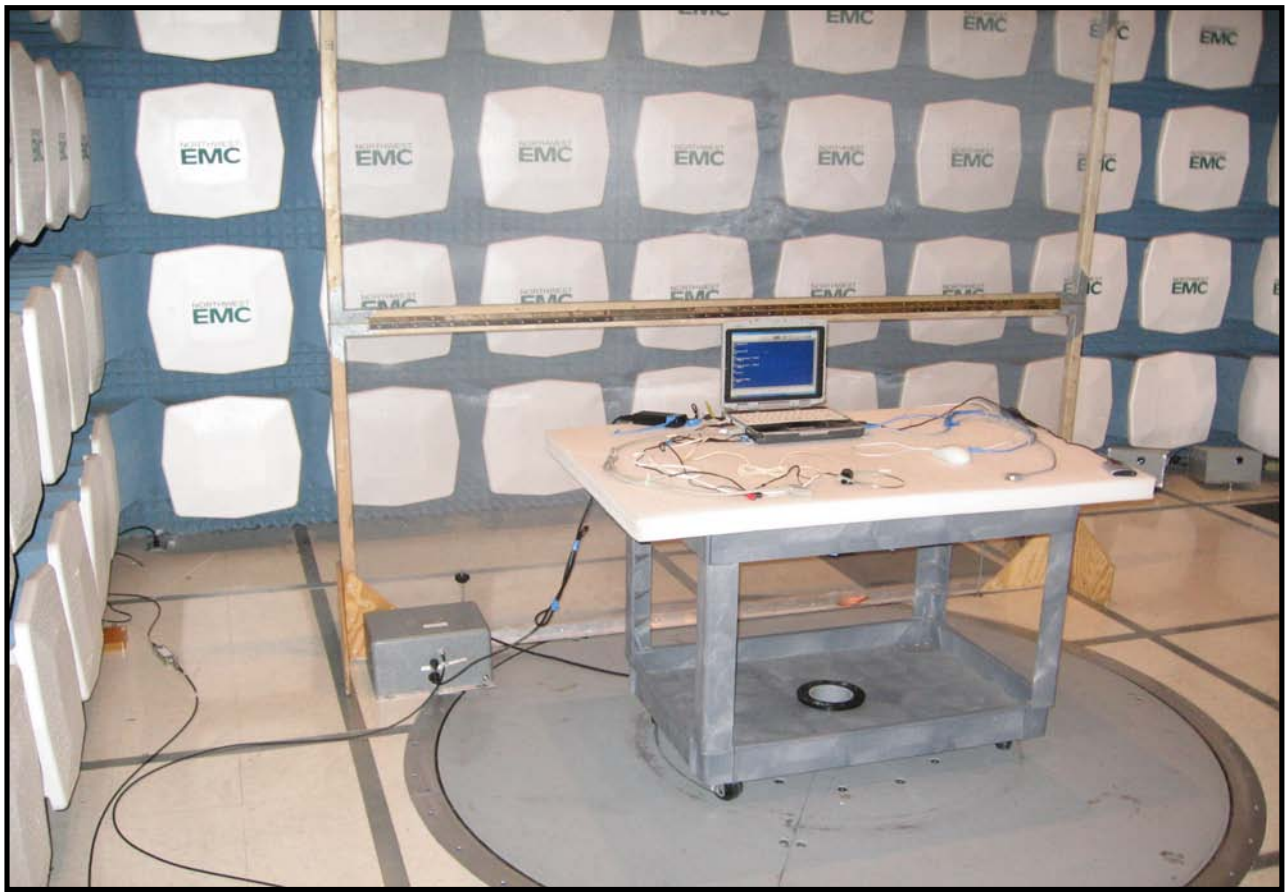
Run #	6
Configuration #	3
Results	Pass

NVLAP Lab Code 200630-0

Signature



Freq (MHz)	Amplitude (dBuV)			Transducer (dB)	Cable (dB)	External Attenuation (dB)		Detector (blank equal peaks [PK] from scan)		Adjusted dBuV	Spec. Limit dBuV	Compared to Spec. (dB)
0.150	36.7			0.0	0.0	20.0		QP		56.7	66.0	-9.3
0.450	24.8			0.0	0.0	20.0		QP		44.8	56.9	-12.1
3.448	12.0			0.0	0.6	20.0		AV		32.6	46.0	-13.4
1.775	11.5			0.0	0.5	20.0		AV		32.0	46.0	-14.0
3.999	20.7			0.0	0.7	20.0		QP		41.4	56.0	-14.6
0.152	20.9			0.0	0.0	20.0		AV		40.9	55.9	-15.0
4.010	20.1			0.0	0.7	20.0		QP		40.8	56.0	-15.2
3.999	10.0			0.0	0.7	20.0		AV		30.7	46.0	-15.3
1.775	19.1			0.0	0.5	20.0		QP		39.6	56.0	-16.4
0.450	9.2			0.0	0.0	20.0		AV		29.2	46.9	-17.7
19.134	10.8			0.0	1.5	20.0		AV		32.3	50.0	-17.7
19.135	10.8			0.0	1.5	20.0		AV		32.3	50.0	-17.7
19.134	18.6			0.0	1.5	20.0		QP		40.1	60.0	-19.9
0.150	-893.0			0.0	0.0	20.0		AV		-873.0	56.0	-929.0
2.654	25.4			0.0	0.5	20.0				45.9	46.0	-0.1
2.380	25.4			0.0	0.5	20.0				45.9	46.0	-0.1
4.301	25.2			0.0	0.7	20.0				45.9	46.0	-0.1
2.001	25.3			0.0	0.5	20.0				45.8	46.0	-0.2
3.193	25.2			0.0	0.6	20.0				45.8	46.0	-0.2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