



MET Laboratories, Inc. *Safety Certification - EMI - Telecom Environmental Simulation*

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May 28, 2014

Digital Receiver Technology, Inc.
12409 Milestone Center Dr.
Germantown, MD 20876

Dear Steve Hudson,

Enclosed is the EMC Wireless test report for compliance testing of the Digital Receiver Technology, Inc., DRT1183C (Base station) as tested to the requirements of the FCC Certification rules under Title 47 of the CFR Part 22 Subpart H for Cellular Devices and FCC Part 24 Subpart E for Broadband PCS Devices.

Thank you for using the services of MET Laboratories, Inc. If you have any questions regarding these results or if MET can be of further service to you, please contact me.

Sincerely yours,
MET LABORATORIES, INC.

Jennifer Warnell
Documentation Department

Reference: (\\Digital Receiver Technology, Inc.\\EMC39286B-FCC22_24 Rev. 2)

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Electromagnetic Compatibility Criteria Test Report

for the

**Digital Receiver Technology, Inc.
Model DRT1183C**

**Tested under
FCC Certification Rules
Title 47 of the CFR,
Part 22 Subpart H for Cellular Devices
&
Part 24 Subpart E for Broadband PCS Devices**

MET Report: EMC39286B-FCC22_24 Rev. 2

May 28, 2014

Prepared For:

**Digital Receiver Technology, Inc.
12409 Milestone Center Dr.
Germantown, MD 20876**

**Prepared By:
MET Laboratories, Inc.
914 W. Patapsco Ave
Baltimore, MD 21230**



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&
Part 24 Subpart E for Broadband PCS Devices**

Benjamin Taylor
Project Engineer, Electromagnetic Compatibility Lab

Jennifer Warnell
Documentation Department

Engineering Statement: The measurements shown in this report were made in accordance with the procedures indicated, and the emissions from this equipment were found to be within the limits applicable. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. It is further stated that upon the basis of the measurements made, the equipment tested is capable of operation in accordance with the requirements of Part 22 Subpart H and Part 15 Subpart B of the FCC Rules under normal use and maintenance.

Asad Bajwa,
Director, Electromagnetic Compatibility Lab



Digital Receiver Technology, Inc.
DRT1183C

Electromagnetic Compatibility
Report Status
CFR Title 47 Part 22 Subpart H & Part 24 Subpart E

Report Status Sheet

Revision	Report Date	Reason for Revision
Ø	January 23, 2014	Initial Issue
1	February 3, 2014	Revised to reflect engineer corrections.
2	May 28, 2014	Revised to reflect engineer corrections.



Table of Contents

I.	Executive Summary	1
	A. Purpose of Test	2
	B. Executive Summary	2
II.	Equipment Configuration	3
	A. Overview.....	4
	B. References.....	5
	C. Test Site	5
	D. Description of Test Sample.....	5
	E. Equipment Configuration.....	6
	F. Support Equipment	6
	G. Mode of Operation.....	7
	H. Method of Monitoring EUT Operation	7
	I. Modifications	7
	Modifications to EUT	7
	Modifications to Test Standard.....	7
	J. Disposition of EUT	7
III.	Electromagnetic Compatibility Criteria for Intentional Radiators.....	8
	§ 2.1046 RF Power Output	9
	§ 2.1049 Occupied Bandwidth	14
	§ 2.1053 Radiated Spurious Emissions	19
	§ 2.1051 Spurious Emissions at Antenna Terminals	27
	§2.1055 Frequency Stability	35
IV.	Test Equipment	37

List of Tables

Table 1.	Executive Summary of EMC Compliance Testing	2
Table 2.	Equipment Configuration	6
Table 3.	Support Equipment.....	6



List of Terms and Abbreviations

AC	Alternating Current
ACF	Antenna Correction Factor
Cal	Calibration
<i>d</i>	Measurement Distance
dB	Decibels
dB μ A	Decibels above one microamp
dB μ V	Decibels above one microvolt
dB μ A/m	Decibels above one microamp per meter
dB μ V/m	Decibels above one microvolt per meter
DC	Direct Current
E	Electric Field
DSL	Digital Subscriber Line
ESD	Electrostatic Discharge
EUT	Equipment Under Test
<i>f</i>	Frequency
FCC	Federal Communications Commission
GRP	Ground Reference Plane
H	Magnetic Field
HCP	Horizontal Coupling Plane
Hz	Hertz
IEC	International Electrotechnical Commission
kHz	kilohertz
kPa	kilopascal
kV	kilovolt
LISN	Line Impedance Stabilization Network
MHz	Megahertz
μ H	microhenry
μ	microfarad
μ s	microseconds
NEBS	Network Equipment-Building System
PRF	Pulse Repetition Frequency
RF	Radio Frequency
RMS	Root-Mean-Square
TWT	Traveling Wave Tube
V/m	Volts per meter
VCP	Vertical Coupling Plane



I. Executive Summary



A. Purpose of Test

An EMC evaluation was performed to determine compliance of the Digital Receiver Technology, Inc. DRT1183C, with the requirements of Part 22 Subpart H and Part 24 Subpart E. All references are to the most current version of Title 47 of the Code of Federal Regulations in effect. In accordance with §2.1033, the following data is presented in support of the Certification of the DRT91183C. Digital Receiver Technology, Inc. should retain a copy of this document which should be kept on file for at least two years after the manufacturing of the DRT1183C, has been **permanently** discontinued.

B. Executive Summary

The following tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 22 Subpart H and Part 24 Subpart E, in accordance with Digital Receiver Technology, Inc., purchase order number 053066.

Reference	Description	Compliance
Part 22 Subpart H §2.1046; §22.913 Part 24 Subpart E §2.1046; §24.232	RF Power Output	Compliant
§2.1049	Occupied Bandwidth	Compliant
§2.1051; §22.917, §24.238	Conducted Spurious Emissions at Antenna Terminals	Compliant
§2.1053; §22.917, §24.238	Radiated Spurious Emissions from the Cabinet	Compliant
§2.1055; §22.355, §24.135	Frequency stability	Compliant

Table 1. Executive Summary of EMC Compliance Testing



II. Equipment Configuration

A. Overview

MET Laboratories, Inc. was contracted by Digital Receiver Technology, Inc. to perform testing on the DRT1183C, under Digital Receiver Technology, Inc.'s purchase order number 053066.

This document describes the test setups, test methods, required test equipment, and the test limit criteria used to perform compliance testing of the Digital Receiver Technology, Inc., DRT1183C.

The results obtained relate only to the item(s) tested.

Model(s) Tested:	DRT1183C		
Model(s) Covered:	DRT1183C		
Filing Status:	Class II PC to add AWS and WCDMA bands		
EUT Specifications:	Primary Power: 120 VAC, 60 Hz		
	FCC ID: XLM1183C		
	Type of Modulations:	WCDMA	
	Equipment Code:	PCB	
	RF Power Output	11.28 dBm	11.83 dBm
	EUT Frequency Ranges:	871.4 – 891.6 MHz	1932 – 1988 MHz
Analysis:	The results obtained relate only to the item(s) tested.		
Environmental Test Conditions:	Temperature: 15-35° C		
	Relative Humidity: 30-60%		
	Barometric Pressure: 860-1060 mbar		
Evaluated by:	Benjamin Taylor		
Date(s):	May 28, 2014		

Note: Addition of AWS band under FCC part 27 addressed in another test report.

B. References

CFR 47, Part 22, Subpart H	Federal Communication Commission, Code of Federal Regulations, Title 47, Part 22: Rules and Regulations for Cellular Devices.
CFR 47, Part 24, Subpart E	Federal Communication Commission, Code of Federal Regulations, Title 47, Part 24: Rules and Regulations for Personal Communications Services
ANSI C63.4:2003	Methods and Measurements of Radio-Noise Emissions from Low-Voltage Electrical And Electronic Equipment in the Range of 9 kHz to 40 GHz
ISO/IEC 17025:2005	General Requirements for the Competence of Testing and Calibration Laboratories
EIA/TIA-603-A-2001	Land Mobile FM or PM Communication Equipment Measurement and Performance Standards

C. Test Site

All testing was performed at MET Laboratories, Inc., 914 W. Patapsco Ave, Baltimore, MD 21230. All equipment used in making physical determinations is accurate and bears recent traceability to the National Institute of Standards and Technology.

Radiated Emissions measurements were performed in a 3 meter semi-anechoic chamber (equivalent to an Open Area Test Site). In accordance with §2.948(a)(3), a complete site description is contained at MET Laboratories.

D. Description of Test Sample

DRT1183C is a mobile cellular base station.

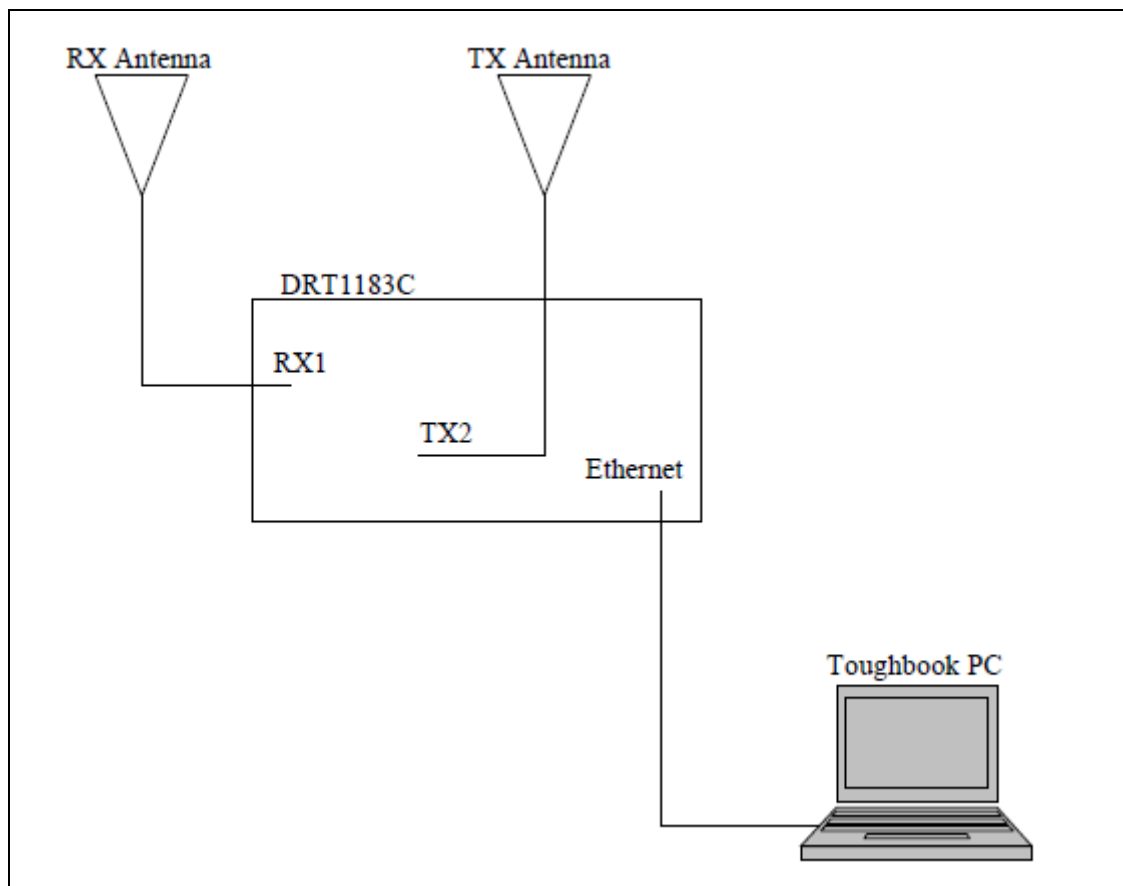


Figure 1. Block Diagram of Equipment Configuration

E. Equipment Configuration

Name / Description	Model Number	Part Number	Serial Number
Base Station	DRT1183C	--	--

Table 2. Equipment Configuration

F. Support Equipment

Ref. ID	Name / Description	Manufacturer	Model Number	Customer Supplied Calibration Data
--	Toughbook PC	Panasonic	CF-19	CF-19KDRA6M

Table 3. Support Equipment



G. Mode of Operation

Operates as a mobile base station in GSM, CDMA, and WCDMA in the Cellular and PCS bands and TDMA in the 800MHz band.

H. Method of Monitoring EUT Operation

Ran control software on a connected PC.

I. Modifications

a) Modifications to EUT

No modifications were made to the EUT.

b) Modifications to Test Standard

No modifications were made to the test standard.

J. Disposition of EUT

The test sample including all support equipment submitted to the Electro-Magnetic Compatibility Lab for testing was returned to Digital Receiver Technology, Inc. upon completion of testing.



III. Electromagnetic Compatibility Criteria for Intentional Radiators



Electromagnetic Compatibility Criteria for Intentional Radiators

§ 2.1046 RF Power Output

Test Requirements: § 2.1046 Measurements required: RF power output:

§ 2.1046 (a) For transmitters other than single sideband, independent sideband and controlled carrier radiotelephone, power output shall be measured at the RF output terminals when the transmitter is adjusted in accordance with the tune-up procedure to give the values of current and voltage on the circuit elements specified in § 2.1033(c)(8). The electrical characteristics of the radio frequency load attached to the output terminals when this test is made shall be stated.

§ 2.1046 (b) For single sideband, independent sideband, and single channel, controlled carrier radiotelephone transmitters, the procedure specified in paragraph (a) of this section shall be employed and, in addition, the transmitter shall be modulated during the test as specified and as applicable in § 2.1046 (b) (1-5). In all tests, the input level of the modulating signal shall be such as to develop rated peak envelope power or carrier power, as appropriate, for the transmitter.

§ 2.1046 (c) For measurements conducted pursuant to paragraphs (a) and (b) of this section, all calculations and methods used by the applicant for determining carrier power or peak envelope power, as appropriate, on the basis of measured power in the radio frequency load attached to the transmitter output terminals shall be shown. Under the test conditions specified, no components of the emission spectrum shall exceed the limits specified in the applicable rule parts as necessary for meeting occupied bandwidth or emission limitations.

§ 22.913 Power and antenna height limits.

§ 22.913(a): The Effective radiated power (ERP) of base transmitters and cellular repeaters must not exceed 500 watts.

§ 24.232 Power and antenna height limits.

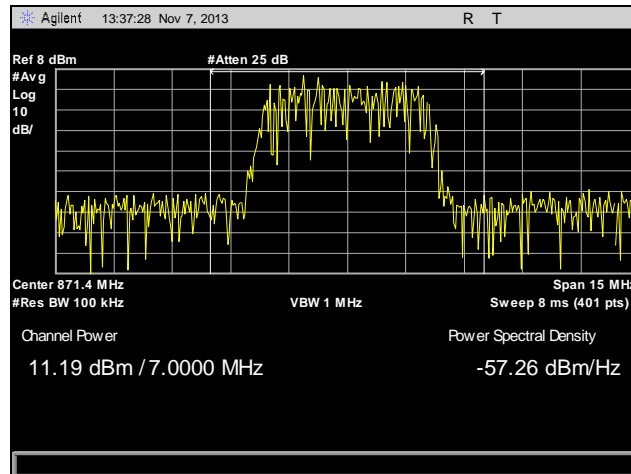
§ 24.232 (b): Mobile/portable stations are limited to 2 watts e.i.r.p. peak power and the equipment must employ means to limit the power to the minimum necessary for successful communications.

Test Procedures: As required by 47 CFR 2.1046, RF power output measurements were made at the RF output terminals using an attenuator and spectrum analyzer or power meter. The spectrum analyzer was set to its default settings – RBW, VBW, Sweep Time, etc. – except that the detector was set to an average detector. The “Channel Power” measurement feature of the spectrum analyzer was used. Measurements were taken in both high and low power modes, as permissible by compliance with Intermodulation requirements. Lower power mode must be used when operating in multi-channel mode.

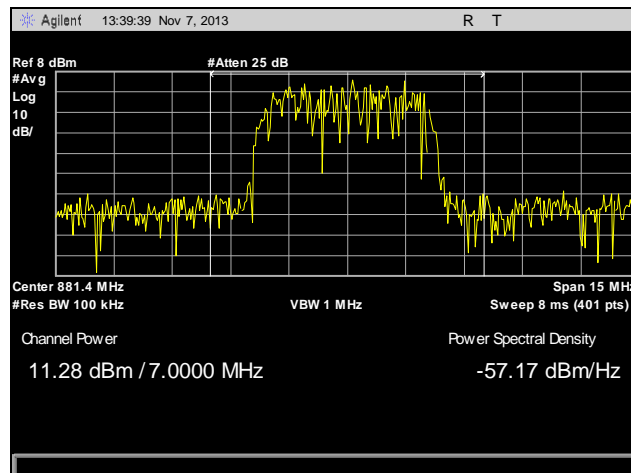
Test Results: The EUT complies with the requirements of this section.

Test Engineer(s): Benjamin Taylor

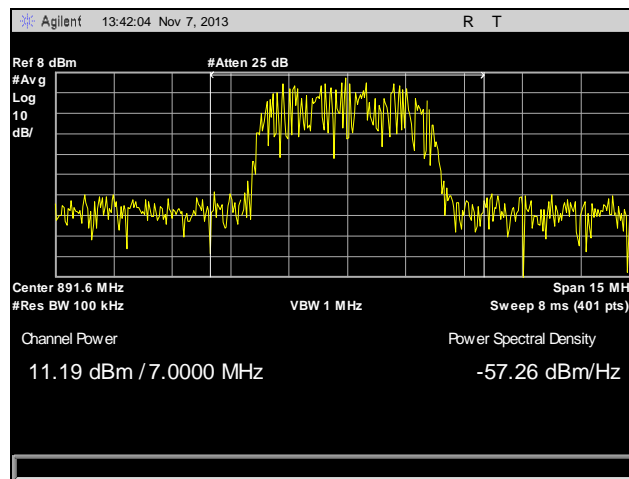
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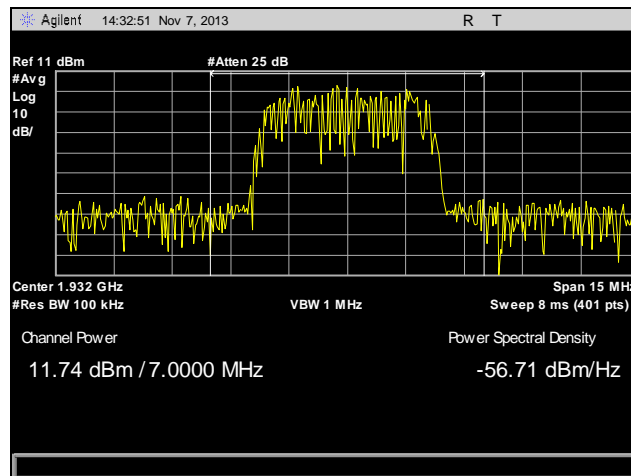
Plot 1. RF Power, WCDMA, Low Channel, Part 22



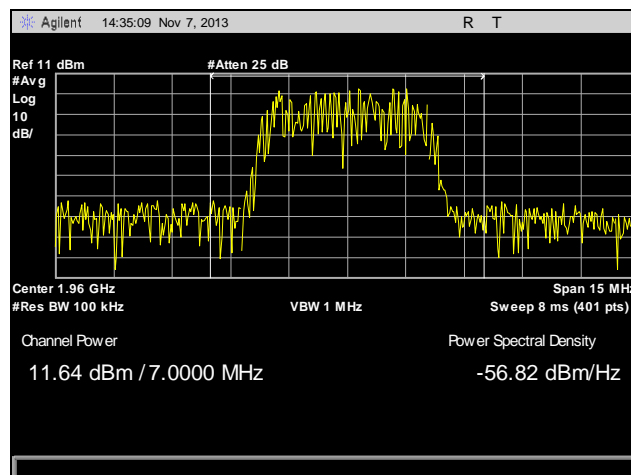
Plot 2. RF Power, WCDMA, Mid Channel, Part 22



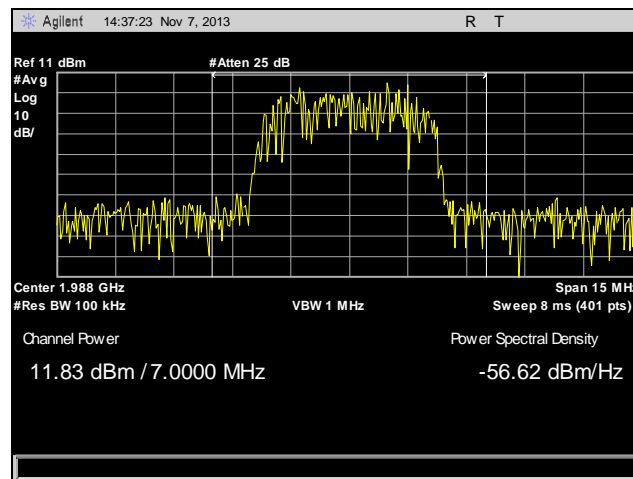
Plot 3. RF Power, WCDMA, High Channel, Part 22



Plot 4. RF Power, WCDMA, Low Channel, Part 24



Plot 5. RF Power, WCDMA, Mid Channel, Part 24



Plot 6. RF Power, WCDMA, High Channel, Part 24



§ 2.1049 Occupied Bandwidth

Test Requirement(s): **§ 2.1049 Measurements required: Occupied bandwidth:** The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured under the specified conditions of § 2.1049 (a) through (i) as applicable.

Test Procedures: As required by 47 CFR 2.1049, *occupied bandwidth measurements* were made at the RF output terminals using a Spectrum Analyzer.

A laptop was connected to EUT to control the RF frequency channel. The EUT was connected to a Spectrum Analyzer via attenuator. The RBW of the Spectrum Analyzer was set to at least 1% of the channel bandwidth. Measurements were carried out at the low, mid, and high channels of the TX band.

Test Results: Equipment complies with FCC requirements.

Test Engineer(s): Benjamin Taylor

Test Date(s): 11/24/13

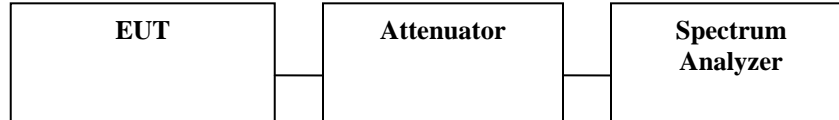
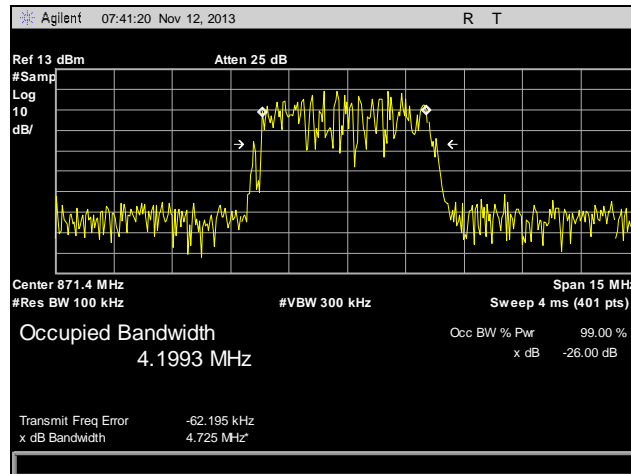
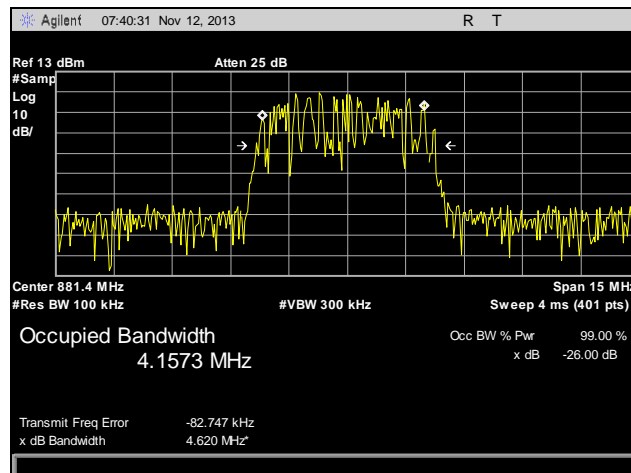


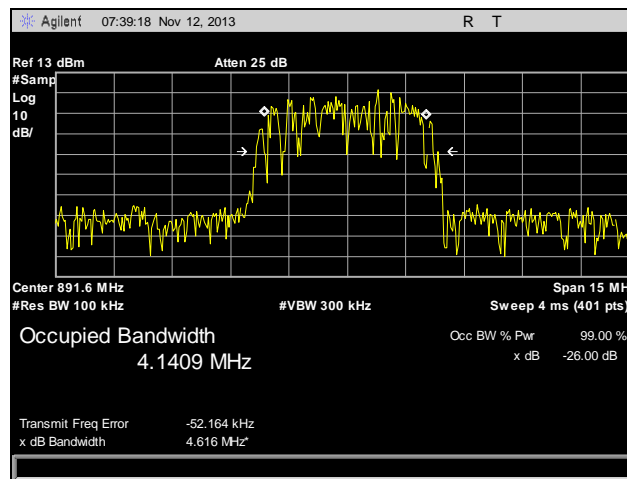
Figure 2. Occupied Bandwidth Test Setup



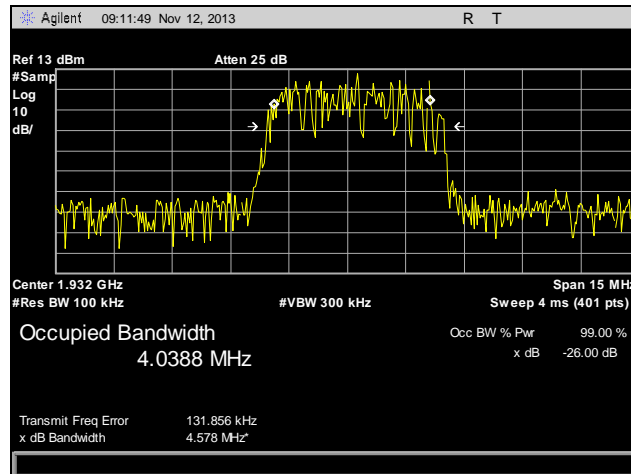
Plot 7. Occupied Bandwidth, WCDMA, Low Channel, Part 22



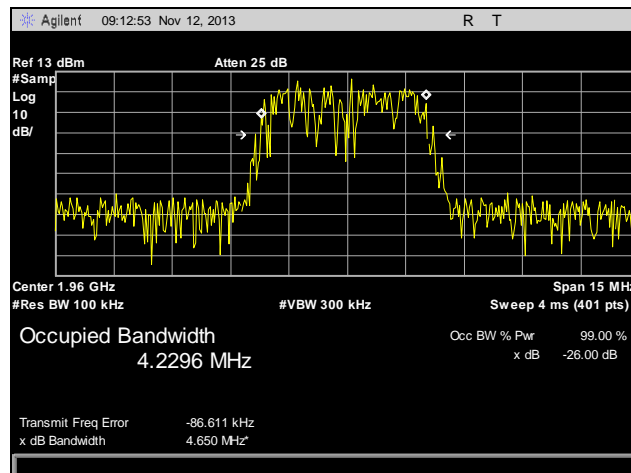
Plot 8. Occupied Bandwidth, WCDMA, Mid Channel, Part 22



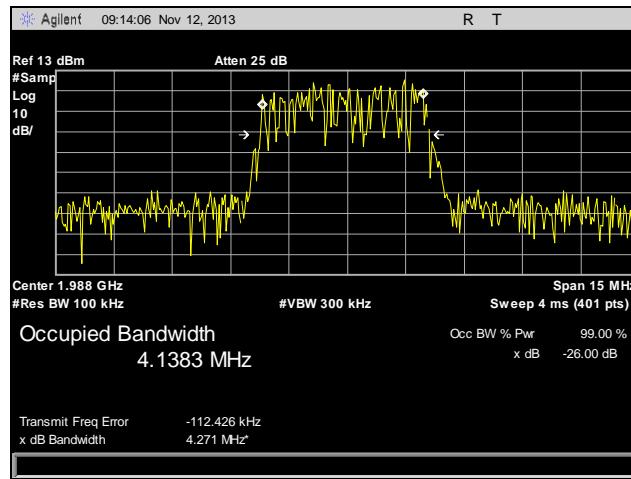
Plot 9. Occupied Bandwidth, WCDMA, High Channel, Part 22



Plot 10. Occupied Bandwidth, WCDMA, 1932.4 MHz, Part 24



Plot 11. Occupied Bandwidth, WCDMA, 1960 MHz, Part 24



Plot 12. Occupied Bandwidth, WCDMA, 1987.6 MHz, Part 24



Electromagnetic Compatibility Criteria for Intentional Radiators

§ 2.1053 Radiated Spurious Emissions

Test Requirement(s): § 2.1053 Measurements required: Field strength of spurious radiation.

§ 2.1053 (a) Measurements shall be made to detect spurious emissions that may be radiated directly from the cabinet, control circuits, power leads, or intermediate circuit elements under normal conditions of installation and operation. Curves or equivalent data shall be supplied showing the magnitude of each harmonic and other spurious emission. For this test, single sideband, independent sideband, and controlled carrier transmitters shall be modulated under the conditions specified in paragraph (c) of § 2.1049, as appropriate. For equipment operating on frequencies below 890 MHz, an open field test is normally required with the measuring instrument antenna located in the far-field at all test frequencies. In the event it is either impractical or impossible to make open field measurements (e.g. a broadcast transmitter installed in a building) measurements will be accepted of the equipment as installed. Such measurements must be accompanied by a description of the site where the measurements were made showing the location of any possible source of reflections which might distort the field strength measurements. Information submitted shall include the relative radiated power of each spurious emission with reference to the rated power output of the transmitter, assuming all emissions are radiated from half-wave dipole antennas.

§ 2.1053 (b): The measurements specified in paragraph (a) of this section shall be made for the following equipment:

- (1) Those in which the spurious emissions are required to be 60 dB or more below the mean power of the transmitter.
- (2) All equipment operating on frequencies higher than 25 MHz.
- (3) All equipment where the antenna is an integral part of, and attached directly to the transmitter.
- (4) Other types of equipment as required, when deemed necessary by the Commission.

§ 22.917 **Emission limitations Cellular equipment:** The rules in this section govern the spectral characteristics of emissions in the Cellular Radiotelephone Service.

§ 22.917 (a): Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$.



Test Procedures: As required by 47 CFR 2.1053, *field strength of radiated spurious measurements* was made in accordance with the procedures of TIA/EIA-603-A-2001 "Land Mobile FM or PM Communications Equipment Measurement and Performance Standards".

Radiated emission measurements were performed inside a 3 meter semi-anechoic chamber. The EUT's RF ports were terminated to 50ohm load. The EUT was tested using both modulations and at the low, mid, and high channels. The EUT was rotated about 360⁰ and the receiving antenna scanned from 1-4m in order to capture the maximum emission. The plots are corrected for cable loss, antenna correction factor, and distance correction. The field strength was mathematically corrected to an E.I.R.P. Harmonic emissions up to the 10th or 40GHz, whichever was the lesser, were investigated.

The spectrum analyzer was set to 1MHz RBW and 3MHz VBW above 1 GHz and 100 kHz RBW and 300 kHz VBW below 1 GHz. The spectrum was investigated from 30MHz to the 10th harmonic of the carrier.

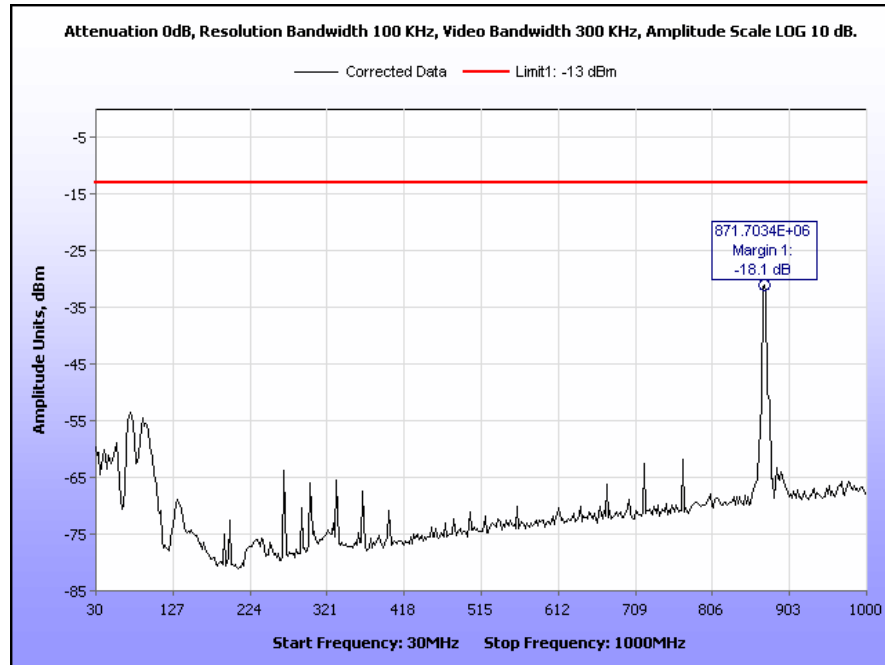
Test Results: The EUT complies with the requirements of this section.

Test Engineer: Benjamin Taylor

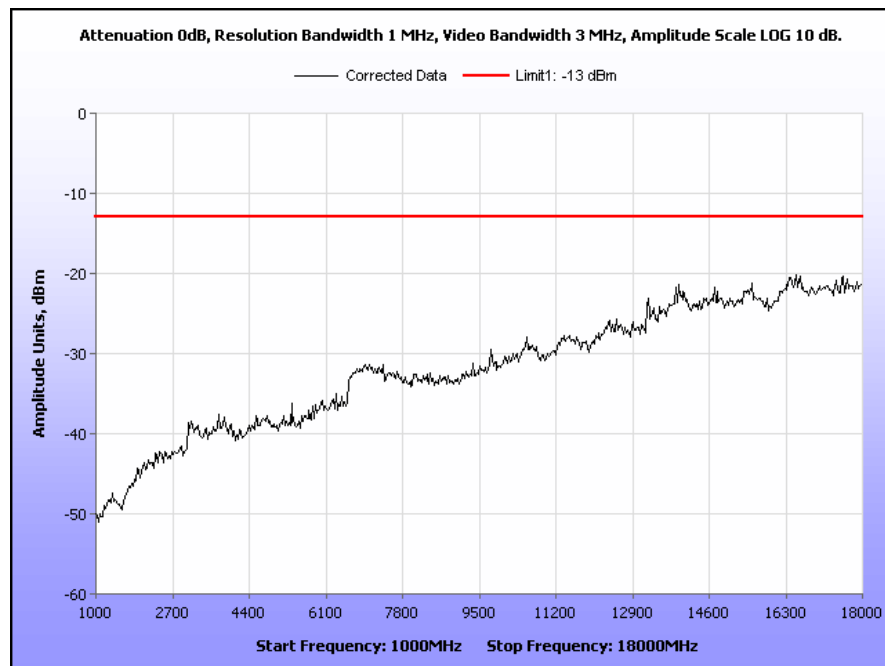
Test Date(s): 11/24/13



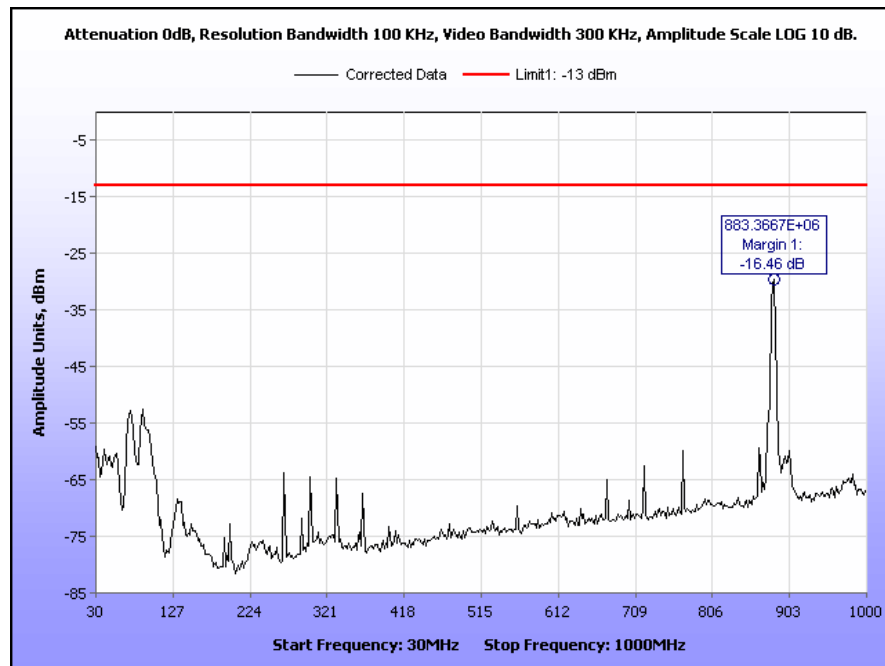
Radiated Spurious Emissions, Part 22



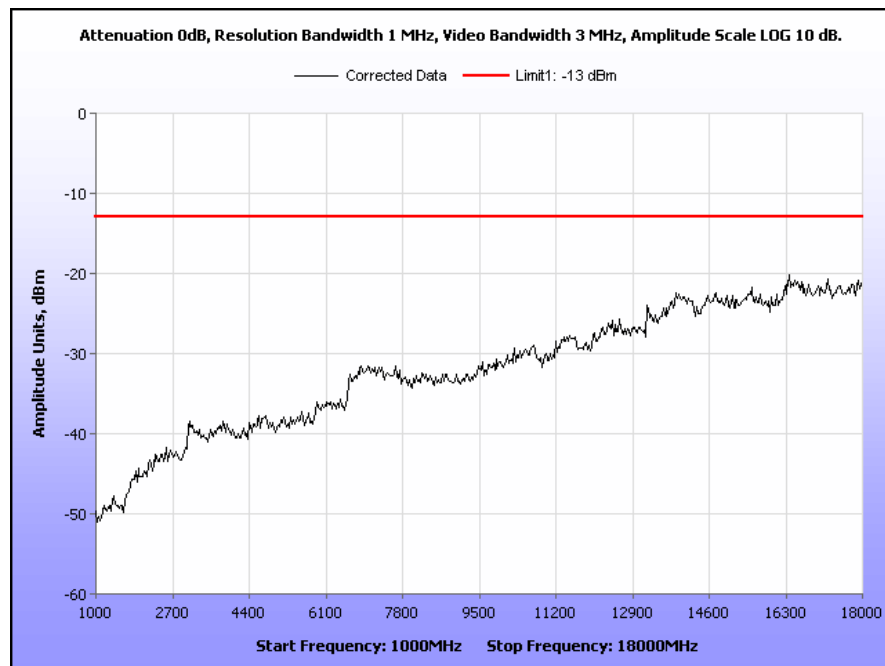
Plot 13. Radiated Spurious Emissions, WCDMA, Low Channel, 30 MHz – 1 GHz, Part 22



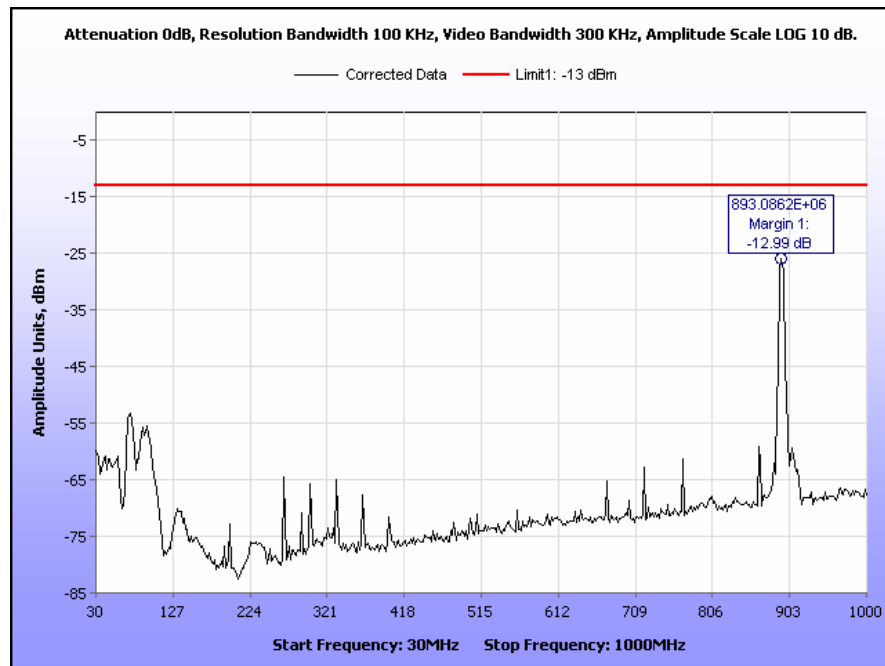
Plot 14. Radiated Spurious Emissions, WCDMA, Low Channel, 1 GHz – 18 GHz, Part 22



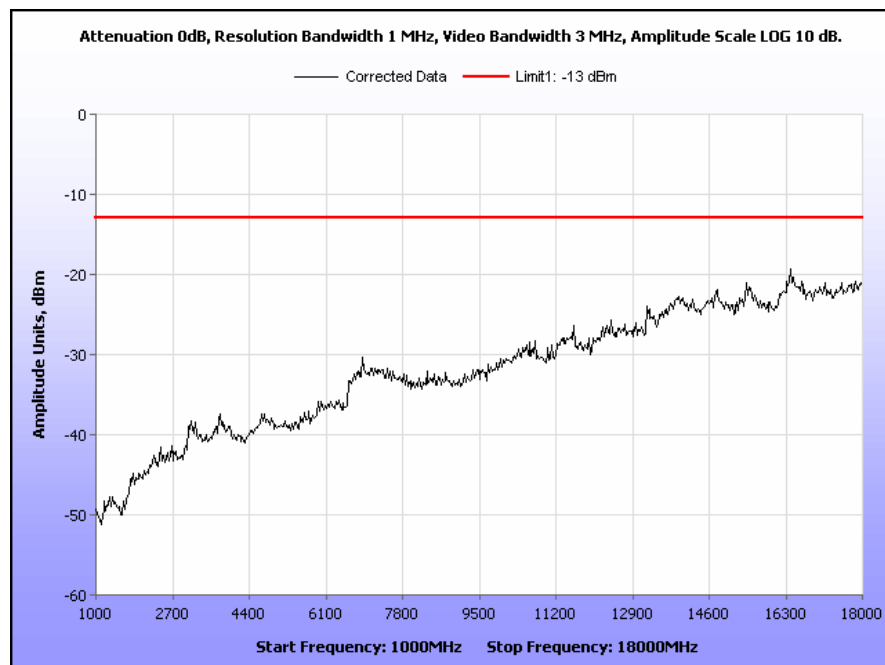
Plot 15. Radiated Spurious Emissions, WCDMA, Mid Channel, 30 MHz – 1 GHz, Part 22



Plot 16. Radiated Spurious Emissions, WCDMA, Mid Channel, 1 GHz – 18 GHz, Part 22



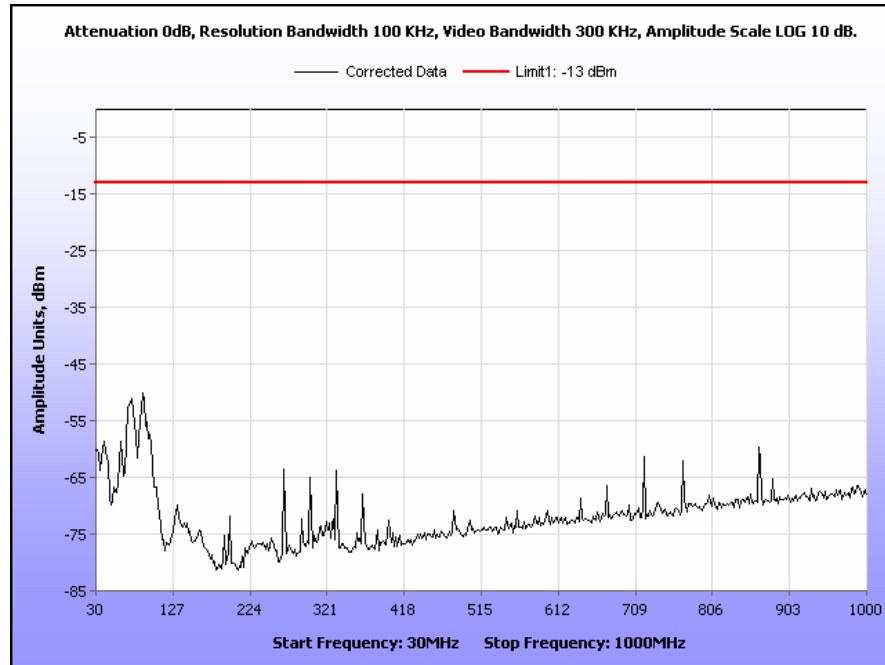
Plot 17. Radiated Spurious Emissions, WCDMA, High Channel, 30 MHz – 1 GHz, Part 22



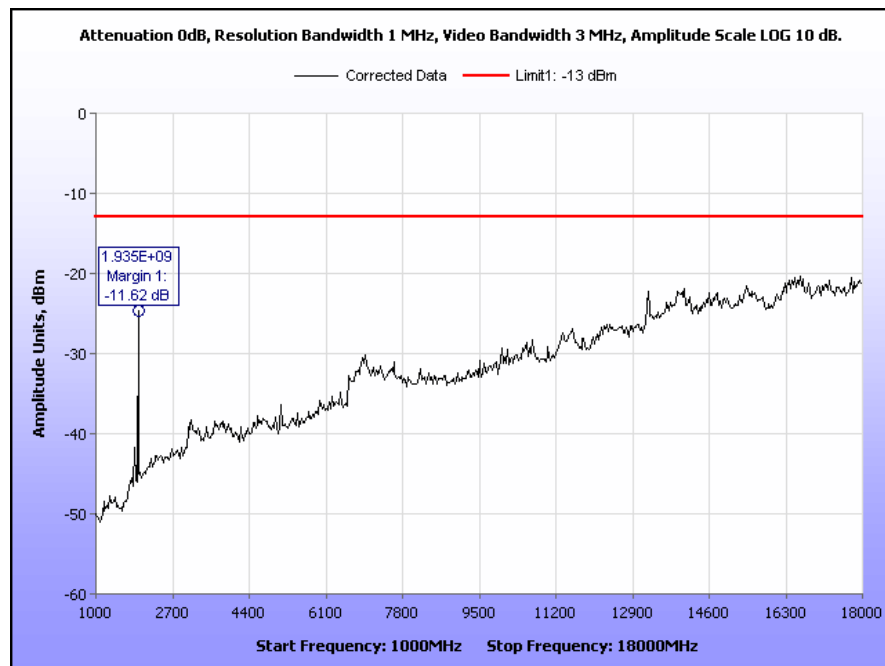
Plot 18. Radiated Spurious Emissions, WCDMA, High Channel, 1 GHz – 18 GHz, Part 22



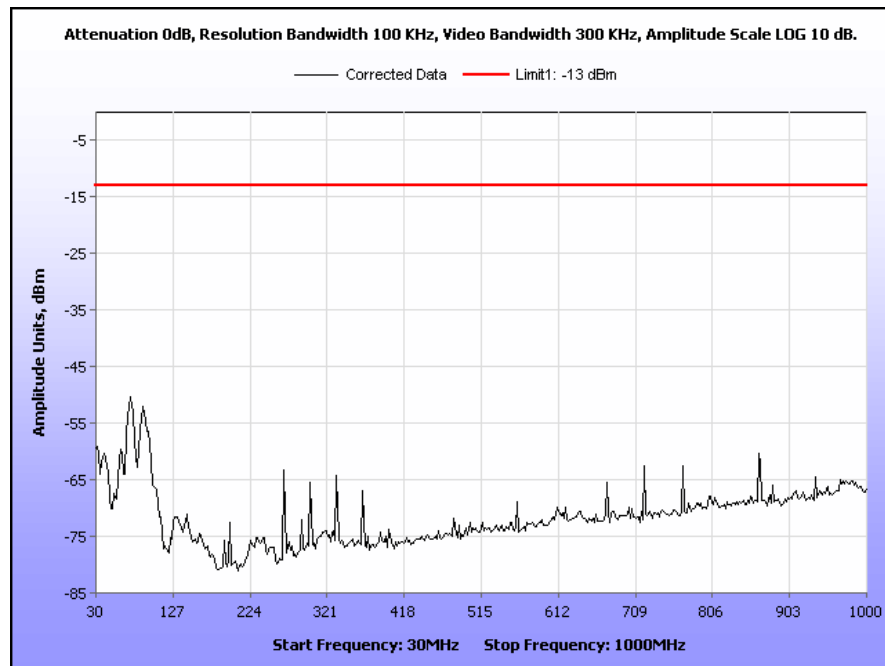
Radiated Spurious Emissions, Part 24



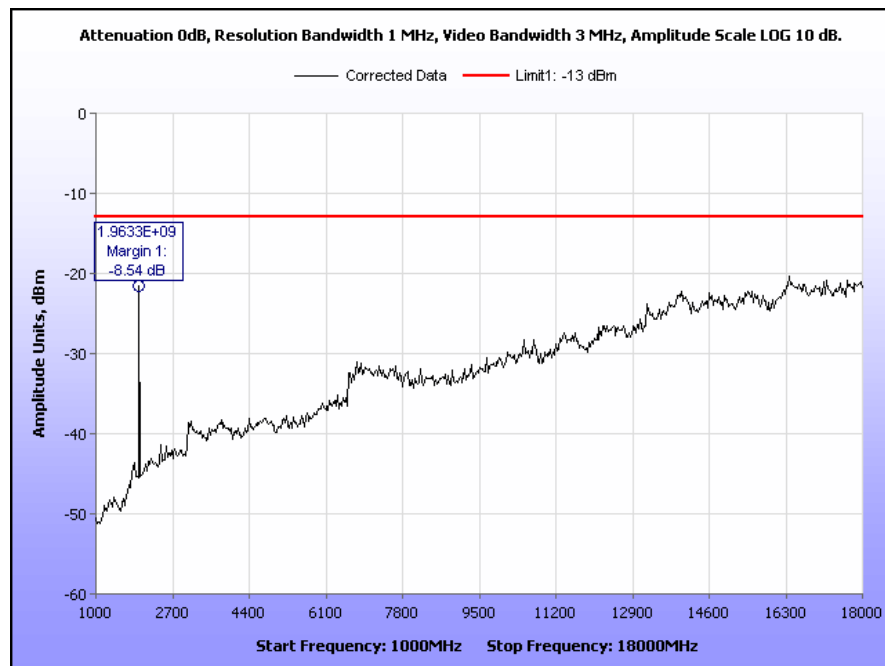
Plot 19. Radiated Spurious Emissions, WCDMA, Low Channel, 30 MHz – 1 GHz, Part 24



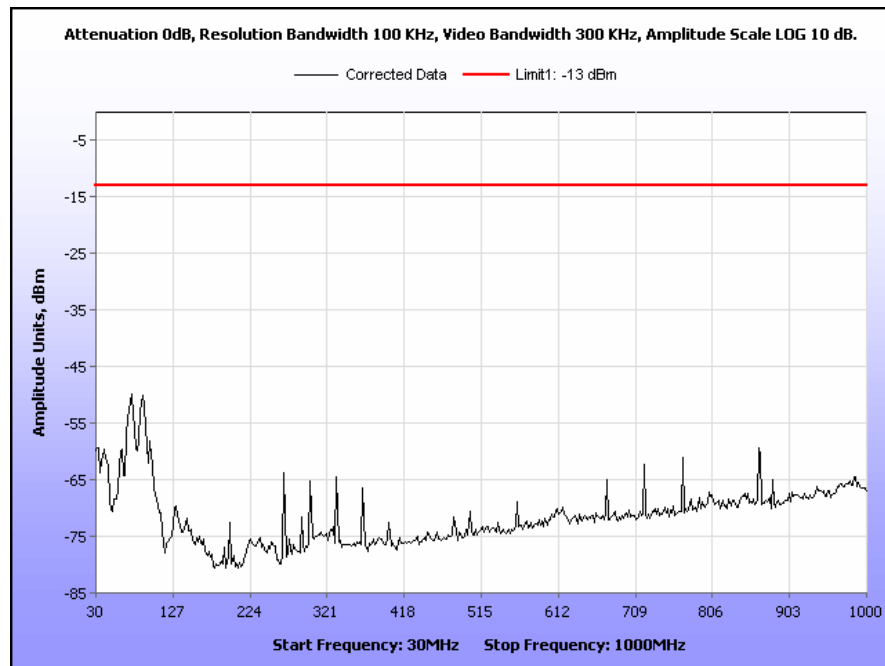
Plot 20. Radiated Spurious Emissions, WCDMA, Low Channel, 1 GHz – 18 GHz, Part 24



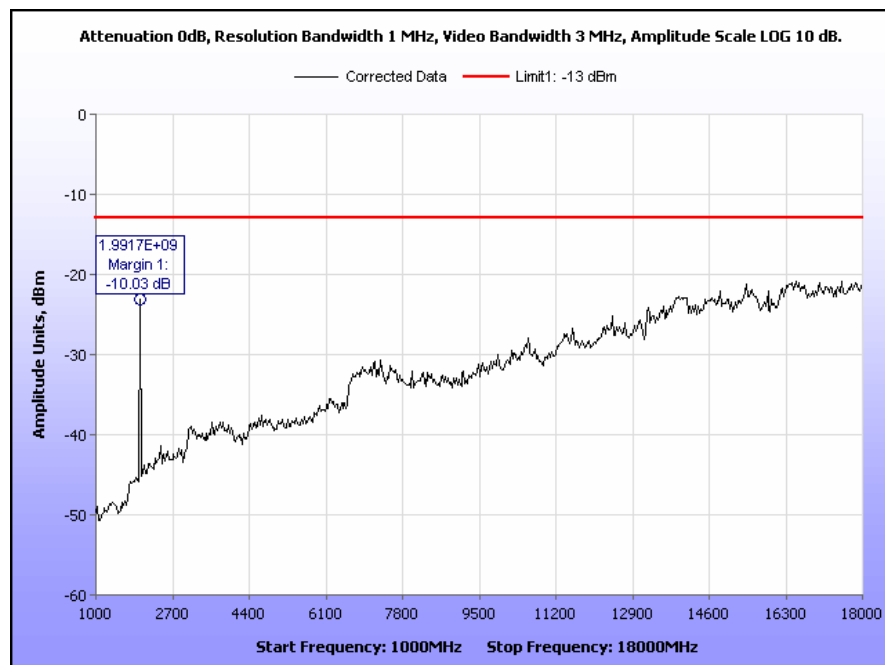
Plot 21. Radiated Spurious Emissions, WCDMA, Mid Channel, 30 MHz – 1 GHz, Part 24



Plot 22. Radiated Spurious Emissions, WCDMA, Mid Channel, 1 GHz – 18 GHz, Part 24



Plot 23. Radiated Spurious Emissions, WCDMA, High Channel, 30 MHz – 1 GHz, Part 24



Plot 24. Radiated Spurious Emissions, WCDMA, High Channel, 1 GHz – 18 GHz, Part 24



Electromagnetic Compatibility Criteria for Intentional Radiators

§ 2.1051 Spurious Emissions at Antenna Terminals

Test Requirement(s): **§ 2.1051 Measurements required: Spurious emissions at antenna terminals:** The radio frequency voltage or powers generated within the equipment and appearing on a spurious frequency shall be checked at the equipment output terminals when properly loaded with a suitable artificial antenna. Curves or equivalent data shall show the magnitude of each harmonic and other spurious emission that can be detected when the equipment is operated under the conditions specified in § 2.1049 as appropriate. The magnitude of spurious emissions which are attenuated more than 20 dB below the permissible value need not be specified.

§ 22.917 The rules in this section govern the spectral characteristics of emissions in the Cellular Radiotelephone Service.

§ 22.917 (a) Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

§ 22.917 (b) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 30 kHz or more. In the 60 kHz bands immediately outside and adjacent to the authorized frequency range or channel, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy approved the measured power is integrated over the full required measurement bandwidth (i.e., 30 kHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

§24.238 Emission limitations for Broadband PCS equipment: The rules in this section govern the spectral characteristics of emissions in the Broadband Personal Communications Service.

§ 24.238 (a) Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

§ 24.238 (b) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e., 1 MHz or 1 percent of emission bandwidth, as specified). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.



Test Procedures: As required by 47 CFR §2.1051, *spurious emissions at antenna terminal measurements* were made at the RF output terminals using a Spectrum Analyzer.

A laptop was connected to EUT to control the RF power output and frequency channel. The EUT was connected to a Spectrum Analyzer through an attenuator. The Spectrum Analyzer was set to sweep 30 MHz and up to 10th harmonic of the fundamental or 40 GHz whichever is the lesser. Measurements were made in all applicable frequency bands.

Test Results: Equipment complies with these requirements.

Test Engineer(s): Benjamin Taylor

Test Date(s): 11/24/13

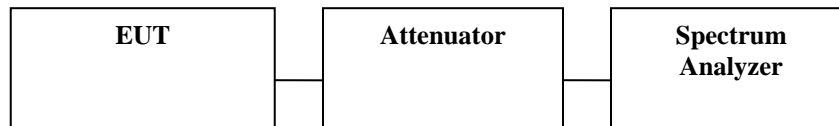
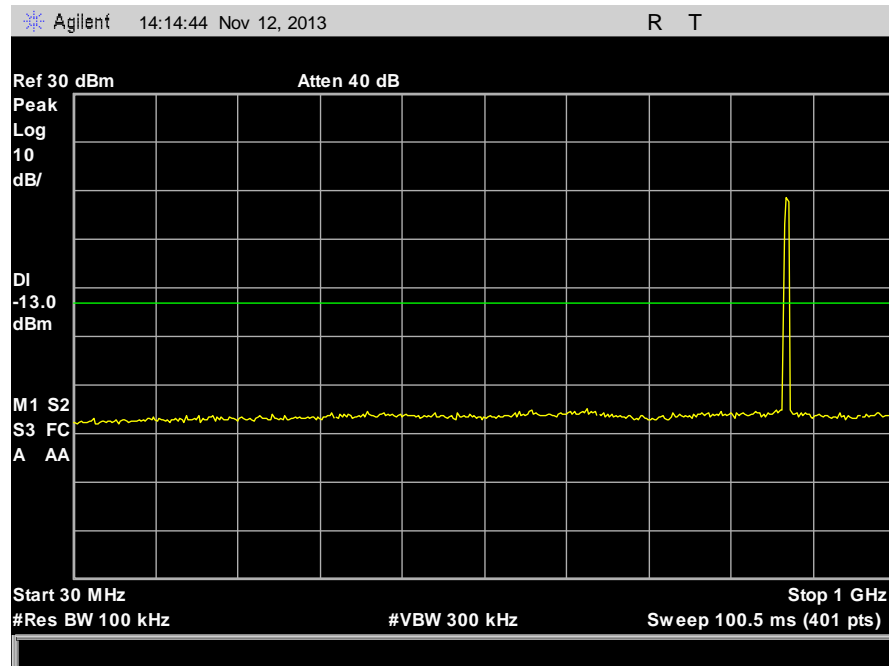
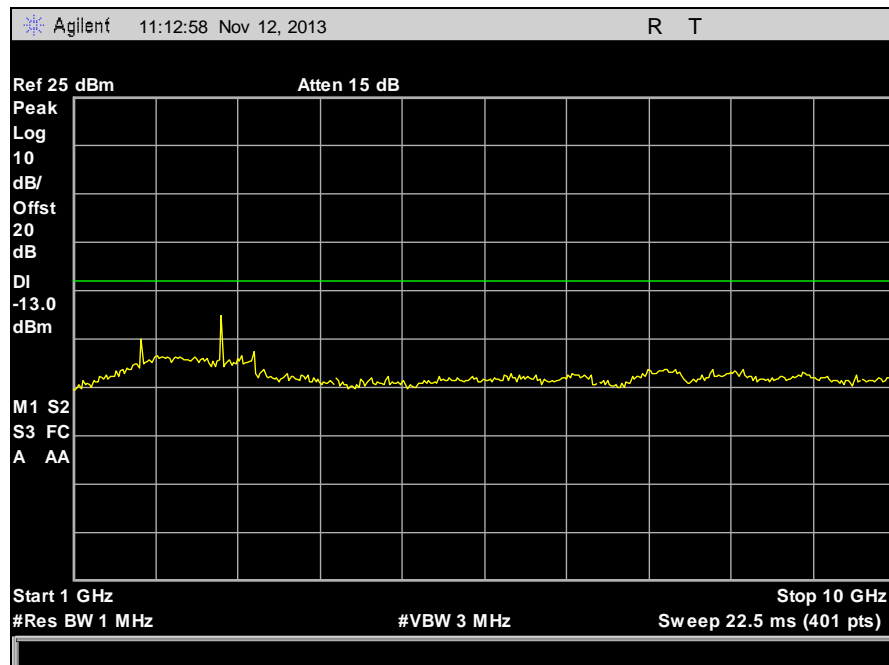


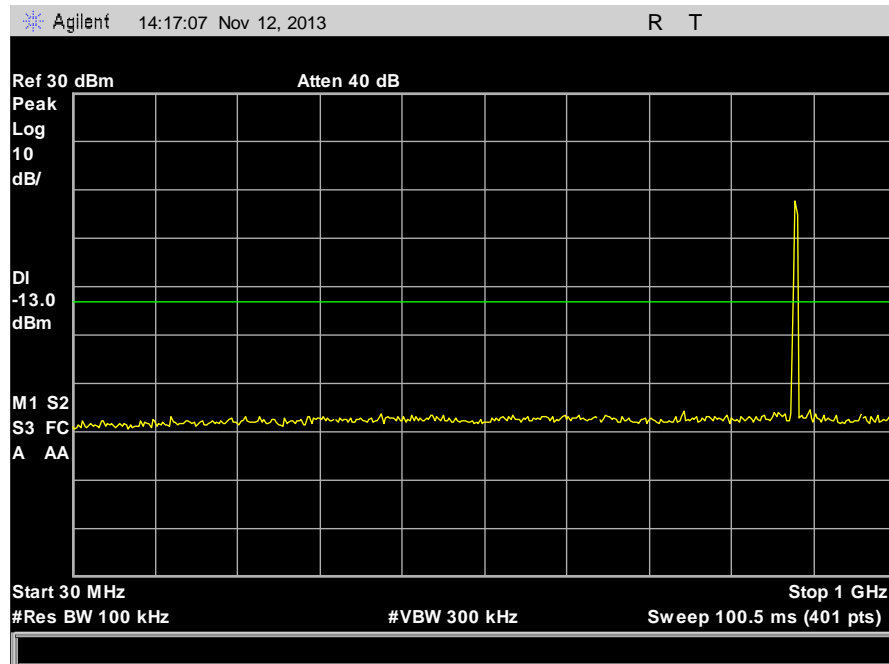
Figure 3. Spurious Emissions at Antenna Terminals Test Setup



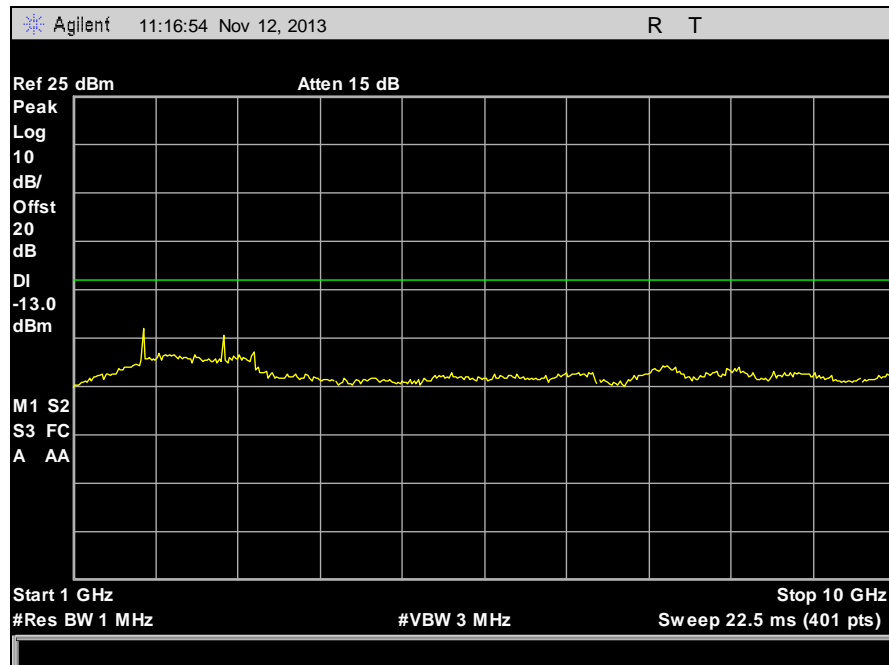
Plot 25. Conducted Spurious Emissions, WCDMA, Low Channel, 30 MHz – 1 GHz, Part 22



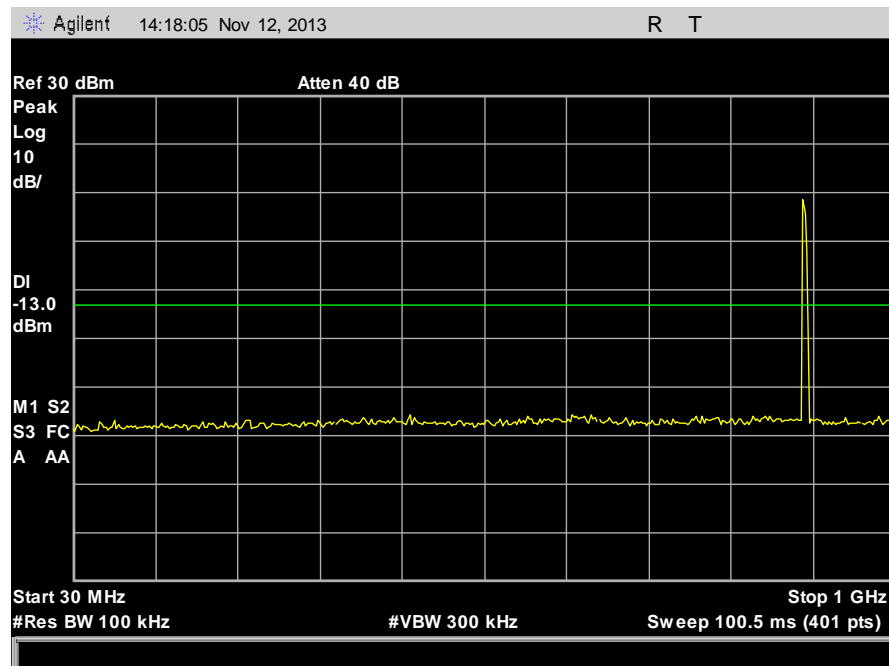
Plot 26. Conducted Spurious Emissions, WCDMA, Low Channel, 1 GHz – 10 GHz, Part 22



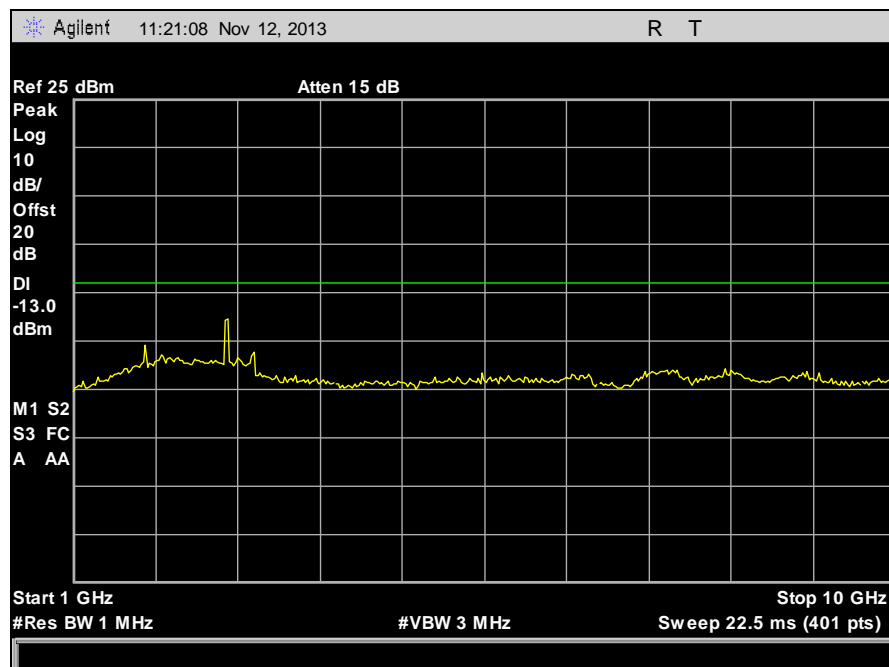
Plot 27. Conducted Spurious Emissions, WCDMA, Mid Channel, 30 MHz – 1 GHz, Part 22



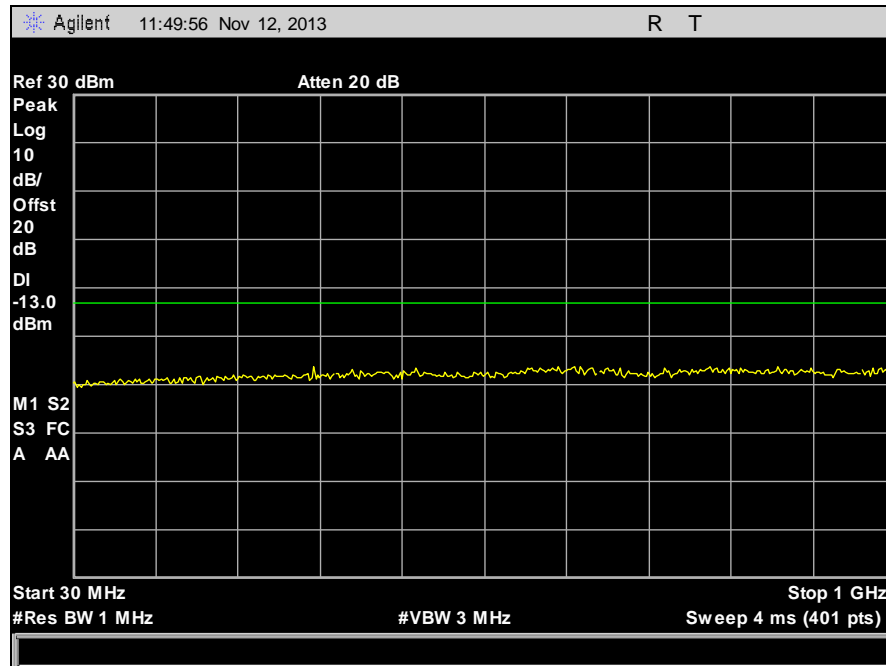
Plot 28. Conducted Spurious Emissions, WCDMA, Mid Channel, 1 GHz – 10 GHz, Part 22



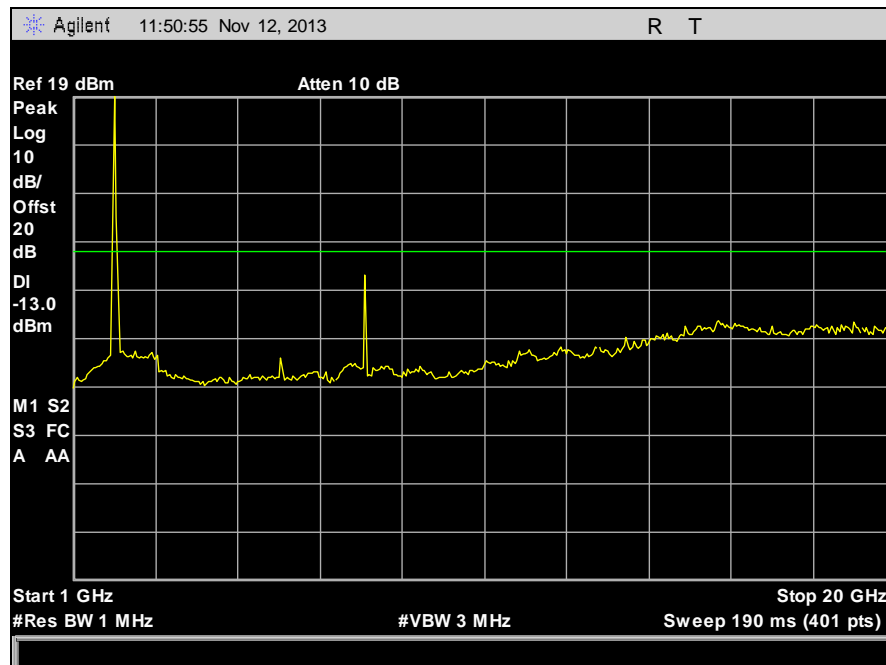
Plot 29. Conducted Spurious Emissions, WCDMA, High Channel, 30 MHz – 1 GHz, Part 22



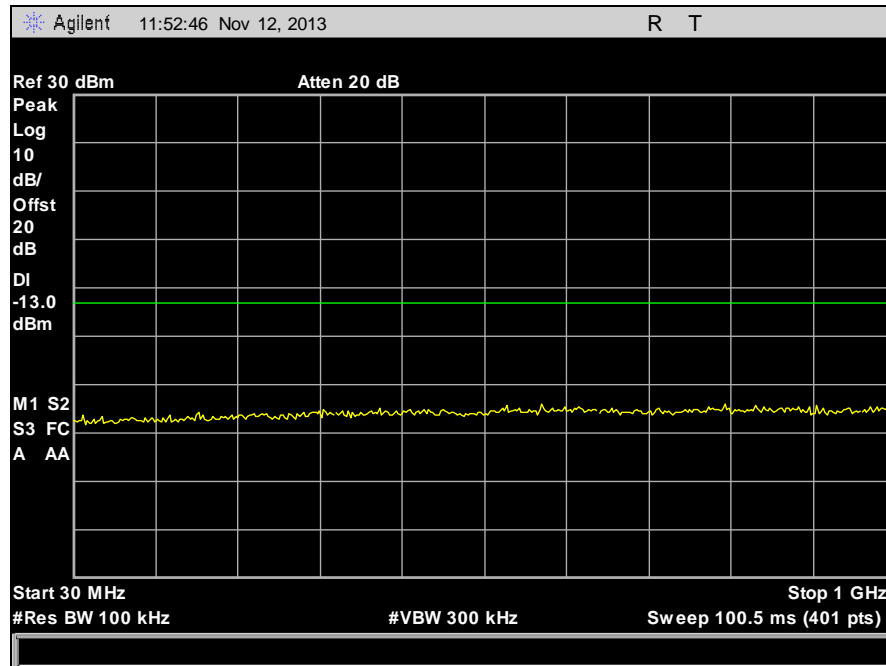
Plot 30. Conducted Spurious Emissions, WCDMA, High Channel, 1 GHz – 10 GHz, Part 22



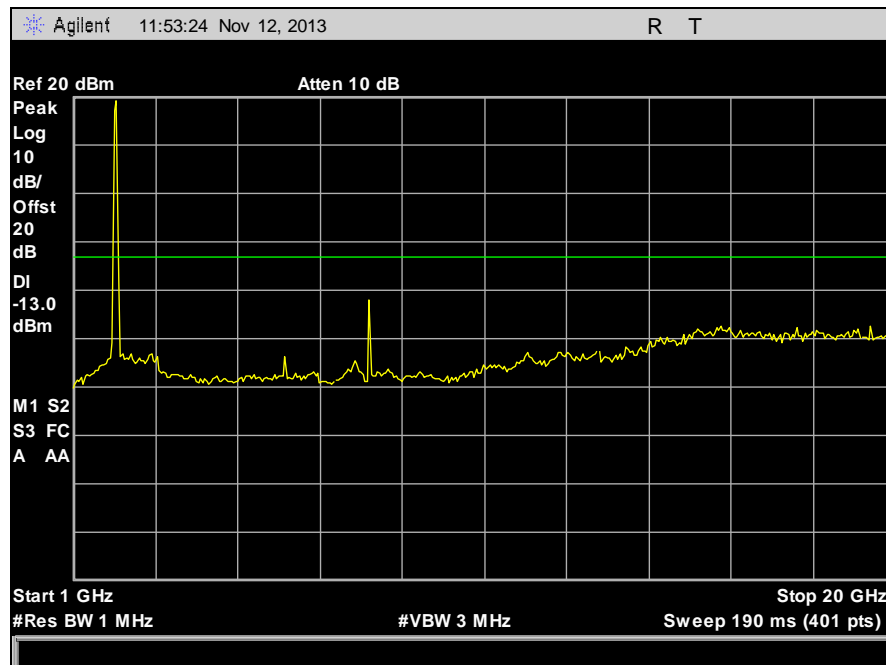
Plot 31. Conducted Spurious Emissions, WCDMA, Low Channel, 30 MHz – 1 GHz, Part 24



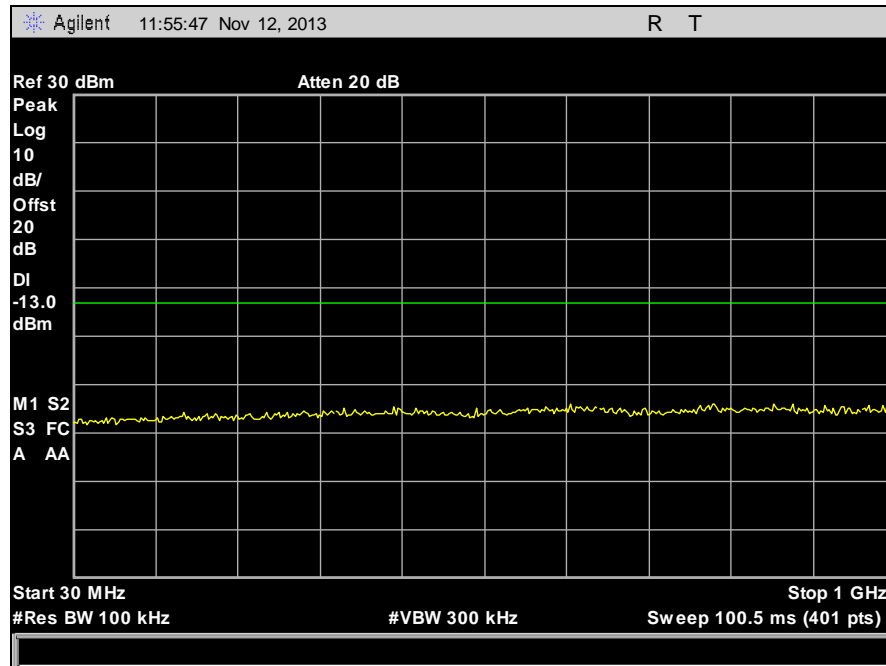
Plot 32. Conducted Spurious Emissions, WCDMA, Low Channel, 1 GHz – 20 GHz, Part 24



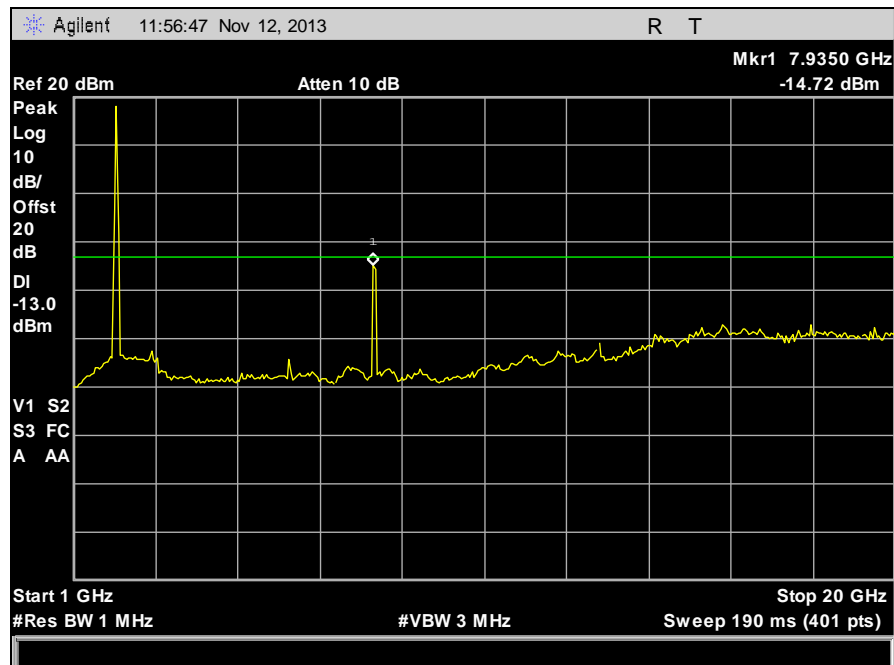
Plot 33. Conducted Spurious Emissions, WCDMA, Mid Channel, 30 MHz – 1 GHz, Part 24



Plot 34. Conducted Spurious Emissions, WCDMA, Mid Channel, 1 GHz – 20 GHz, Part 24



Plot 35. Conducted Spurious Emissions, WCDMA, High Channel, 30 MHz – 1 GHz, Part 24



Plot 36. Conducted Spurious Emissions, WCDMA, High Channel, 1 GHz – 20 GHz, Part 24



Electromagnetic Compatibility Criteria for Intentional Radiators

§2.1055 Frequency Stability

Test Requirement(s): §2.1055

Test Procedures: As required by 47 CFR 2.1055, *Frequency Stability measurements* were made at the RF output terminals using a Directional Coupler through a Spectrum Analyzer and Power Meter.

The EUT was setup in an Environmental chamber with the support equipment outside the chamber. The EUT was set to transmit on the low channel. The out of band emissions were then compared to the -13dBm limit. The same procedure was repeated on the high channel. This procedure was done at a temperature range of -30C to +50C. At the ambient temperature, in addition to the measurements at the nominal voltage, the voltage was varied to +/- 15% and measurements were taken at those voltages.

Test Results: Equipment complies with this section.

Test Engineer(s): Benjamin Taylor

Test Date(s): 11/25/13

Temperature (°C)	Frequency (MHz)	Drift (%)	Limit (%)
-30	2132.400101	0.0000047	+/-0.01
-20	2132.400097	0.0000045	+/-0.01
-10	2132.400091	0.0000043	+/-0.01
0	2132.400082	0.0000038	+/-0.01
10	2132.400060	0.0000028	+/-0.01
20	2132.400027	0.0000013	+/-0.01
30	2132.400038	0.0000018	+/-0.01
40	2132.400044	0.0000021	+/-0.01
50	2132.400046	0.0000022	+/-0.01

Voltage (VAC)	Frequency (MHz)	Drift (%)	Limit (%)
102	2132.400076	0.0000036	+/-0.01
120	2132.400027	0.0000013	+/-0.01
138	2132.400076	0.0000036	+/-0.01



Frequency Stability, Test Setup



IV. Test Equipment



Test Equipment

Calibrated test equipment utilized during testing was maintained in a current state of calibration per the requirements of ISO/IEC 17025:2005.

MET Asset #	Equipment	Manufacturer	Model	Last Cal Date	Cal Due Date
1T4612	SPECTRUM ANALYZER	AGILENT TECHNOLOGIES	E4407B	07/30/2013	01/30/2015
1T4300	SEMI-ANECHOIC CHAMBER # 1 (NSA)	EMC TEST SYSTEMS	NONE	07/24/2012	07/24/2015
1T4409	EMI RECEIVER	ROHDE & SCHWARZ	ESIB7	07/16/2012	07/16/2014
1T4299	SIGNAL GENERATOR	HP	E4432B	11/13/2013	05/13/2015
1T4483	ANTENNA; HORN	ETS-LINDGREN	3117	08/06/2012	02/06/2014
1T4751	ANTENNA - BILOG	SUNOL SCIENCES	JB6	01/08/2013	07/08/2014
1T4354	SIGNAL GENERATOR	HEWLETT PACKARD	83752A	10/28/2013	04/28/2015
1T4592	RF FILTER KIT	VARIOUS	N/A	NOT REQUIRED	
1T4442	PRE-AMPLIFIER, MICROWAVE	MITEQ	AFS42-01001800-30-10P	SEE NOTE	
1T4149	HIGH-FREQUENCY ANECHOIC CHAMBER	RAY-PROOF	81	NOT REQUIRED	
1T4548	AC POWER SOURCE	CALIFORNIA INSTRUMENTS	1251P	SEE NOTE	
2T1083	TEMPHUMIDITY CHAMBER/ CONTROLLER/ RECORDER/ TRANSMITTER	THERMOTRON/ THERMOTRON/ HONEYWELL/ VAISALA	SE-1000-3-3/ 7800/ DR4500/ HMM30C	05/25/2013	05/25/2014
1T4377	TRUE RMS MULTIMETER	FLUKE	189	07/25/2013	01/25/2015

Note: Functionally tested equipment is verified using calibrated instrumentation at the time of testing.



Digital Receiver Technology, Inc.
DRT1183C

Electromagnetic Compatibility
End of Report
CFR Title 47 Part 22 Subpart H & Part 24 Subpart E

End of Report