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October 10, 2012

Fortress Technologies
2 Technology Park Drive
Westford, MA 01886

Dear John Pacheco,

Enclosed is the EMC Wireless test report for compliance testing of the Fortress Technologies, ES2440-35 (M5 Radio) as tested to the requirements of Title 47 of the CFR, Ch. 1 (10-1-06 ed.), Title 47 of the CFR, Part 15, Subpart B, Industry Canada ICES-003 Issue 4 February 2004 for Unintentional Radiators and Part 15.407, Industry Canada RSS-210, Issue 8, December 2010 for Intentional Radiators.

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 feel free to contact me.

Sincerely yours,
MET LABORATORIES, INC.

Jennifer Warnell
Documentation Department

Reference: (\Fortress Technologies\EMC348306B-FCC407 Rev. 1 (UNII2))

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Electromagnetic Compatibility Criteria Test Report

for the

Fortress Technologies
Model ES2440-35 (M5 Radio)

Tested under
the Certification Rules
contained in
Title 47 of the CFR, Part 15, Subpart B and
ICES-003 Issue 4 February 2004
for Unintentional Radiators
and
Title 47 of the CFR, Part 15.407 and
Industry Canada RSS-210, Issue 8, December 2010
for Intentional Radiators

MET Report: EMC348306B-FCC407 Rev. 1 (UNII2)

October 10, 2012

Prepared For:

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Westford, MA 01886

Prepared By:
MET Laboratories, Inc.
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Industry Canada RSS-210, Issue 8, December 2010
for Intentional Radiators

Jeffrey Pratt, 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 Parts 15B, 15.407, of the FCC Rules and ICES-003 and RSS-210 of the Industry Canada rules under normal use and maintenance.

Shawn McMillen, Wireless Manager
Electromagnetic Compatibility Lab

Report Status Sheet

Revision	Report Date	Reason for Revision
∅	July 27, 2012	Initial Issue.
1	October 10, 2012	Revised to reflect engineer corrections.

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List of Terms and Abbreviations

AC	**A**lternating **C**urrent
ACF	**A**ntenna **C**orrection **F**actor
Cal	**Cal**ibration
d	**M**easurement **D**istance
dB	**D**eci**b**els
dBµA	**D**eci**b**els above one **micro**amp
dBµV	**D**eci**b**els above one **micro**volt
dBµA/m	**D**eci**b**els above one **micro**amp **per m**eter
dBµV/m	**D**eci**b**els above one **micro**volt **per m**eter
DC	**D**irect **C**urrent
E	**E**lectric Field
DSL	**D**igital **S**ubscriber **L**ine
ESD	**E**lectro**s**tatic **D**ischarge
EUT	**E**quipment **U**nder **T**est
f	**F**requency
FCC	**F**ederal **C**ommunications **C**ommission
GRP	**G**round **R**eference **P**lane
H	Magnetic Field
HCP	**H**orizontal **C**oupling **P**lane
Hz	**H**ert**z**
IEC	**I**nternational **E**lectrotechnical **C**ommission
kHz	**k**ilo**h**ert**z**
kPa	**k**ilo**pa**scal
kV	**k**ilo**v**olt
LISN	**L**ine **I**mpedance **S**tabilization **N**etwork
MHz	**M**ega**h**ertz
µH	**microh**enry
µ	**microf**arad
µs	**micros**econds
PRF	**P**ulse **R**epetition **F**requency
RF	**R**adio **F**requency
RMS	**R**oot-**M**ean-**S**quare
TWT	**T**raveling **W**ave **T**ube
V/m	**V**olts **per m**eter
VCP	**V**ertical **C**oupling **P**lane

I. Executive Summary

A. Purpose of Test

An EMC evaluation was performed to determine compliance of the Fortress Technologies ES2440-35 (M5 Radio), with the requirements of Part 15, §15.407. 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 ES2440-35 (M5 Radio). Fortress Technologies should retain a copy of this document which should be kept on file for at least two years after the manufacturing of the ES2440-35 (M5 Radio), 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 15, §15.407, in accordance with Fortress Technologies, purchase order number 0003235. All tests were conducted using measurement procedure ANSI C63.4-2003.

FCC Reference	Industry Canada Reference	Description	Results
15.107	ICES-003 Issue 4 February 2004	Conducted Emissions	Compliant
15.109		Radiated Emissions	Compliant
15.203	RSS-GEN 7.1.4	Antenna Requirements	Compliant
15.205/15.209	2.2	General Field Strength Limits (Restricted Bands and Radiated Emission Limits)	Compliant
15.207	RSS-GEN 7.2.2; RSS-210 2.2	AC Conducted Emissions 150KHz – 30MHz	Compliant
15.403 (c)	A8.2	26dB Occupied Bandwidth	Compliant
15.407 (a)(1), (2), (3)	A9.2(3)	Conducted Transmitter Output Power	Compliant
15.407 (a)(1), (2), (3), (5)	A9.2(3)	Power Spectral Density	Compliant
15.407 (a)(6)	A8.2	Peak Excursion	Compliant
15.407 (b)(1), (2), (5), (6)	A9.3(4)	Undesirable Emissions	Compliant
15.407(f)	RSS-GEN	RF Exposure	Compliant
15.407(g)	2.1	Frequency Stability	Compliant
15.407 (h)(1)	A9.4	Transmit Power Control (TPC) and Dynamic Frequency Selection (DFS)	Compliant
15.407 (h)(2)	A9.4	Channel Availability Check Time	Compliant
15.407 (h)(2)(ii)	A9.4	Channel Move Time and Channel Closing Time	Compliant
15.407 (h)(2)(iii)	A9.4	Non-Occupancy Period	Compliant
15.407 (h)(2)(iv)	A9.4	Radar Detection Function of Dynamic Frequency Selection (DFS)	Compliant

Table 1. Executive Summary of EMC Part 15.407 ComplianceTesting

II. Equipment Configuration

A. Overview

MET Laboratories, Inc. was contracted by Fortress Technologies to perform testing on the ES2440-35 (M5 Radio), under Fortress Technologies's purchase order number 0003235.

This document describes the test setups, test methods, required test equipment, and the test limit criteria used to perform compliance testing of the Fortress Technologies ES2440-35 (M5 Radio).

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

Model(s) Tested:	ES2440-35 (M5 Radio)	
Model(s) Covered:	ES2440-35 (M5 Radio)	
EUT Specifications:	Primary Power: 120 VAC, 60 Hz	
	FCC ID: WYK-ES2440X IC: 8190A-ES2440X	
	Type of Modulations:	OFDM
	Equipment Code:	NII
Analysis:	The results obtained relate only to the item(s) tested.	
Environmental Test Conditions:	Temperature: 15-35º C	
	Relative Humidity: 30-60%	
	Barometric Pressure: 860-1060 mbar	
Evaluated by:	Jeff Pratt	
Report Date(s):	October 10, 2012	

Table 2. EUT Summary

B. References

CFR 47, Part 15, Subpart B	Electromagnetic Compatibility: Criteria for Radio Frequency Devices
CFR 47, Part 15, Subpart E	Unlicensed National Information Infrastructure Devices (UNII)
RSS-210, Issue 8, December 2010	Low-power License-exempt Radiocommunications Devices (All Frequency Bands): Category I Equipment
ICES-003, Issue 4 February 2004	Electromagnetic Compatibility: Criteria for Radio Frequency Devices
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

Table 3. References

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

The Fortress Technologies ES2440-35, Equipment Under Test (EUT), is a dual radio access point/bridge. It embeds two COTS high power radios and three Ethernet ports in a ruggedized enclosure. The radios operate in accordance to the 802.11a, 802.11b, 802.11g, and 802.11n standards.

The ES2440 is intended to provided outdoor mobile connectivity in a secure manner both wired and wirelessly.

E. Equipment Configuration

Ref. ID	Name / Description	Model Number	Serial Number
1	Fortress High Capacity Infrastructure Mesh Point	ES2440-35	11022261

Table 4. Equipment Configuration

F. Support Equipment

Fortress Technologies supplied support equipment necessary for the operation and testing of the ES2440-35 (M5 Radio). All support equipment supplied is listed in the following Support Equipment List.

Ref. ID	Name / Description	Manufacturer	Model Number
1	PoE Adapter	Phihong	POE61U-560DG
5	5.8GHz Omni Antenna	Ubiquiti	AMO-5G10
6	5.8GHz Sector Antenna	PCTel	SP4959 16XP90

Table 5. Support Equipment

G. Ports and Cabling Information

Ref. ID	Port Name on EUT	Cable Description	Qty.	Length (m)	Shielded (Y/N)	Termination Point
1	ANT1A, ANT1B, ANT2A, ANT2B, ANT3A, ANT3B, ANT4A, ANT4B	Antenna	8	-	Y	-
2	DC Power	Provides power	1	-	N	-
3	Ethernet1/WAN/POE Ethernet 2 Ethernet 3	Standard RJ45 CAT5 Ethernet Cable	3	-	N	-
4	Serial	Standard RJ45 serial cable	1	-	N	-
	GPS	GPS antenna	1	-	N	-

Table 6. Ports and Cabling Information

H. Mode of Operation

The ES2440-35 can operate in 802.11a, 802.11b, 802.11g, and 802.11n modes. These modes may be configured using the UI of the product. Additionally, these modes may be entered by using ART, the Atheros Radio Test tool. This is a standard tool provide by Atheros for directly manipulating and configuring their chips during testing and manufacturing.

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 Fortress Technologies upon completion of testing.

III. Electromagnetic Compatibility Criteria for Unintentional Radiators

Electromagnetic Compatibility Criteria

§ 15.107 Conducted Emissions Limits

Test Requirement(s): **15.107 (a)** Except for Class A digital devices, for equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in Table 7. Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminals.

15.107 (b) For a Class A digital device that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in Table 7. Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminals. The lower limit applies at the band edges.

Frequency range (MHz)	Class A Conducted Limits (dBµV)		*Class B Conducted Limits (dBµV)	
	Quasi-Peak	Average	Quasi-Peak	Average
* 0.15- 0.45	79	66	66 - 56	56 - 46
0.45 - 0.5	79	66	56	46
0.5 - 30	73	60	60	50
Note 1 — The lower limit shall apply at the transition frequencies. Note 2 — The limit decreases linearly with the logarithm if the frequency in the range 0.15 MHz to 0.5 MHz. * -- Limits per Subsection 15.207(a).				

Table 7. Conducted Limits for Radio Frequency Devices calculated from FCC Part 15 Subsections 15.107(a) (b) and 15.207(a)

Test Results: The EUT was compliant with the Class A requirement(s) of this section. Measured emissions were below applicable limits.

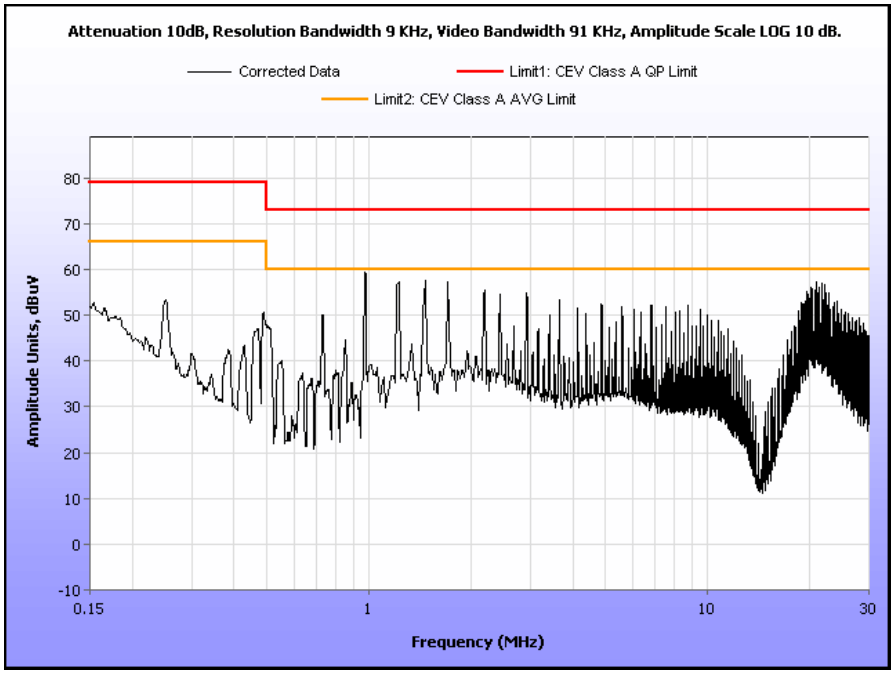
Test Engineer(s): Jeff Pratt

Test Date(s): 07/09/12

Conducted Emissions - Voltage, AC Power

Frequency (MHz)	Uncorrected Meter Reading (dBuV) QP	Cable Loss (dB)	Corrected Measurement (dBuV) QP	Limit (dBuV) QP	Margin (dB) QP	Uncorrected Meter Reading (dBuV) Avg.	Cable Loss (dB)	Corrected Measurement (dBuV) AVG	Limit (dBuV) AVG	Margin (dB) AVG
0.244	52.02	0.02	52.04	79	-26.96	47.89	0.02	47.91	66	-18.09
0.975	58.66	0	58.66	73	-14.34	54.26	0	54.26	60	-5.74
1.219	56.81	0	56.81	73	-16.19	52.27	0	52.27	60	-7.73
1.463	57.35	0	57.35	73	-15.65	52.74	0	52.74	60	-7.26
1.707	57.06	0	57.06	73	-15.94	52.66	0	52.66	60	-7.34
20.968	56.46	0.13	56.59	73	-16.41	53.12	0.13	53.25	60	-6.75

Table 8. Conducted Emissions - Voltage, AC Power, Phase Line, Test Results

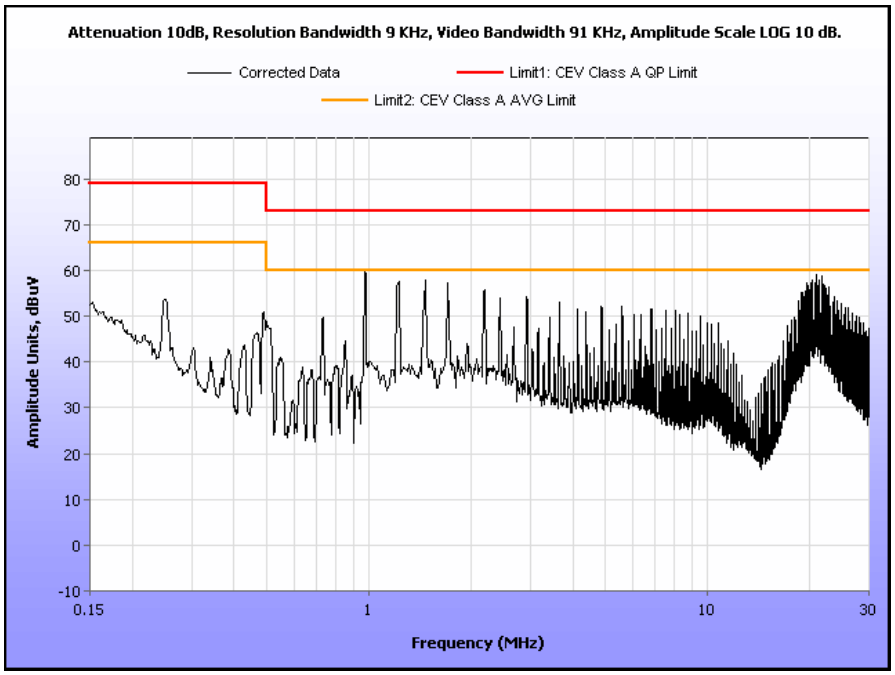


Plot 1. Conducted Emission, Phase Line Plot

Conducted Emissions - Voltage, AC Power

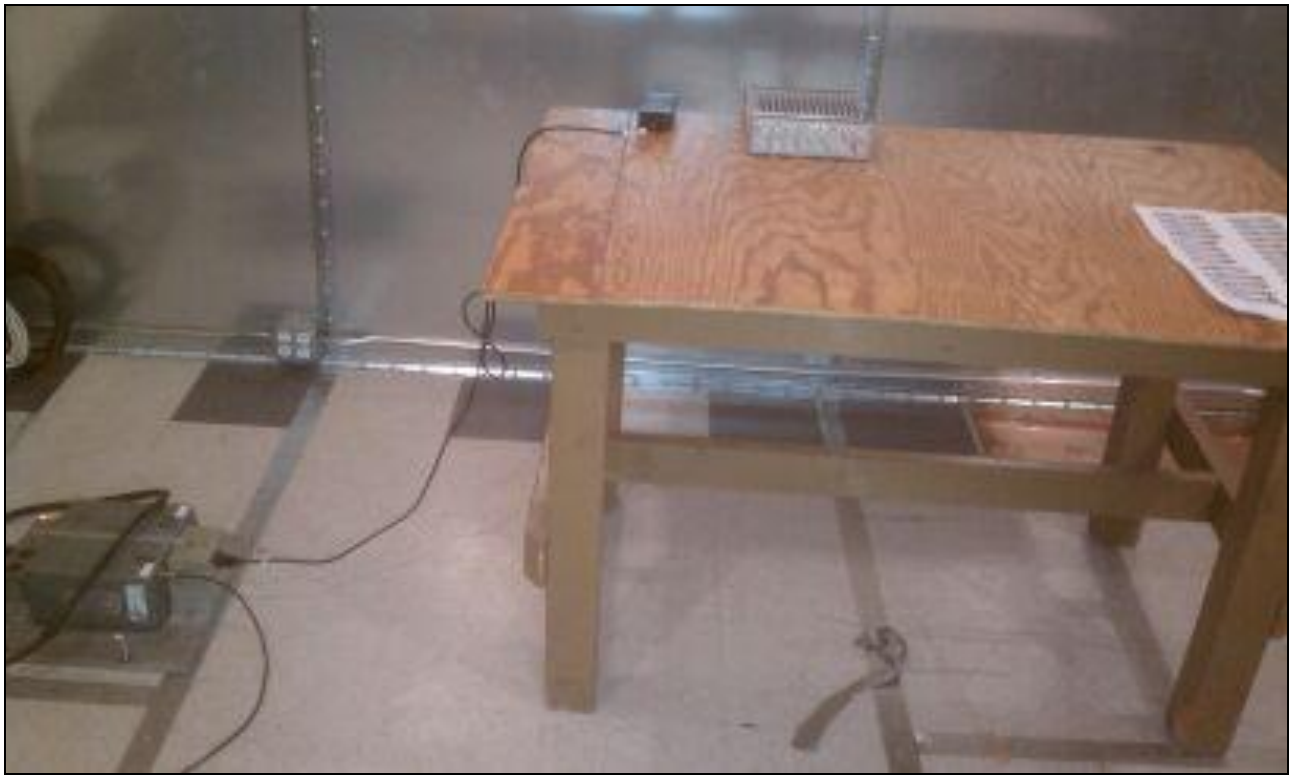
Frequency (MHz)	Uncorrected Meter Reading (dBuV) QP	Cable Loss (dB)	Corrected Measurement (dBuV) QP	Limit (dBuV) QP	Margin (dB) QP	Uncorrected Meter Reading (dBuV) Avg.	Cable Loss (dB)	Corrected Measurement (dBuV) AVG	Limit (dBuV) AVG	Margin (dB) AVG
0.976	58.54	0	58.54	73	-14.46	54.24	0	54.24	60	-5.76
1.22	56.82	0	56.82	73	-16.18	52.31	0	52.31	60	-7.69
1.463	57.38	0	57.38	73	-15.62	52.74	0	52.74	60	-7.26
1.707	57.14	0	57.14	73	-15.86	52.71	0	52.71	60	-7.29
20.969	58.56	0.13	58.69	73	-14.31	54.91	0.13	55.04	60	-4.96
21.699	57.79	0.14	57.93	73	-15.07	55.96	0.14	56.1	60	-3.9

Table 9. Conducted Emissions - Voltage, AC Power, Neutral Line, Test Results



Plot 2. Conducted Emission, Neutral Line Plot

Conducted Emission Limits Test Setup



Photograph 1. Conducted Emissions, Test Setup

Radiated Emission Limits

§ 15.109 Radiated Emissions Limits

Test Requirement(s): **15.109 (a)** Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the Class B limits expressed in Table 10.

15.109 (b) The field strength of radiated emissions from a Class A digital device, as determined at a distance of 10 meters, shall not exceed the Class A limits expressed in Table 10.

Frequency (MHz)	Field Strength (dBµV/m)	
	§15.109 (b), Class A Limit (dBµV) @ 10m	§15.109 (a),Class B Limit (dBµV) @ 3m
30 - 88	39.00	40.00
88 - 216	43.50	43.50
216 - 960	46.40	46.00
Above 960	49.50	54.00

Table 10. Radiated Emissions Limits calculated from FCC Part 15, §15.109 (a) (b)

Test Procedures: The EUT was placed on a non-metallic table, 80 cm above the ground plane inside a semi-anechoic chamber. The method of testing and test conditions of ANSI C63.4 were used. An antenna was located 3 m from the EUT on an adjustable mast. A pre-scan was first performed in order to find prominent radiated emissions. For final emissions measurements at each frequency of interest, the EUT was rotated and the antenna height was varied between 1 m and 4 m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. Unless otherwise specified, measurements were made using a quasi-peak detector with a 120 kHz bandwidth.

Test Results: The EUT was compliant with the Class A requirement(s) of this section. Measured emissions were below applicable limits.

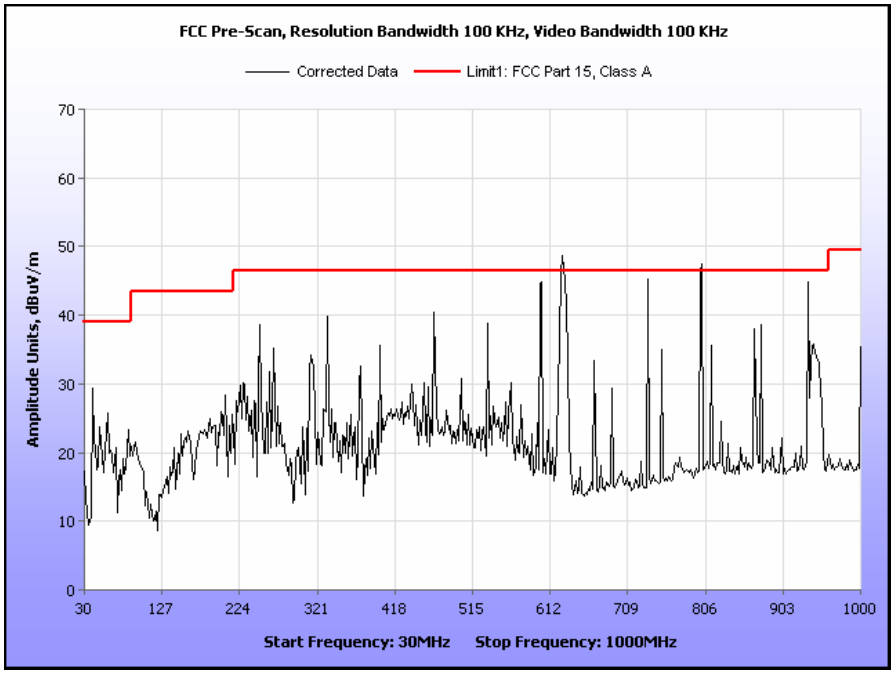
Test Engineer(s): Len Knight

Test Date(s): 05/01/12

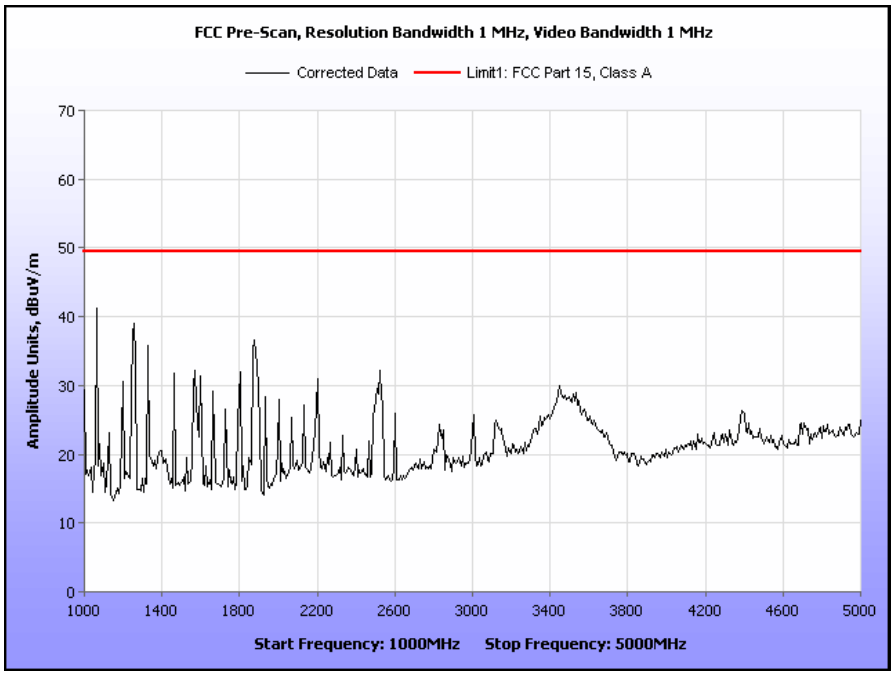
Radiated Emissions Limits Test Results, Class A

Frequency (MHz)	EUT Azimuth (Degrees)	Antenna Polarity (H/V)	Antenna HEIGHT (m)	Uncorrected Amplitude (dBuV)	Antenna Correction Factor (dB) (+)	Cable Loss (dB) (+)	Distance Correction Factor (dB) (-)	Corrected Amplitude (dBuV/m)	Limit (dBuV/m)	Margin (dB)
249.98096	0	H	1.20	26.34	12.10	1.25	10.46	29.23	46.40	-17.17
249.98096	221	V	1.02	29.07	12.10	1.25	10.46	31.96	46.40	-14.44
333.32164	208	H	1.00	33.89	14.87	1.31	10.46	39.61	46.40	-6.79
333.32164	237	V	1.00	28.46	14.87	1.31	10.46	34.18	46.40	-12.22
466.65331	181	H	1.00	27.83	17.67	1.79	10.46	36.83	46.40	-9.57
466.65331	147	V	1.28	30.28	17.67	1.79	10.46	39.28	46.40	-7.12
599.98697	108	H	1.27	27.50	19.70	2.07	10.46	38.81	46.40	-7.59
599.98697	90	V	1.00	33.01	19.70	2.07	10.46	44.32	46.40	-2.08
626.55311	180	H	1.47	33.75	19.86	2.09	10.46	45.24	46.40	-1.16
626.55311	259	V	1.85	25.58	19.86	2.09	10.46	37.07	46.40	-9.33
733.31764	182	H	1.03	31.36	20.97	2.34	10.46	44.21	46.40	-2.19
733.31764	135	V	1.98	24.86	20.97	2.34	10.46	37.71	46.40	-8.69
799.98497	158	H	1.17	29.98	22.10	2.43	10.46	44.05	46.40	-2.35
799.98497	102	V	1.56	32.26	22.10	2.43	10.46	46.33	46.40	-0.07
933.33667	194	H	1.82	26.53	23.20	2.85	10.46	42.12	46.40	-4.28
933.33667	239	V	1.40	27.28	23.20	2.85	10.46	42.87	46.40	-3.53

Table 11. Radiated Emissions, Test Results, FCC Limits, 30 MHz – 1 GHz



Plot 3. Radiated Emissions, Pre-Scan, FCC Limits, 30 MHz – 1 GHz

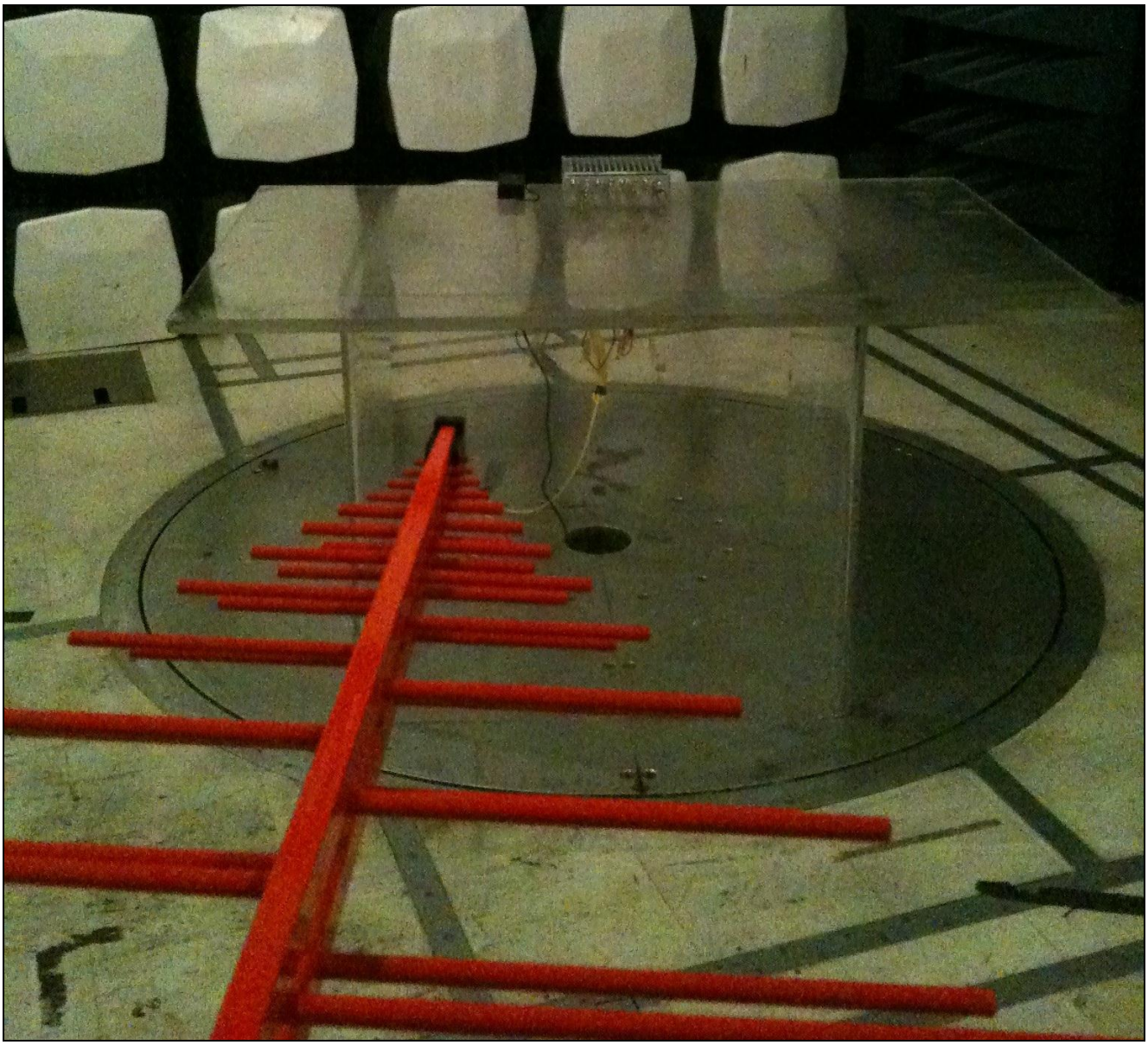


Plot 4. Radiated Emissions, 1 GHz – 5 GHz, FCC Limits

Frequency (MHz)	EUT Azimuth (Degrees)	Antenna Polarity (H/V)	Antenna HEIGHT (m)	Uncorrected Amplitude (dBuV)	Antenna Correction Factor (dB) (+)	Cable Loss (dB) (+)	Distance Correction Factor (dB) (-)	Corrected Amplitude (dBuV/m)	Limit (dBuV/m)	Margin (dB)
249.98096	0	H	1.20	26.34	12.10	1.25	10.46	29.23	47.00	-17.77
249.98096	221	V	1.02	29.07	12.10	1.25	10.46	31.96	47.00	-15.04
333.32164	208	H	1.00	33.89	14.87	1.31	10.46	39.61	47.00	-7.39
333.32164	237	V	1.00	28.46	14.87	1.31	10.46	34.18	47.00	-12.82
466.65331	181	H	1.00	27.83	17.67	1.79	10.46	36.83	47.00	-10.17
466.65331	147	V	1.28	30.28	17.67	1.79	10.46	39.28	47.00	-7.72
599.98697	108	H	1.27	27.50	19.70	2.07	10.46	38.81	47.00	-8.19
599.98697	90	V	1.00	33.01	19.70	2.07	10.46	44.32	47.00	-2.68
626.55311	180	H	1.47	33.75	19.86	2.09	10.46	45.24	47.00	-1.76
626.55311	259	V	1.85	25.58	19.86	2.09	10.46	37.07	47.00	-9.93
733.31764	182	H	1.03	31.36	20.97	2.34	10.46	44.21	47.00	-2.79
733.31764	135	V	1.98	24.86	20.97	2.34	10.46	37.71	47.00	-9.29
799.98497	158	H	1.17	29.98	22.10	2.43	10.46	44.05	47.00	-2.95
799.98497	102	V	1.56	32.26	22.10	2.43	10.46	46.33	47.00	-0.67
933.33667	194	H	1.82	26.53	23.20	2.85	10.46	42.12	47.00	-4.88
933.33667	239	V	1.40	27.28	23.20	2.85	10.46	42.87	47.00	-4.13

Table 12. Radiated Emissions, Test Results, ICES-003 Limits, 30 MHz – 1 GHz

Radiated Emission Limits Test Setup



Photograph 2. Radiated Emission, Test Setup

IV. Electromagnetic Compatibility Criteria for Intentional Radiators

Electromagnetic Compatibility Criteria for Intentional Radiators

§ 15.203 Antenna Requirement

Test Requirement: **§ 15.203:** An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

The structure and application of the EUT were analyzed to determine compliance with Section 15.203 of the Rules. Section 15.203 states that the subject device must meet at least one of the following criteria:

a.) Antenna must be permanently attached to the unit.

b.) Antenna must use a unique type of connector to attach to the EUT.

c.) Unit must be professionally installed. Installer shall be responsible for verifying that the correct antenna is employed with the unit.

Results: The EUT as tested is compliant the criteria of §15.203. The unit will be professionally installed.

Test Engineer(s): Jeff Pratt

Test Date(s): 10/18/11

Type	Gain	Manufacturer	Model
Omni	10 dBi	Ubiquiti Networks	AMO-5G10
Sector	15.5 dBi	PCTEL, Inc.	SP4959-16XP90

Electromagnetic Compatibility Criteria for Intentional Radiators

§ 15.207 Conducted Emissions Limits

Test Requirement(s): **§ 15.207 (a):** For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30MHz, shall not exceed the limits in the following table, as measured using a 50 μH/50 Ω line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

Frequency range (MHz)	§ 15.207(a), Conducted Limit (dBμV)	
	Quasi-Peak	Average
* 0.15- 0.45	66 - 56	56 - 46
0.45 - 0.5	56	46
0.5 - 30	60	50

Table 13. Conducted Limits for Intentional Radiators from FCC Part 15 § 15.207(a)

Test Procedure: The EUT was placed on a 0.8 m-high wooden table inside a semi-anechoic chamber. The EUT was situated such that the back of the EUT was 0.4 m from one wall of the vertical ground plane, and the remaining sides of the EUT were no closer than 0.8 m from any other conductive surface. The EUT was powered from a 50 Ω/50 μH Line Impedance Stabilization Network (LISN). The EMC receiver scanned the frequency range from 150 kHz to 30 MHz. Conducted Emissions measurements were made in accordance with *ANSI C63.4-1992 "Methods and Measurements of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9kHz to 40 GHz"*. The measurements were performed over the frequency range of 0.15 MHz to 30 MHz using a 50 Ω/50 μH LISN as the input transducer to an EMC/field intensity meter.

Test Results: The EUT was found to comply with the requirement(s) of this section. Measured emissions were below applicable limits.

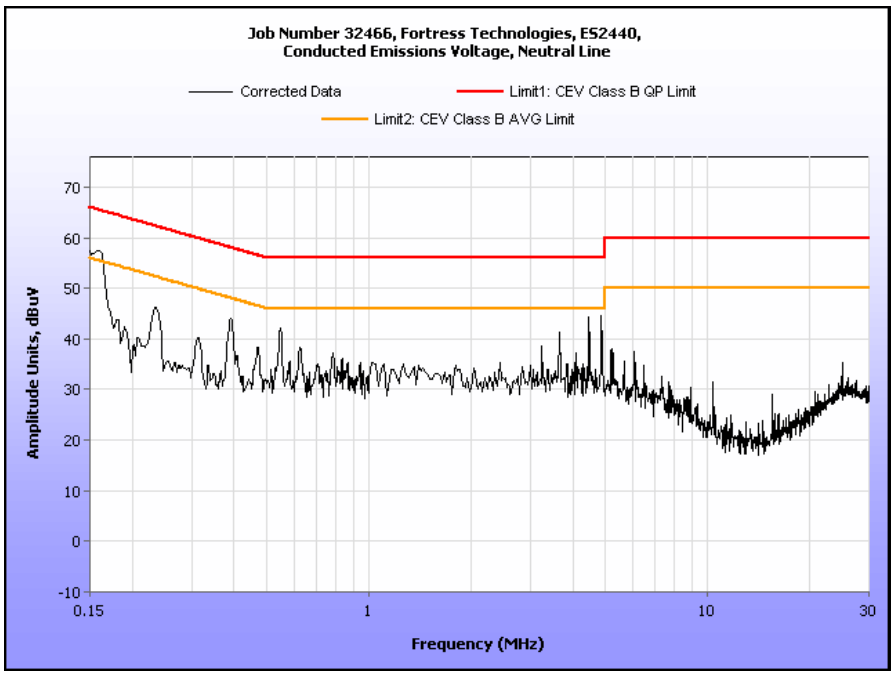
Test Engineer(s): Jeff Pratt

Test Date(s): 10/26/11

Conducted Emissions - Voltage, AC Power

Frequency (MHz)	Uncorrected Meter Reading (dBuV) QP	Cable Loss (dB)	Corrected Measurement (dBuV) QP	Limit (dBuV) QP	Margin (dB) QP	Uncorrected Meter Reading (dBuV) Avg.	Cable Loss (dB)	Corrected Measurement (dBuV) AVG	Limit (dBuV) AVG	Margin (dB) AVG
0.158	51.65	0	51.65	65.57	-13.92	42.28	0	42.28	55.57	-13.29
0.397	42.33	0	42.33	57.92	-15.59	37.54	0	37.54	47.92	-10.38
0.557	40.15	0	40.15	56	-15.85	35.02	0	35.02	46	-10.98
0.636	39.88	0	39.88	56	-16.12	34.92	0	34.92	46	-11.08
4.473	40.99	0.08	41.07	56	-14.93	36	0.08	36.08	46	-9.92
4.879	41.82	0.1	41.92	56	-14.08	36.16	0.1	36.26	46	-9.74

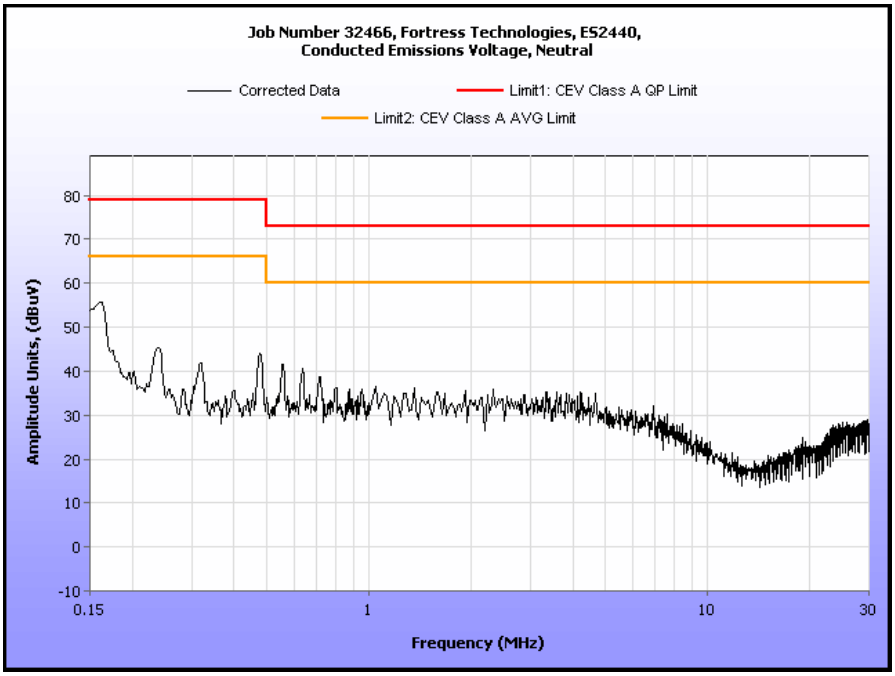
Table 14. Conducted Emissions - Voltage, AC Power, Phase Line, Test Results



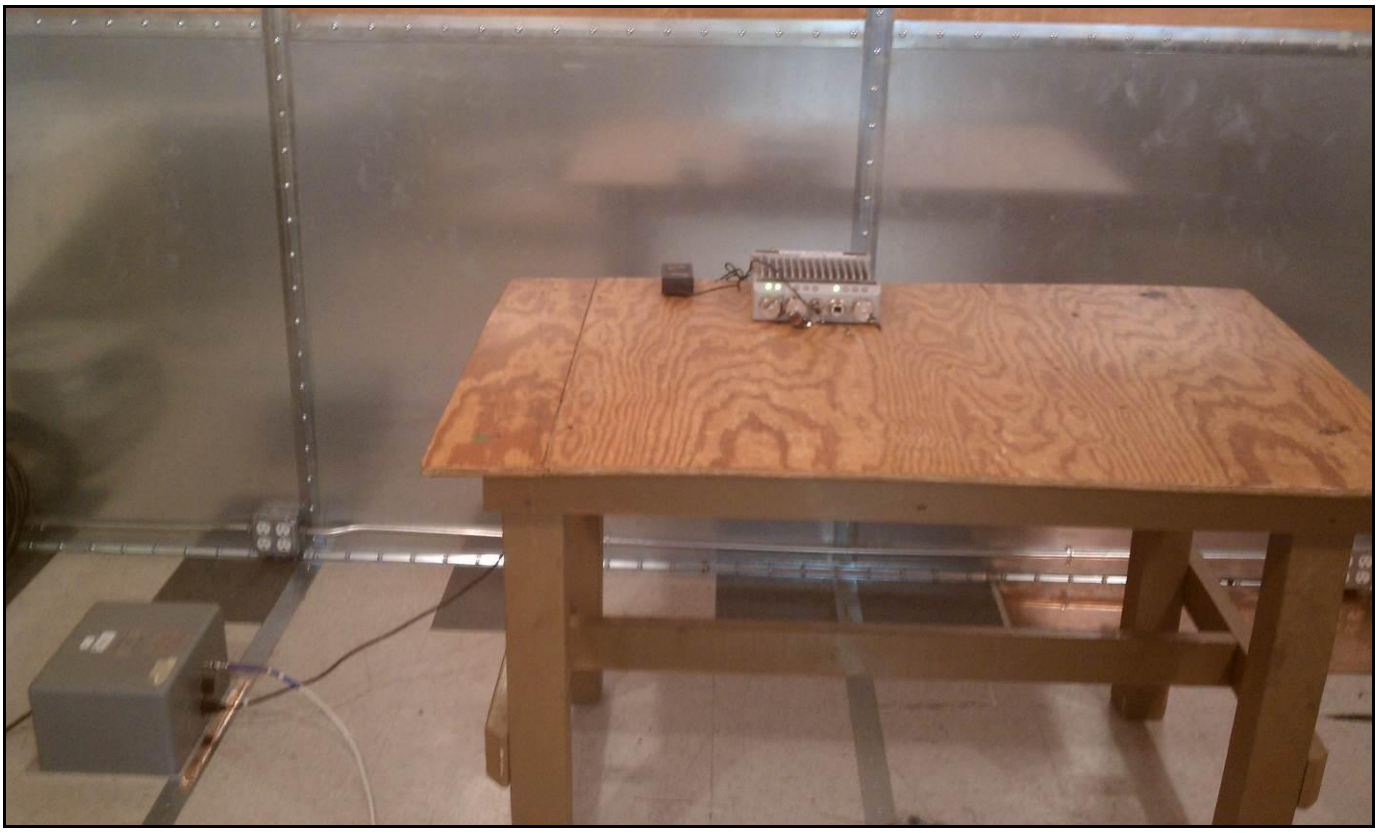
Plot 5. §15.207 Conducted Emissions, Phase Line Plot

Frequency (MHz)	Uncorrected Meter Reading (dBuV) QP	Cable Loss (dB)	Corrected Measurement (dBuV) QP	Limit (dBuV) QP	Margin (dB) QP	Uncorrected Meter Reading (dBuV) Avg.	Cable Loss (dB)	Corrected Measurement (dBuV) AVG	Limit (dBuV) AVG	Margin (dB) AVG
0.154	50.88	0	50.88	65.78	-14.9	42.59	0	42.59	55.78	-13.19
0.238	41.93	0.01	41.94	62.17	-20.23	37.09	0.01	37.1	52.17	-15.07
0.393	41.46	0	41.46	58	-16.54	40.41	0	40.41	48	-7.59
4.468	42.45	0.08	42.53	56	-13.47	41.87	0.08	41.95	46	-4.05
4.872	43.32	0.1	43.42	56	-12.58	42.58	0.1	42.68	46	-3.32
5.278	35.96	0.1	36.06	60	-23.94	34.5	0.1	34.6	50	-15.4

Table 15. Conducted Emissions - Voltage, AC Power, Neutral Line, Test Results



Plot 6. §15.207 Conducted Emissions, Neutral Line Plot



Photograph 3. §15.207 Conducted Emissions, Test Setup

Electromagnetic Compatibility Criteria for Intentional Radiators

§ 15. 403(c) 26dB Bandwidth

Test Requirements: **§ 15.403 (c):** Operation under the provisions of this section is limited to frequency hopping and digitally modulated intentional radiators that comply with the following provisions:

Test Procedure: The transmitter was set to the mid channel at the highest output power and connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured with the spectrum analyzer using a RBW approximately equal to 1% of the total emission bandwidth, VBW > RBW. The 26 dB Bandwidth was measured and recorded. The measurements were repeated at the low and high channels.

Test Results Equipment complies with § 15.407 (c). The 26 dB Bandwidth was determined from the plots on the following pages.

Test Engineer(s): Jeff Pratt

Test Date(s): 09/14/11

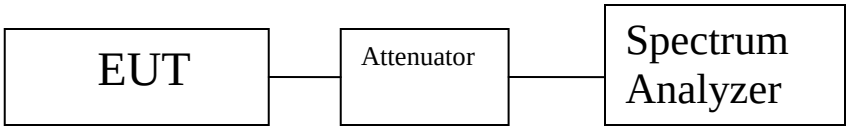


Figure 1. Occupied Bandwidth Test Setup

Occupied Bandwidth			
Mode	**Frequency (MHz)**	**Measured 26 dB Bandwidth (MHz)**	**99 % Bandwidth (MHz)**
802.11a	5260	28.929	16.7609
	5300	26.871	16.6268
	5320	27.393	16.5952
	5500	23.268	16.6126
	5580	25.146	16.6473
	5700	26.065	16.8730

Table 16. Occupied Bandwidth, Test Results, 802.11a

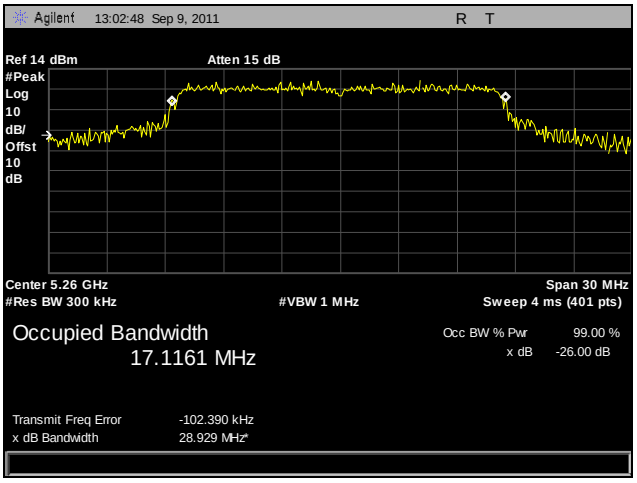
Occupied Bandwidth			
Mode	**Frequency (MHz)**	**Measured 26 dB Bandwidth (MHz)**	**99 % Bandwidth (MHz)**
802.11n 20MHz Port A	5260	28.243	17.7530
	5300	24.067	17.7174
	5320	24.925	17.7477
	5500	24.911	17.6104
	5580	24.237	17.8013
	5700	25.448	17.6272
802.11n 20MHz Port B	5260	26.291	17.4720
	5300	27.414	17.3536
	5320	23.817	17.5882
	5500	24.277	17.7179
	5580	26.557	17.5751
	5700	23.527	17.5197

Table 17. Occupied Bandwidth, Test Results, 802.11n 20 MHz

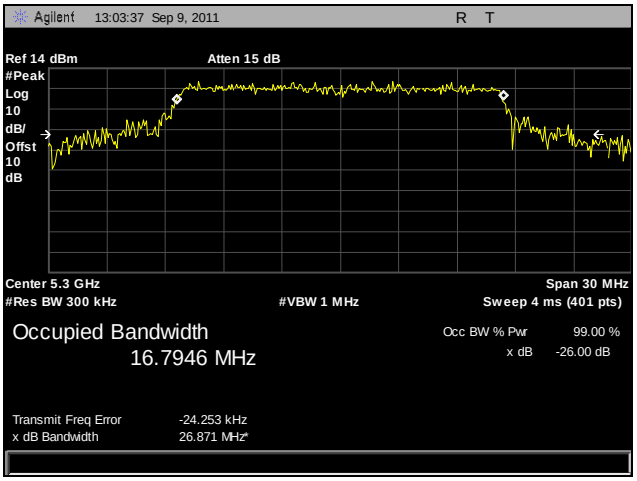
Occupied Bandwidth			
Mode	**Frequency (MHz)**	**Measured 26 dB Bandwidth (MHz)**	**99 % Bandwidth (MHz)**
802.11n 40MHz Port A	5270	44.210	36.1162
	5300	44.856	36.1175
	5310	43.037	36.1494
	5510	42.856	36.0393
	5580	42.148	36.2208
	5690	41.851	35.9990
802.11n 40MHz Port B	5270	44.953	35.3452
	5300	40.619	35.7734
	5310	39.672	35.8595
	5510	41.216	36.0303
	5580	40.294	35.9025
	5690	42.216	36.0367

Table 18. Occupied Bandwidth, Test Results, 802.11n 40 MHz

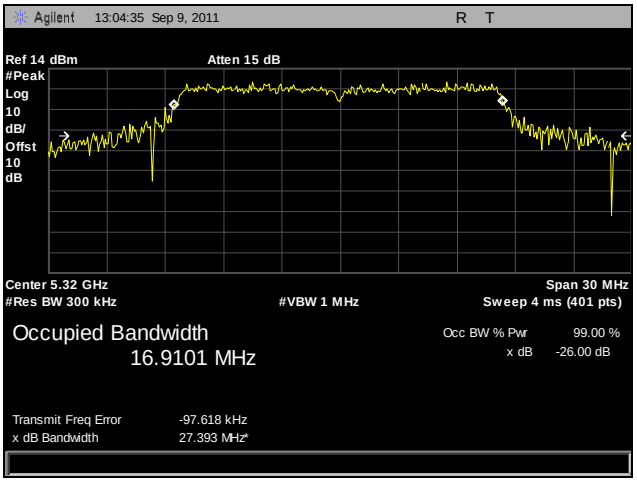
Occupied Bandwidth, 802.11a



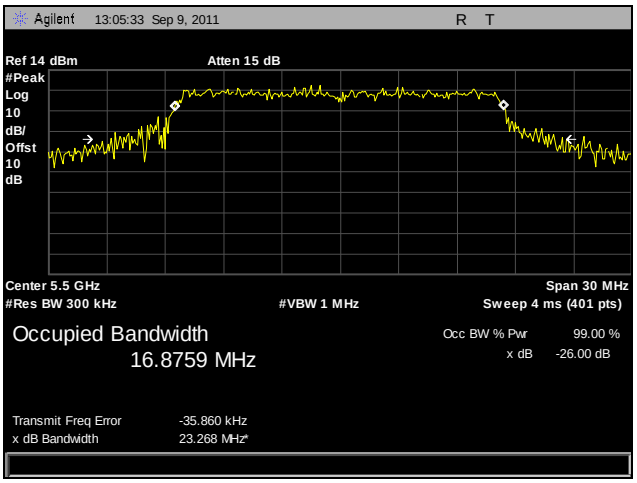
Plot 7. Occupied Bandwidth, 802.11a, 5260 MHz



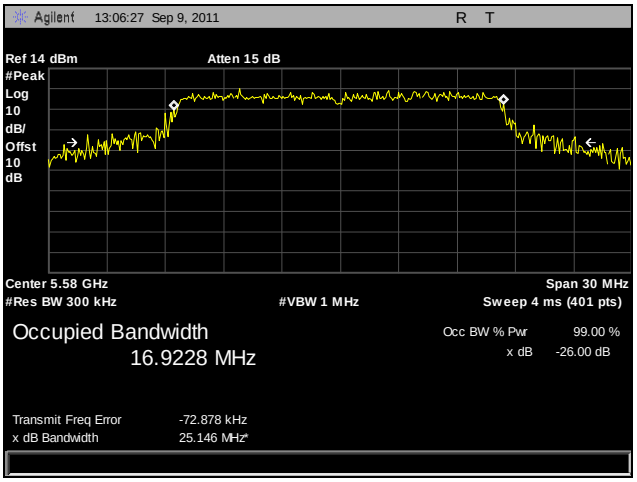
Plot 8. Occupied Bandwidth, 802.11a, 5300 MHz



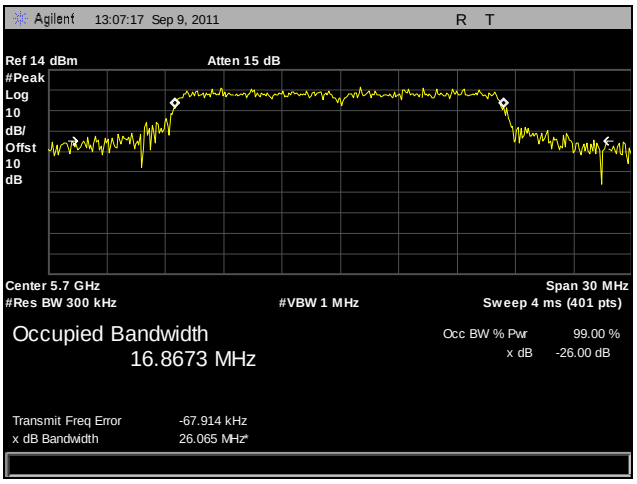
Plot 9. Occupied Bandwidth, 802.11a, 5320 MHz



Plot 10. Occupied Bandwidth, 802.11a, 5500 MHz

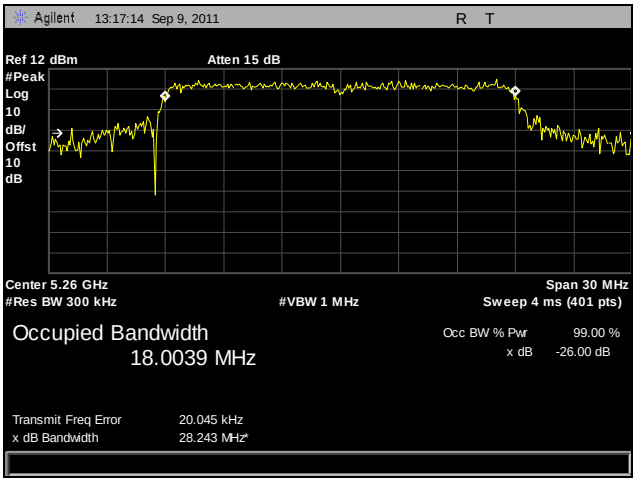


Plot 11. Occupied Bandwidth, 802.11a, 5580 MHz

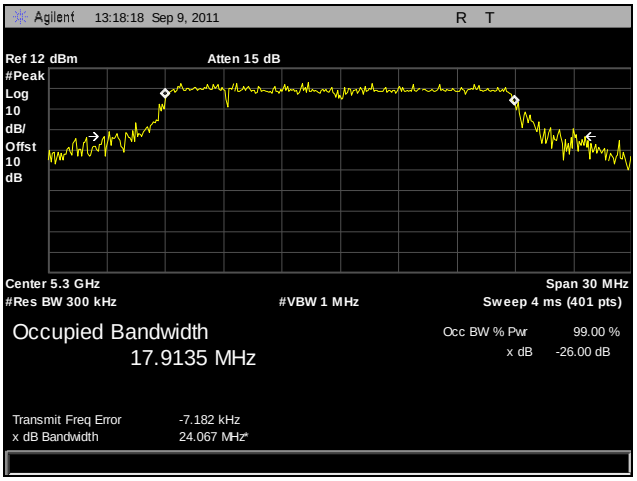


Plot 12. Occupied Bandwidth, 802.11a, 5700 MHz

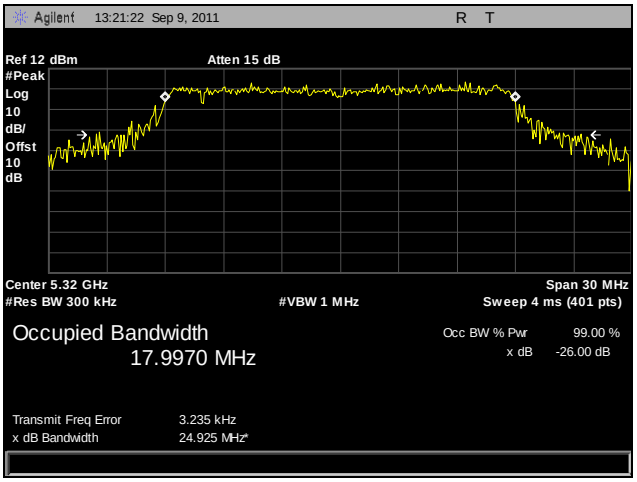
Occupied Bandwidth, 802.11n 20 MHz, Port A



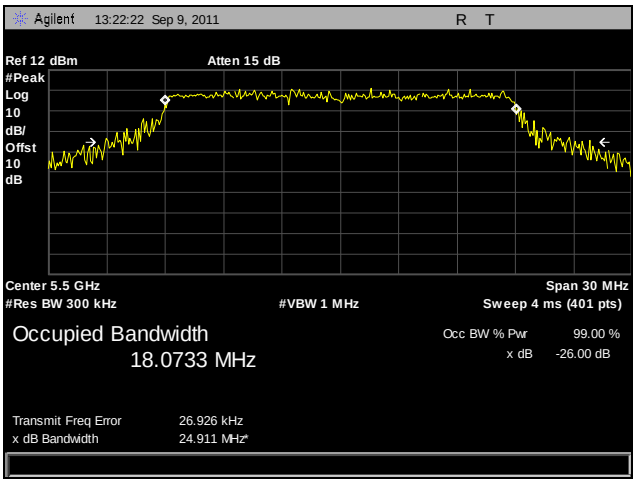
Plot 13. Occupied Bandwidth, 802.11n 20 MHz, Port A, 5260 MHz



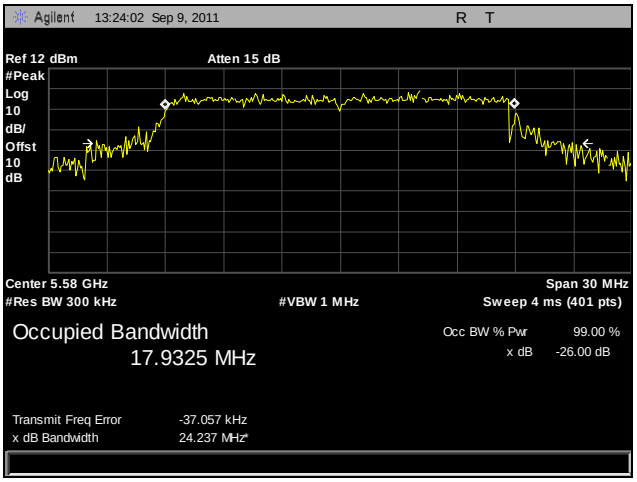
Plot 14. Occupied Bandwidth, 802.11n 20 MHz, Port A, 5300 MHz



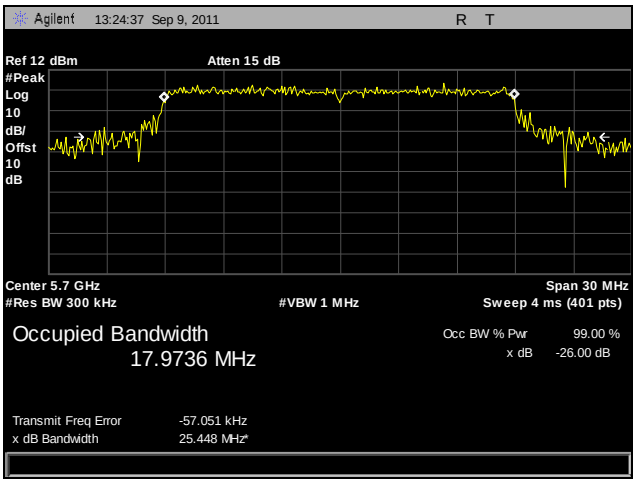
Plot 15. Occupied Bandwidth, 802.11n 20 MHz, Port A, 5320 MHz



Plot 16. Occupied Bandwidth, 802.11n 20 MHz, Port A, 5500 MHz

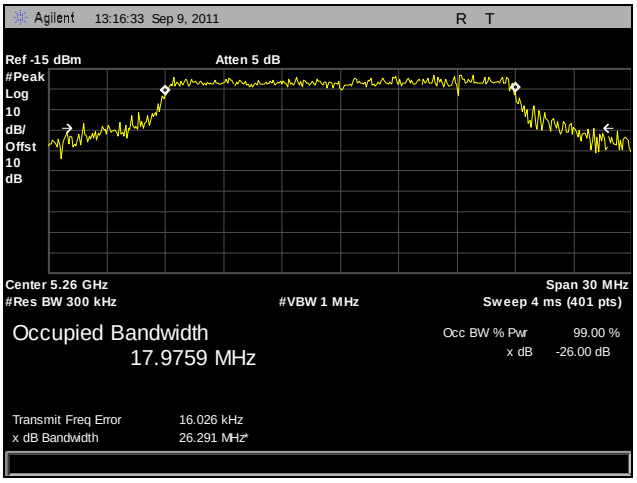


Plot 17. Occupied Bandwidth, 802.11n 20 MHz, Port A, 5580 MHz

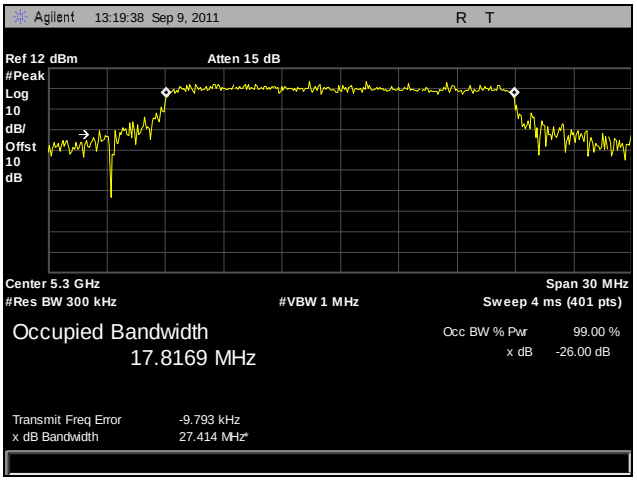


Plot 18. Occupied Bandwidth, 802.11n 20 MHz, Port A, 5700 MHz

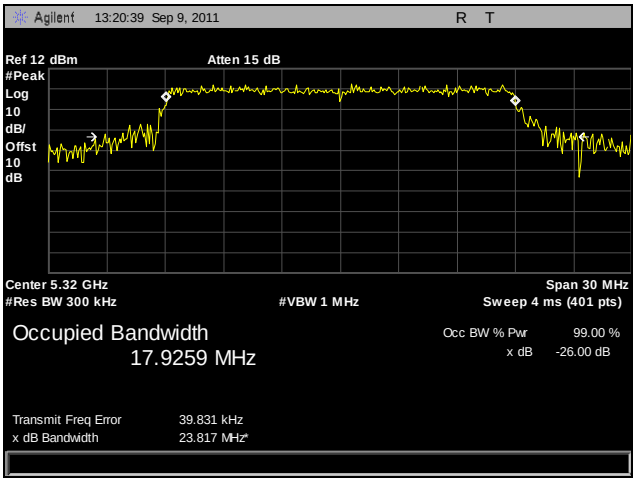
Occupied Bandwidth, 802.11n 20 MHz, Port B



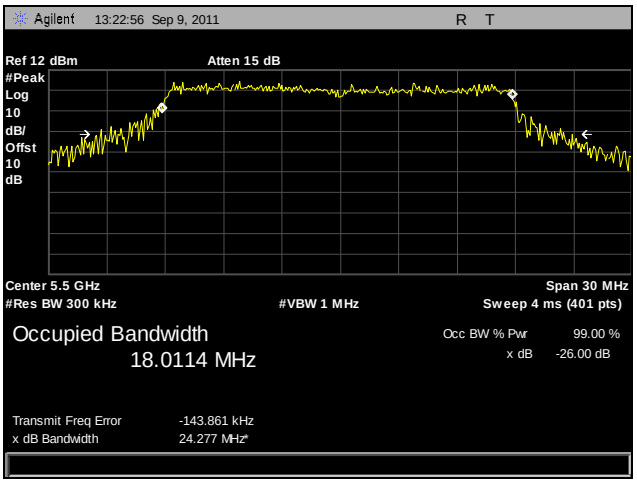
Plot 19. Occupied Bandwidth, 802.11n 20 MHz, Port B, 5260 MHz



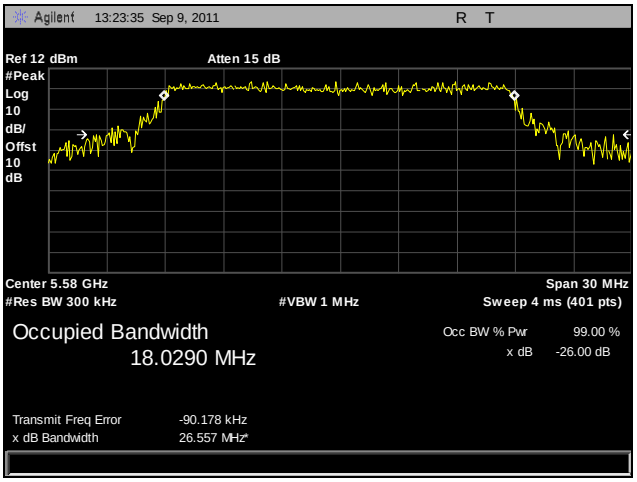
Plot 20. Occupied Bandwidth, 802.11n 20 MHz, Port B, 5300 MHz



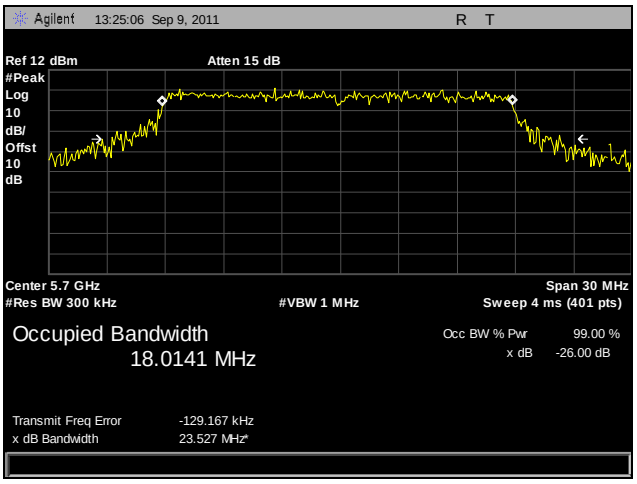
Plot 21. Occupied Bandwidth, 802.11n 20 MHz, Port B, 5320 MHz



Plot 22. Occupied Bandwidth, 802.11n 20 MHz, Port B, 5500 MHz

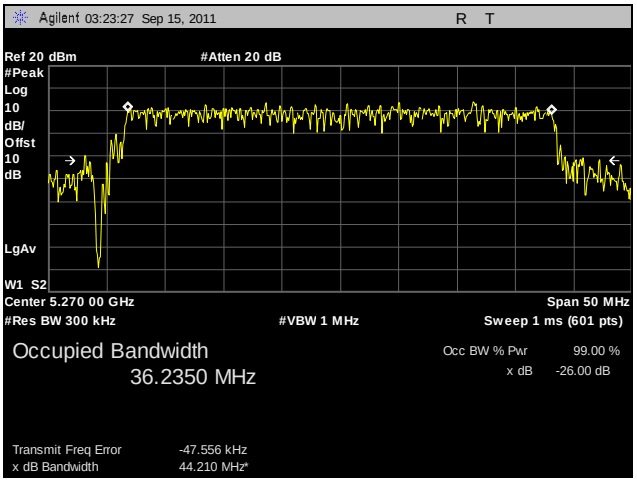


Plot 23. Occupied Bandwidth, 802.11n 20 MHz, Port B, 5580 MHz

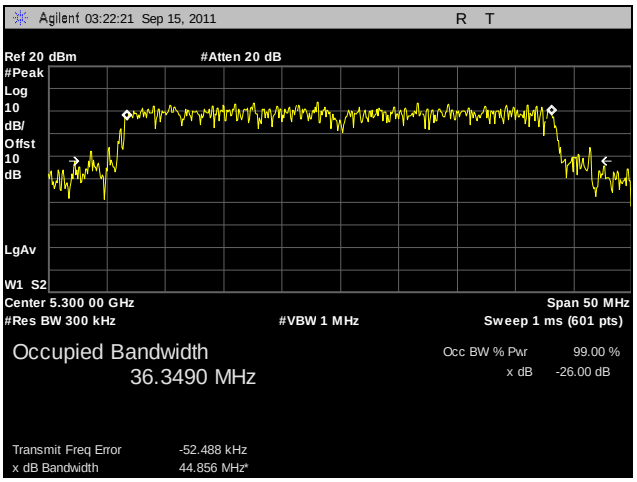


Plot 24. Occupied Bandwidth, 802.11n 20 MHz, Port B, 5700 MHz

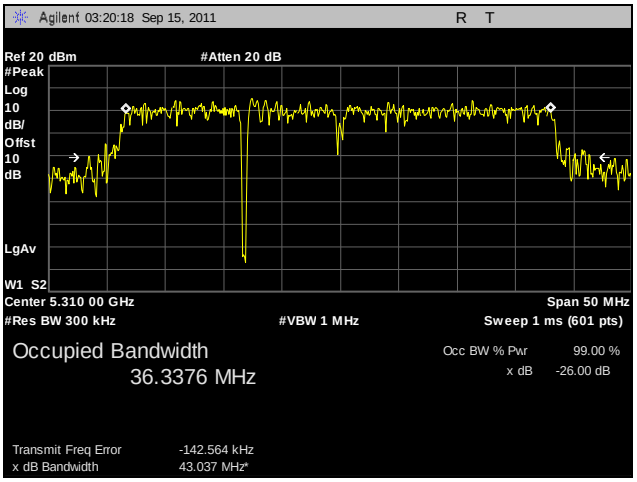
Occupied Bandwidth, 802.11n 40 MHz, Port A



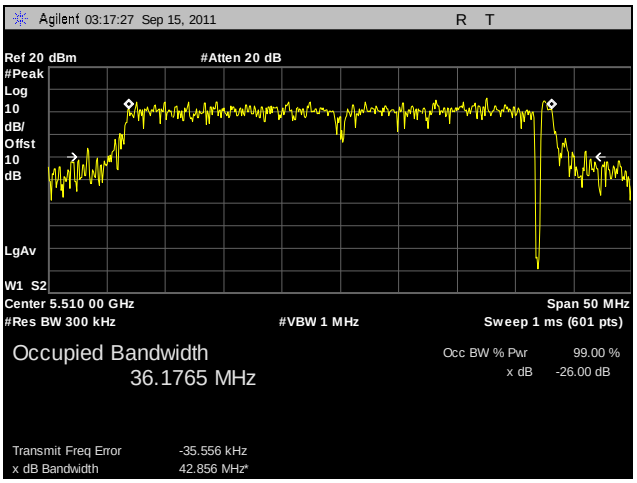
Plot 25. Occupied Bandwidth, 802.11n 40 MHz, Port A, 5270 MHz



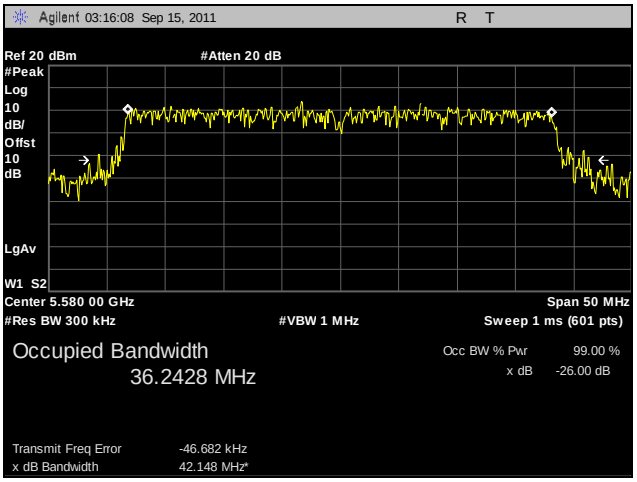
Plot 26. Occupied Bandwidth, 802.11n 40 MHz, Port A, 5300 MHz



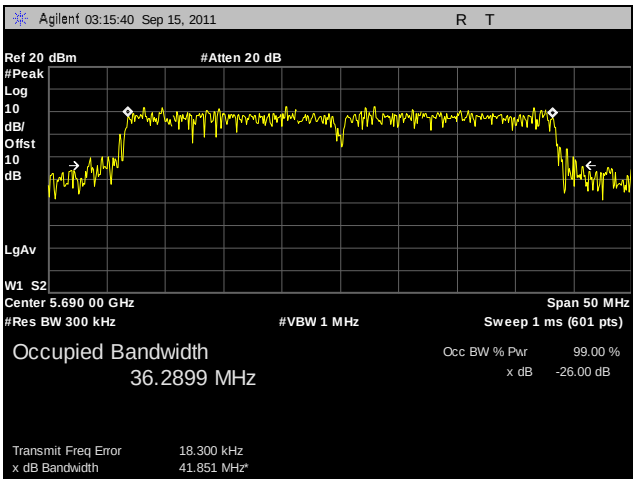
Plot 27. Occupied Bandwidth, 802.11n 40 MHz, Port A, 5310 MHz



Plot 28. Occupied Bandwidth, 802.11n 40 MHz, Port A, 5510 MHz

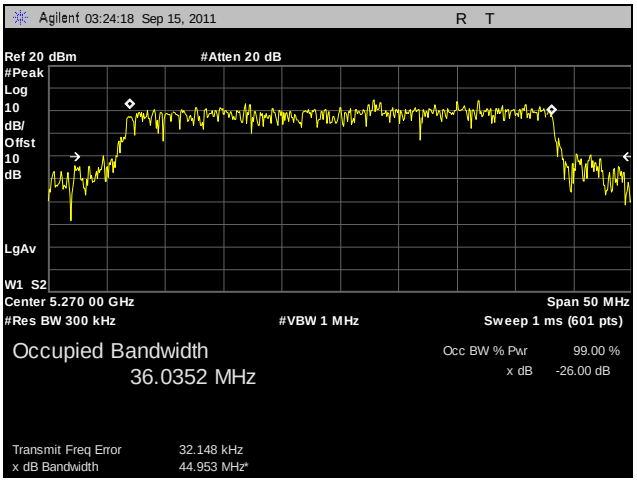


Plot 29. Occupied Bandwidth, 802.11n 40 MHz, Port A, 5580 MHz

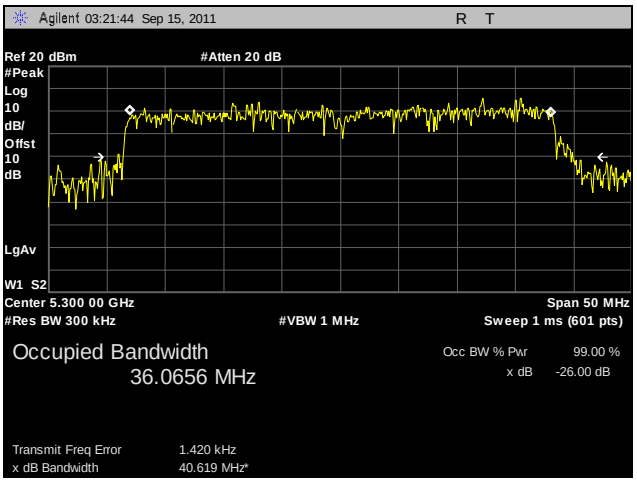


Plot 30. Occupied Bandwidth, 802.11n 40 MHz, Port A, 5690 MHz

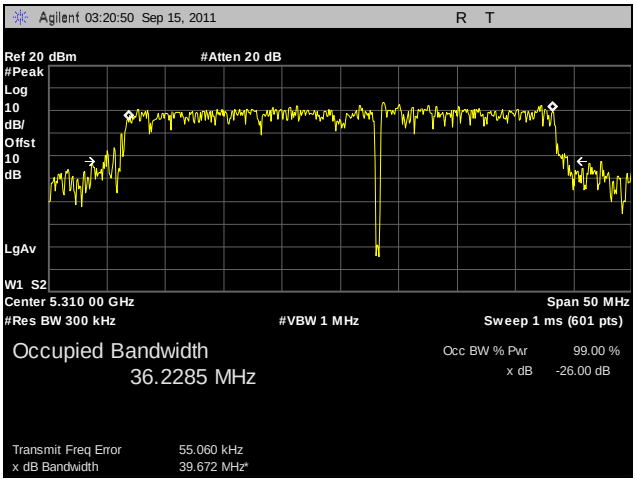
Occupied Bandwidth, 802.11n 40 MHz, Port B



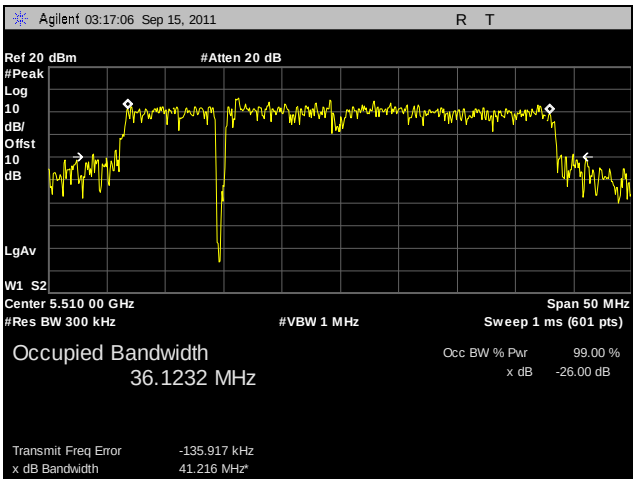
Plot 31. Occupied Bandwidth, 802.11n 40 MHz, Port B, 5270 MHz



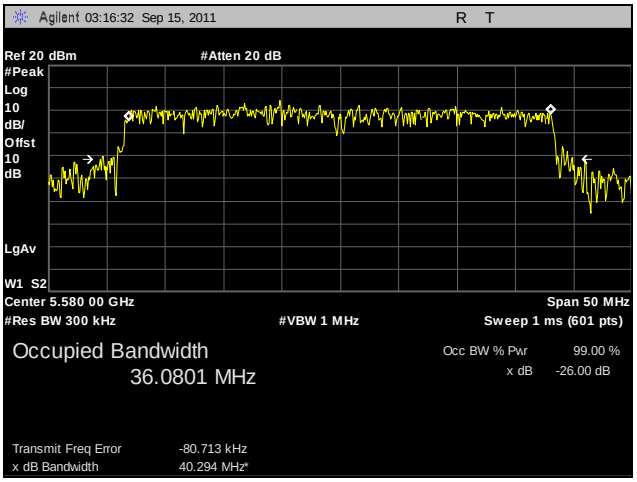
Plot 32. Occupied Bandwidth, 802.11n 40 MHz, Port B, 5300 MHz



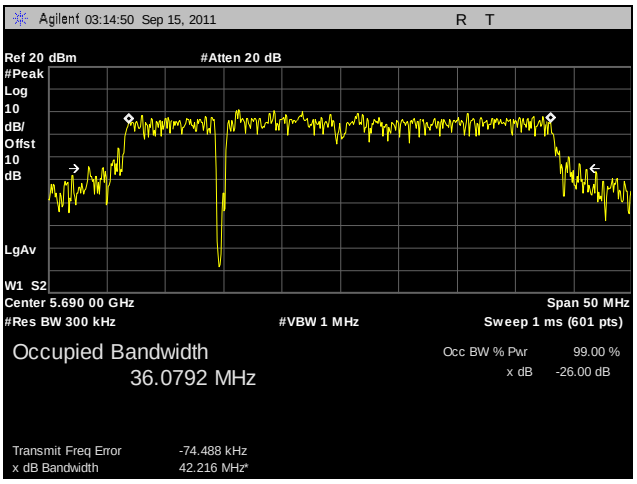
Plot 33. Occupied Bandwidth, 802.11n 40 MHz, Port B, 5310 MHz



Plot 34. Occupied Bandwidth, 802.11n 40 MHz, Port B, 5510 MHz

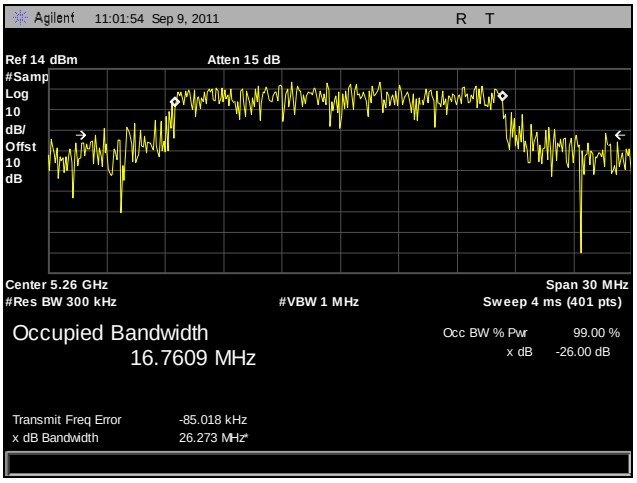


Plot 35. Occupied Bandwidth, 802.11n 40 MHz, Port B, 5580 MHz

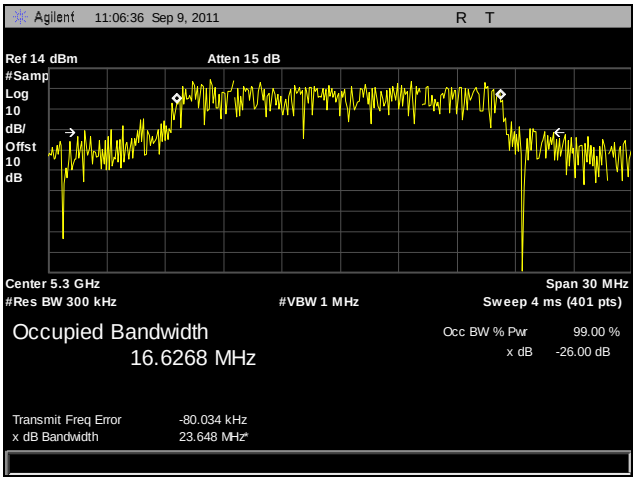


Plot 36. Occupied Bandwidth, 802.11n 40 MHz, Port B, 5690 MHz

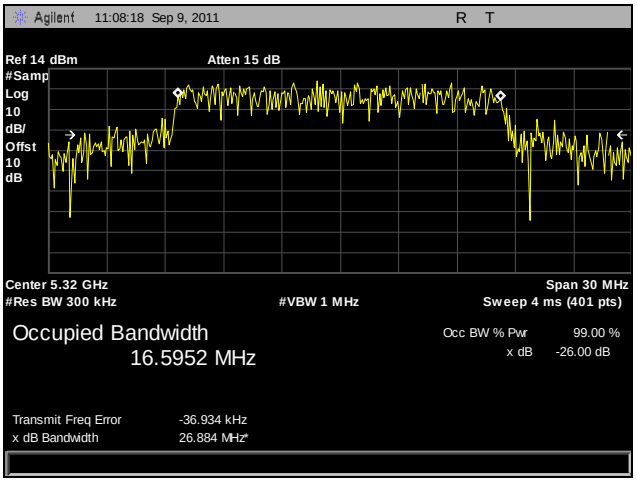
99% Occupied Bandwidth, 802.11a



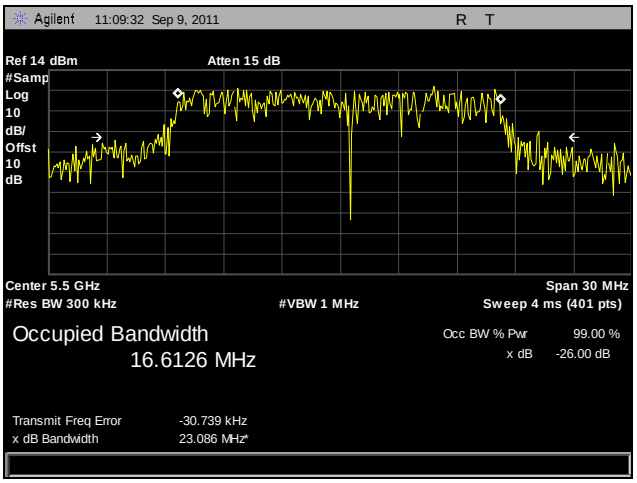
Plot 37. 99% Occupied Bandwidth, 802.11a, 5260 MHz



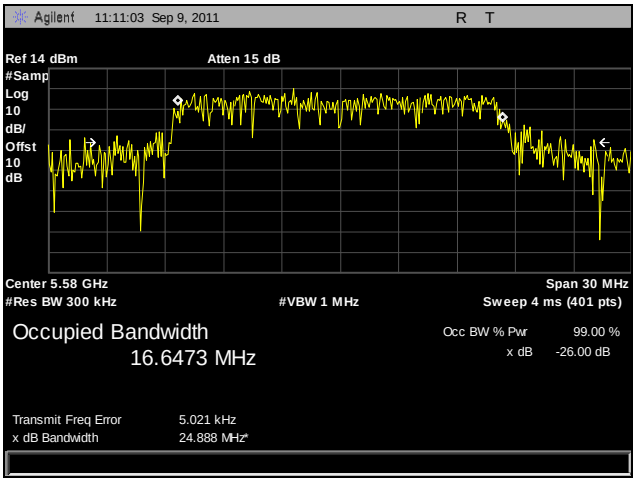
Plot 38. 99% Occupied Bandwidth, 802.11a, 5300 MHz



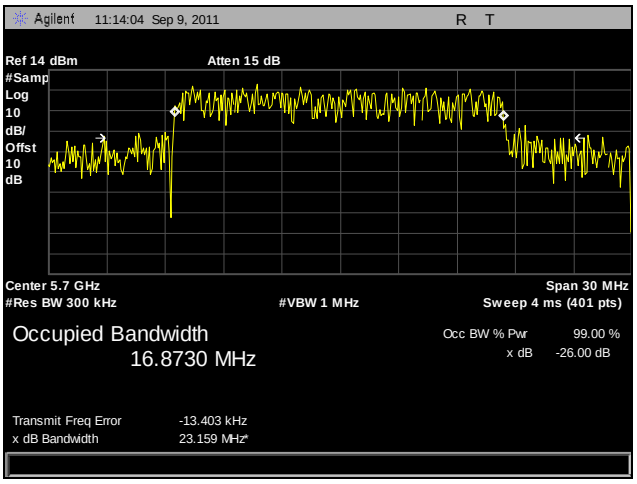
Plot 39. 99% Occupied Bandwidth, 802.11a, 5320 MHz



Plot 40. 99% Occupied Bandwidth, 802.11a, 5500 MHz

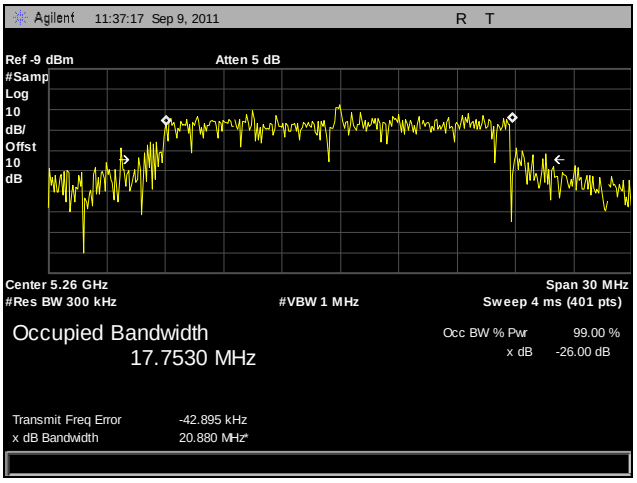


Plot 41. 99% Occupied Bandwidth, 802.11a, 5580 MHz

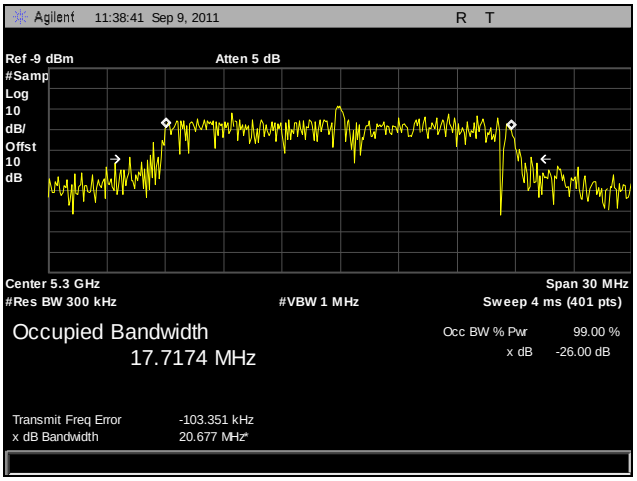


Plot 42. 99% Occupied Bandwidth, 802.11a, 5700 MHz

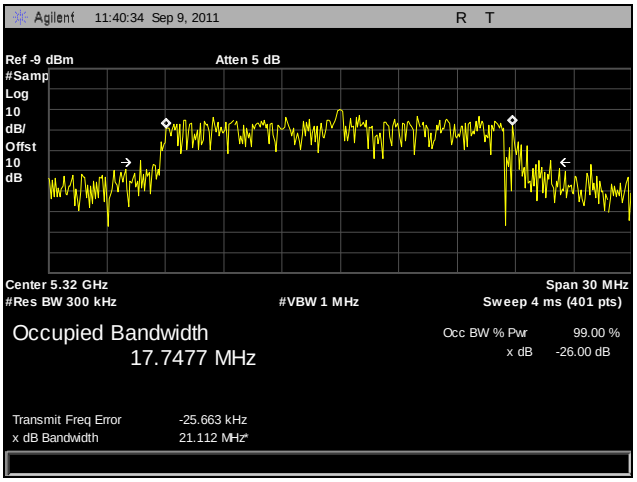
99% Occupied Bandwidth, 802.11n 20 MHz, Port A



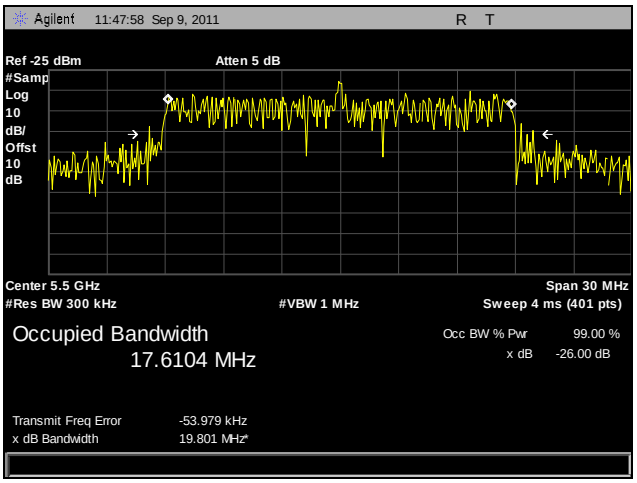
Plot 43. 99% Occupied Bandwidth, 802.11n 20 MHz, Port A, 5260 MHz



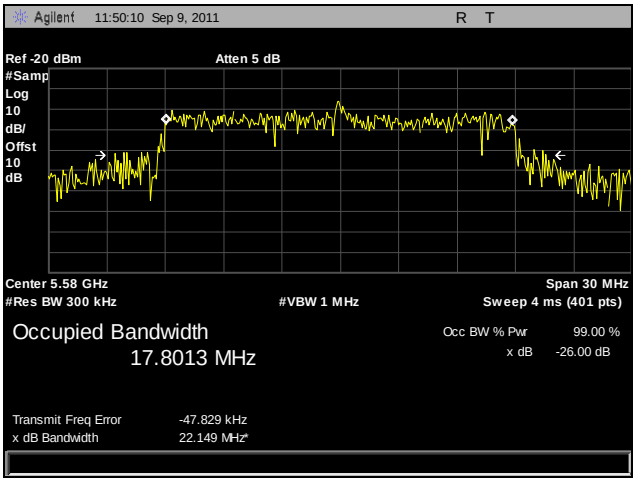
Plot 44. 99% Occupied Bandwidth, 802.11n 20 MHz, Port A, 5300 MHz



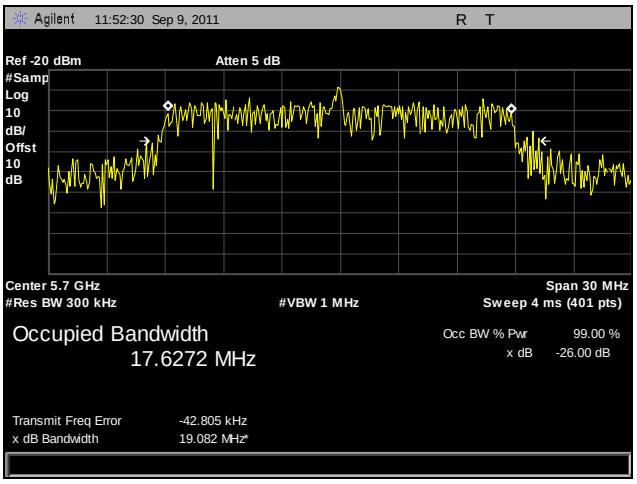
Plot 45. 99% Occupied Bandwidth, 802.11n 20 MHz, Port A, 5320 MHz



Plot 46. 99% Occupied Bandwidth, 802.11n 20 MHz, Port A, 5500 MHz

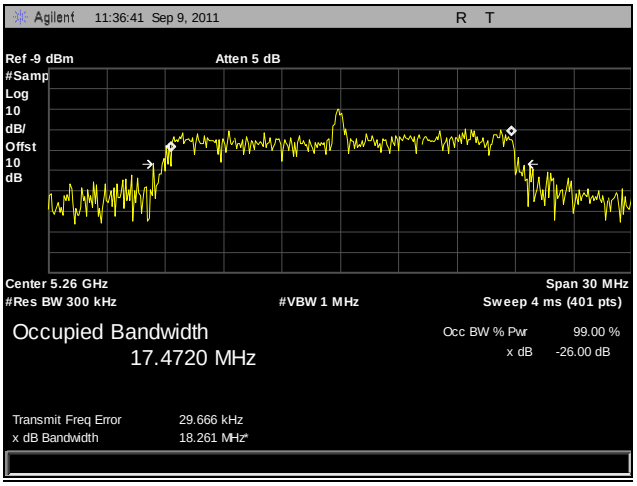


Plot 47. 99% Occupied Bandwidth, 802.11n 20 MHz, Port A, 5580 MHz

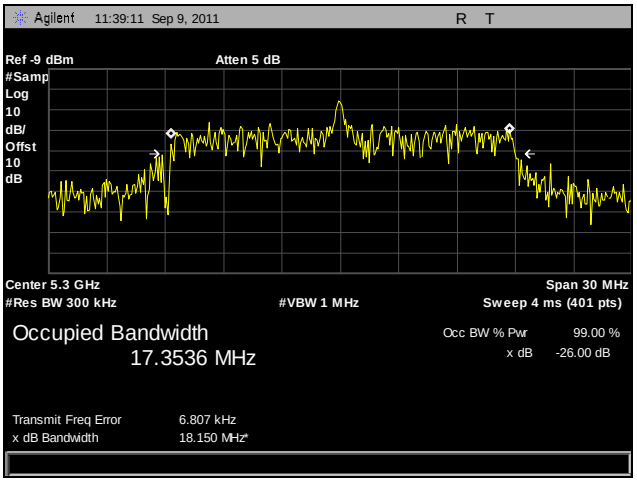


Plot 48. 99% Occupied Bandwidth, 802.11n 20 MHz, Port A, 5700 MHz

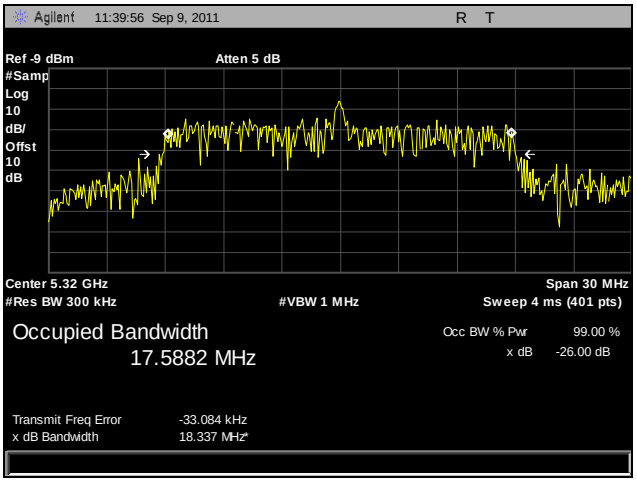
99% Occupied Bandwidth, 802.11n 20 MHz, Port B



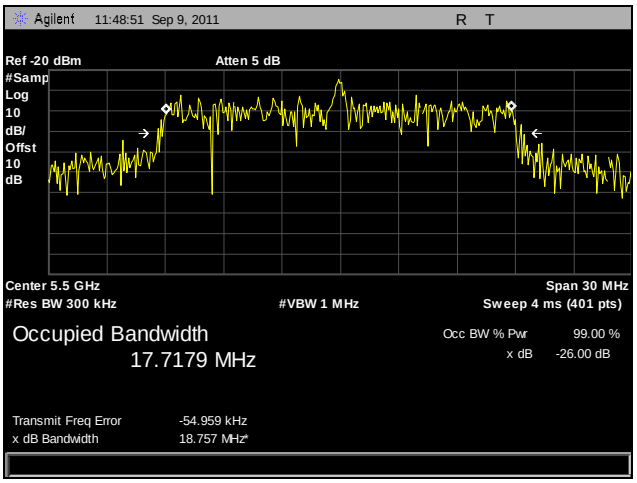
Plot 49. 99% Occupied Bandwidth, 802.11n 20 MHz, Port B, 5260 MHz



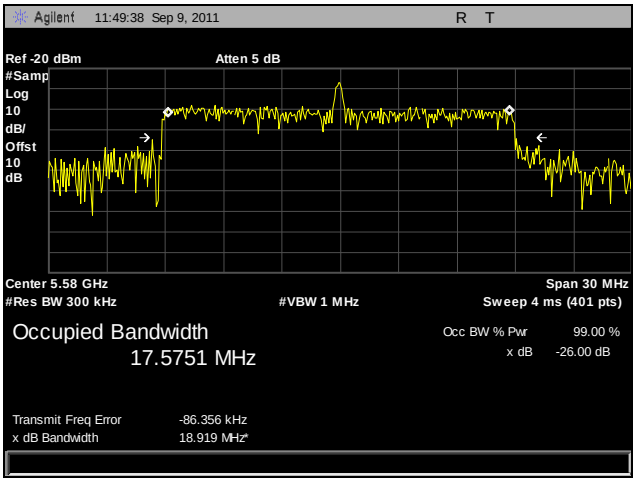
Plot 50. 99% Occupied Bandwidth, 802.11n 20 MHz, Port B, 5300 MHz



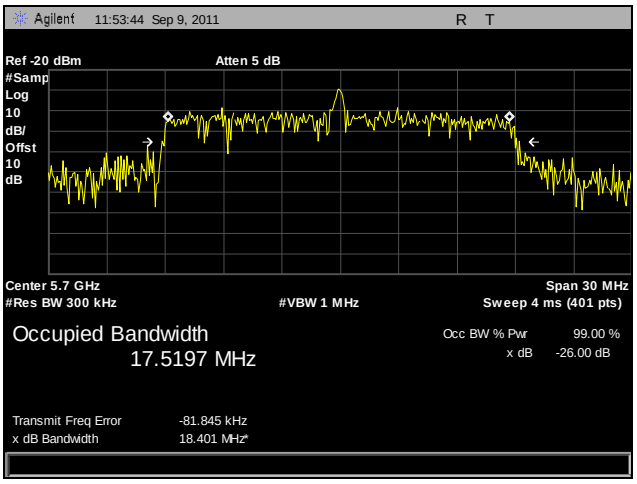
Plot 51. 99% Occupied Bandwidth, 802.11n 20 MHz, Port B, 5320 MHz



Plot 52. 99% Occupied Bandwidth, 802.11n 20 MHz, Port B, 5500 MHz

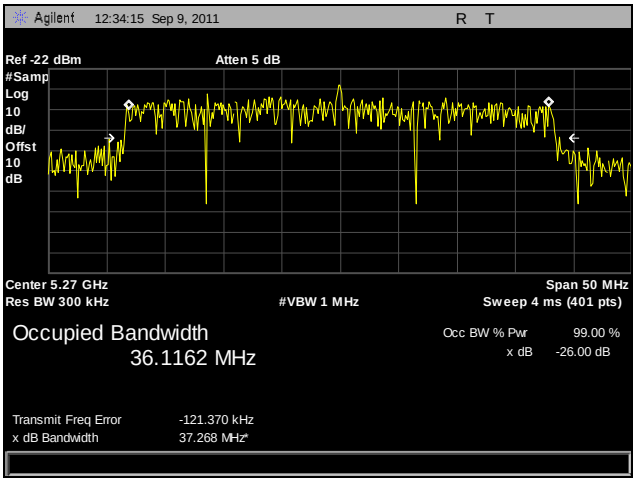


Plot 53. 99% Occupied Bandwidth, 802.11n 20 MHz, Port B, 5580 MHz

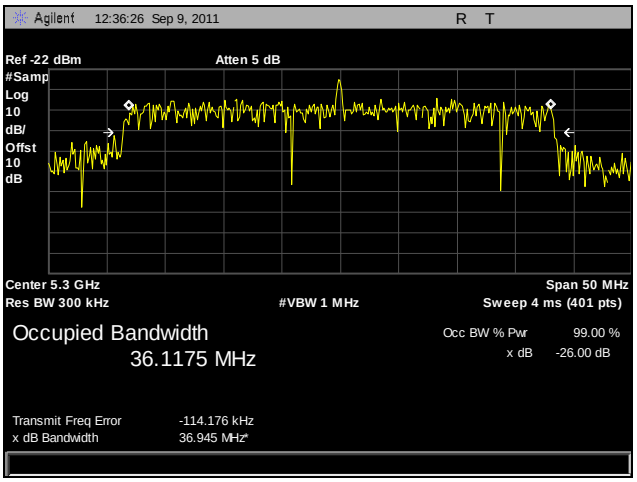


Plot 54. 99% Occupied Bandwidth, 802.11n 20 MHz, Port B, 5700 MHz

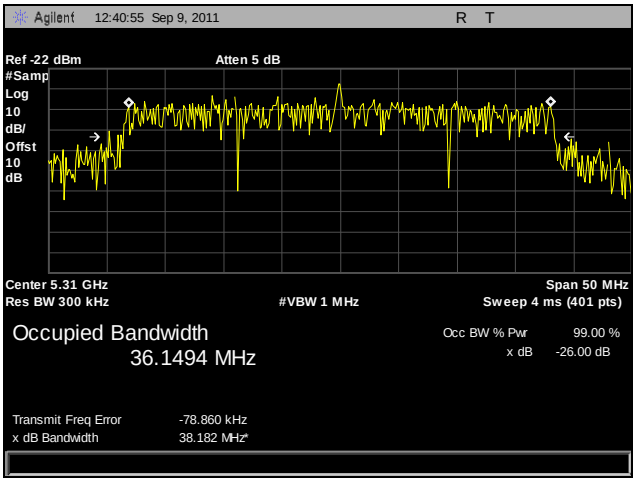
99% Occupied Bandwidth, 802.11n 40 MHz, Port A



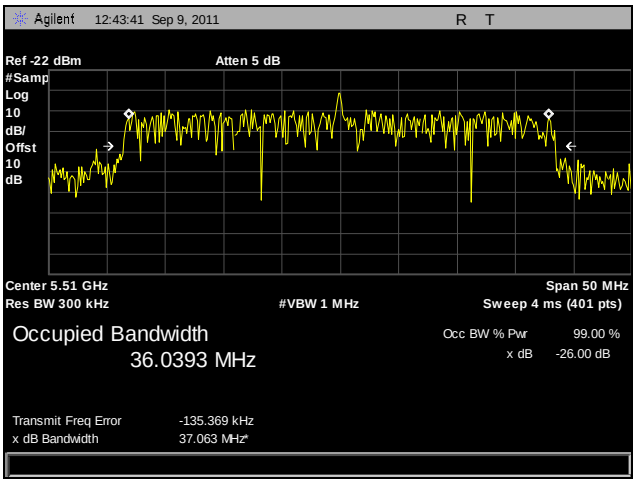
Plot 55. 99% Occupied Bandwidth, 802.11n 40 MHz, Port A, 5270 MHz



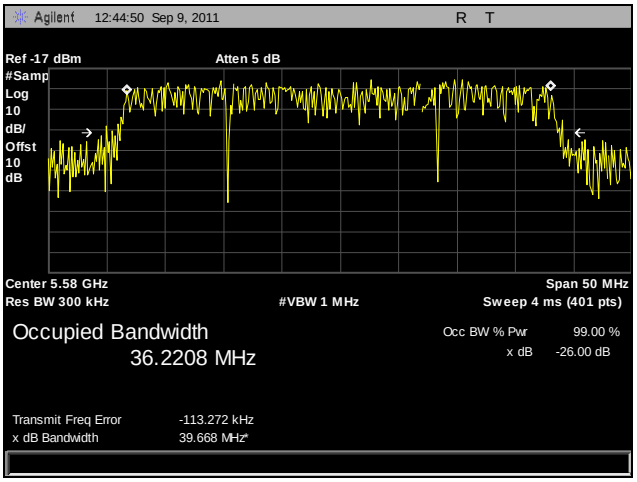
Plot 56. 99% Occupied Bandwidth, 802.11n 40 MHz, Port A, 5300 MHz



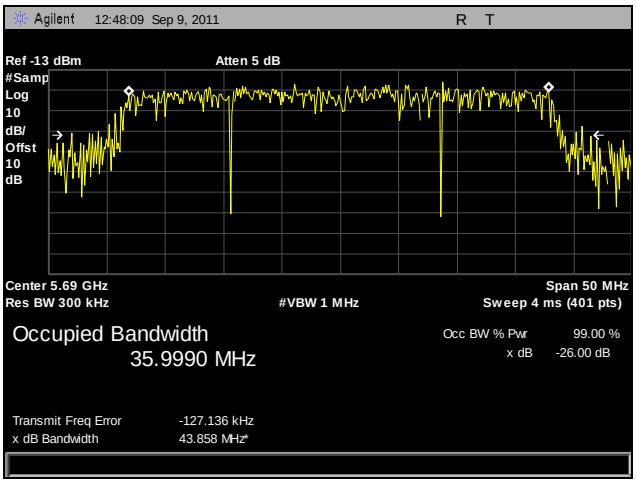
Plot 57. 99% Occupied Bandwidth, 802.11n 40 MHz, Port A, 5310 MHz



Plot 58. 99% Occupied Bandwidth, 802.11n 40 MHz, Port A, 5510 MHz

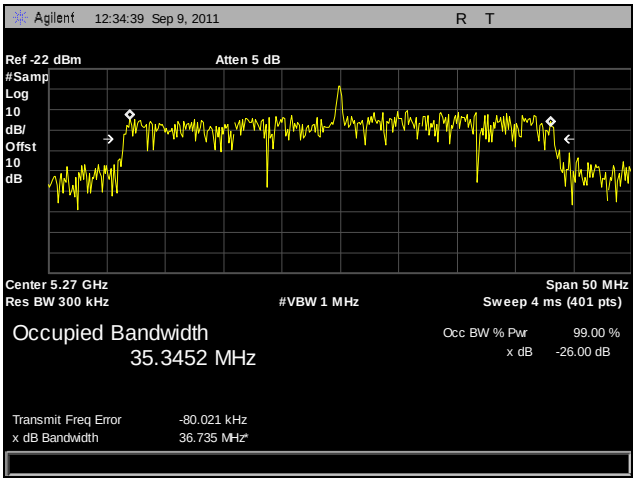


Plot 59. 99% Occupied Bandwidth, 802.11n 40 MHz, Port A, 5580 MHz

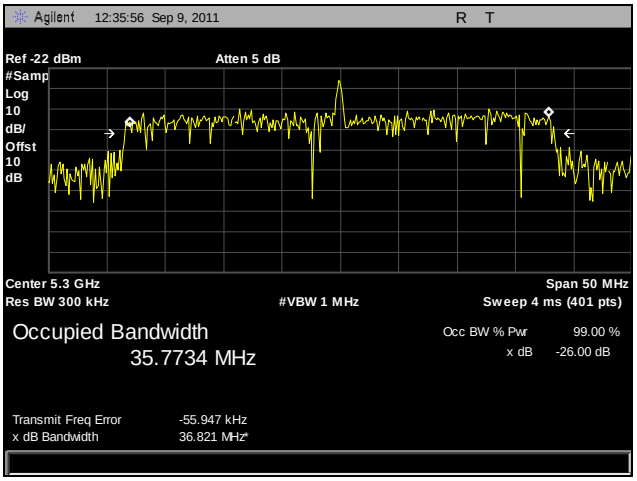


Plot 60. 99% Occupied Bandwidth, 802.11n 40 MHz, Port A, 5690 MHz

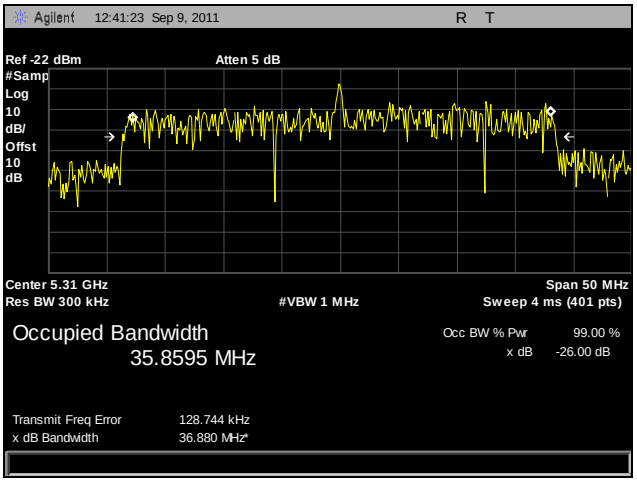
99% Occupied Bandwidth, 802.11n 40 MHz, Port B



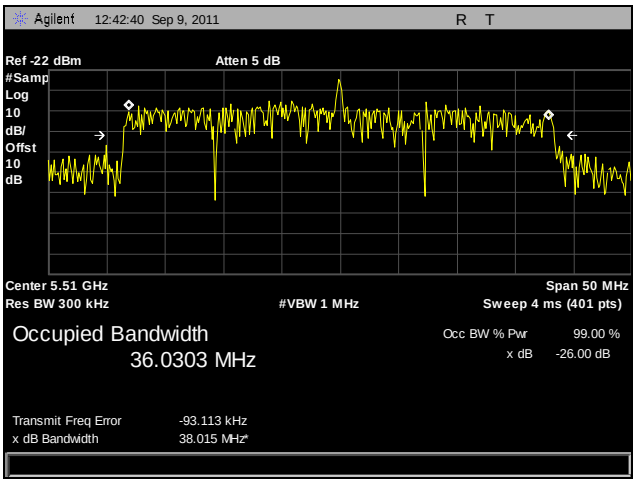
Plot 61. 99% Occupied Bandwidth, 802.11n 40 MHz, Port B, 5270 MHz



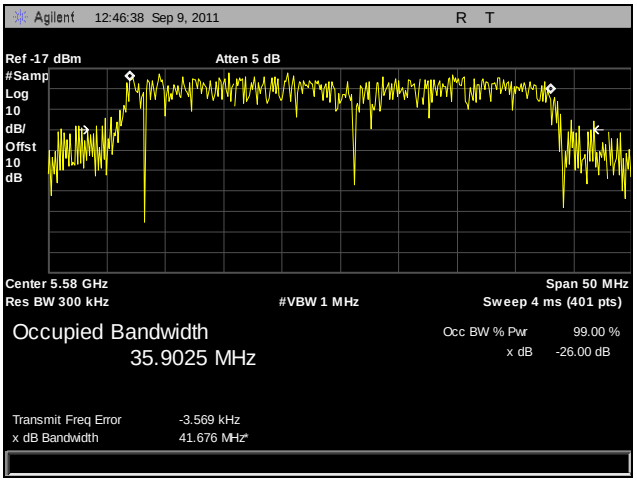
Plot 62. 99% Occupied Bandwidth, 802.11n 40 MHz, Port B, 5300 MHz



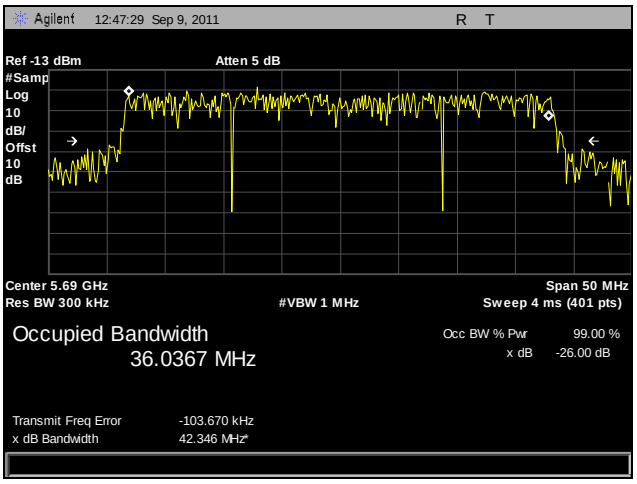
Plot 63. 99% Occupied Bandwidth, 802.11n 40 MHz, Port B, 5310 MHz



Plot 64. 99% Occupied Bandwidth, 802.11n 40 MHz, Port B, 5510 MHz



Plot 65. 99% Occupied Bandwidth, 802.11n 40 MHz, Port B, 5580 MHz



Plot 66. 99% Occupied Bandwidth, 802.11n 40 MHz, Port B, 5690 MHz

Electromagnetic Compatibility Criteria for Intentional Radiators

§ 15. 407(a) (1), (2) RF Power Output

Test Requirements: **§15.407(a) (1), (2):** The maximum output power of the intentional radiator shall not exceed the following:

Digital Transmission Systems (MHz)	Output Limit (mW)
5150 – 5250	50
5250 – 5350	250
5470 – 5725	250

Table 19. Output Power Requirements from §15.407

§15.407(a) (1): For the band 5.15-5.25 GHz the peak transmit power over the frequency band of operation shall not exceed the lesser 50mW or 4dBm + 10logB, where B is the 26-dB emission bandwidth in MHz.

§15.407(a) (2): For the band 5.25-5.35GHz & 5.470-5.72GHz the peak transmit power over the frequency band of operation shall not exceed the lesser of 250mW or 11dBm + 10logB, where B is the 26-dB emission bandwidth in MHz.

Test Procedure: The transmitter was connected to a calibrated Spectrum analyzer. The EUT was measured at the low, mid and high channels of each band with the data rate that produced the highest output power.

Test Results: Equipment complies with the Peak Power Output limits of **§ 15.401(a) (2)**

Test Engineer(s): Ben Taylor

Test Date(s): 09/09/11

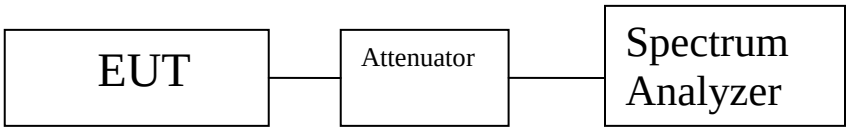


Figure 2. Peak Power Output Test Setup

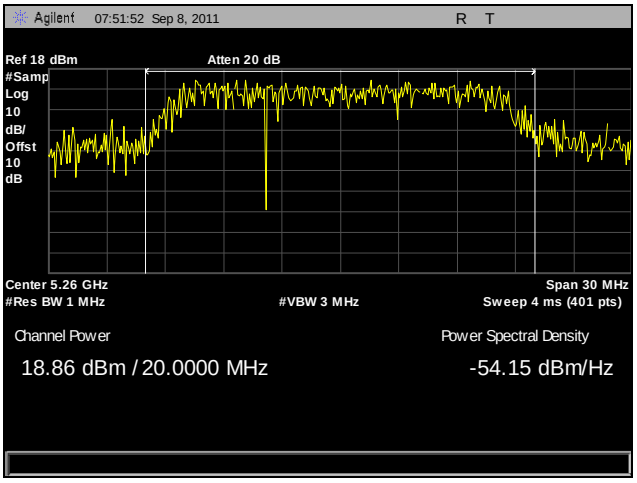
Channel (MHz)	Mode / Mod. Type	Port 1A Conducted Power (dBm)	Port 1A Conducted Power (mW)	Port 1B Conducted Power (dBm)	Port 1B Conducted Power (mW)	Summed Conducted Power (mW)	Summed Conducted Power (dBm)	Antenna Gain (dBi)	Limit (dBm)	Margin (dB)
5260	802.11a	18.86	76.913044	--	--	76.913044	18.86	10	19.9794001	-1.11940009
5300	802.11a	18.99	79.250133	--	--	79.250133	18.99	10	19.9794001	-0.98940009
5320	802.11a	18.52	71.1213514	--	--	71.121351	18.52	10	19.9794001	-1.45940009
5500	802.11a	16.54	45.0816705	--	--	45.08167	16.54	10	19.9794001	-3.43940009
5580	802.11a	13.3	21.3796209	--	--	21.379621	13.3	10	19.9794001	-6.67940009
5700	802.11a	16.65	46.2381021	--	--	46.238102	16.65	10	19.9794001	-3.32940009
5260	802.11n HT20	17.91	61.80164	14.27	26.7300641	88.531704	19.4709882	10	19.9794001	-0.50841185
5300	802.11n HT20	16.5	44.6683592	16.74	47.2063041	91.874663	19.6319576	10	19.9794001	-0.34744248
5320	802.11n HT20	15.28	33.7287309	14.91	30.974193	64.702924	18.1092391	10	19.9794001	-1.87016102
5500	802.11n HT20	14.41	27.6057786	17.24	52.9663444	80.572123	19.0618481	10	19.9794001	-0.91755202
5580	802.11n HT20	17.4	54.9540874	11.29	13.4586035	68.412691	18.3513667	10	19.9794001	-1.62803335
5700	802.11n HT20	15.75	37.5837404	14.39	27.4789415	65.062682	18.1333196	10	19.9794001	-1.84608047
5270	802.11n HT40	17.39	54.8276965	15.71	37.2391706	92.066867	19.6410337	10	19.9794001	-0.33836644
5300	802.11n HT40	15.4	34.673685	16.57	45.3941617	80.067847	19.0345815	10	19.9794001	-0.9448186
5310	802.11n HT40	16.64	46.1317575	16.9	48.9778819	95.109639	19.7822454	10	19.9794001	-0.19715474
5510	802.11n HT40	14.43	27.733201	17.92	61.9441075	89.677309	19.5268257	10	19.9794001	-0.45257443
5580	802.11n HT40	13.39	21.8272991	16.53	44.9779855	66.805285	18.2481082	10	19.9794001	-1.7312919
5690	802.11n HT40	14.83	30.4088503	13.16	20.7014135	51.110264	17.0850812	10	19.9794001	-2.89431887

Table 20. RF Power Output, Test Results

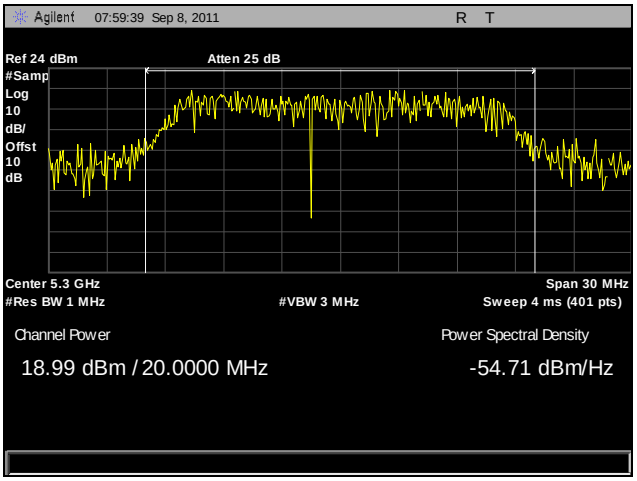
Channel (MHz)	Mode / Mod. Type	Port 1A Conducted Power (dBm)	Port 1A Conducted Power (mW)	Port 1B Conducted Power (dBm)	Port 1B Conducted Power (mW)	Summed Conducted Power (mW)	Summed Conducted Power (dBm)	Antenna Gain (dBi)	Limit (dBm)	Margin (dB)
5260	802.11a	11.76	15.00	--	--	15.00	11.76	15.50	14.48	-2.72
5300	802.11a	11.42	13.87	--	--	13.87	11.42	15.50	14.48	-3.06
5320	802.11a	11.47	14.03	--	--	14.03	11.47	15.50	14.48	-3.01
5500	802.11a	11.82	15.21	--	--	15.21	11.82	15.50	14.48	-2.66
5580	802.11a	12.08	16.14	--	--	16.14	12.08	15.50	14.48	-2.40
5700	802.11a	12.16	16.44	--	--	16.44	12.16	15.50	14.48	-2.32
5260	802.11n HT20	9.63	9.18	6.57	4.54	13.72	11.37	18.51	11.47	-0.09
5300	802.11n HT20	9.72	9.38	6.09	4.06	13.44	11.28	18.51	11.47	-0.19
5320	802.11n HT20	9.43	8.77	6.16	4.13	12.90	11.11	18.51	11.47	-0.36
5500	802.11n HT20	8.88	7.73	7.91	6.18	13.91	11.43	18.51	11.47	-0.04
5580	802.11n HT20	8.65	7.33	8.11	6.47	13.80	11.40	18.51	11.47	-0.07
5700	802.11n HT20	8.36	6.85	7.64	5.81	12.66	11.03	18.51	11.47	-0.44
5270	802.11n HT40	9.24	8.39	7.37	5.46	13.85	11.42	18.51	11.47	-0.05
5300	802.11n HT40	8.99	7.93	7.68	5.86	13.79	11.39	18.51	11.47	-0.07
5310	802.11n HT40	9.03	8.00	7.44	5.55	13.54	11.32	18.51	11.47	-0.15
5510	802.11n HT40	7.86	6.11	8.32	6.79	12.90	11.11	18.51	11.47	-0.36
5580	802.11n HT40	8.12	6.49	8.59	7.23	13.71	11.37	18.51	11.47	-0.10
5690	802.11n HT40	7.73	5.93	8.41	6.93	12.86	11.09	18.51	11.47	-0.38

Table 21. RF Power Output, Test Results, Sector Antenna

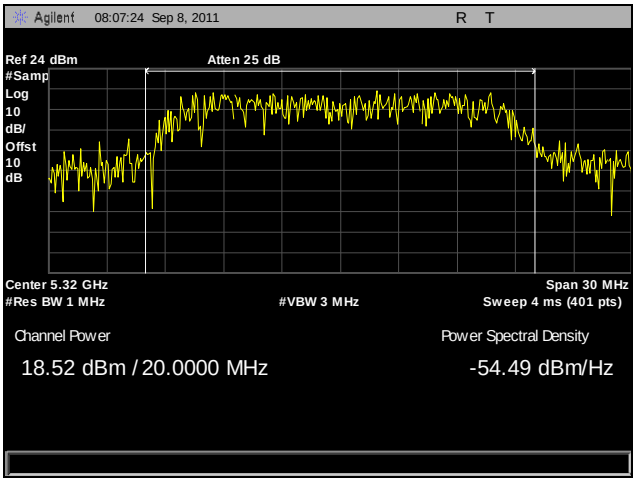
Conducted Output Power, 802.11a



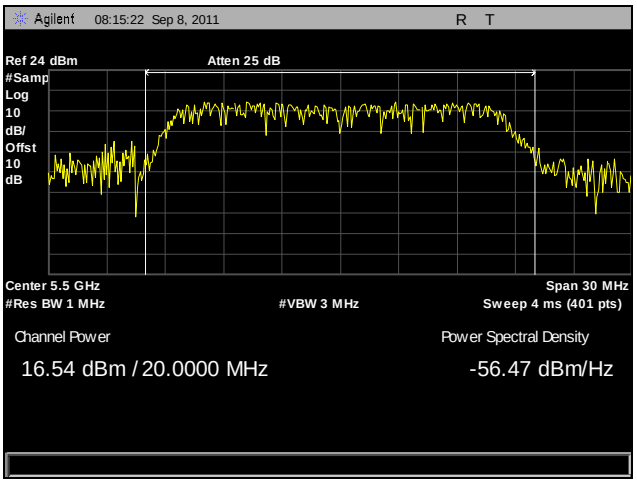
Plot 67. Conducted Output Power, 802.11a, 5260 MHz



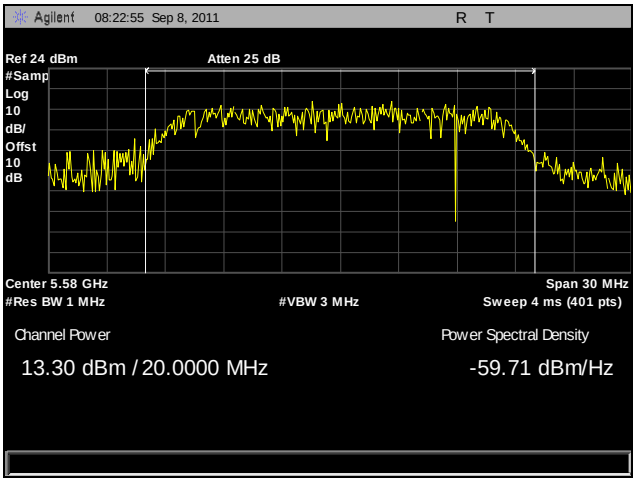
Plot 68. Conducted Output Power, 802.11a, 5300 MHz



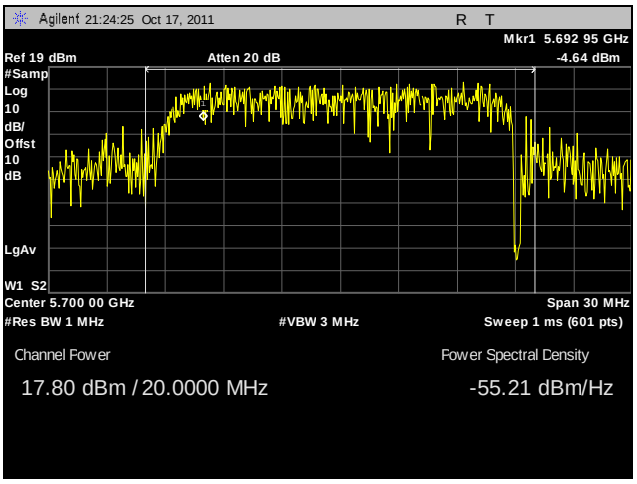
Plot 69. Conducted Output Power, 802.11a, 5320 MHz



Plot 70. Conducted Output Power, 802.11a, 5500 MHz

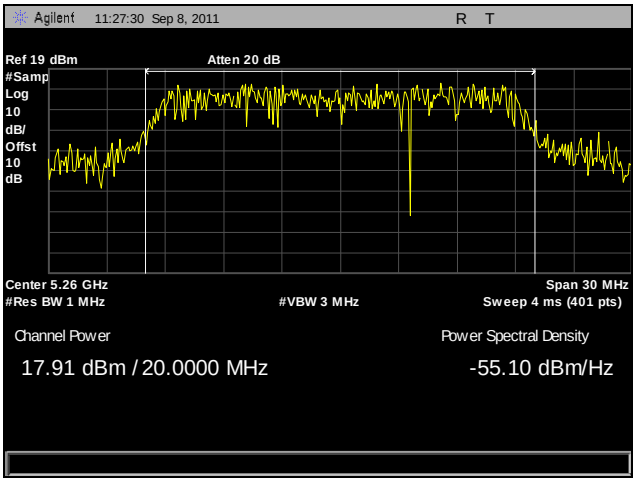


Plot 71. Conducted Output Power, 802.11a, 5580 MHz

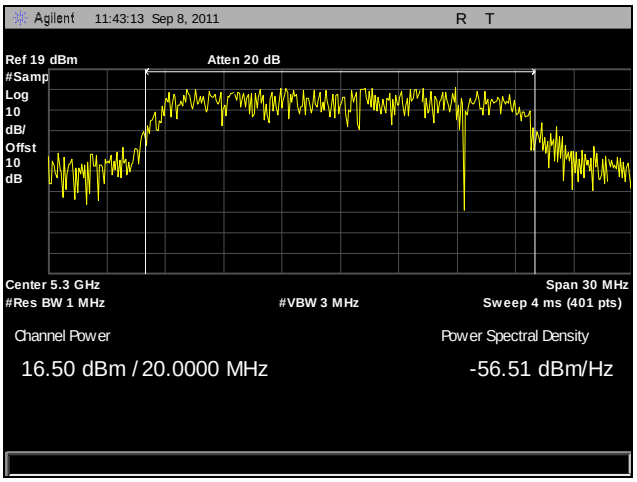


Plot 72. Conducted Output Power, 802.11a, 5700 MHz

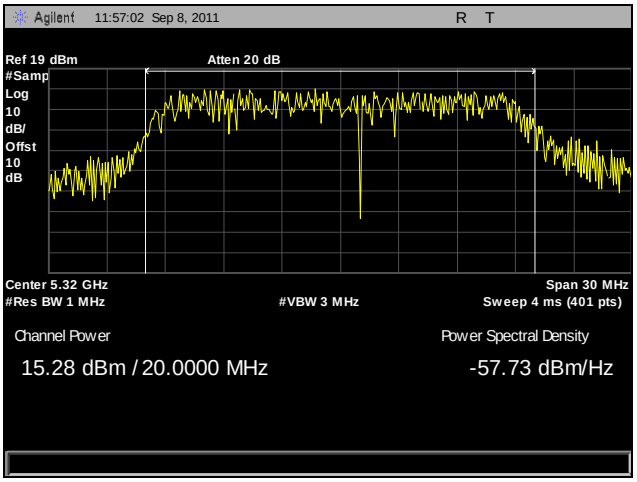
Conducted Output Power, 802.11n 20 MHz, Port A



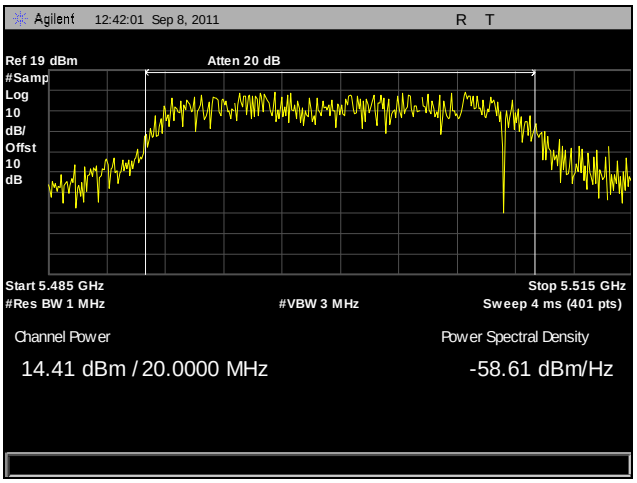
Plot 73. Conducted Output Power, 802.11n 20 MHz, Port A, 5260 MHz



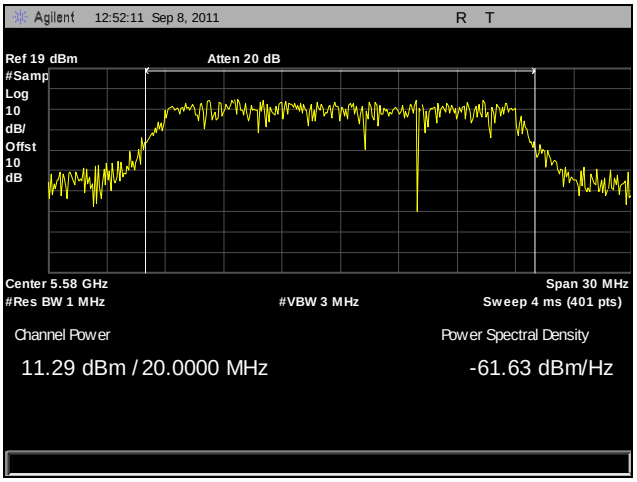
Plot 74. Conducted Output Power, 802.11n 20 MHz, Port A, 5300 MHz



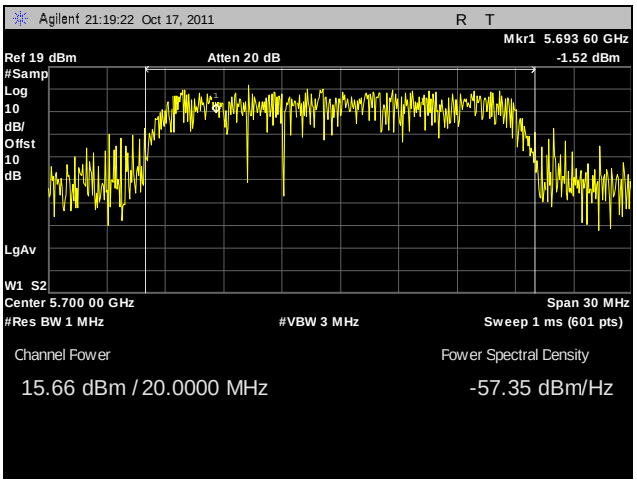
Plot 75. Conducted Output Power, 802.11n 20 MHz, Port A, 5320 MHz



Plot 76. Conducted Output Power, 802.11n 20 MHz, Port A, 5500 MHz

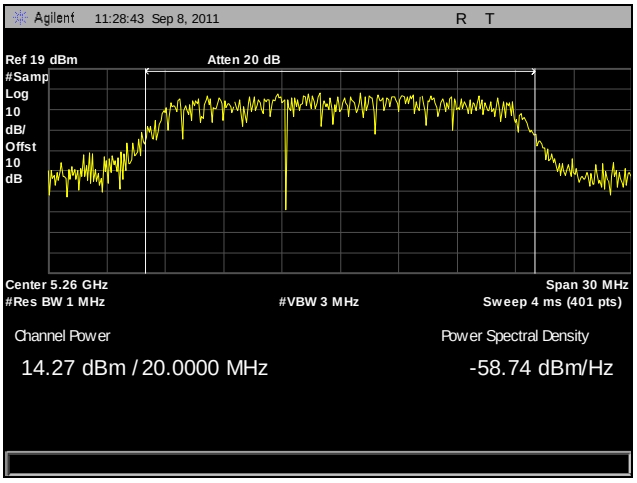


Plot 77. Conducted Output Power, 802.11n 20 MHz, Port A, 5580 MHz

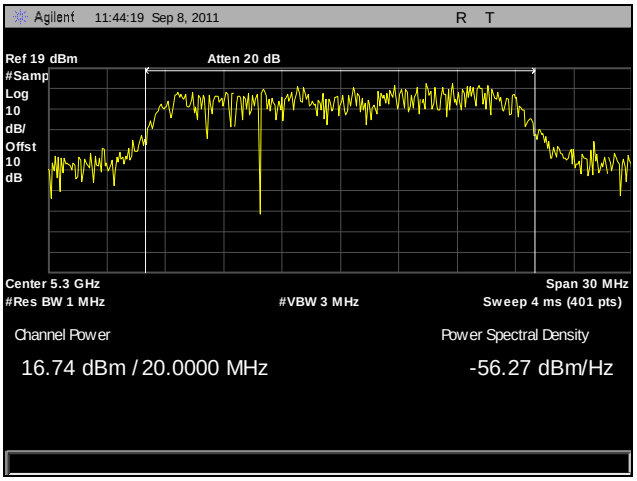


Plot 78. Conducted Output Power, 802.11n 20 MHz, Port A, 5700 MHz

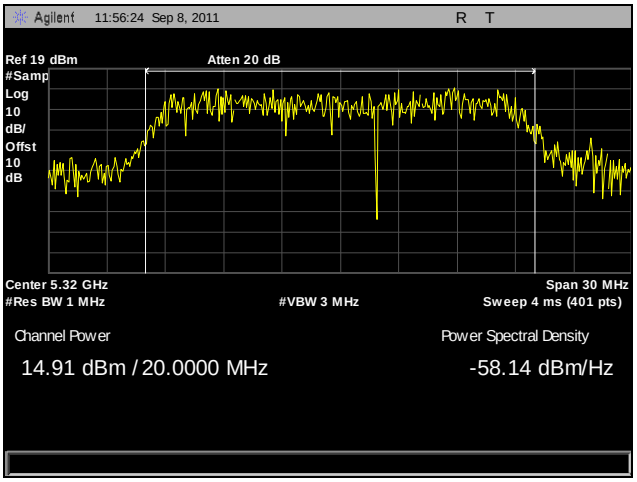
Conducted Output Power, 802.11n 20 MHz, Port B



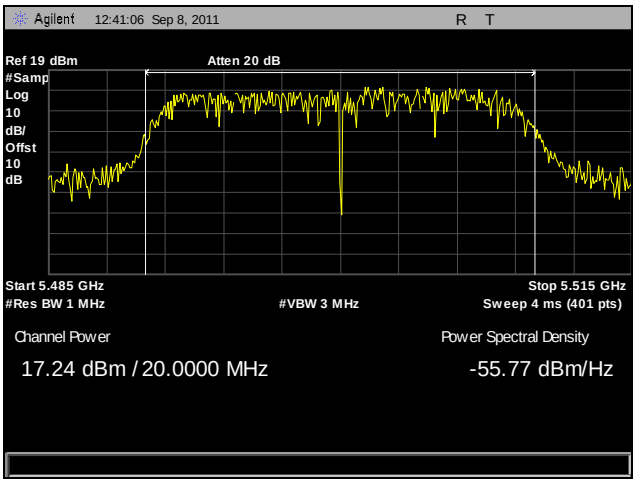
Plot 79. Conducted Output Power, 802.11n 20 MHz, Port B, 5260 MHz



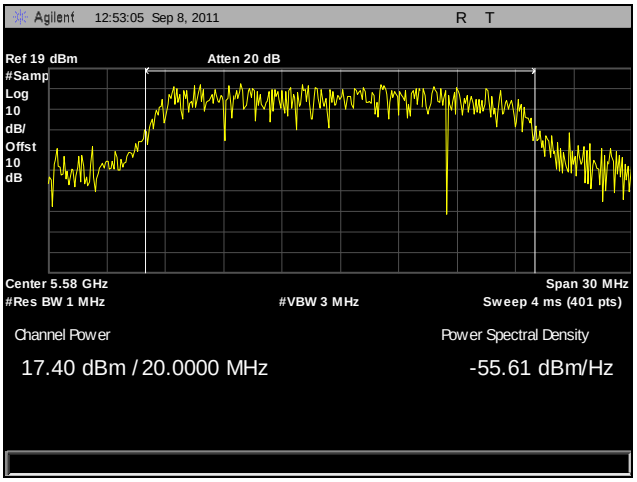
Plot 80. Conducted Output Power, 802.11n 20 MHz, Port B, 5300 MHz



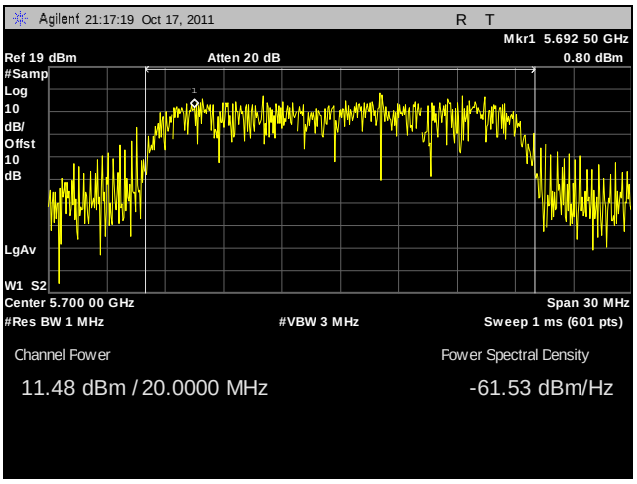
Plot 81. Conducted Output Power, 802.11n 20 MHz, Port B, 5320 MHz



Plot 82. Conducted Output Power, 802.11n 20 MHz, Port B, 5500 MHz

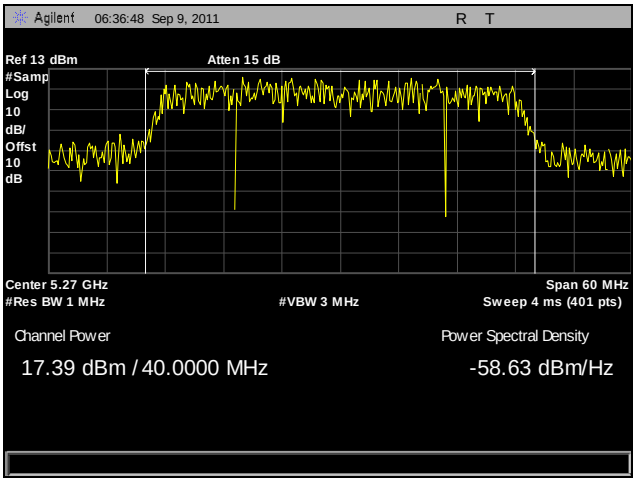


Plot 83. Conducted Output Power, 802.11n 20 MHz, Port B, 5580 MHz

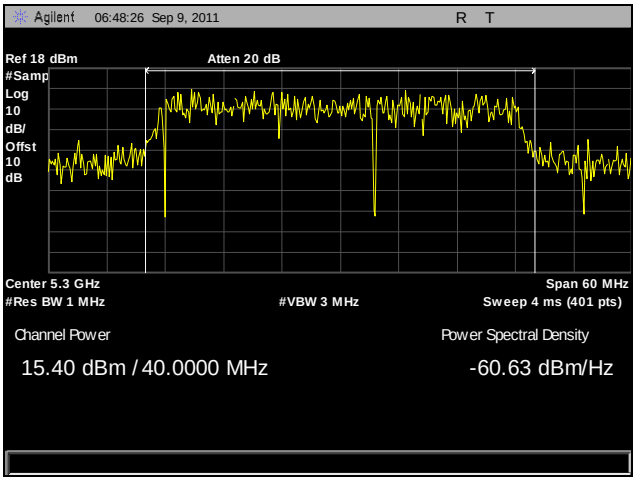


Plot 84. Conducted Output Power, 802.11n 20 MHz, Port B, 5700 MHz

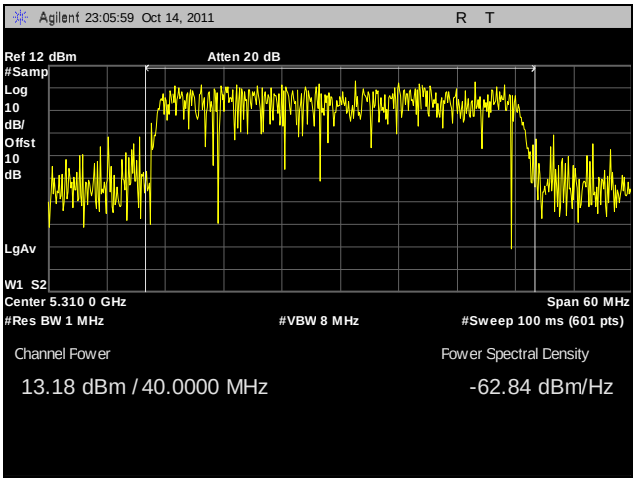
Conducted Output Power, 802.11n 40 MHz, Port A



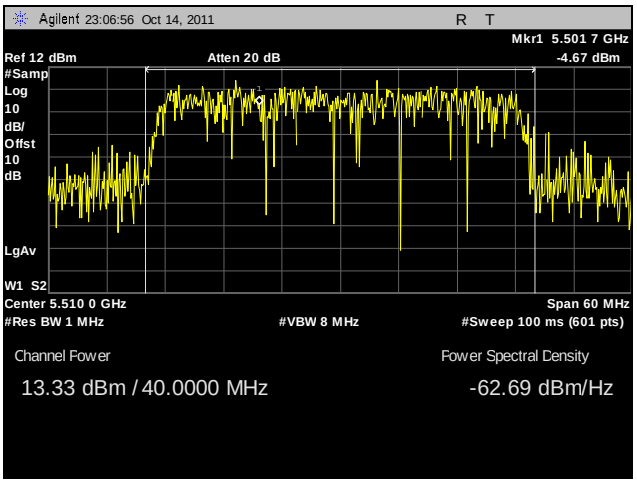
Plot 85. Conducted Output Power, 802.11n 40 MHz, Port A, 5270 MHz



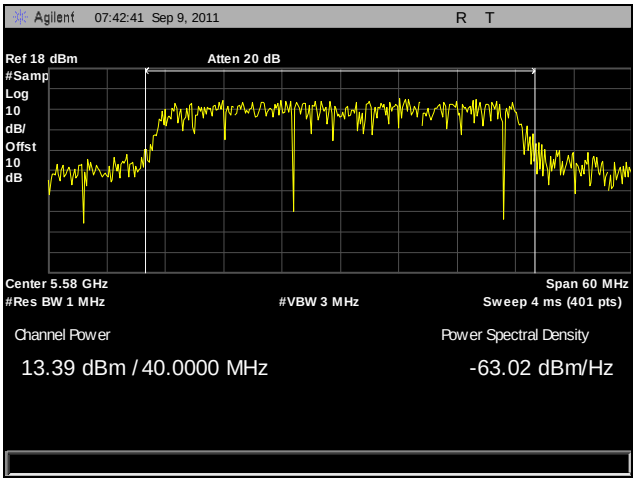
Plot 86. Conducted Output Power, 802.11n 40 MHz, Port A, 5300 MHz



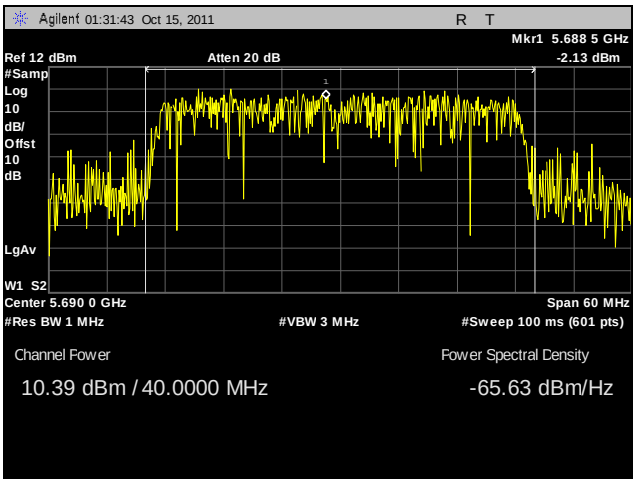
Plot 87. Conducted Output Power, 802.11n 40 MHz, Port A, 5310 MHz



Plot 88. Conducted Output Power, 802.11n 40 MHz, Port A, 5510 MHz

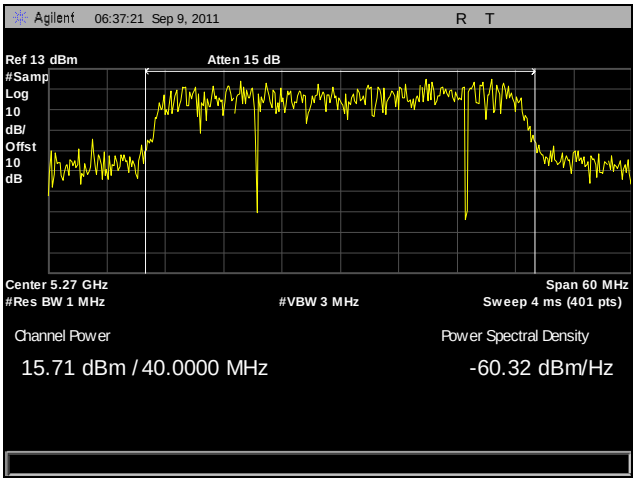


Plot 89. Conducted Output Power, 802.11n 40 MHz, Port A, 5580 MHz

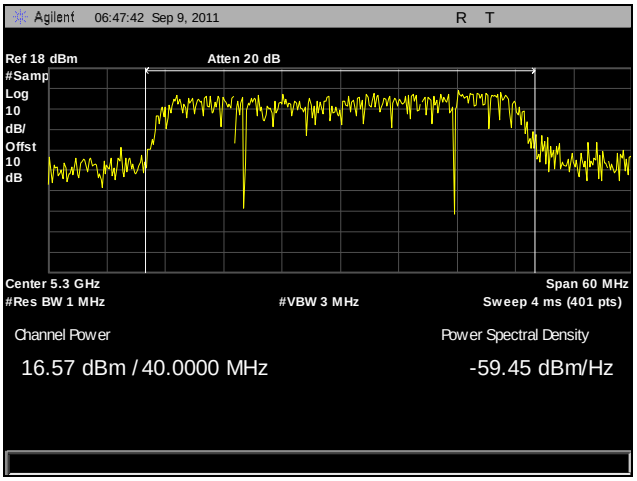


Plot 90. Conducted Output Power, 802.11n 40 MHz, Port A, 5690 MHz

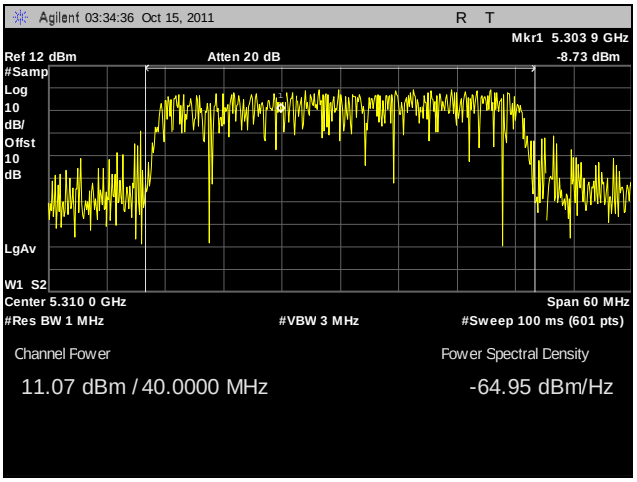
Conducted Output Power, 802.11n 40 MHz, Port B



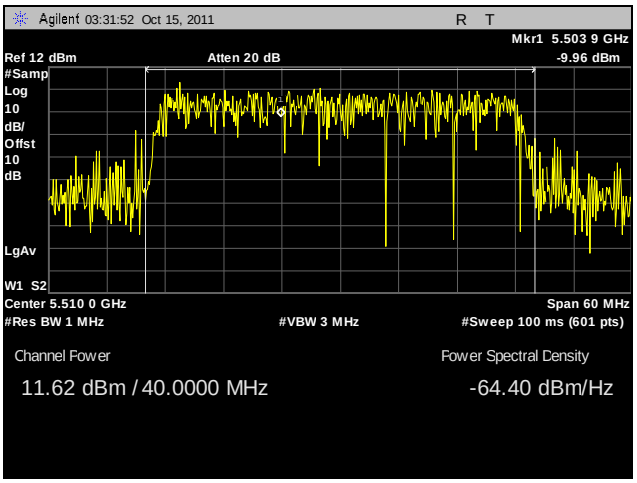
Plot 91. Conducted Output Power, 802.11n 40 MHz, Port B, 5270 MHz



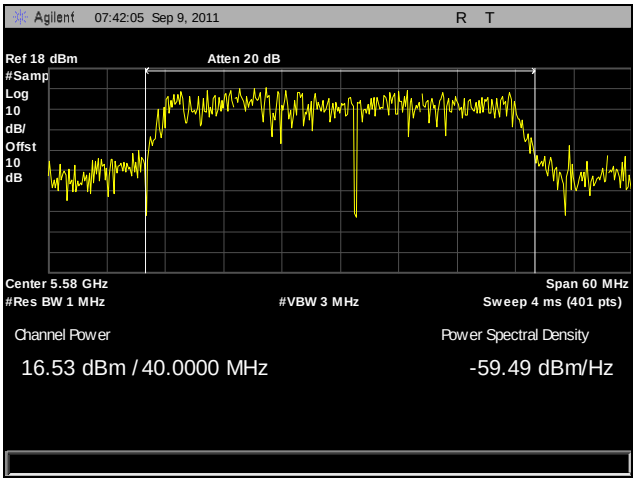
Plot 92. Conducted Output Power, 802.11n 40 MHz, Port B, 5300 MHz



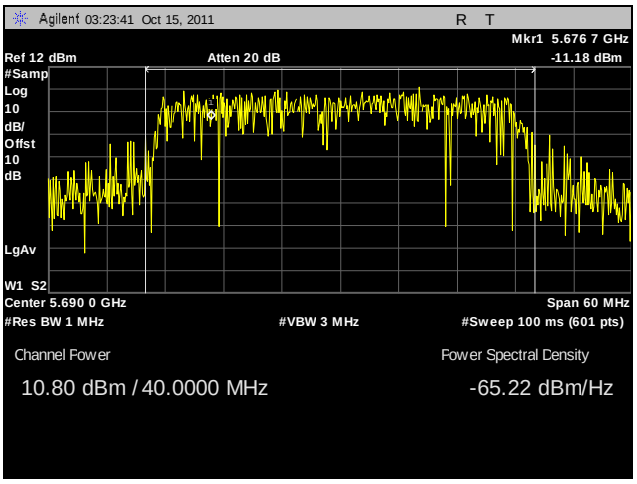
Plot 93. Conducted Output Power, 802.11n 40 MHz, Port B, 5310 MHz



Plot 94. Conducted Output Power, 802.11n 40 MHz, Port B, 5510 MHz



Plot 95. Conducted Output Power, 802.11n 40 MHz, Port B, 5580 MHz



Plot 96. Conducted Output Power, 802.11n 40 MHz, Port B, 5690 MHz

Electromagnetic Compatibility Criteria for Intentional Radiators

§ 15.407(a)(1), (a)(2) Peak Power Spectral Density

Test Requirements: **§ 15.407(a)(1), (a)(2):** For digitally modulated systems, the conducted peak power spectral density from the intentional radiator to the antenna shall not be greater than 4dBm/MHz in the frequency band 5.15-5.25 GHz and 11dBm/MHz in the frequency band 5.25-5.35GHz.

Test Procedure: The transmitter was connected directly to a Spectrum Analyzer through an attenuator. The power level was set to the maximum level on the EUT. The RBW was set to 1MHz and the VBW was set to 3MHz. The method of measurement SA-1 from 789033 D01 UNII General Test Procedures v01 was used.

Test Results: Equipment complies with the peak power spectral density limits of **§ 15.407(a)(1), (a)(2).** The peak power spectral density was determined from plots on the following page(s).

Test Engineer(s): Jeff Pratt

Test Date(s): 09/09/11

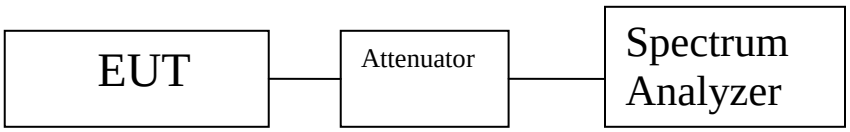


Figure 3. Peak Power Spectral Density Test Setup

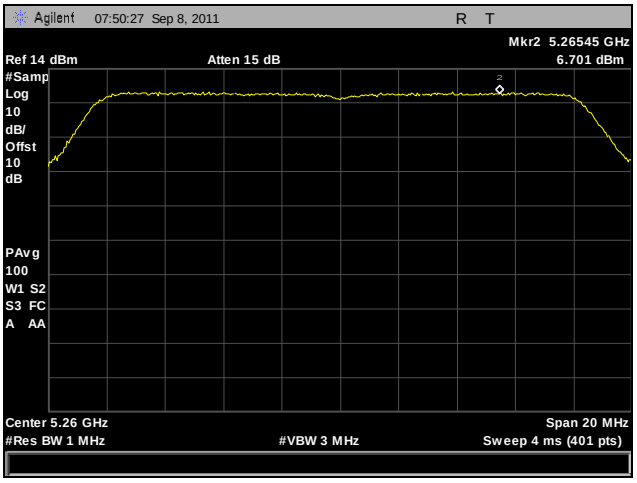
Channel (MHz)	Mode/Modulation Type	Port 1A Spectral Density (dBm)	Port 1A Spectral Density (mW)	Port 1B Spectral Density (dBm)	Port 1B Spectral Density (mW)	Summed Spectral Density (mW)	Summed Spectral Density (dBm)	Antenna Gain (dBi)	Limit (dBm)	Margin (dB)
5260	802.11a	6.701	4.678428537	--	--	4.678428537	6.701	10	7	-0.299
5300	802.11a	6.943	4.946522627	--	--	4.946522627	6.943	10	7	-0.057
5320	802.11a	6.995	5.006105525	--	--	5.006105525	6.995	10	7	-0.005
5500	802.11a	4.884	3.07893131	--	--	3.07893131	4.884	10	7	-2.116
5580	802.11a	2.559	1.802602628	--	--	1.802602628	2.559	10	7	-4.441
5700	802.11a	5.575	3.609940136	--	--	3.609940136	5.575	10	7	-1.425
5260	802.11n HT20	4.882	3.077514	2.862	1.932858	5.010372	6.9987	10	7	-0.0013
5300	802.11n HT20	3.973	2.496319	3.793	2.39497	4.891288	6.894232	10	7	-0.10577
5320	802.11n HT20	3.557	2.268297	4.084	2.560944	4.829241	6.838789	10	7	-0.16121
5500	802.11n HT20	1.732	1.490047	4.682	2.939003	4.42905	6.463106	10	7	-0.53689
5580	802.11n HT20	5.172	3.290031	0.288	1.068563	4.358594	6.393464	10	7	-0.60654
5700	802.11n HT20	4.45	2.786121	2.594	1.817189	4.60331	6.630702	10	7	-0.3693
5270	802.11n HT40	-0.164	0.962942	-0.398	0.912431	1.875373	2.730876	10	7	-4.26912
5300	802.11n HT40	0.975	1.251699	0.563	1.138413	2.390113	3.784184	10	7	-3.21582
5310	802.11n HT40	-0.026	0.994031	-0.123	0.972076	1.966107	2.936071	10	7	-4.06393
5510	802.11n HT40	-1.282	0.744389	1.836	1.52616	2.270549	3.561309	10	7	-3.43869
5580	802.11n HT40	-2.565	0.553988	-1.842	0.654335	1.208322	0.821828	10	7	-6.17817
5690	802.11n HT40	-1.76	0.666807	-2.012	0.629216	1.296023	1.126127	10	7	-5.87387

Table 22. Power Spectral Density, 802.11a, Test Results

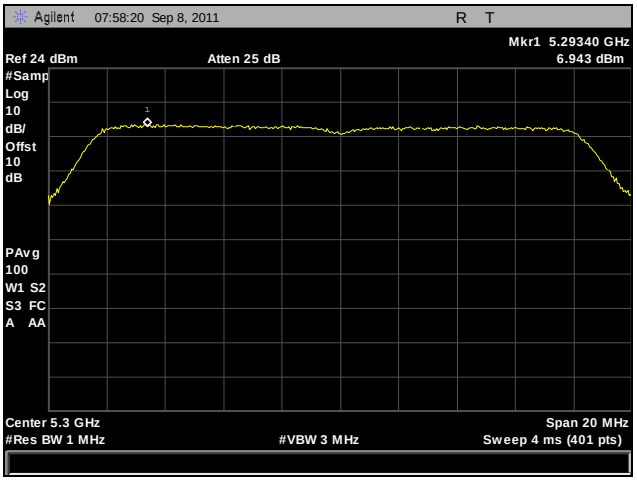
Channel (MHz)	Mode/Modulation Type	Port 1A Spectral Density (dBm)	Port 1A Spectral Density (mW)	Port 1B Spectral Density (dBm)	Port 1B Spectral Density (mW)	Summed Spectral Density (mW)	Summed Spectral Density (dBm)	Antenna Gain (dBi)	Limit (dBm)	Margin (dB)
5260	802.11a	1.12	1.29	--	--	1.29	1.12	15.50	1.50	-0.38
5300	802.11a	0.85	1.22	--	--	1.22	0.85	15.50	1.50	-0.65
5320	802.11a	0.35	1.08	--	--	1.08	0.35	15.50	1.50	-1.15
5500	802.11a	1.04	1.27	--	--	1.27	1.04	15.50	1.50	-0.46
5580	802.11a	0.72	1.18	--	--	1.18	0.72	15.50	1.50	-0.78
5700	802.11a	0.71	1.18	--	--	1.18	0.71	15.50	1.50	-0.79
5260	802.11n HT20	-3.32	0.47	-6.35	0.23	0.70	-1.57	18.51	-1.51	-0.06
5300	802.11n HT20	-3.45	0.45	-6.92	0.20	0.66	-1.84	18.51	-1.51	-0.33
5320	802.11n HT20	-3.73	0.42	-7.01	0.20	0.62	-2.06	18.51	-1.51	-0.55
5500	802.11n HT20	-4.24	0.38	-5.81	0.26	0.64	-1.94	18.51	-1.51	-0.43
5580	802.11n HT20	-4.80	0.33	-4.56	0.35	0.68	-1.67	18.51	-1.51	-0.16
5700	802.11n HT20	-4.92	0.32	-5.63	0.27	0.60	-2.25	18.51	-1.51	-0.74
5270	802.11n HT40	-3.48	0.45	-6.09	0.25	0.69	-1.58	18.51	-1.51	-0.07
5300	802.11n HT40	-4.21	0.38	-5.82	0.26	0.64	-1.93	18.51	-1.51	-0.42
5310	802.11n HT40	-3.95	0.40	-6.31	0.23	0.64	-1.96	18.51	-1.51	-0.45
5510	802.11n HT40	-4.87	0.33	-4.55	0.35	0.68	-1.70	18.51	-1.51	-0.19
5580	802.11n HT40	-5.39	0.29	-4.40	0.36	0.65	-1.86	18.51	-1.51	-0.35
5690	802.11n HT40	-4.27	0.37	-4.96	0.32	0.69	-1.59	18.51	-1.51	-0.08

Table 23. Power Spectral Density, 802.11a, Test Results, Sector Antenna

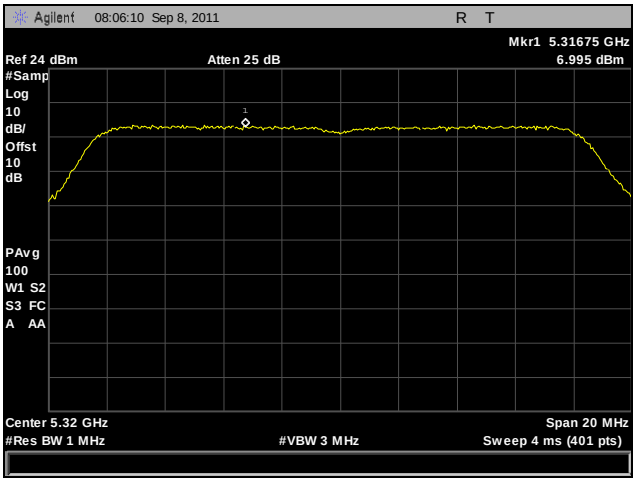
Peak Power Spectral Density, 802.11a



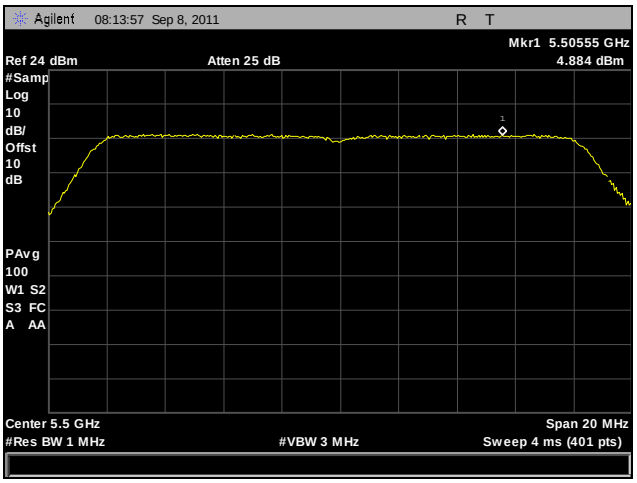
Plot 97. Peak Spectral Density, 802.11a, 5260 MHz



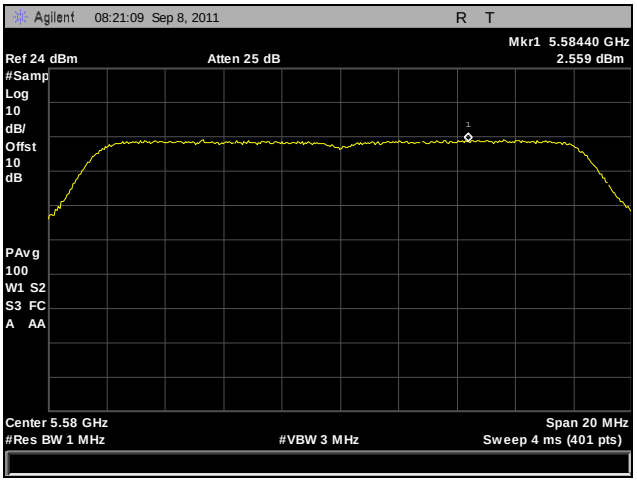
Plot 98. Peak Spectral Density, 802.11a, 5300 MHz



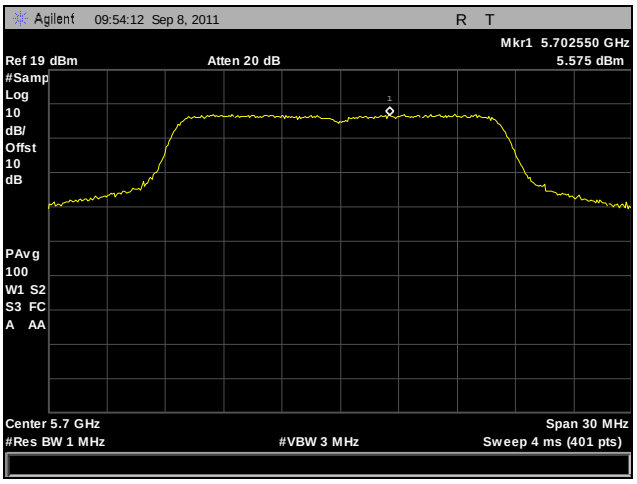
Plot 99. Peak Spectral Density, 802.11a, 5320 MHz



Plot 100. Peak Spectral Density, 802.11a, 5500 MHz

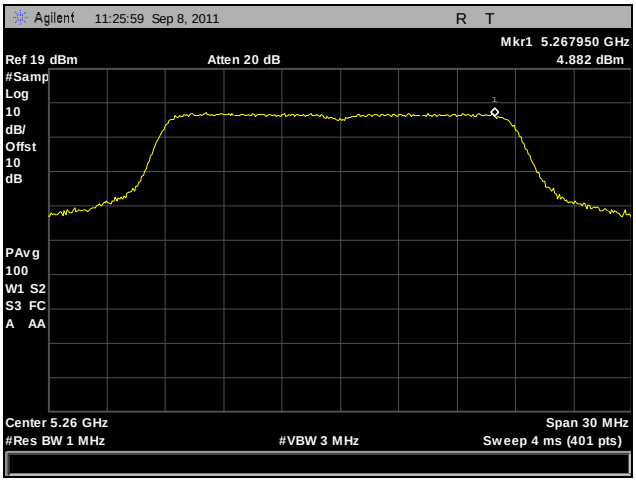


Plot 101. Peak Spectral Density, 802.11a, 5580 MHz

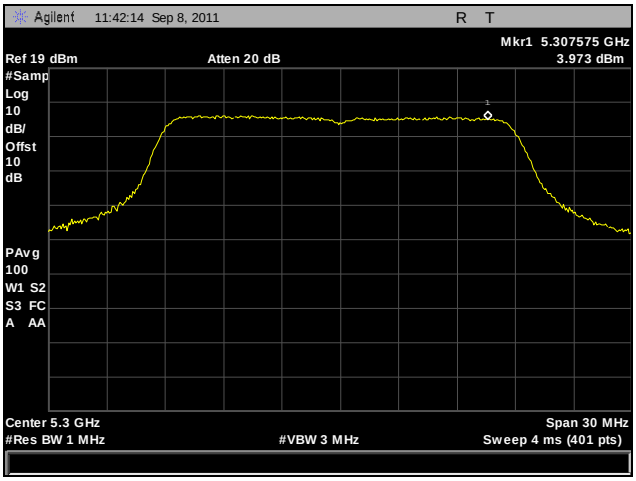


Plot 102. Peak Spectral Density, 802.11a, 5700 MHz

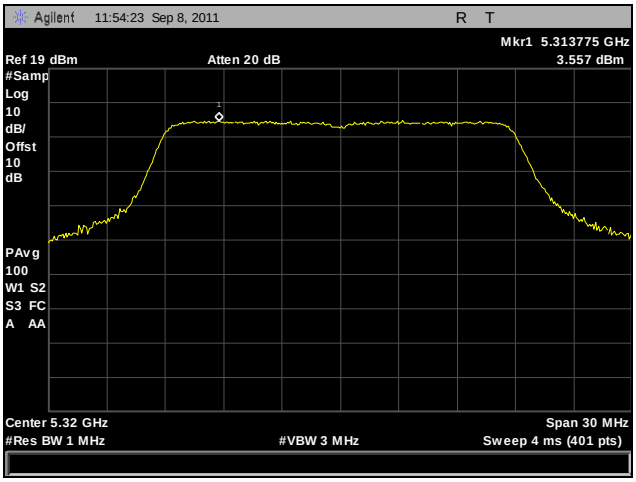
Peak Power Spectral Density, 802.11n 20 MHz, Port A



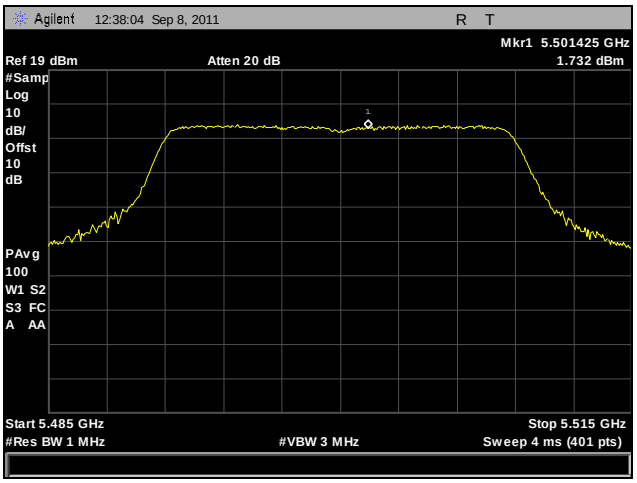
Plot 103. Peak Spectral Density, 802.11n 20 MHz, Port A, 5260 MHz



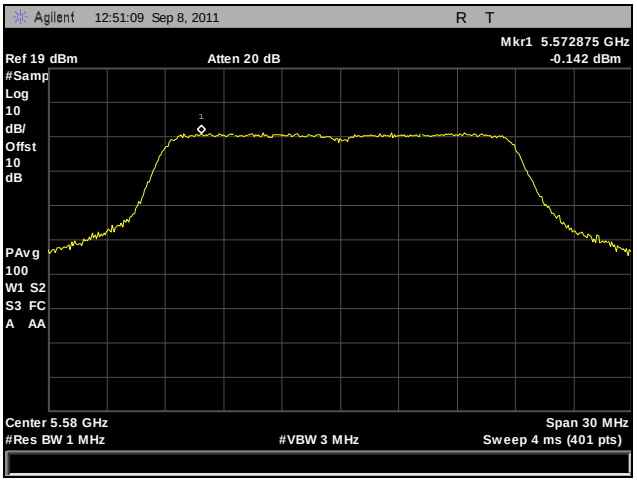
Plot 104. Peak Spectral Density, 802.11n 20 MHz, Port A, 5300 MHz



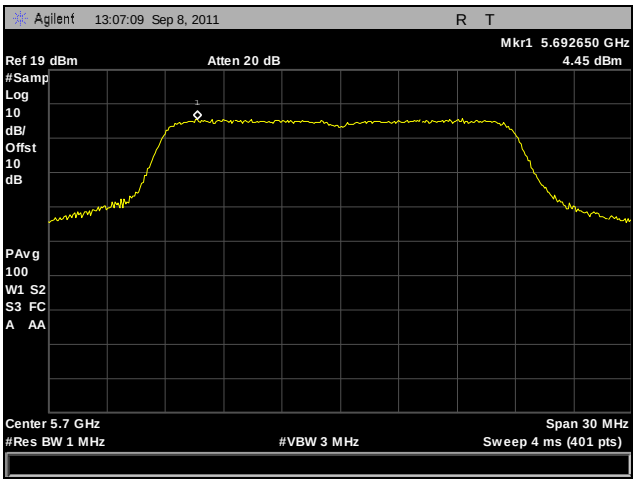
Plot 105. Peak Spectral Density, 802.11n 20 MHz, Port A, 5320 MHz



Plot 106. Peak Spectral Density, 802.11n 20 MHz, Port A, 5500 MHz

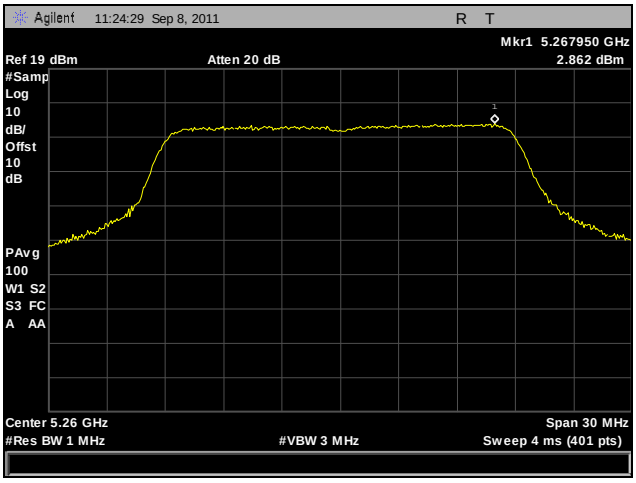


Plot 107. Peak Spectral Density, 802.11n 20 MHz, Port A, 5580 MHz

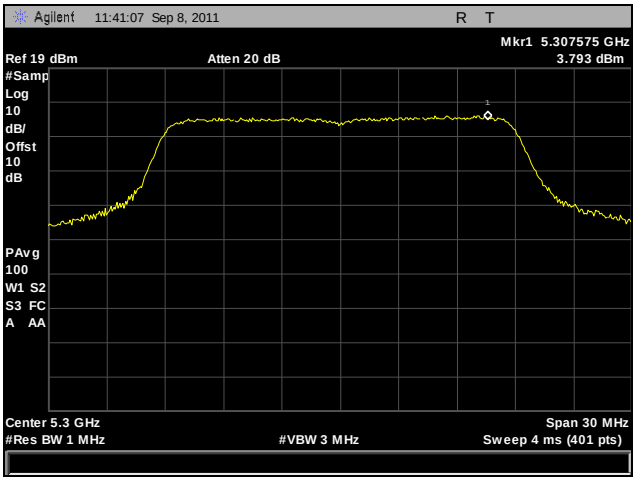


Plot 108. Peak Spectral Density, 802.11n 20 MHz, Port A, 5700 MHz

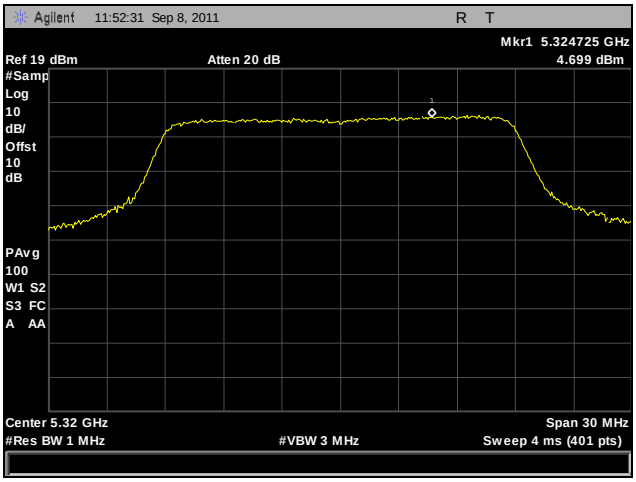
Peak Power Spectral Density, 802.11n 20 MHz, Port B



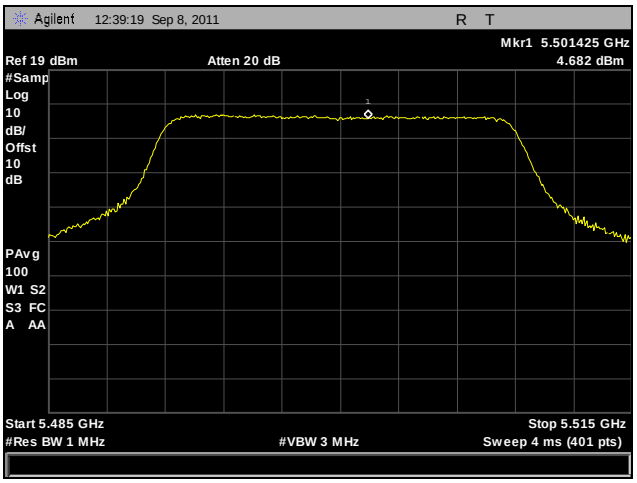
Plot 109. Peak Spectral Density, 802.11n 20 MHz, Port B, 5260 MHz



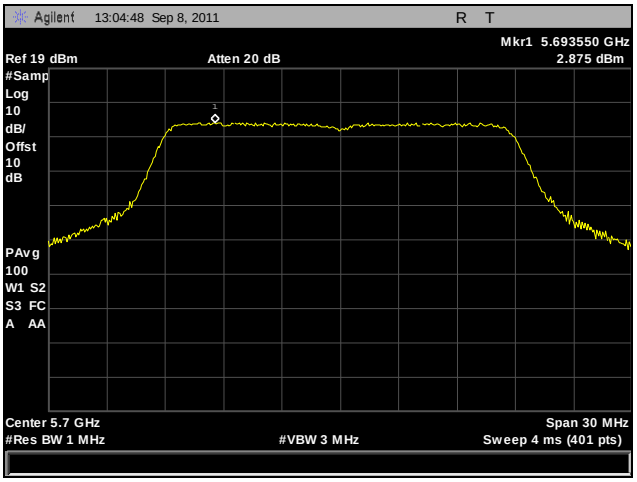
Plot 110. Peak Spectral Density, 802.11n 20 MHz, Port B, 5300 MHz



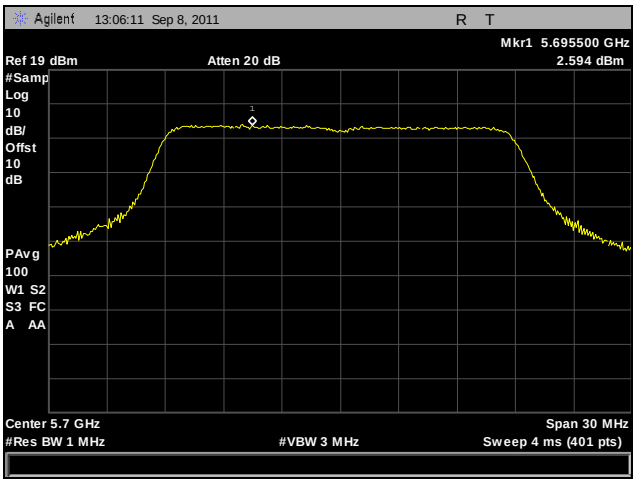
Plot 111. Peak Spectral Density, 802.11n 20 MHz, Port B, 5320 MHz



Plot 112. Peak Spectral Density, 802.11n 20 MHz, Port B, 5500 MHz

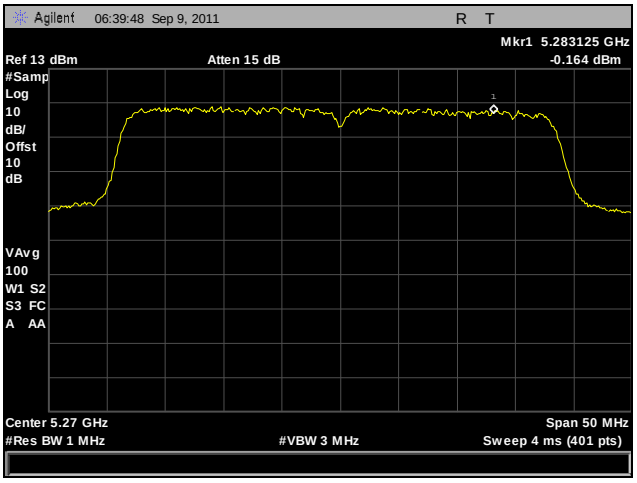


Plot 113. Peak Spectral Density, 802.11n 20 MHz, Port B, 5580 MHz

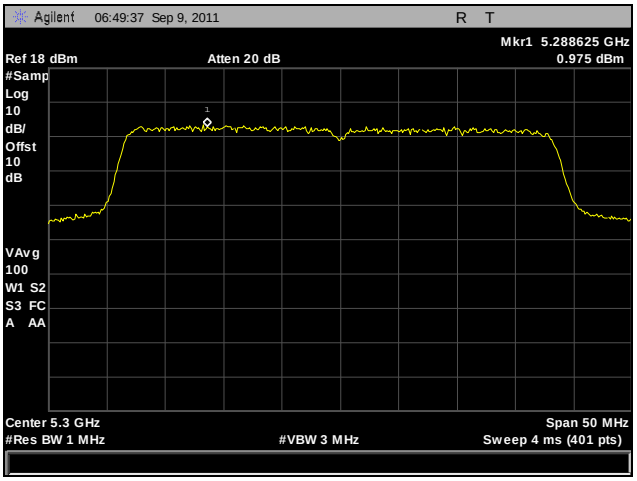


Plot 114. Peak Spectral Density, 802.11n 20 MHz, Port B, 5700 MHz

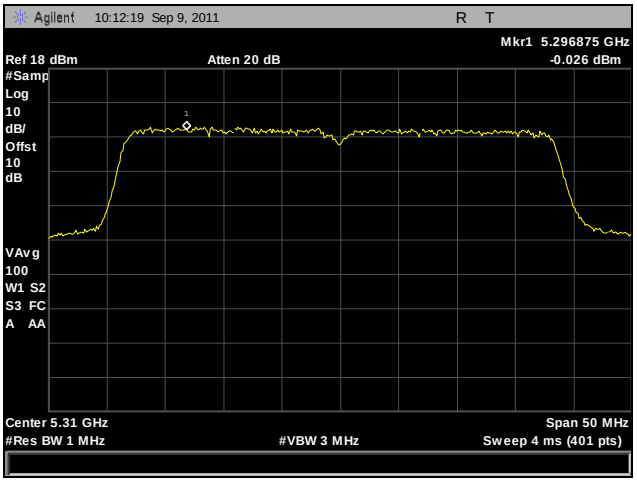
Peak Power Spectral Density, 802.11n 40 MHz, Port A



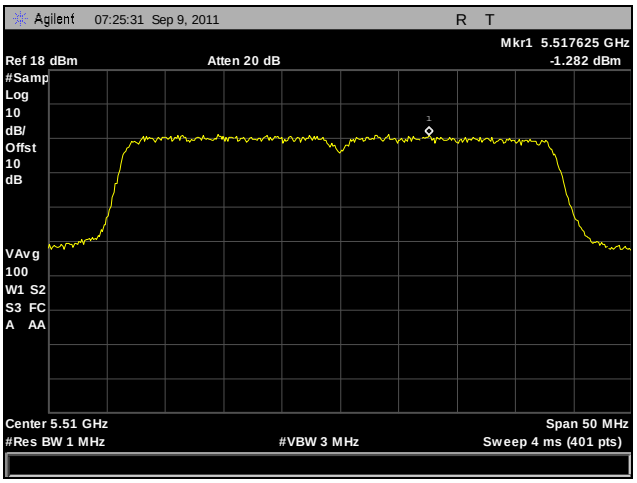
Plot 115. Peak Spectral Density, 802.11n 40 MHz, Port A, 5270 MHz



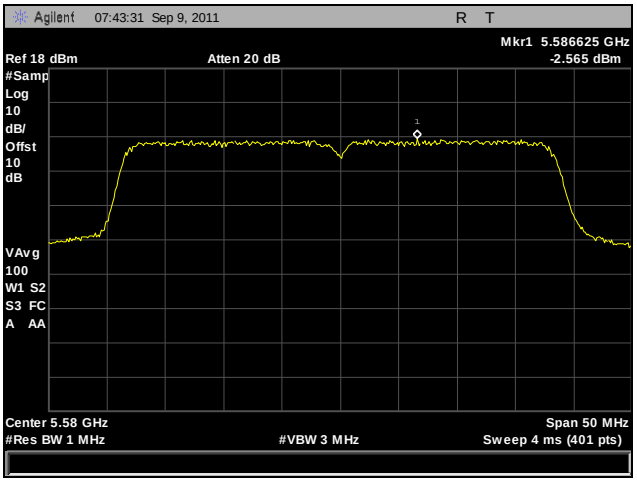
Plot 116. Peak Spectral Density, 802.11n 40 MHz, Port A, 5300 MHz



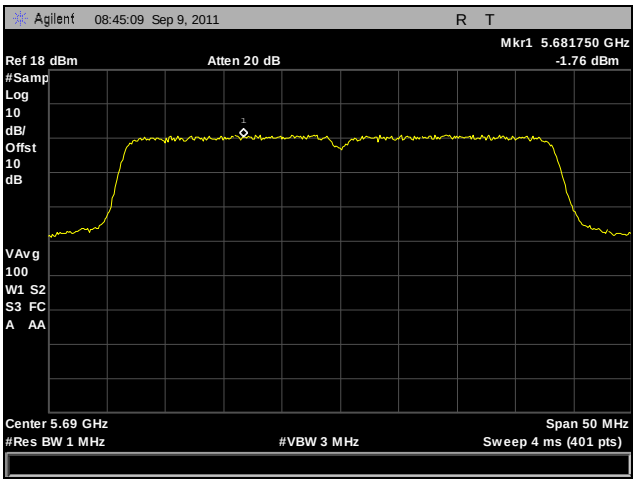
Plot 117. Peak Spectral Density, 802.11n 40 MHz, Port A, 5310 MHz



Plot 118. Peak Spectral Density, 802.11n 40 MHz, Port A, 5510 MHz

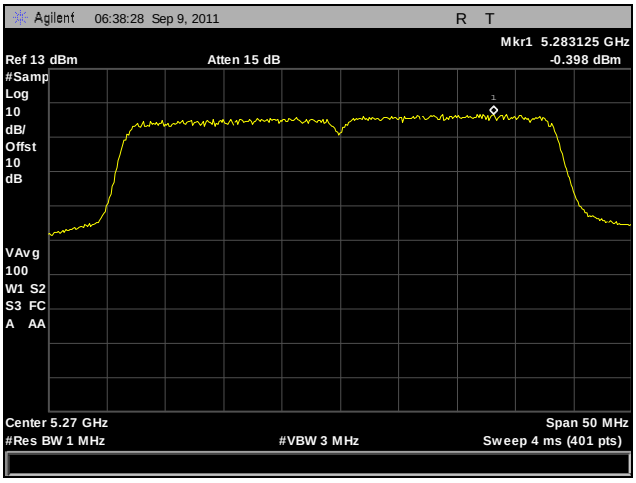


Plot 119. Peak Spectral Density, 802.11n 40 MHz, Port A, 5580 MHz

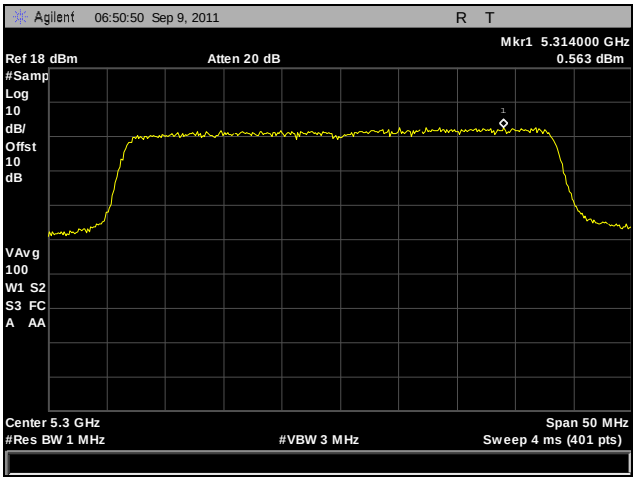


Plot 120. Peak Spectral Density, 802.11n 40 MHz, Port A, 5690 MHz

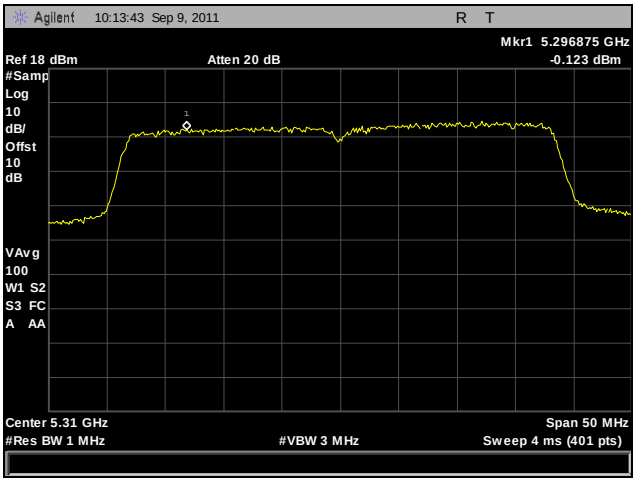
Peak Power Spectral Density, 802.11n 40 MHz, Port B



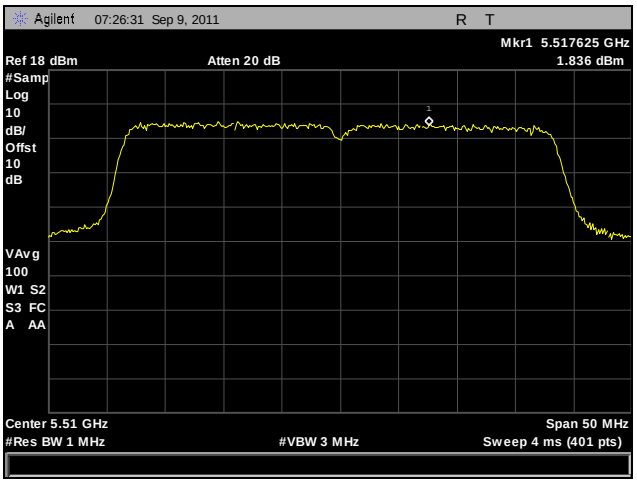
Plot 121. Peak Spectral Density, 802.11n 40 MHz, Port B, 5270 MHz



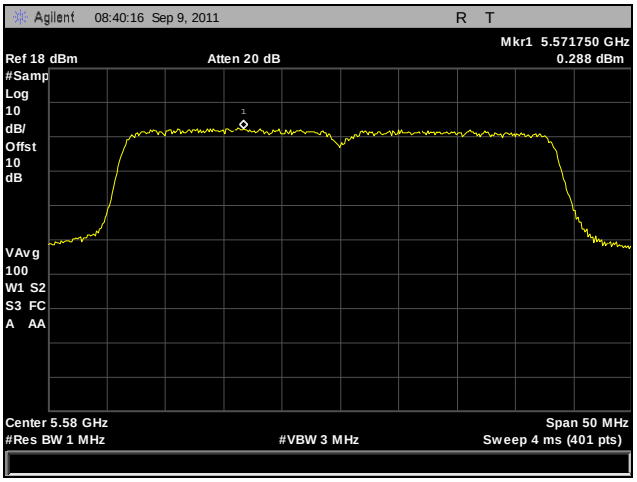
Plot 122. Peak Spectral Density, 802.11n 40 MHz, Port B, 5300 MHz



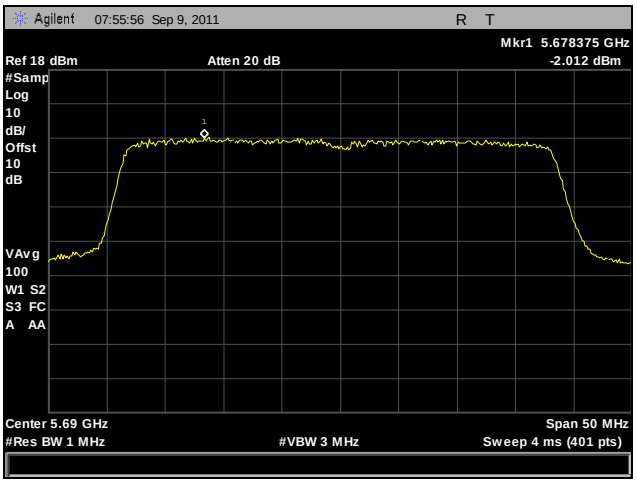
Plot 123. Peak Spectral Density, 802.11n 40 MHz, Port B, 5310 MHz



Plot 124. Peak Spectral Density, 802.11n 40 MHz, Port B, 5510 MHz



Plot 125. Peak Spectral Density, 802.11n 40 MHz, Port B, 5580 MHz



Plot 126. Peak Spectral Density, 802.11n 40 MHz, Port B, 5690 MHz

Electromagnetic Compatibility Criteria for Intentional Radiators

§ 15.407(a)(6) Peak Excursion Ratio

Test Requirements: **§ 15.407(a)(6):** For digitally modulated systems, the peak excursion of the modulation envelope to the peak transmit power shall not exceed 13dB across any 1MHz bandwidth of the emission bandwidth whichever is less.

Test Procedure: The method of measurement from 789033 D01 UNII General Test Procedures v01 was used. The EUT was connected directly to the spectrum analyzer through cabling and attenuation. The 1st trace on the spectrum analyzer was set to RBW=1MHz, VBW=3MHz. The peak detector mode was used and the trace max held. The 2nd trace on the spectrum analyzer was set to a RBW=1MHz, VBW=30 KHz. The detector mode was set to sample detector.

The Peak Excursion Ratio was determined from the difference between the maximum found in each trace.

Test Results: Equipment complies with the peak excursion ratio limits of **§ 15.407(a)(6).** The peak excursion ratio was determined from plots on the following page(s).

Test Engineer(s): Jeff Pratt

Test Date(s): 09/09/11

Peak Excursion Ration				
Mode	**Frequency (MHz)**	**Excursion Ratio (dB)**	**Limit (dBm)**	**Margin (dB)**
802.11a	5260	11.2	13	-1.8
	5300	11.02	13	-1.98
	5320	10.71	13	-2.29
	5500	10.34	13	-2.66
	5580	10.38	13	-2.62
	5700	10.28	13	-2.72

Table 24. Peak Excursion Ration, Test Results, 802.11a

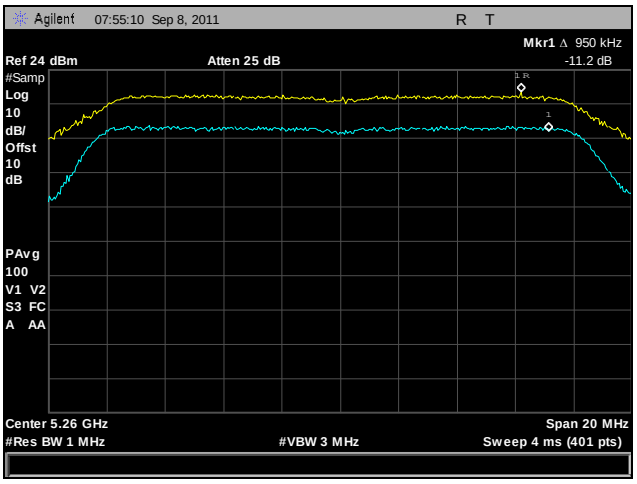
Peak Excursion Ration				
Mode	**Frequency (MHz)**	**Excursion Ratio (dB)**	**Limit (dBm)**	**Margin (dB)**
802.11n 20MHz Port A	5260	10.47	13	2.53
	5300	10.01	13	2.99
	5320	10.48	13	2.52
	5500	11.12	13	1.88
	5580	10.16	13	2.84
	5700	10.13	13	2.87
802.11n 20MHz Port B	5260	11.56	13	1.44
	5300	10.85	13	2.15
	5320	10.88	13	2.12
	5500	10.77	13	2.23
	5580	10.31	13	2.69
	5700	10.99	13	2.01

Table 25. Peak Excursion Ration, Test Results, 802.11n 20 MHz

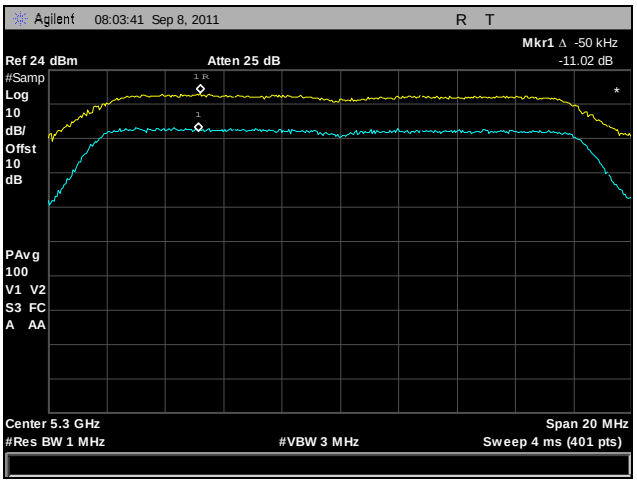
Peak Excursion Ration				
Mode	**Frequency (MHz)**	**Excursion Ratio (dB)**	**Limit (dBm)**	**Margin (dB)**
802.11n 40MHz Port A	5270	9.825	13	3.175
	5300	10.079	13	2.921
	5310	9.531	13	3.469
	5510	10.373	13	2.627
	5580	9.437	13	3.563
	5690	10.240	13	2.76
802.11n 40MHz Port B	5270	10.143	13	2.857
	5300	9.999	13	3.001
	5310	10.624	13	2.376
	5510	10.170	13	2.83
	5580	9.956	13	3.044
	5690	10.151	13	2.849

Table 26. Peak Excursion Ration, Test Results, 802.11n 40 MHz

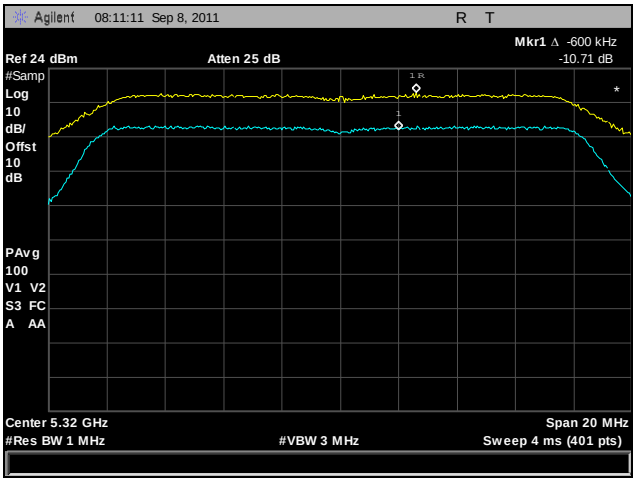
Peak Excursion Ratio, 802.11a



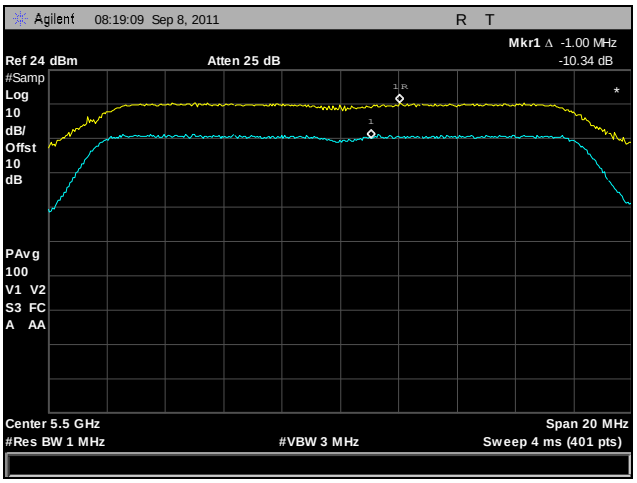
Plot 127. Peak Excursion, 802.11a, 5260 MHz



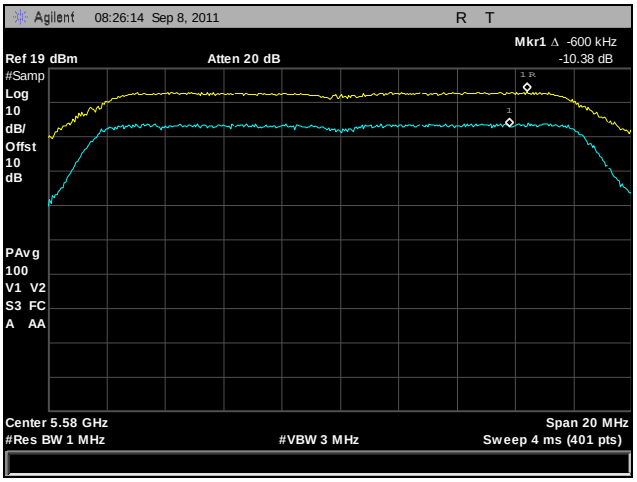
Plot 128. Peak Excursion, 802.11a, 5300 MHz



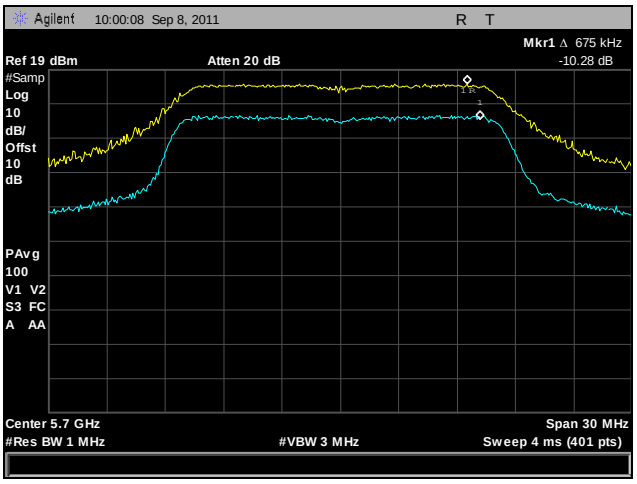
Plot 129. Peak Excursion, 802.11a, 5320 MHz



Plot 130. Peak Excursion, 802.11a, 5500 MHz

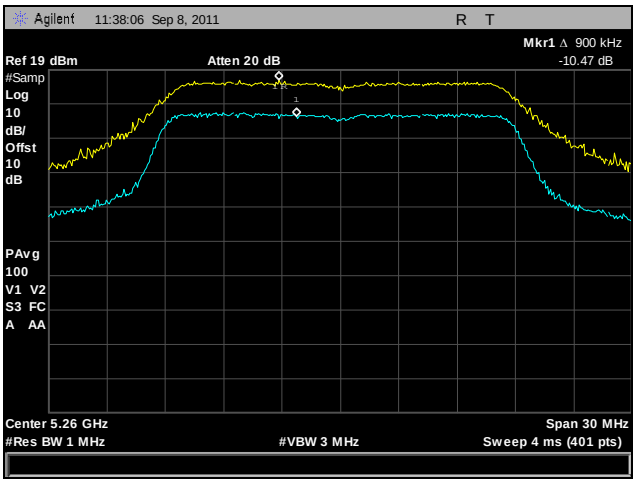


Plot 131. Peak Excursion, 802.11a, 5580 MHz

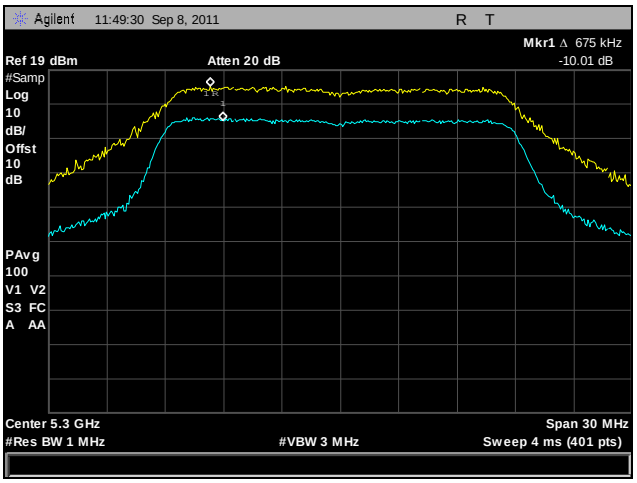


Plot 132. Peak Excursion, 802.11a, 5700 MHz

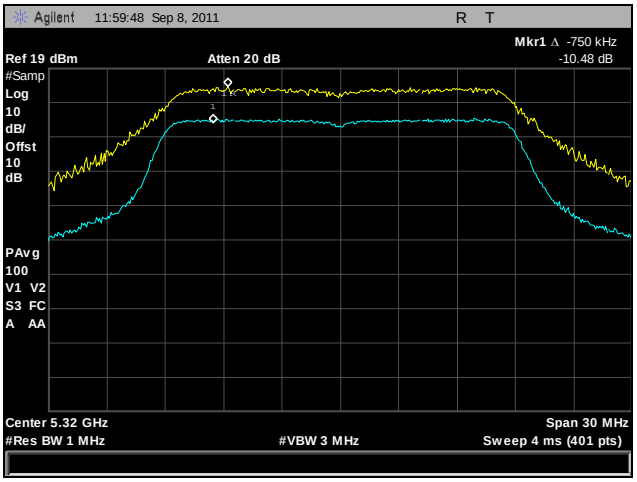
Peak Excursion Ratio, 802.11n 20 MHz, Port A



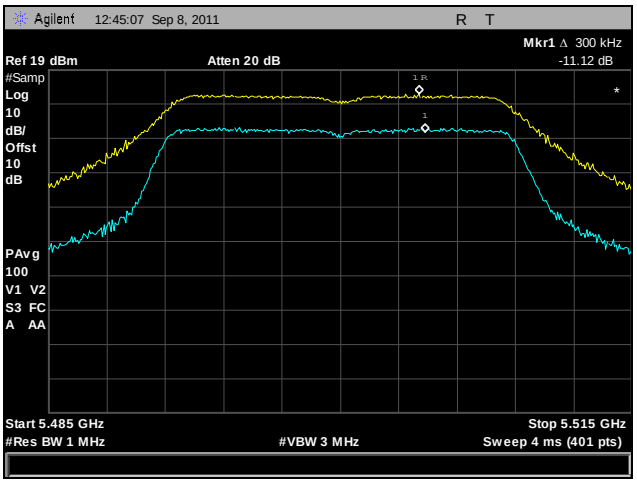
Plot 133. Peak Excursion, 802.11n 20 MHz, Port A, 5260 MHz



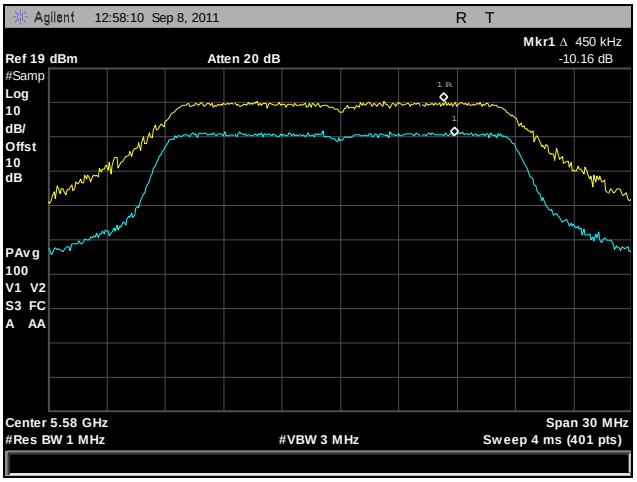
Plot 134. Peak Excursion, 802.11n 20 MHz, Port A, 5300 MHz



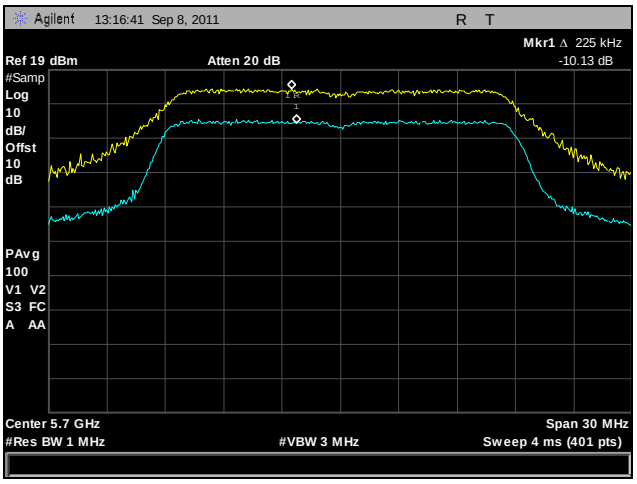
Plot 135. Peak Excursion, 802.11n 20 MHz, Port A, 5320 MHz



Plot 136. Peak Excursion, 802.11n 20 MHz, Port A, 5500 MHz

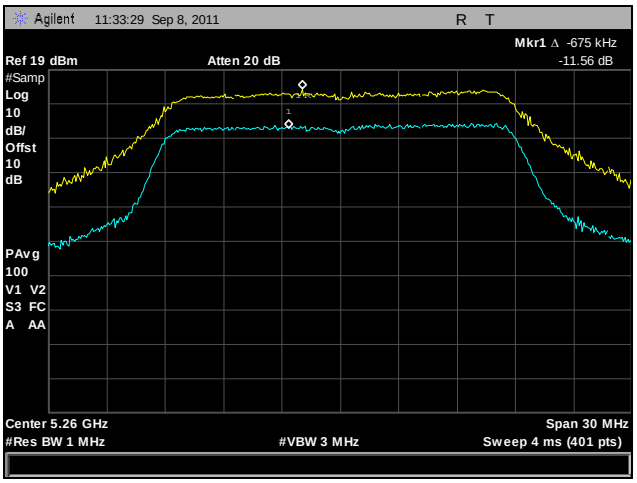


Plot 137. Peak Excursion, 802.11n 20 MHz, Port A, 5580 MHz

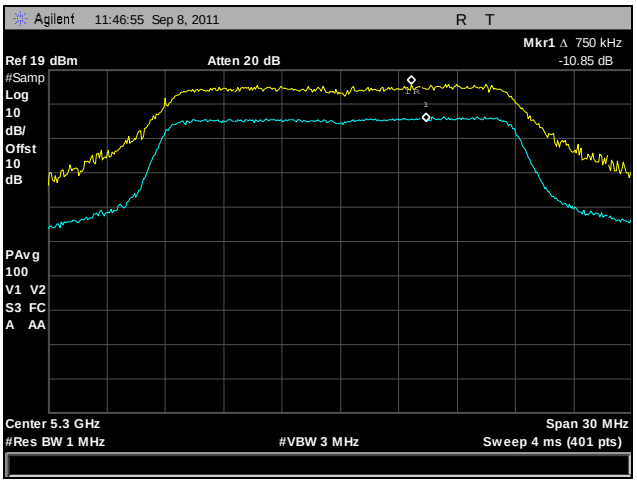


Plot 138. Peak Excursion, 802.11n 20 MHz, Port A, 5700 MHz

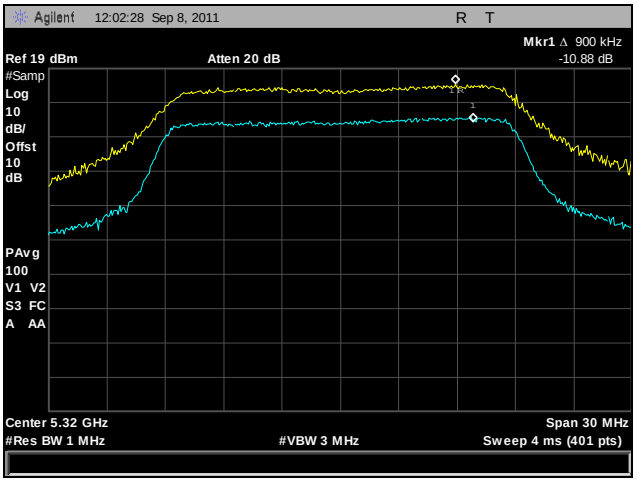
Peak Excursion Ratio, 802.11n 20 MHz, Port B



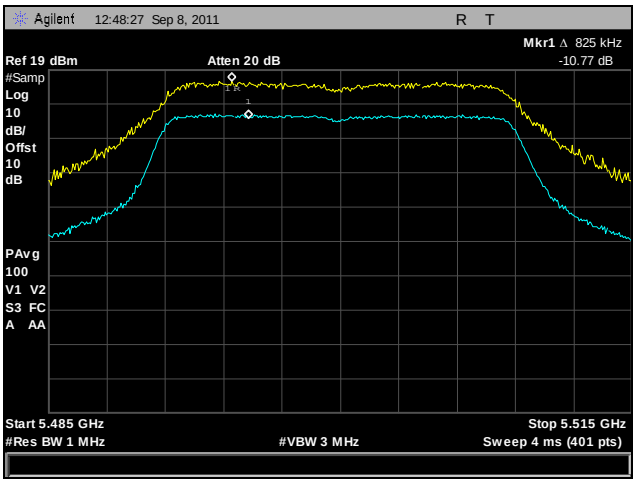
Plot 139. Peak Excursion, 802.11n 20 MHz, Port B, 5260 MHz



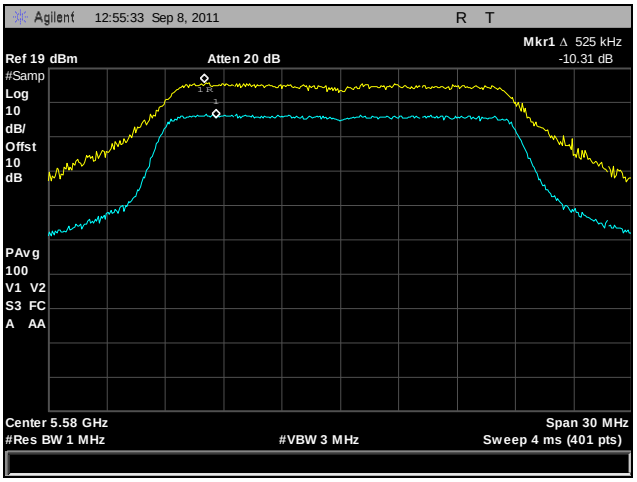
Plot 140. Peak Excursion, 802.11n 20 MHz, Port B, 5300 MHz



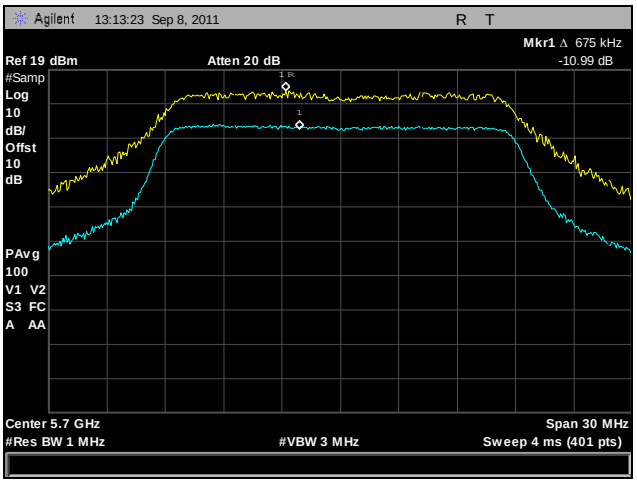
Plot 141. Peak Excursion, 802.11n 20 MHz, Port B, 5320 MHz



Plot 142. Peak Excursion, 802.11n 20 MHz, Port B, 5500 MHz

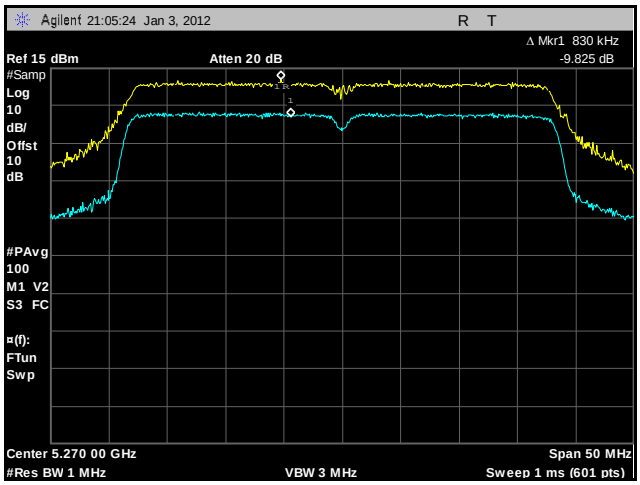


Plot 143. Peak Excursion, 802.11n 20 MHz, Port B, 5580 MHz

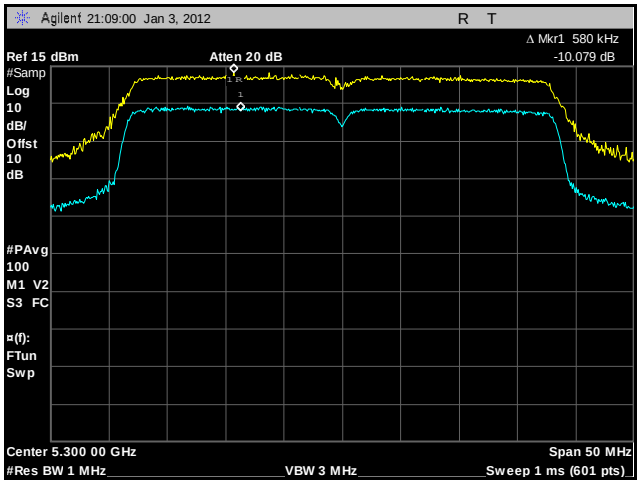


Plot 144. Peak Excursion, 802.11n 20 MHz, Port B, 5700 MHz

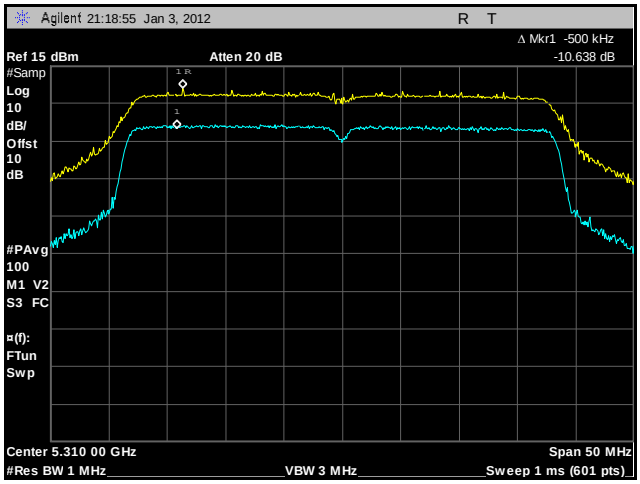
Peak Excursion Ratio, 802.11n 40 MHz, Port A



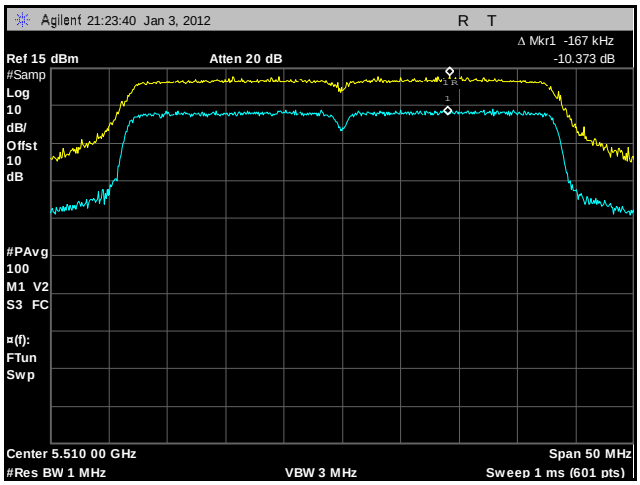
Plot 145. Peak Excursion, 802.11n 40 MHz, Port A, 5270 MHz



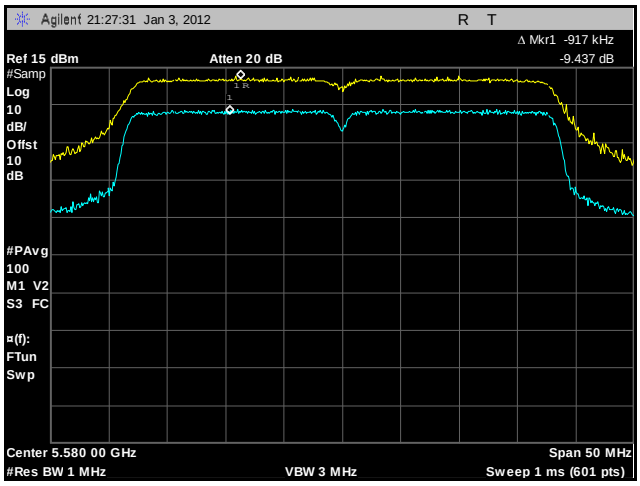
Plot 146. Peak Excursion, 802.11n 40 MHz, Port A, 5300 MHz



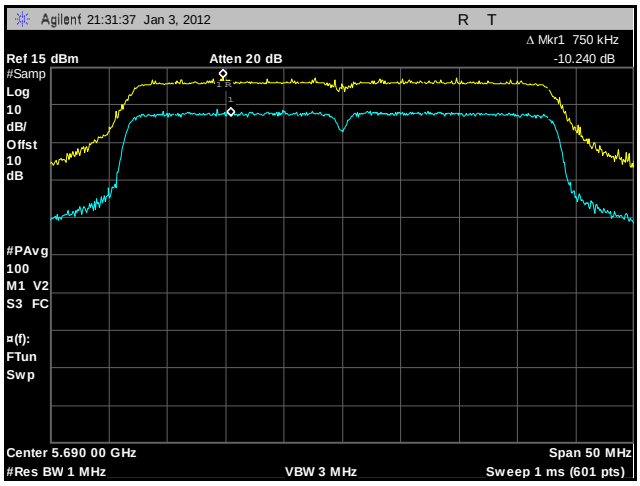
Plot 147. Peak Excursion, 802.11n 40 MHz, Port A, 5310 MHz



Plot 148. Peak Excursion, 802.11n 40 MHz, Port A, 5510 MHz

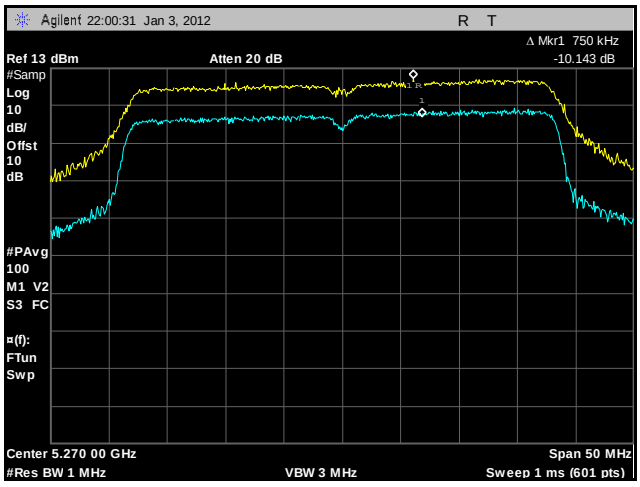


Plot 149. Peak Excursion, 802.11n 40 MHz, Port A, 5580 MHz

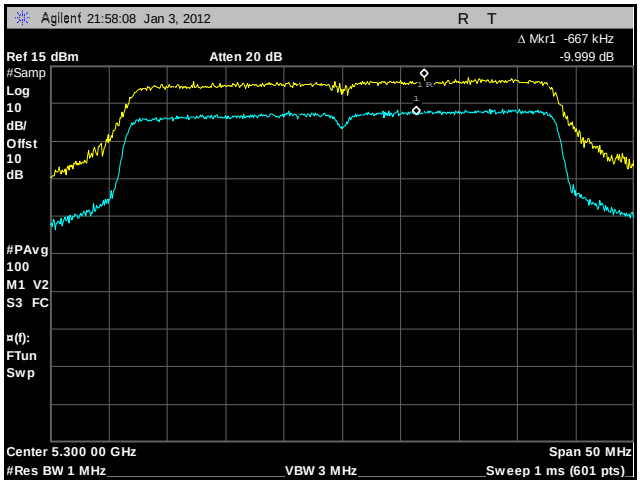


Plot 150. Peak Excursion, 802.11n 40 MHz, Port A, 5690 MHz

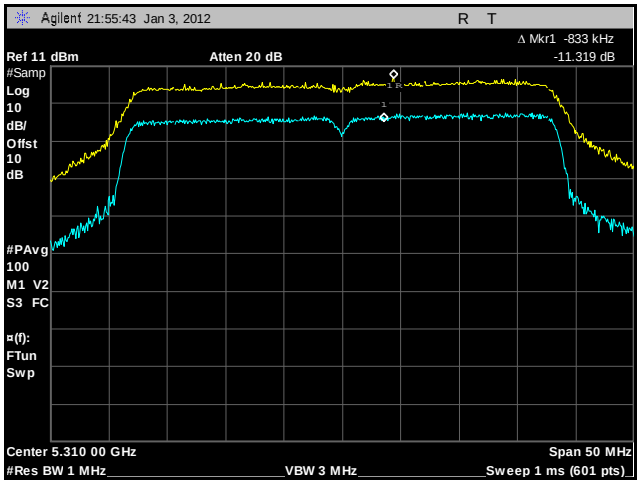
Peak Excursion Ratio, 802.11n 40 MHz, Port B



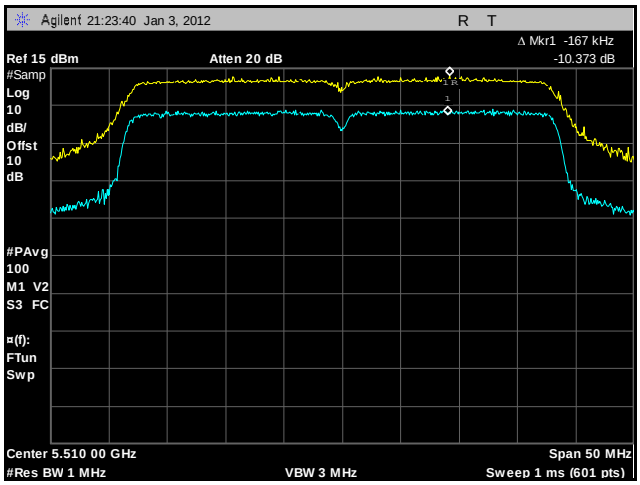
Plot 151. Peak Excursion, 802.11n 40 MHz, Port B, 5270 MHz



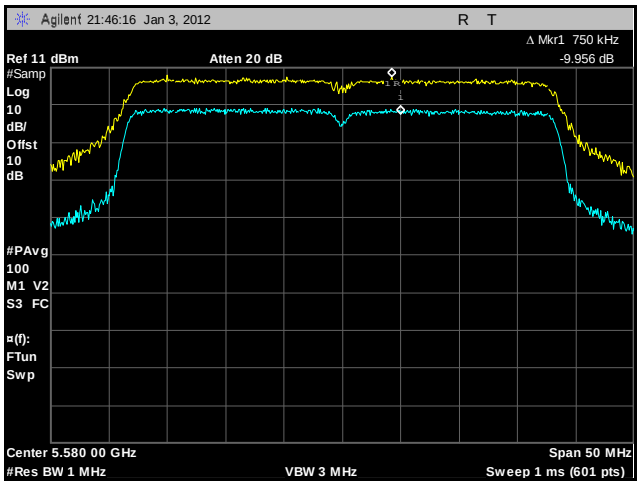
Plot 152. Peak Excursion, 802.11n 40 MHz, Port B, 5300 MHz



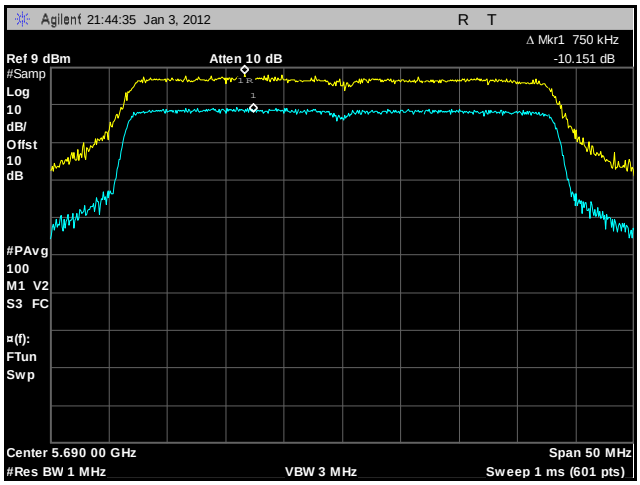
Plot 153. Peak Excursion, 802.11n 40 MHz, Port B, 5310 MHz



Plot 154. Peak Excursion, 802.11n 40 MHz, Port B, 5510 MHz



Plot 155. Peak Excursion, 802.11n 40 MHz, Port B, 5580 MHz



Plot 156. Peak Excursion, 802.11n 40 MHz, Port B, 5690 MHz

Electromagnetic Compatibility Criteria for Intentional Radiators

§ 15.407(b)(1),(2), (5), (6) Undesirable Emissions

Test Requirements: **§ 15.407(b)(1),(2), (5), (6)**; **§15.205:** Emissions outside the frequency band.

§ 15.407(b)(1): In any 1MHz bandwidth outside the frequency band 5.15-5.25GHz in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power shall not exceed -27dBm.

§ 15.407(b)(2): In any 1MHz bandwidth outside the frequency band 5.25-5.35GHz in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power shall not exceed -27dBm.

§ 15.407(b)(6): Radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a).

§15.205(a): Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090–0.110----------	16.42–16.423	399.9–410	4.5–5.15
[1] 0.495–0.505----------	16.69475–16.69525	608–614	5.35–5.46
2.1735–2.1905----------	16.80425–16.80475	960–1240	7.25–7.75
4.125–4.128----------	25.5–25.67	1300–1427	8.025–8.5
4.17725–4.17775----------	37.5–38.25	1435–1626.5	9.0–9.2
4.20725–4.20775----------	73–74.6	1645.5–1646.5	9.3–9.5
6.215–6.218----------	74.8–75.2	1660–1710	10.6–12.7
6.26775–6.26825----------	108–121.94	1718.8–1722.2	13.25–13.4
6.31175–6.31225----------	123–138	2200–2300	14.47–14.5
8.291–8.294----------	149.9–150.05	2310–2390	15.35–16.2
8.362–8.366----------	156.52475–156.52525	2483.5–2500	17.7–21.4
8.37625–8.38675----------	156.7–156.9	2655–2900	22.01–23.12
8.41425–8.41475----------	162.0125–167.17	3260–3267	23.6–24.0
12.29–12.293----------	167.72–173.2	3332–3339	31.2–31.8
12.51975–12.52025----------	240–285	3345.8–3358 36.	43–36.5
12.57675–12.57725----------	322–335.4	3600–4400	([2])

Table 27. Restricted Bands of Operation

Test Procedure: The EUT was placed on a 0.8m acrylic table inside a semi-anechoic chamber. The transmitter was set to transmit on low, mid, and high channels. The table was rotated 360 degrees and the height of the receiving antenna was varied between 1m and 4m to maximize spurious emissions.

For frequencies between 30 MHz and 1 GHz, a peak detector was used with a resolution bandwidth of 100 kHz. For frequencies above 1 GHz, an average detector was used with a resolution bandwidth of 1 MHz. Measurements were made on frequencies up to 40 GHz. When emissions were found within restricted bands, their field strength was measured to determine compliance with the 15.209 limit.

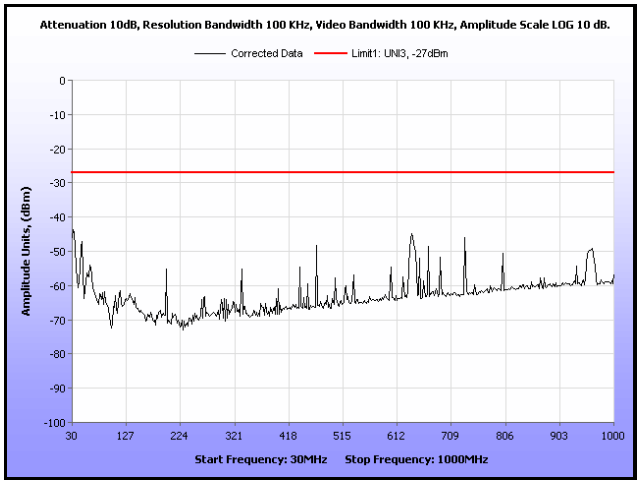
The equation EIRP= E + 20 log D – 104.77 was used to convert between field strength and equivalent isotropic radiated power (EIRP), where E is the measured field strength in dBuV/m and d was the measurement distance in meters.

Test Results: The EUT was found compliant with the requirement(s) of this section. Measured emissions were below applicable limits.

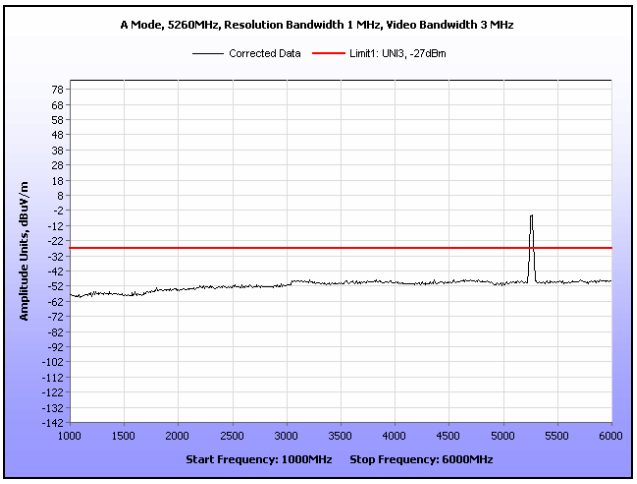
Test Engineer(s): Jeff Pratt

Test Date(s): 10/1/11

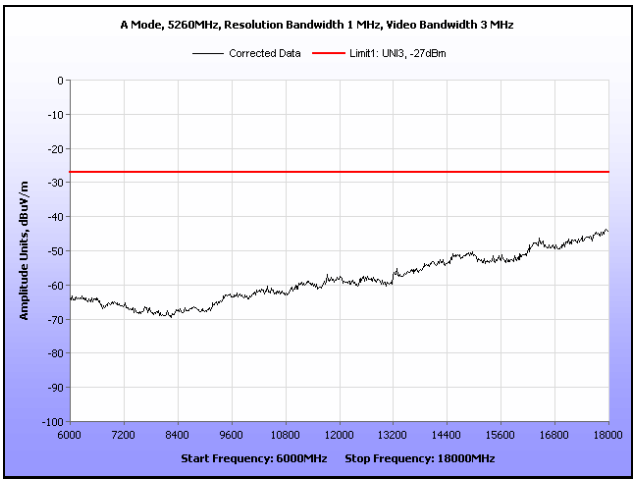
Radiated Spurious Emissions Limits, 802.11a, Omni Antenna



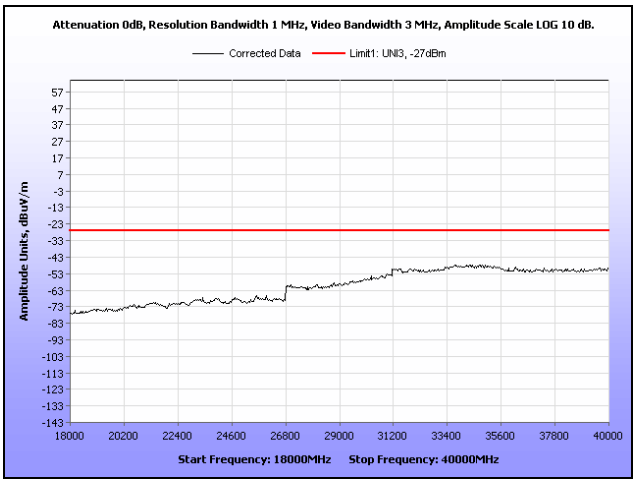
Plot 157. Radiated Spurious, 802.11a, 5260 MHz, 30 MHz – 1 GHz, Omni Antenna



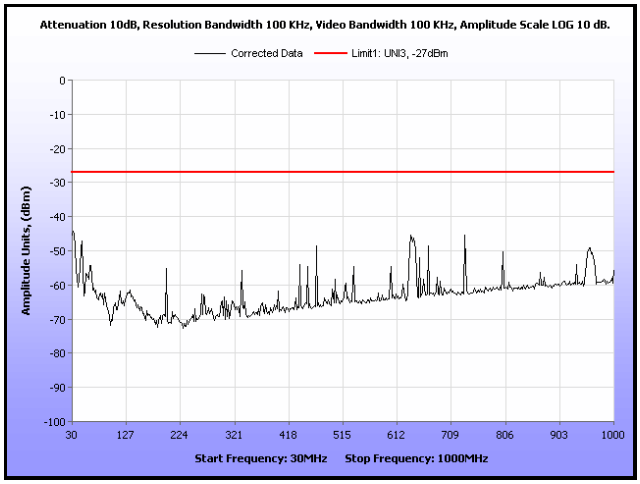
Plot 158. Radiated Spurious, 802.11a, 5260 MHz, 1 GHz – 6 GHz, Omni Antenna



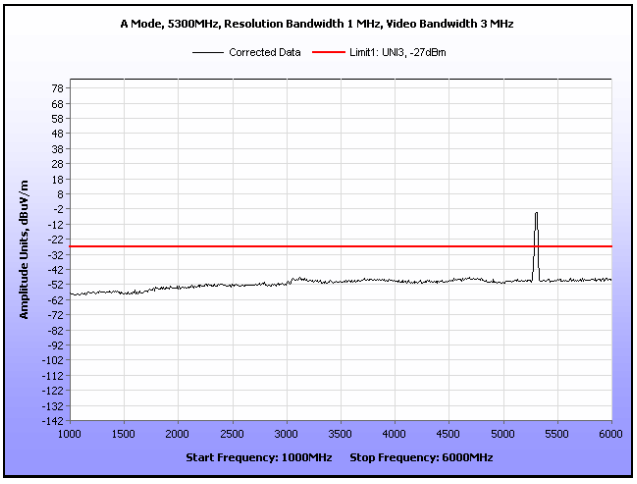
Plot 159. Radiated Spurious, 802.11a, 5260 MHz, 6 GHz – 18 GHz, Omni Antenna



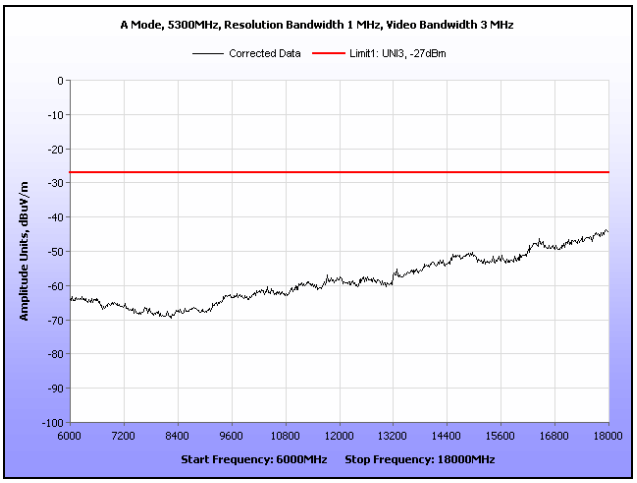
Plot 160. Radiated Spurious, 802.11a, 5260 MHz, 18 GHz – 40 GHz, Omni Antenna



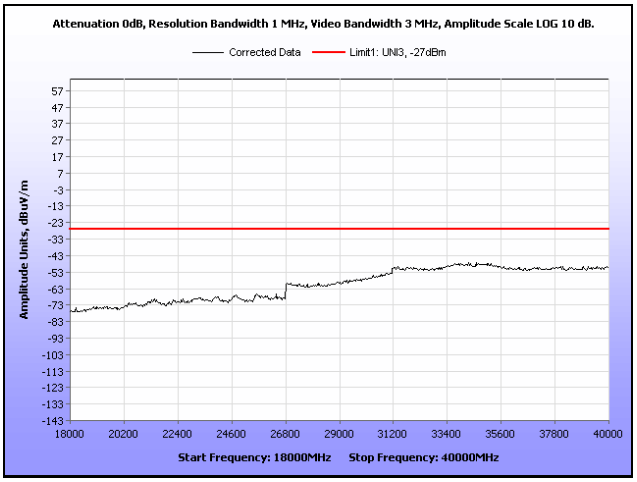
Plot 161. Radiated Spurious, 802.11a, 5300 MHz, 30 MHz – 1 GHz, Omni Antenna



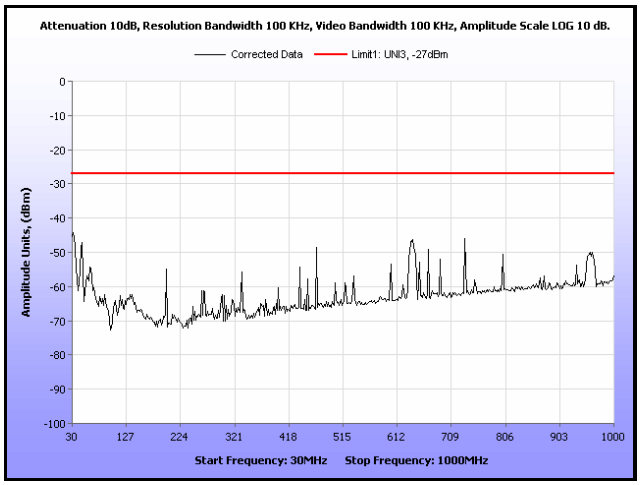
Plot 162. Radiated Spurious, 802.11a, 5300 MHz, 1 GHz – 6 GHz, Omni Antenna



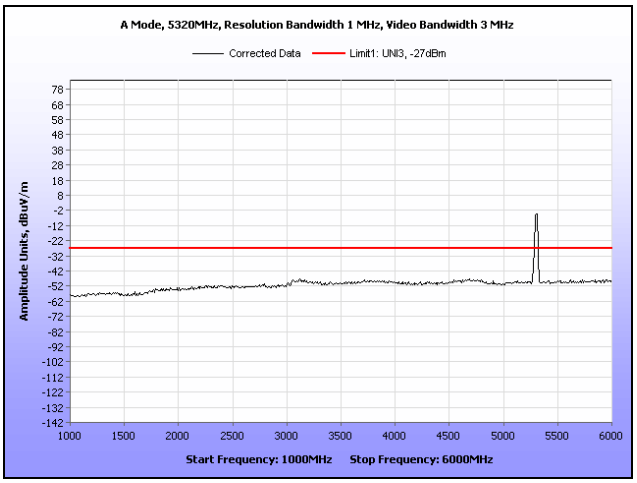
Plot 163. Radiated Spurious, 802.11a, 5300 MHz, 6 GHz – 18 GHz, Omni Antenna



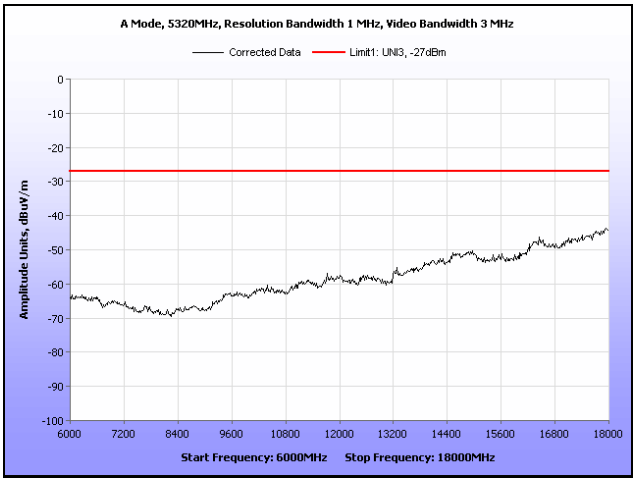
Plot 164. Radiated Spurious, 802.11a, 5300 MHz, 18 GHz – 40 GHz, Omni Antenna



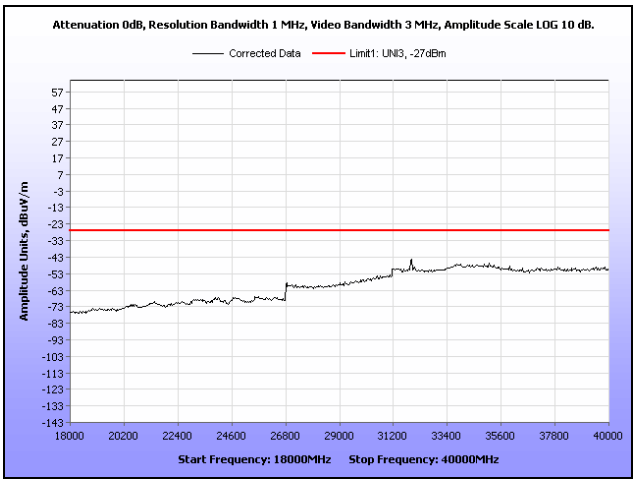
Plot 165. Radiated Spurious, 802.11a, 5320 MHz, 30 MHz – 1 GHz, Omni Antenna



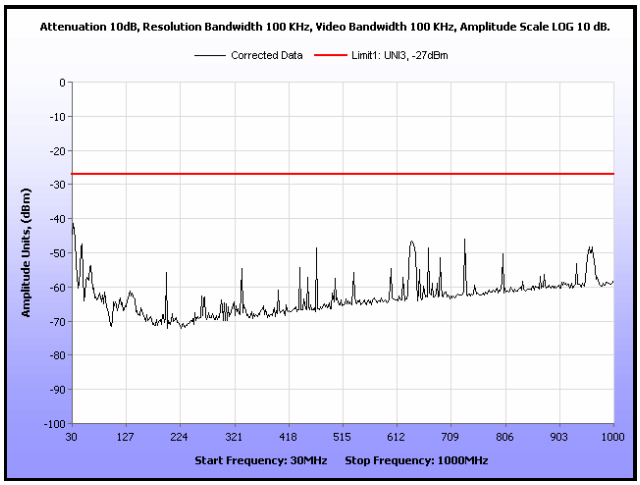
Plot 166. Radiated Spurious, 802.11a, 5320 MHz, 1 GHz – 6 GHz, Omni Antenna



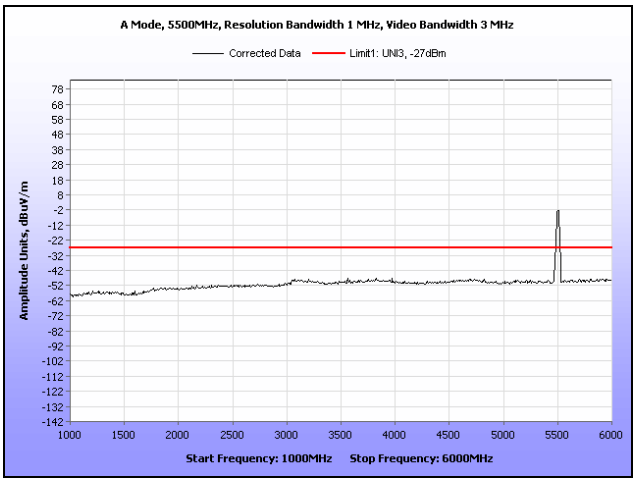
Plot 167. Radiated Spurious, 802.11a, 5320 MHz, 6 GHz – 18 GHz, Omni Antenna



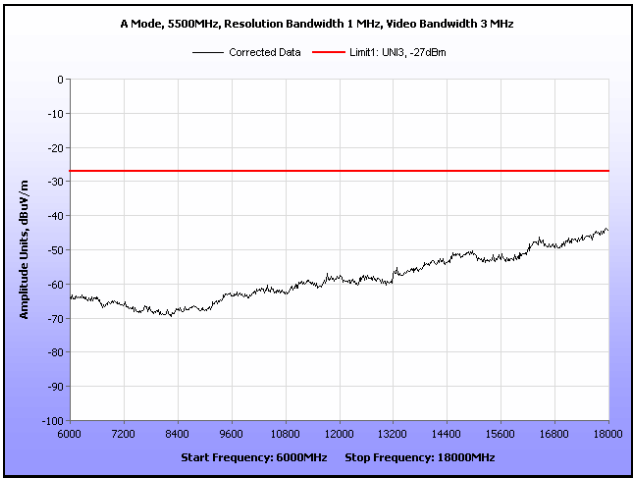
Plot 168. Radiated Spurious, 802.11a, 5320 MHz, 18 GHz – 40 GHz, Omni Antenna



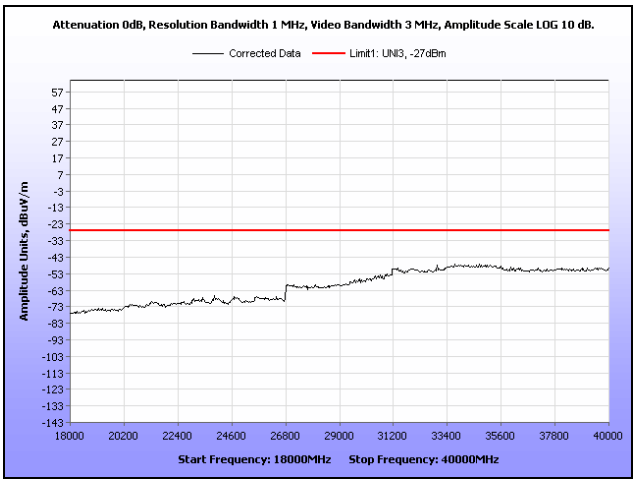
Plot 169. Radiated Spurious, 802.11a, 5500 MHz, 30 MHz – 1 GHz, Omni Antenna



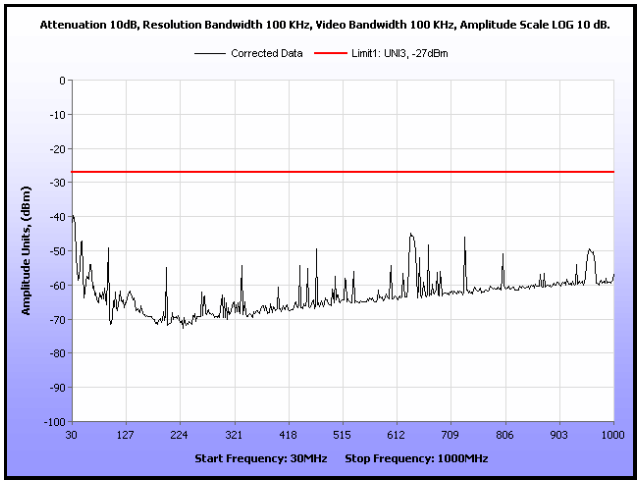
Plot 170. Radiated Spurious, 802.11a, 5500 MHz, 1 GHz – 6 GHz, Omni Antenna



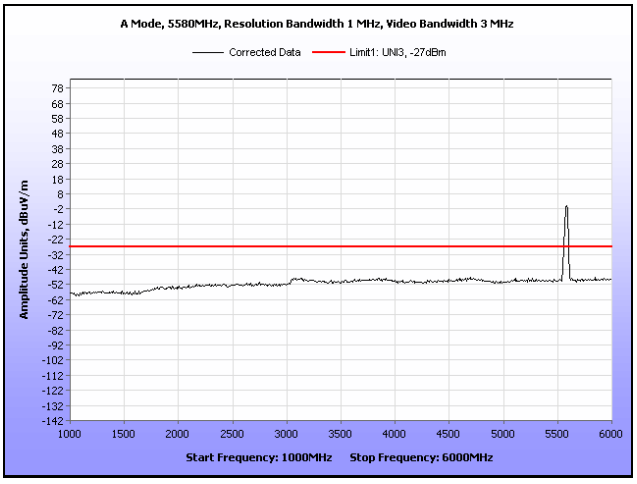
Plot 171. Radiated Spurious, 802.11a, 5500 MHz, 6 GHz – 18 GHz, Omni Antenna



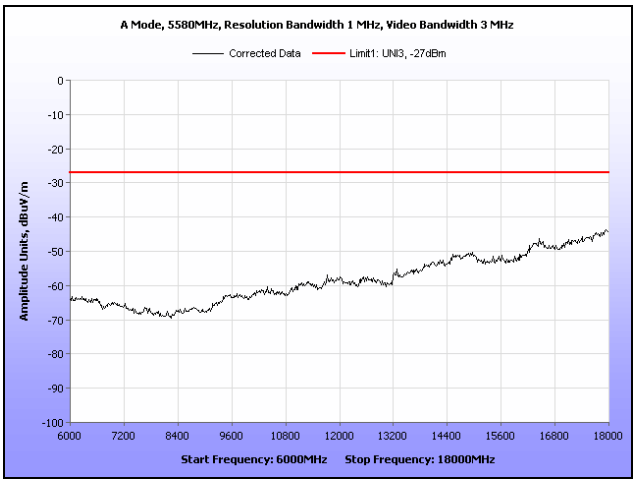
Plot 172. Radiated Spurious, 802.11a, 5500 MHz, 18 MHz – 40 GHz, Omni Antenna



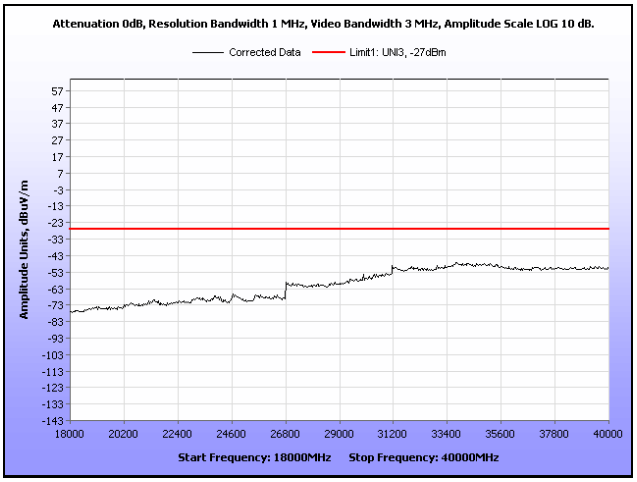
Plot 173. Radiated Spurious, 802.11a, 5580 MHz, 30 MHz – 1 GHz, Omni Antenna



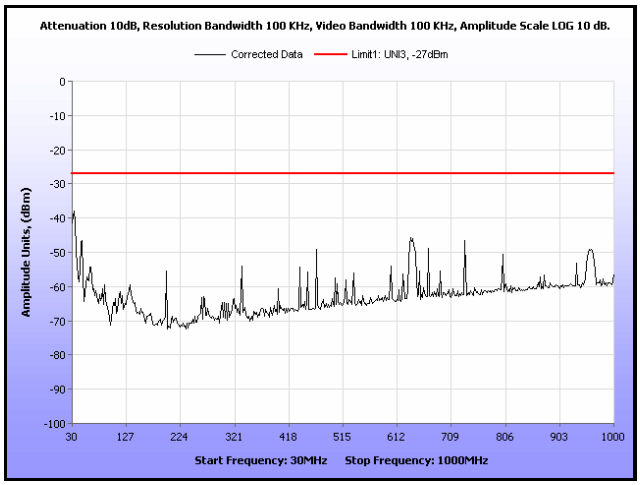
Plot 174. Radiated Spurious, 802.11a, 5580 MHz, 1 GHz – 6 GHz, Omni Antenna



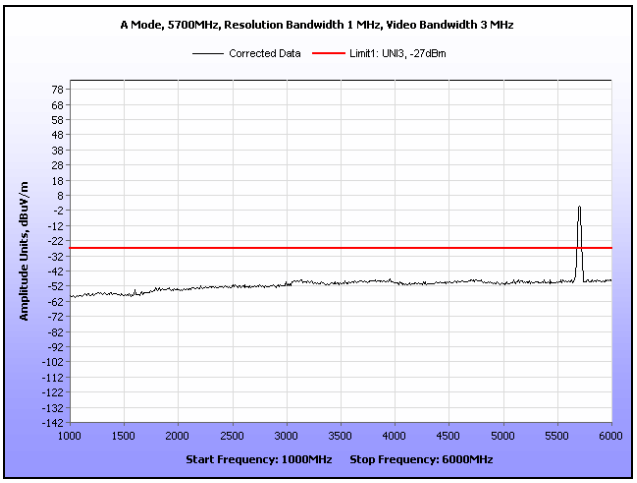
Plot 175. Radiated Spurious, 802.11a, 5580 MHz, 6 GHz – 18 GHz, Omni Antenna



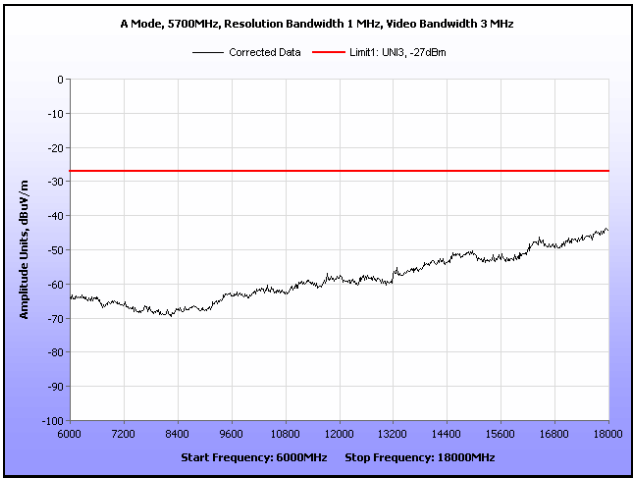
Plot 176. Radiated Spurious, 802.11a, 5580 MHz, 18 GHz – 40 GHz, Omni Antenna



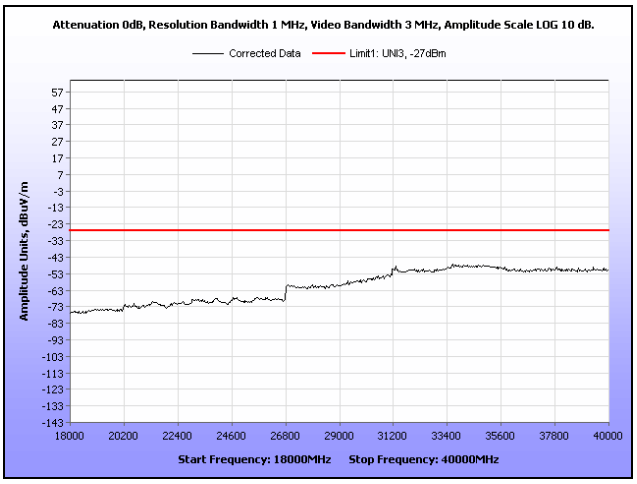
Plot 177. Radiated Spurious, 802.11a, 5700 MHz, 30 MHz – 1 GHz, Omni Antenna



Plot 178. Radiated Spurious, 802.11a, 5700 MHz, 1 GHz – 6 GHz, Omni Antenna

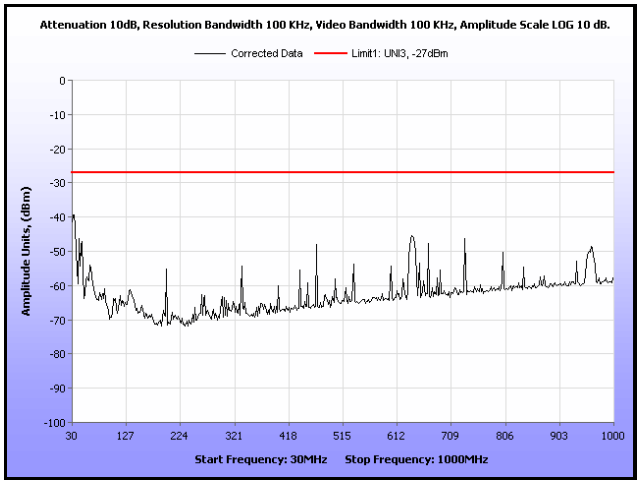


Plot 179. Radiated Spurious, 802.11a, 5700 MHz, 6 GHz – 18 GHz, Omni Antenna

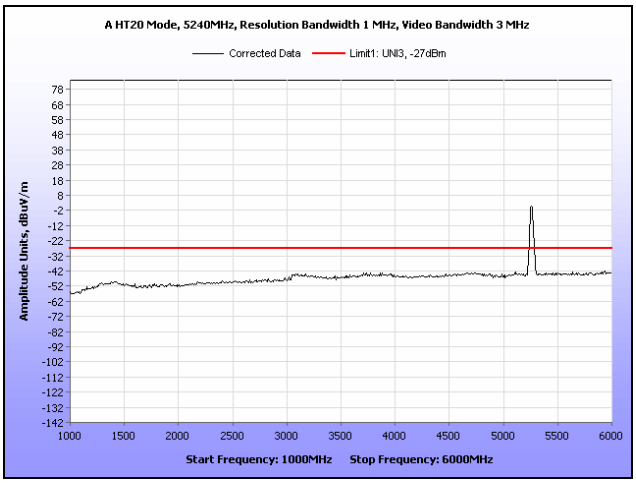


Plot 180. Radiated Spurious, 802.11a, 5700 MHz, 18 GHz – 40 GHz, Omni Antenna

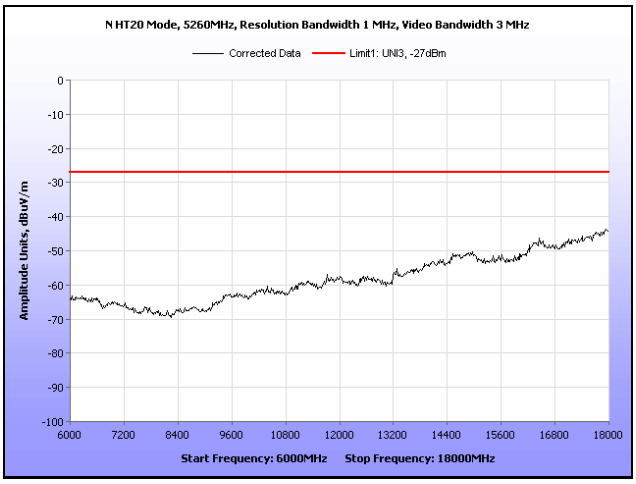
Radiated Spurious Emissions Limits, 802.11n 20 MHz, Omni Antenna



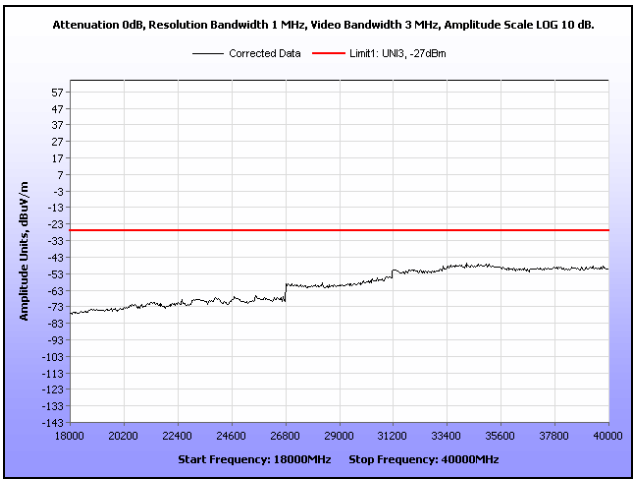
Plot 181. Radiated Spurious, 802.11n 20 MHz, 5260 MHz, 30 MHz – 1 GHz, Omni Antenna



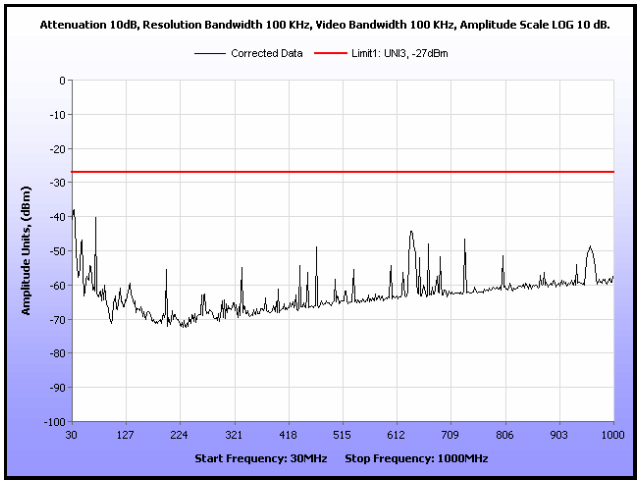
Plot 182. Radiated Spurious, 802.11n 20 MHz, 5260 MHz, 1 GHz – 6 GHz, Omni Antenna



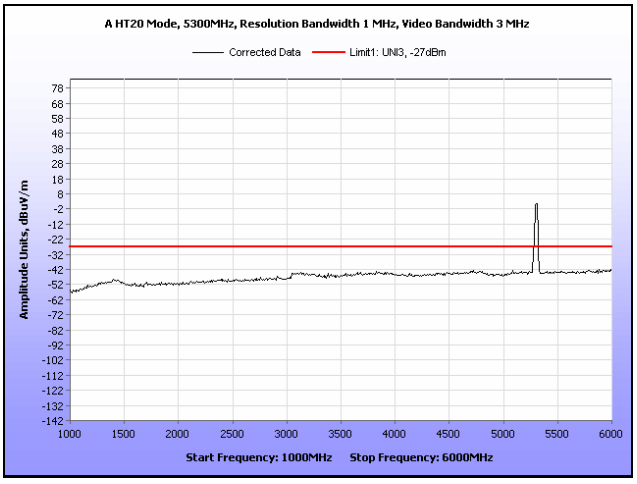
Plot 183. Radiated Spurious, 802.11n 20 MHz, 5260 MHz, 6 GHz – 18 GHz, Omni Antenna



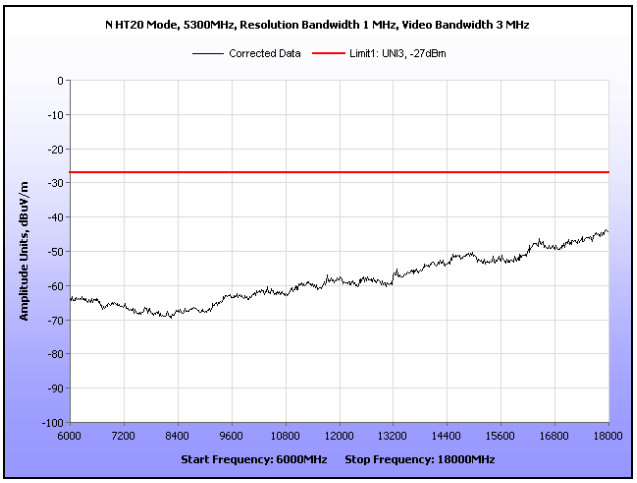
Plot 184. Radiated Spurious, 802.11n 20 MHz, 5260 MHz, 18 GHz – 40 GHz, Omni Antenna



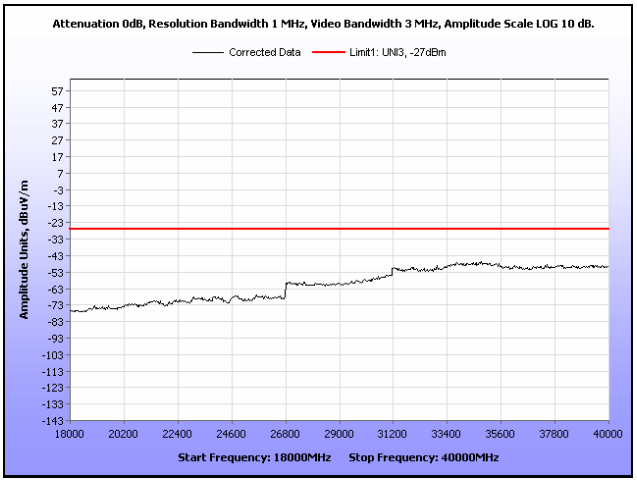
Plot 185. Radiated Spurious, 802.11n 20 MHz, 5300 MHz, 30 MHz – 1 GHz, Omni Antenna



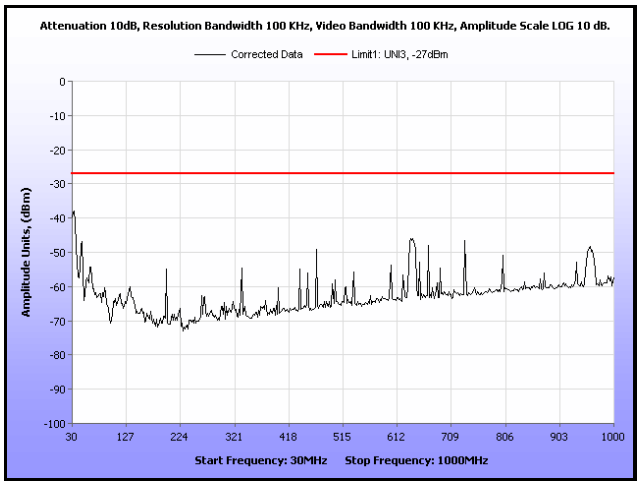
Plot 186. Radiated Spurious, 802.11n 20 MHz, 5300 MHz, 1 GHz – 6 GHz, Omni Antenna



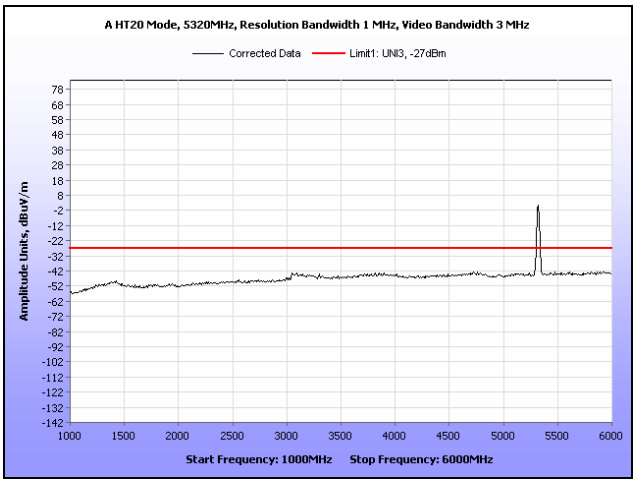
Plot 187. Radiated Spurious, 802.11n 20 MHz, 5300 MHz, 6 GHz – 18 GHz, Omni Antenna



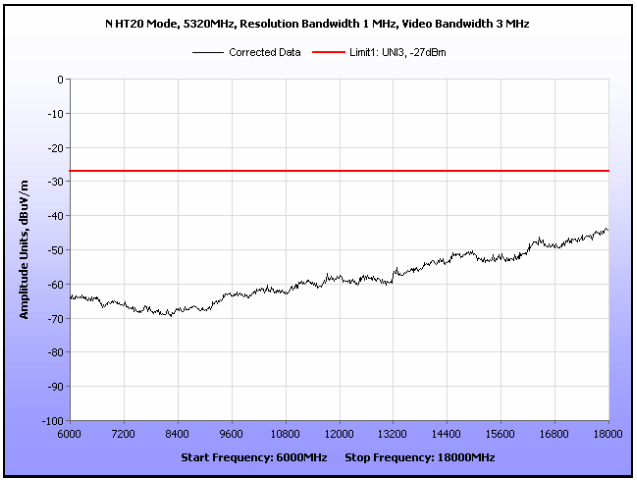
Plot 188. Radiated Spurious, 802.11n 20 MHz, 5300 MHz, 18 GHz – 40 GHz, Omni Antenna



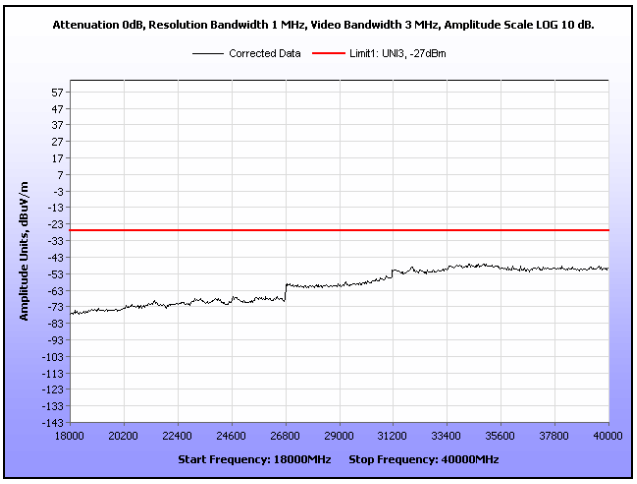
Plot 189. Radiated Spurious, 802.11n 20 MHz, 5320 MHz, 30 MHz – 1 GHz, Omni Antenna



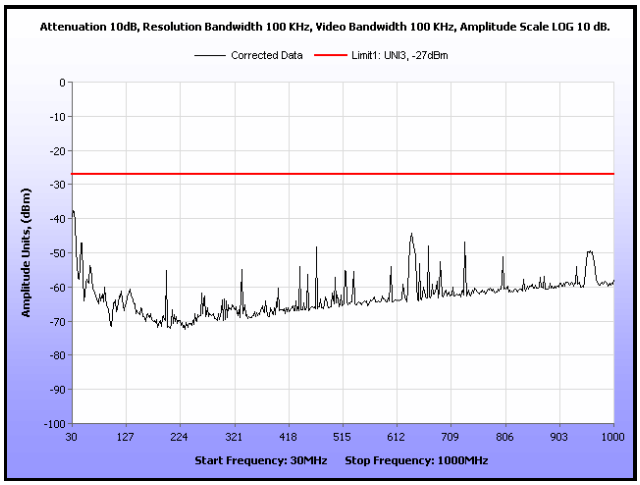
Plot 190. Radiated Spurious, 802.11n 20 MHz, 5320 MHz, 1 GHz – 6 GHz, Omni Antenna



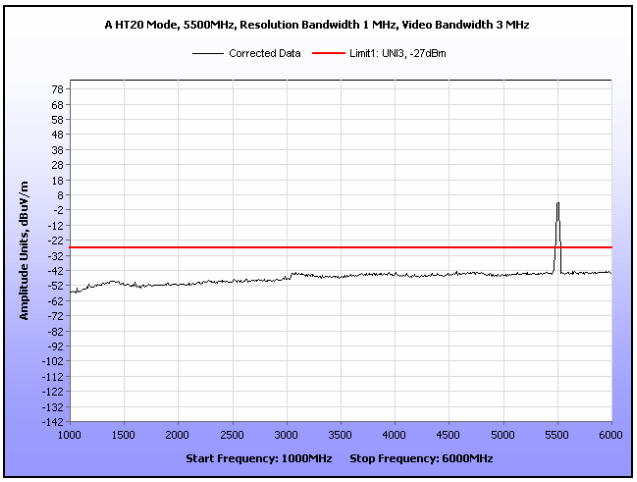
Plot 191. Radiated Spurious, 802.11n 20 MHz, 5320 MHz, 6 GHz – 18 GHz, Omni Antenna



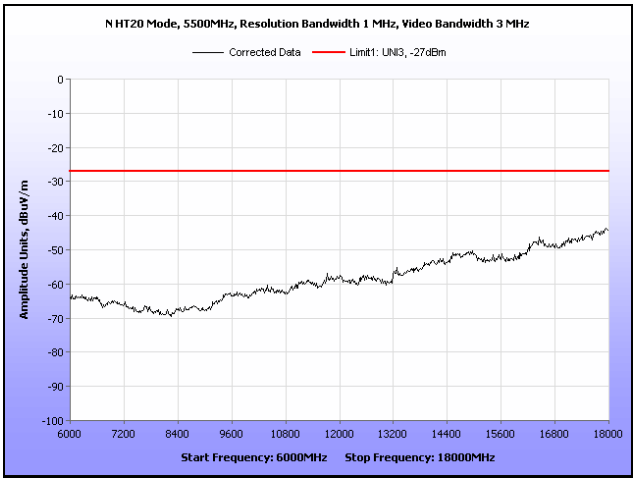
Plot 192. Radiated Spurious, 802.11n 20 MHz, 5320 MHz, 18 GHz – 40 GHz, Omni Antenna



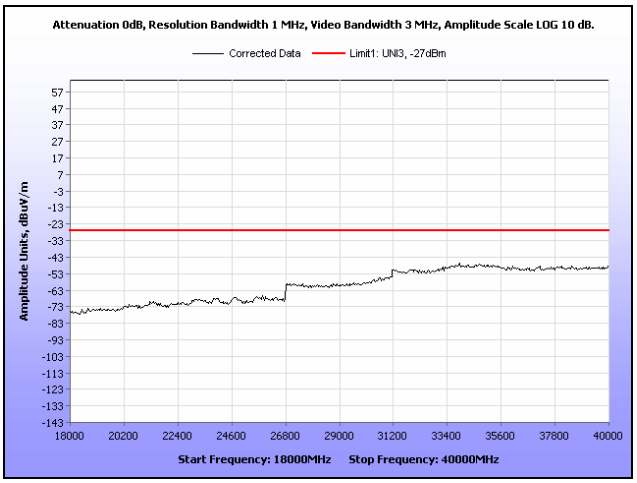
Plot 193. Radiated Spurious, 802.11n 20 MHz, 5500 MHz, 30 MHz – 1 GHz, Omni Antenna



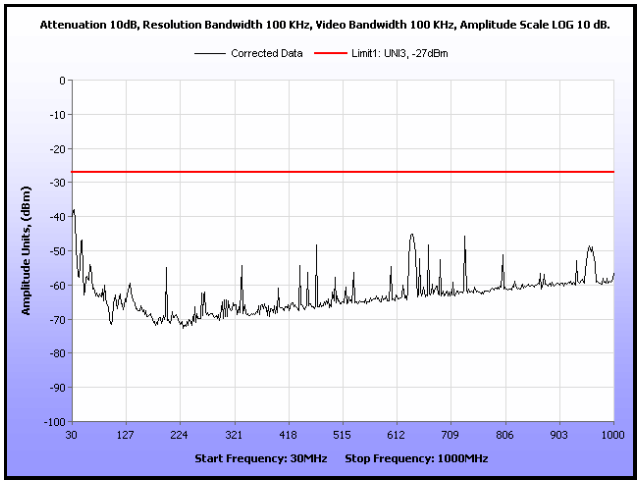
Plot 194. Radiated Spurious, 802.11n 20 MHz, 5500 MHz, 1 GHz – 6 GHz, Omni Antenna



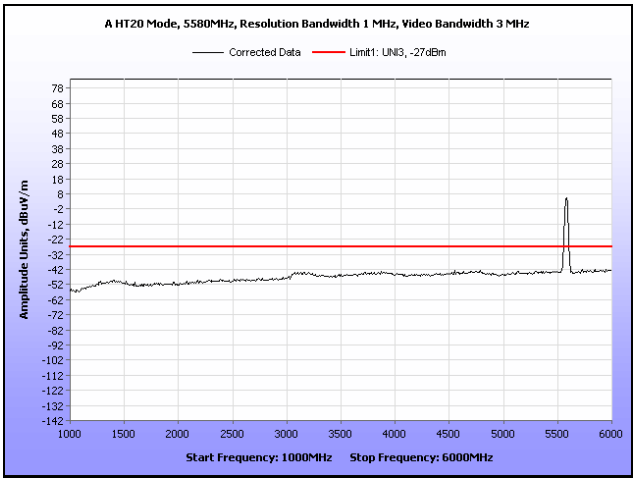
Plot 195. Radiated Spurious, 802.11n 20 MHz, 5500 MHz, 6 GHz – 18 GHz, Omni Antenna



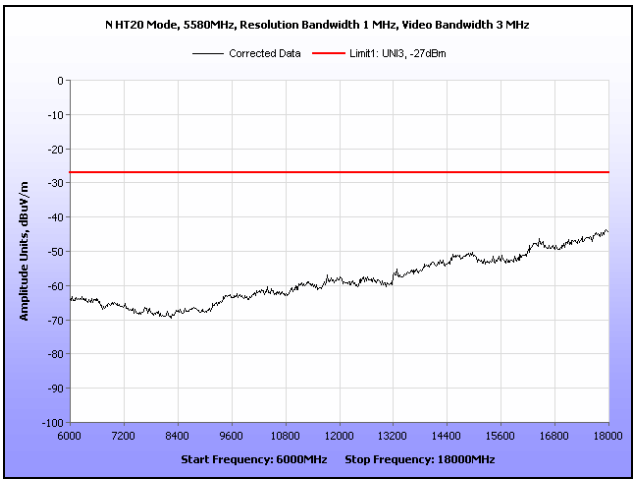
Plot 196. Radiated Spurious, 802.11n 20 MHz, 5500 MHz, 18 MHz – 40 GHz, Omni Antenna



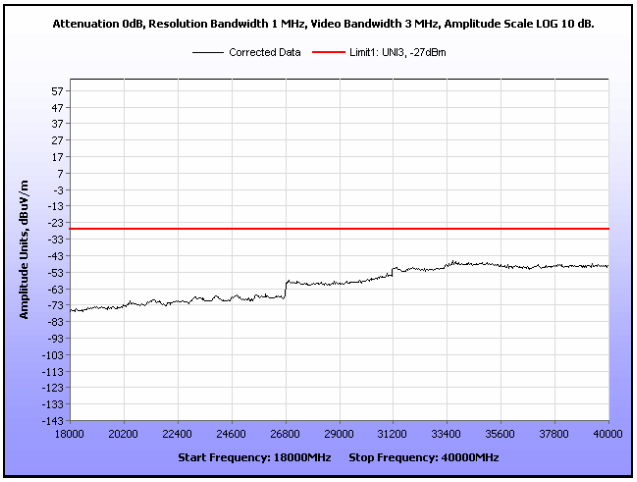
Plot 197. Radiated Spurious, 802.11n 20 MHz, 5580 MHz, 30 MHz – 1 GHz, Omni Antenna



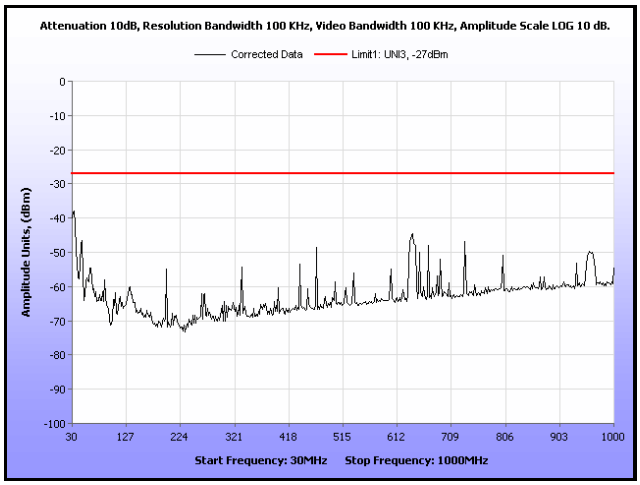
Plot 198. Radiated Spurious, 802.11n 20 MHz, 5580 MHz, 1 GHz – 6 GHz, Omni Antenna



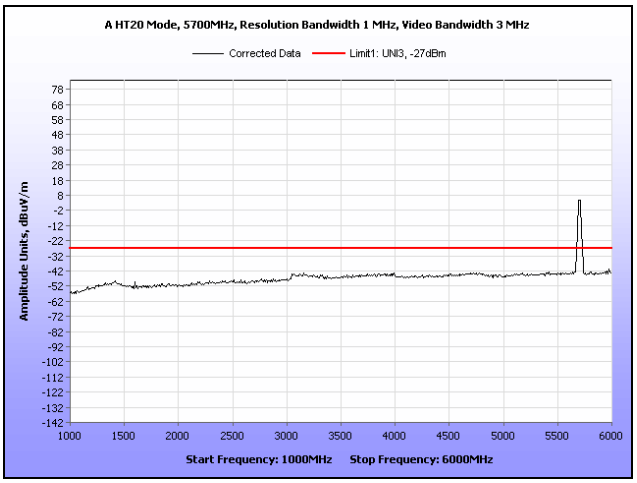
Plot 199. Radiated Spurious, 802.11n 20 MHz, 5580 MHz, 6 GHz – 18 GHz, Omni Antenna



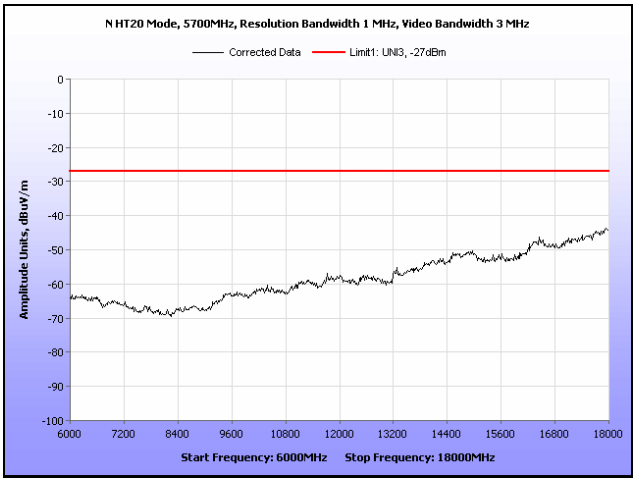
Plot 200. Radiated Spurious, 802.11n 20 MHz, 5580 MHz, 18 GHz – 40 GHz, Omni Antenna



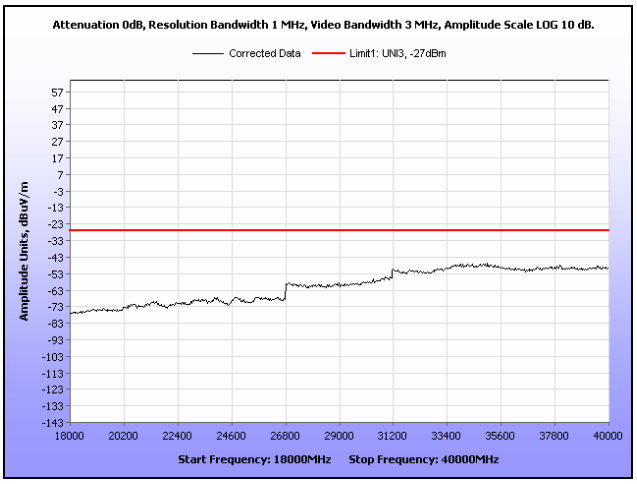
Plot 201. Radiated Spurious, 802.11n 20 MHz, 5700 MHz, 30 MHz – 1 GHz, Omni Antenna



Plot 202. Radiated Spurious, 802.11n 20 MHz, 5700 MHz, 1 GHz – 6 GHz, Omni Antenna

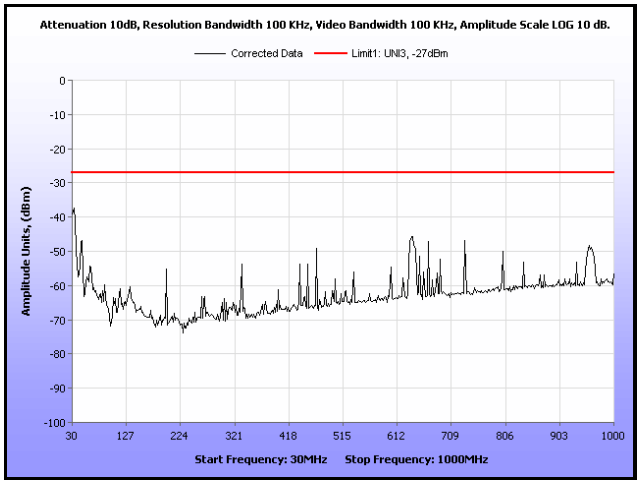


Plot 203. Radiated Spurious, 802.11n 20 MHz, 5700 MHz, 6 GHz – 18 GHz, Omni Antenna

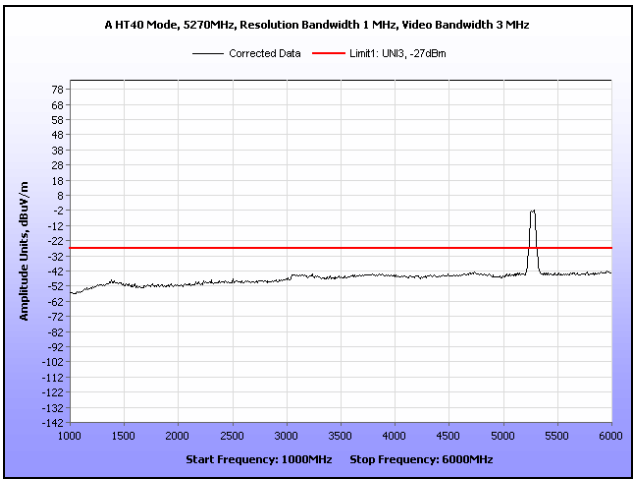


Plot 204. Radiated Spurious, 802.11n 20 MHz, 5700 MHz, 18 GHz – 40 GHz, Omni Antenna

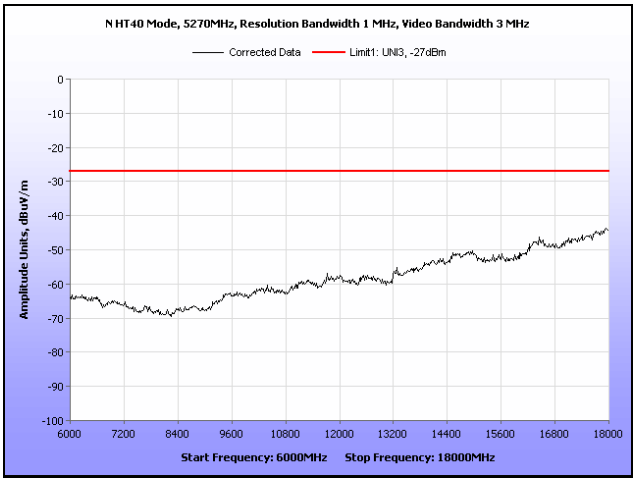
Radiated Spurious Emissions Limits, 802.11n 40 MHz, Omni Antenna



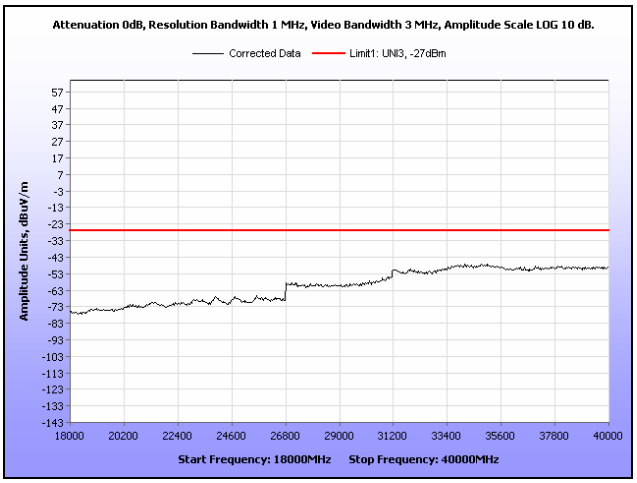
Plot 205. Radiated Spurious, 802.11n 40 MHz, 5270 MHz, 30 MHz – 1 GHz, Omni Antenna



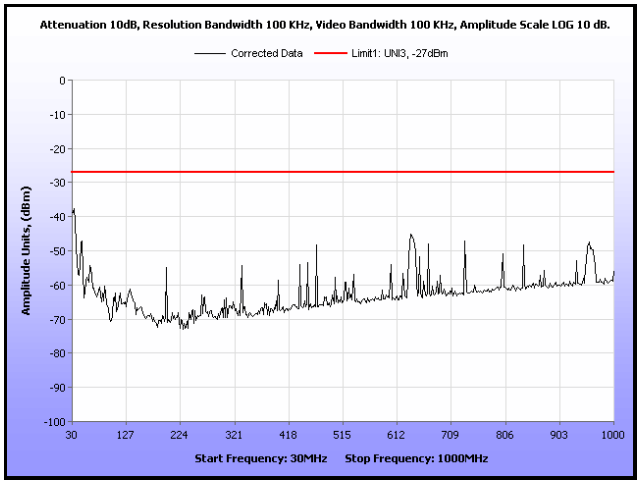
Plot 206. Radiated Spurious, 802.11n 40 MHz, 5270 MHz, 1 GHz – 6 GHz, Omni Antenna



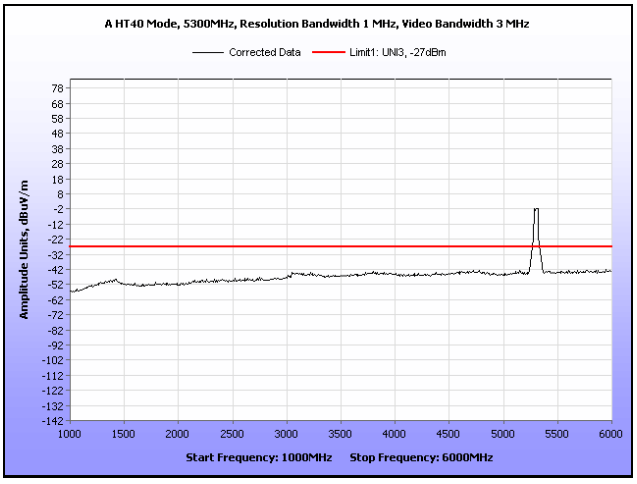
Plot 207. Radiated Spurious, 802.11n 40 MHz, 5270 MHz, 6 GHz – 18 GHz, Omni Antenna



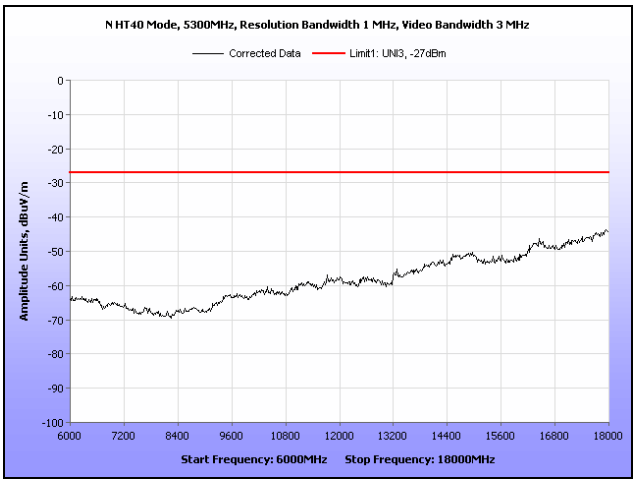
Plot 208. Radiated Spurious, 802.11n 40 MHz, 5270 MHz, 18 GHz – 40 GHz, Omni Antenna



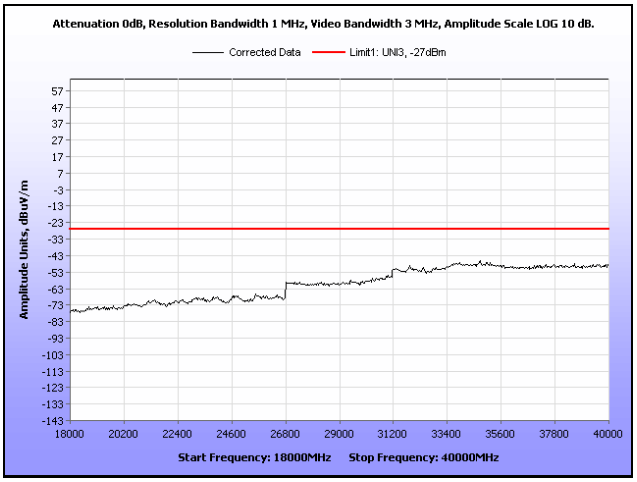
Plot 209. Radiated Spurious, 802.11n 40 MHz, 5300 MHz, 30 MHz – 1 GHz, Omni Antenna



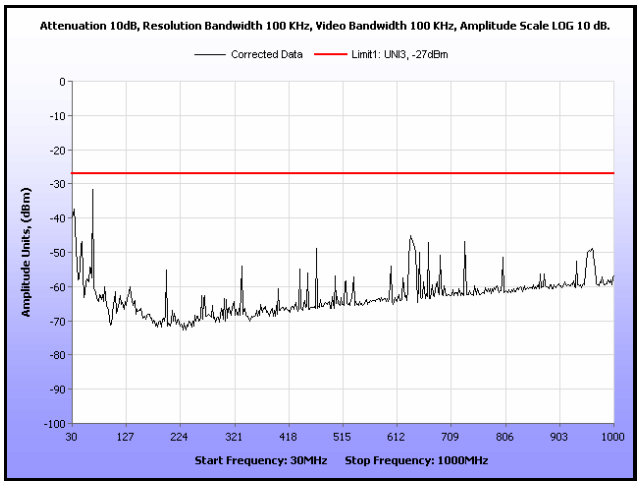
Plot 210. Radiated Spurious, 802.11n 40 MHz, 5300 MHz, 1 GHz – 6 GHz, Omni Antenna



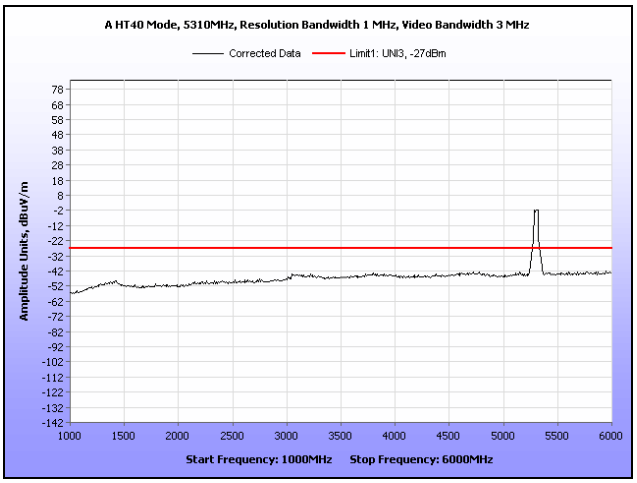
Plot 211. Radiated Spurious, 802.11n 40 MHz, 5300 MHz, 6 GHz – 18 GHz, Omni Antenna



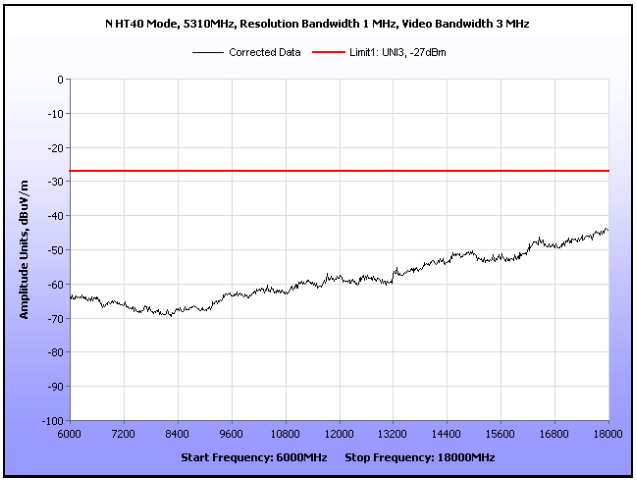
Plot 212. Radiated Spurious, 802.11n 40 MHz, 5300 MHz, 18 GHz – 40 GHz, Omni Antenna



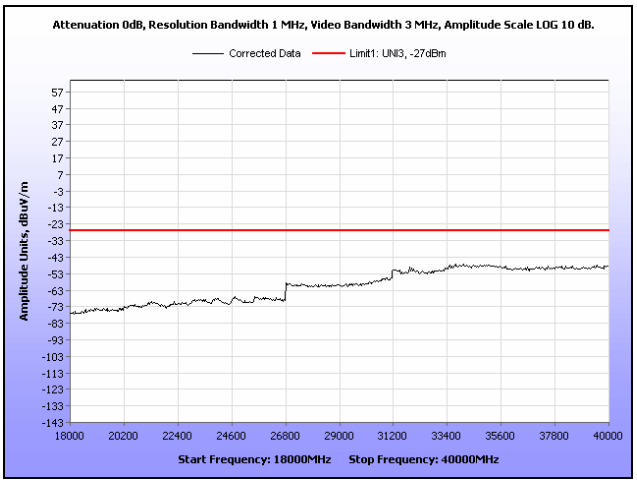
Plot 213. Radiated Spurious, 802.11n 40 MHz, 5310 MHz, 30 MHz – 1 GHz, Omni Antenna



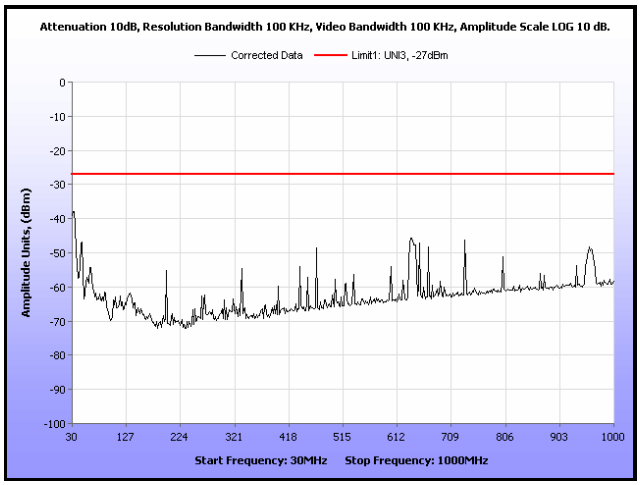
Plot 214. Radiated Spurious, 802.11n 40 MHz, 5310 MHz, 1 GHz – 6 GHz, Omni Antenna



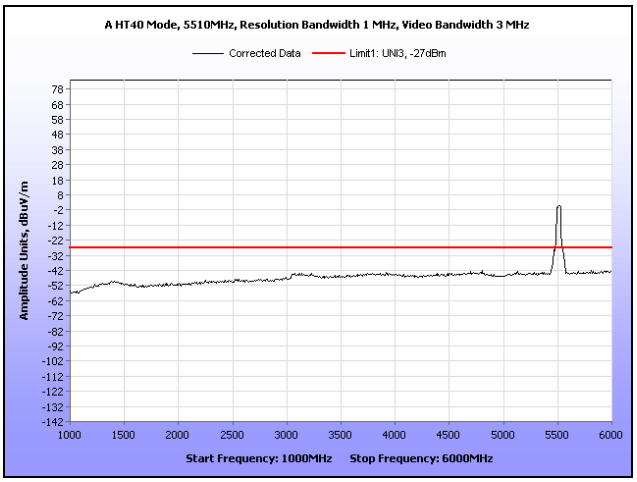
Plot 215. Radiated Spurious, 802.11n 40 MHz, 5310 MHz, 6 GHz – 18 GHz, Omni Antenna



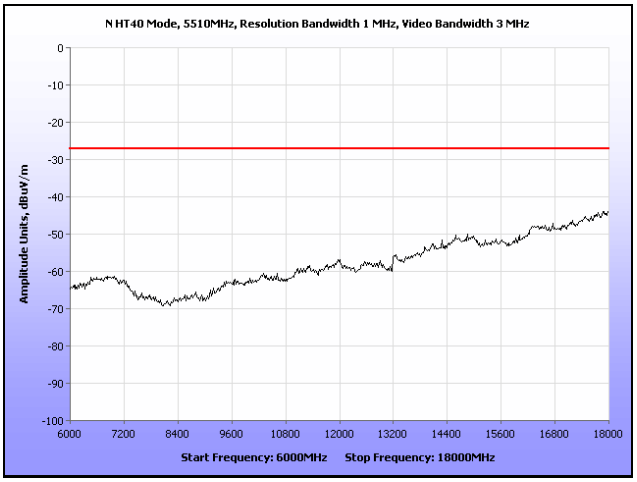
Plot 216. Radiated Spurious, 802.11n 40 MHz, 5310 MHz, 18 GHz – 40 GHz, Omni Antenna



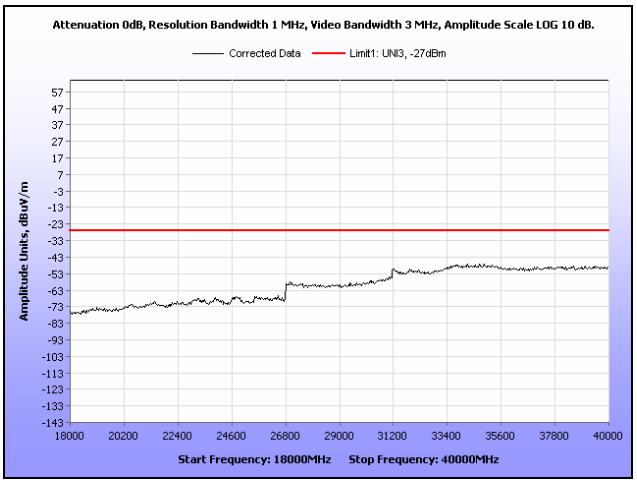
Plot 217. Radiated Spurious, 802.11n 40 MHz, 5510 MHz, 30 MHz – 1 GHz, Omni Antenna



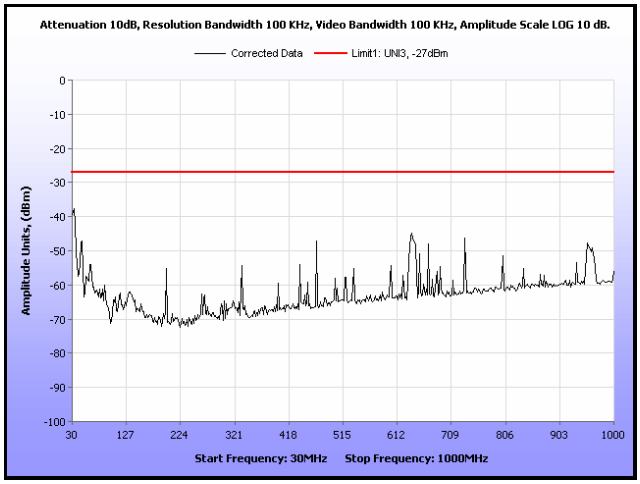
Plot 218. Radiated Spurious, 802.11n 40 MHz, 5510 MHz, 1 GHz – 6 GHz, Omni Antenna



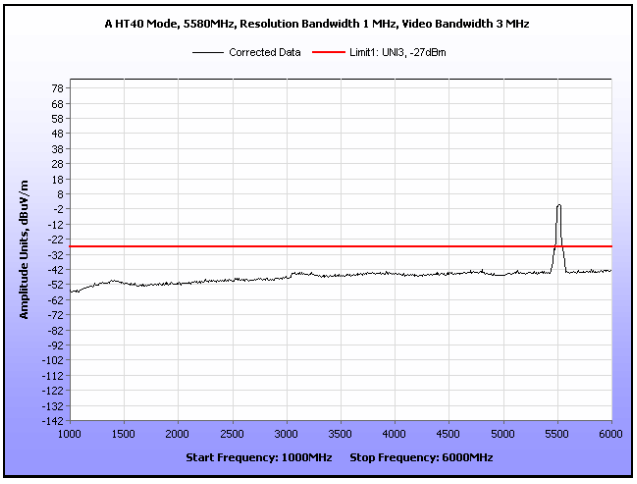
Plot 219. Radiated Spurious, 802.11n 40 MHz, 5510 MHz, 6 GHz – 18 GHz, Omni Antenna



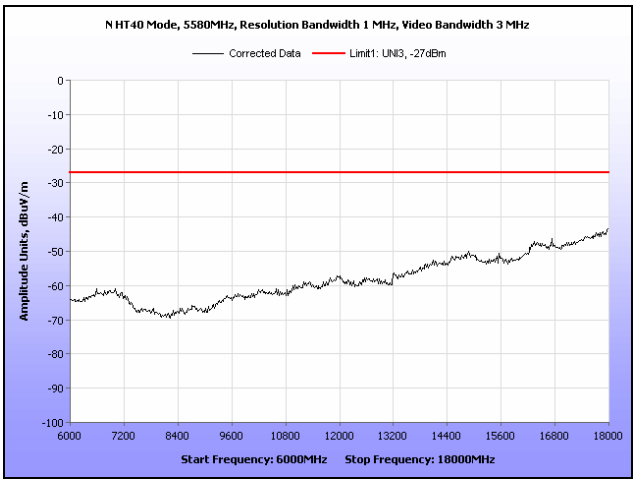
Plot 220. Radiated Spurious, 802.11n 40 MHz, 5510 MHz, 18 MHz – 40 GHz, Omni Antenna



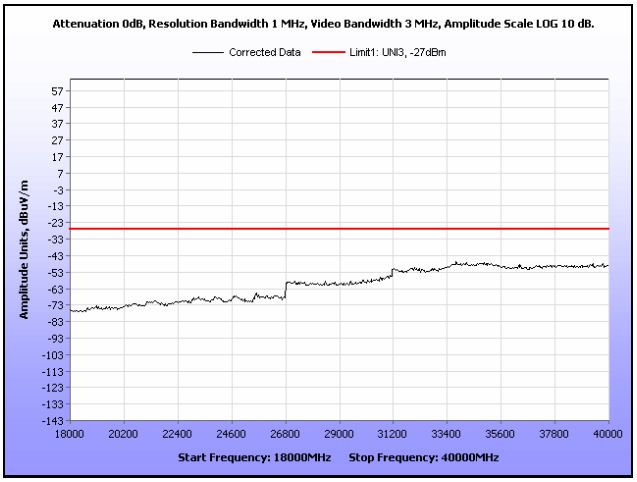
Plot 221. Radiated Spurious, 802.11n 40 MHz, 5580 MHz, 30 MHz – 1 GHz, Omni Antenna



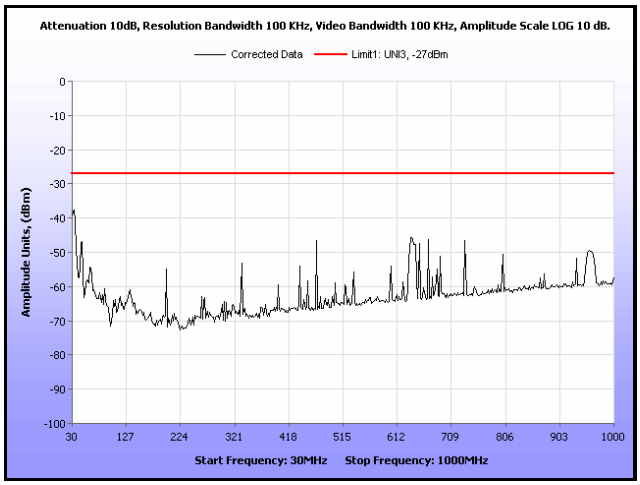
Plot 222. Radiated Spurious, 802.11n 40 MHz, 5580 MHz, 1 GHz – 6 GHz, Omni Antenna



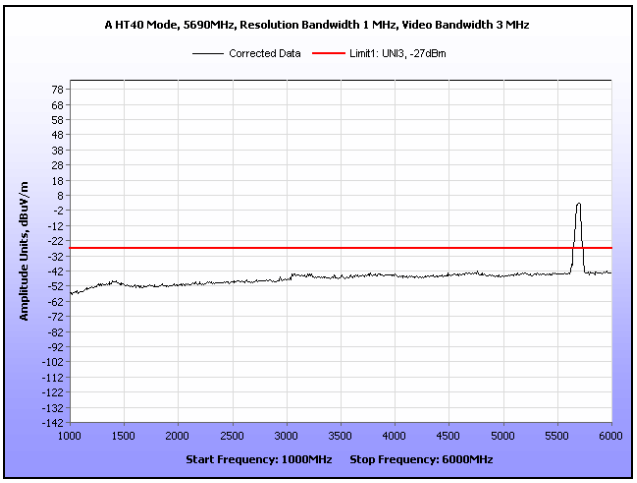
Plot 223. Radiated Spurious, 802.11n 40 MHz, 5580 MHz, 6 GHz – 18 GHz, Omni Antenna



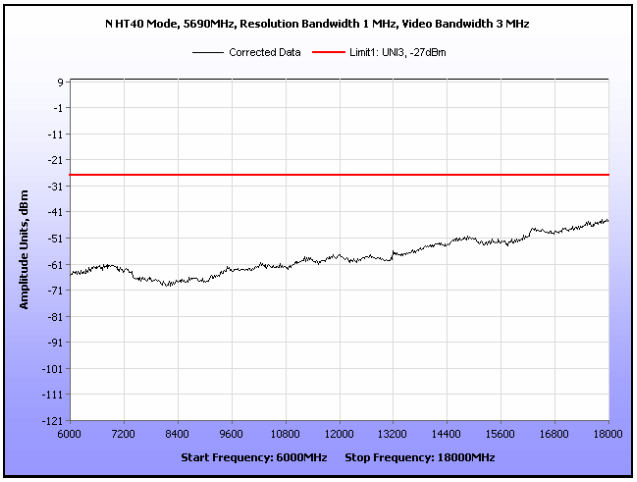
Plot 224. Radiated Spurious, 802.11n 40 MHz, 5580 MHz, 18 GHz – 40 GHz, Omni Antenna



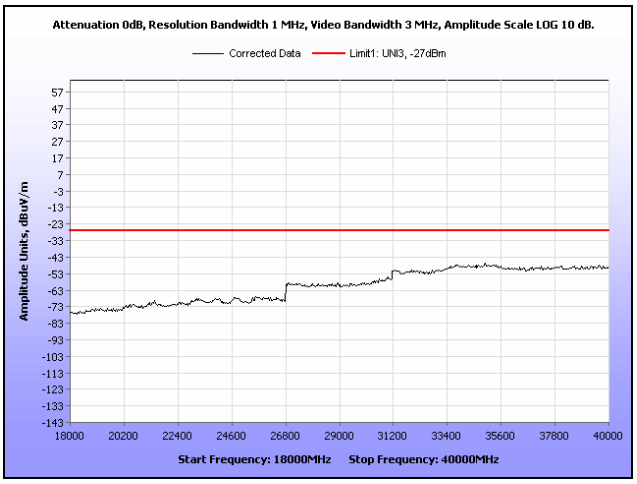
Plot 225. Radiated Spurious, 802.11n 40 MHz, 5690 MHz, 30 MHz – 1 GHz, Omni Antenna



Plot 226. Radiated Spurious, 802.11n 40 MHz, 5690 MHz, 1 GHz – 6 GHz, Omni Antenna

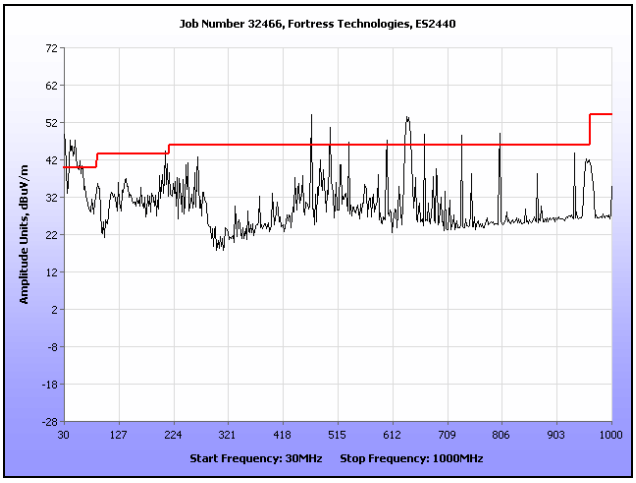


Plot 227. Radiated Spurious, 802.11n 40 MHz, 5690 MHz, 6 GHz – 18 GHz, Omni Antenna

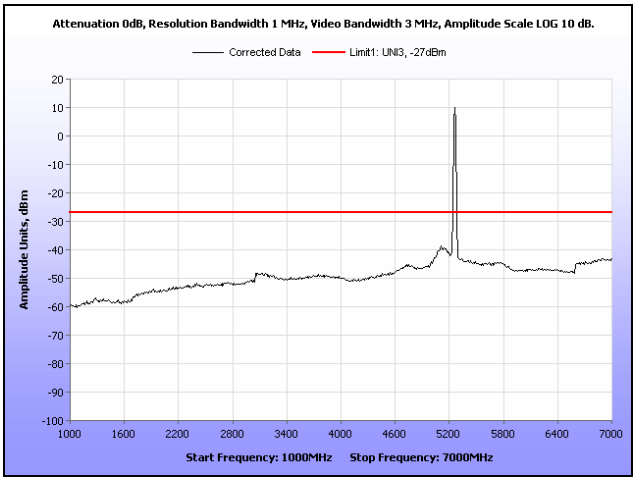


Plot 228. Radiated Spurious, 802.11n 40 MHz, 5690 MHz, 18 GHz – 40 GHz, Omni Antenna

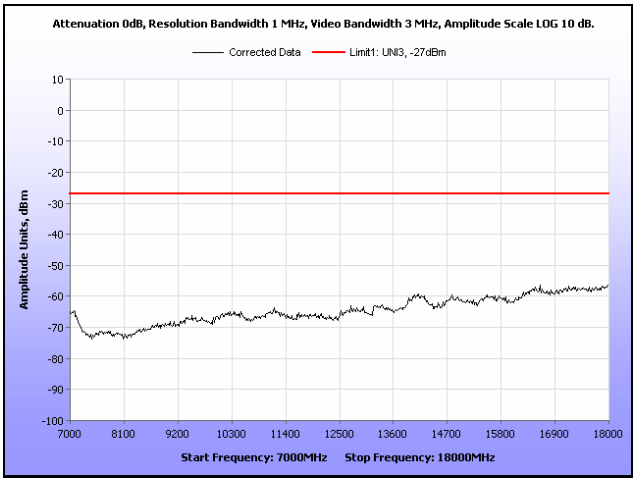
Radiated Spurious Emissions Limits, 802.11a, Sector Antenna



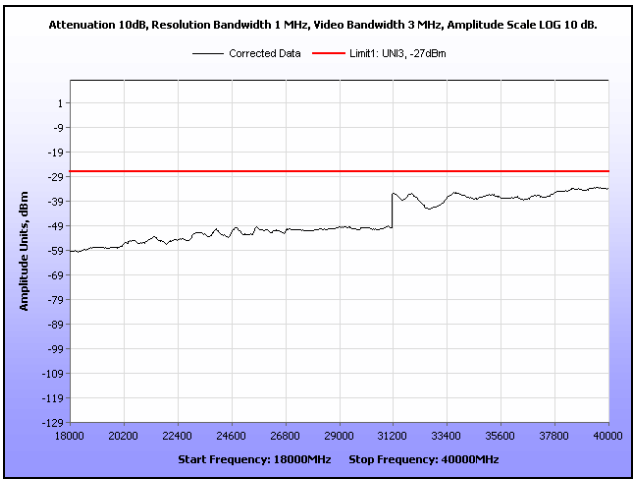
Plot 229. Radiated Spurious, 802.11a, 5260 MHz, 30 MHz – 1 GHz, Sector Antenna



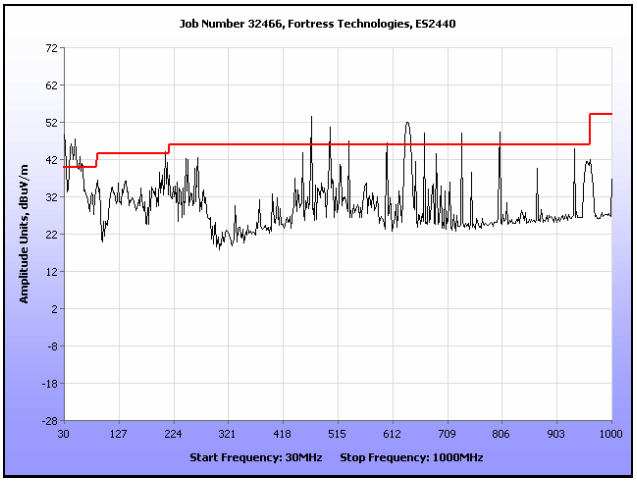
Plot 230. Radiated Spurious, 802.11a, 5260 MHz, 1 GHz – 7 GHz, Sector Antenna



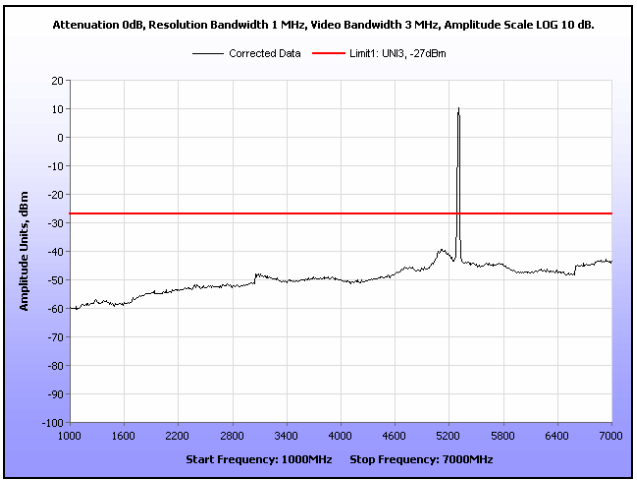
Plot 231. Radiated Spurious, 802.11a, 5260 MHz, 7 GHz – 18 GHz, Sector Antenna



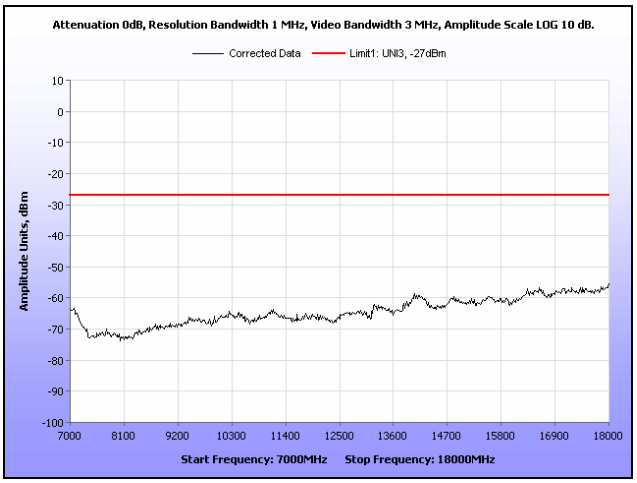
Plot 232. Radiated Spurious, 802.11a, 5260 MHz, 18 GHz – 40 GHz, Sector Antenna



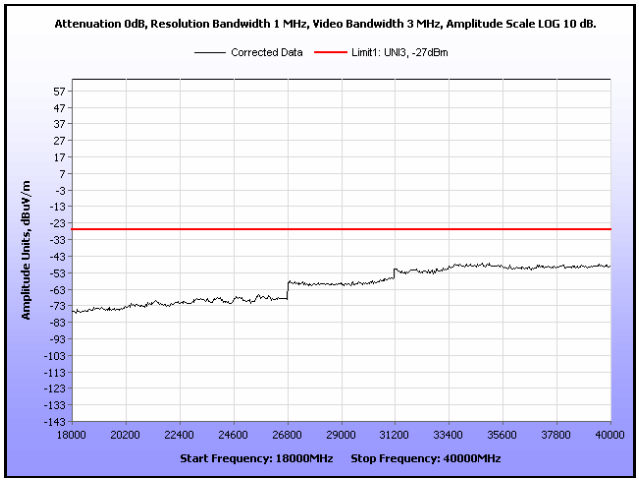
Plot 233. Radiated Spurious, 802.11a, 5300 MHz, 30 MHz – 1 GHz, Sector Antenna



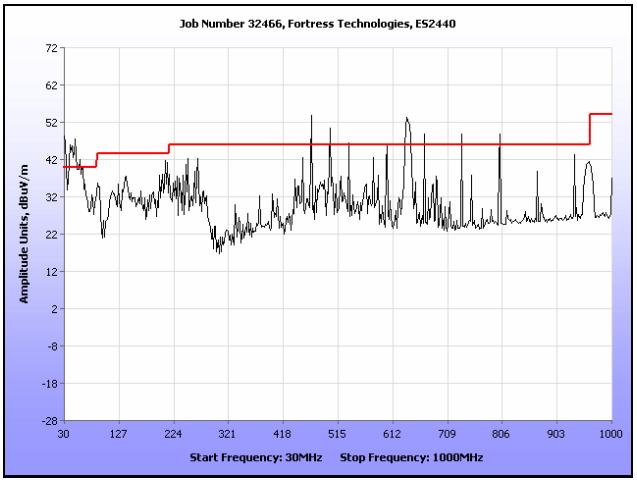
Plot 234. Radiated Spurious, 802.11a, 5300 MHz, 1 GHz – 7 GHz, Sector Antenna



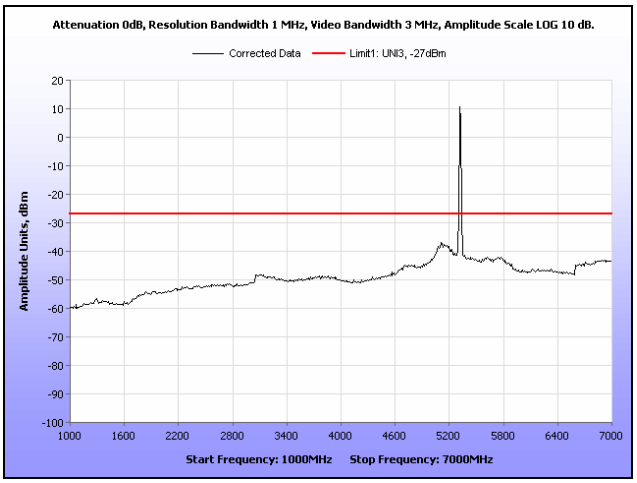
Plot 235. Radiated Spurious, 802.11a, 5300 MHz, 7 GHz – 18 GHz, Sector Antenna



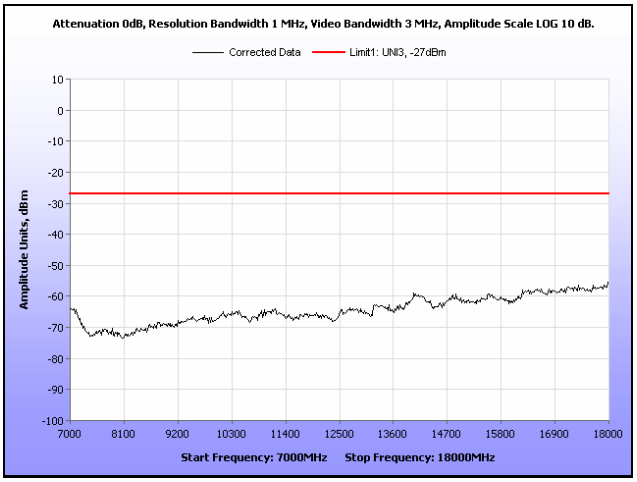
Plot 236. Radiated Spurious, 802.11a, 5300 MHz, 18 GHz – 40 GHz, Sector Antenna



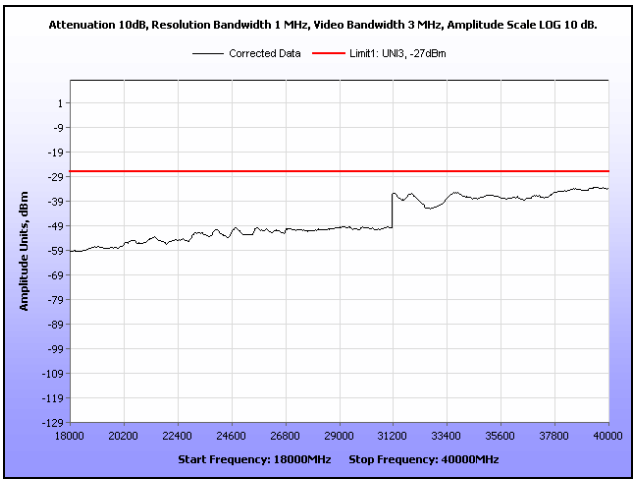
Plot 237. Radiated Spurious, 802.11a, 5320 MHz, 30 MHz – 1 GHz, Sector Antenna



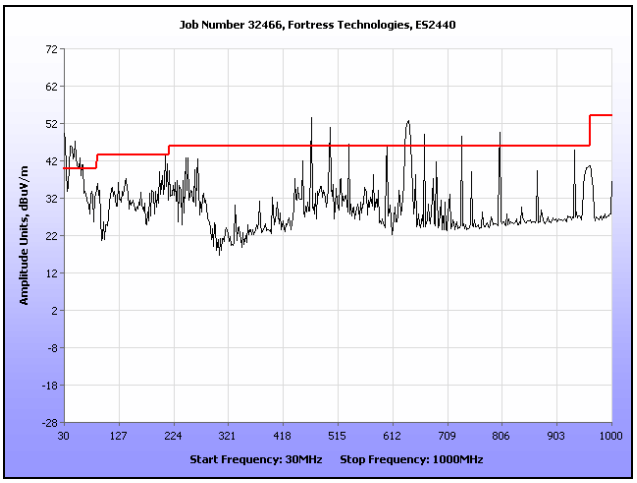
Plot 238. Radiated Spurious, 802.11a, 5320 MHz, 1 GHz – 7 GHz, Sector Antenna



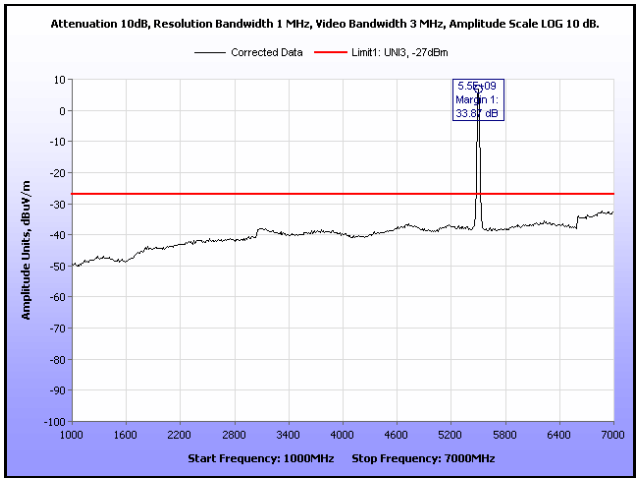
Plot 239. Radiated Spurious, 802.11a, 5320 MHz, 7 GHz – 18 GHz, Sector Antenna



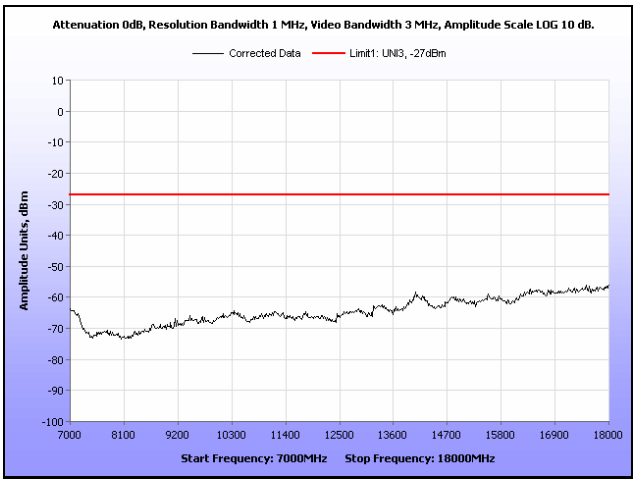
Plot 240. Radiated Spurious, 802.11a, 5320 MHz, 18 GHz – 40 GHz, Sector Antenna



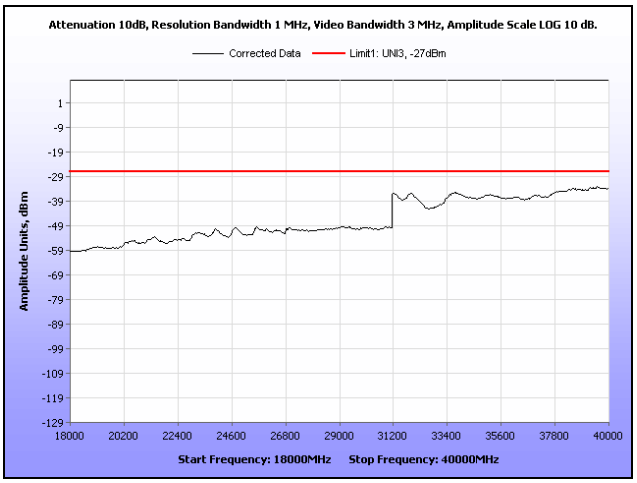
Plot 241. Radiated Spurious, 802.11a, 5500 MHz, 30 MHz – 1 GHz, Sector Antenna



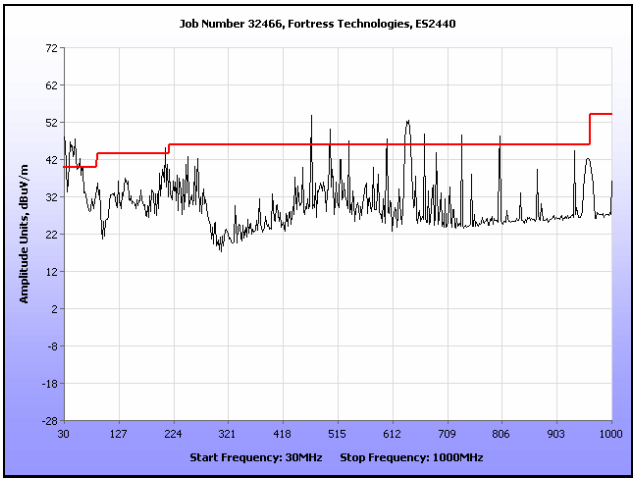
Plot 242. Radiated Spurious, 802.11a, 5500 MHz, 1 GHz – 7 GHz, Sector Antenna



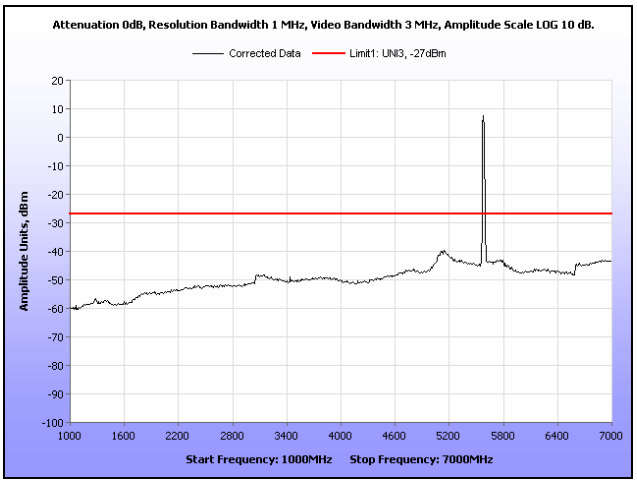
Plot 243. Radiated Spurious, 802.11a, 5500 MHz, 7 GHz – 18 GHz, Sector Antenna



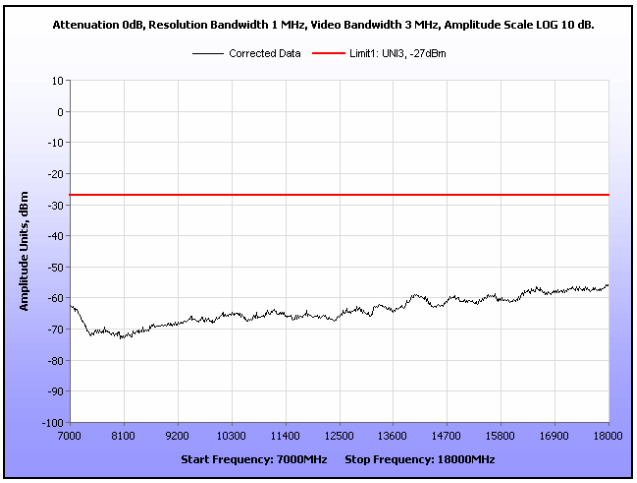
Plot 244. Radiated Spurious, 802.11a, 5500 MHz, 18 MHz – 40 GHz, Sector Antenna



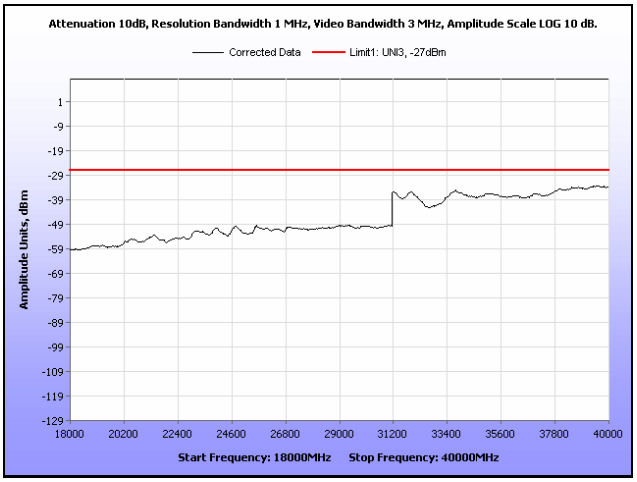
Plot 245. Radiated Spurious, 802.11a, 5580 MHz, 30 MHz – 1 GHz, Sector Antenna



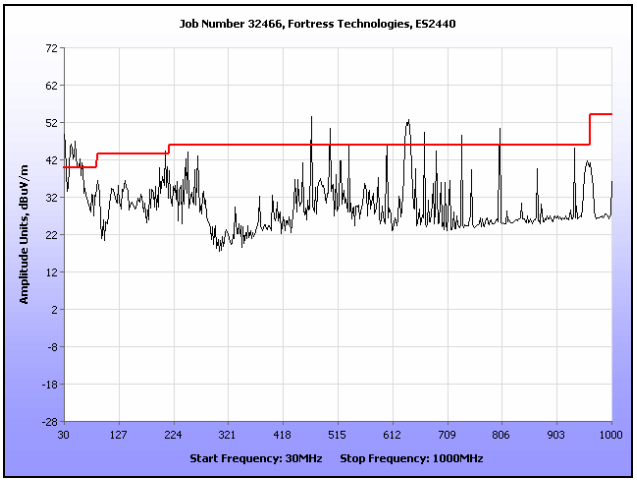
Plot 246. Radiated Spurious, 802.11a, 5580 MHz, 1 GHz – 7 GHz, Sector Antenna



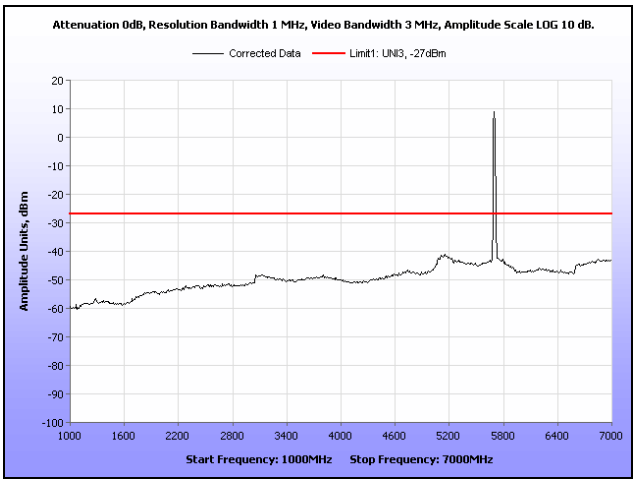
Plot 247. Radiated Spurious, 802.11a, 5580 MHz, 7 GHz – 18 GHz, Sector Antenna



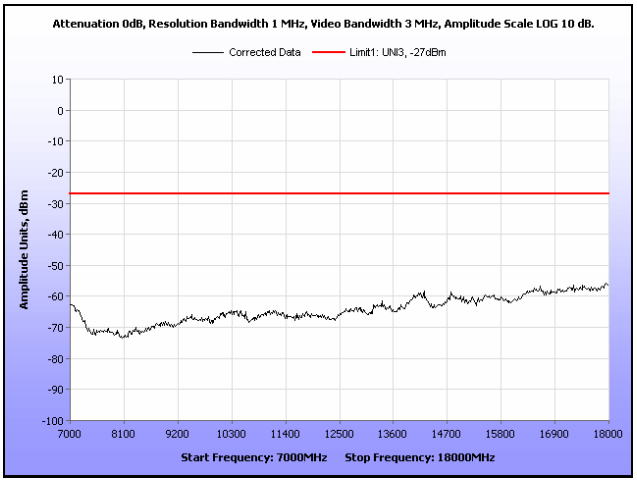
Plot 248. Radiated Spurious, 802.11a, 5580 MHz, 18 GHz – 40 GHz, Sector Antenna



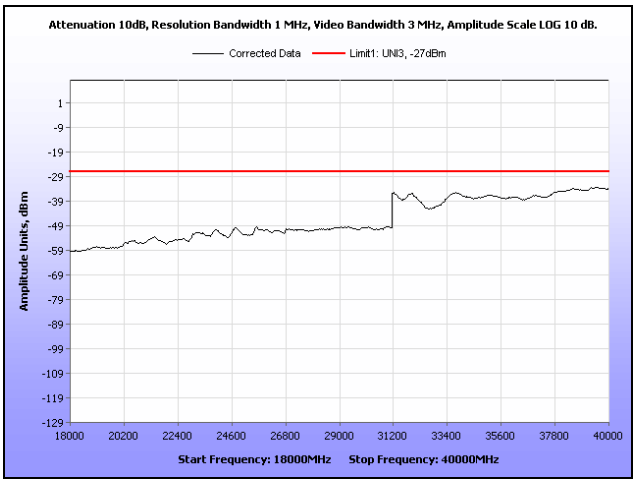
Plot 249. Radiated Spurious, 802.11a, 5700 MHz, 30 MHz – 1 GHz, Sector Antenna



Plot 250. Radiated Spurious, 802.11a, 5700 MHz, 1 GHz – 7 GHz, Sector Antenna

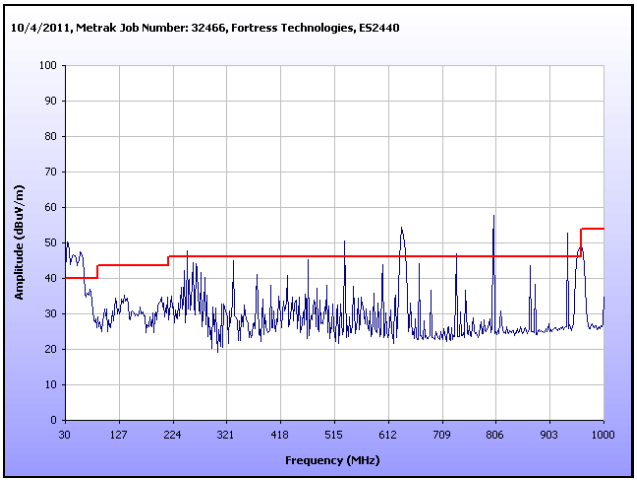


Plot 251. Radiated Spurious, 802.11a, 5700 MHz, 7 GHz – 18 GHz, Sector Antenna

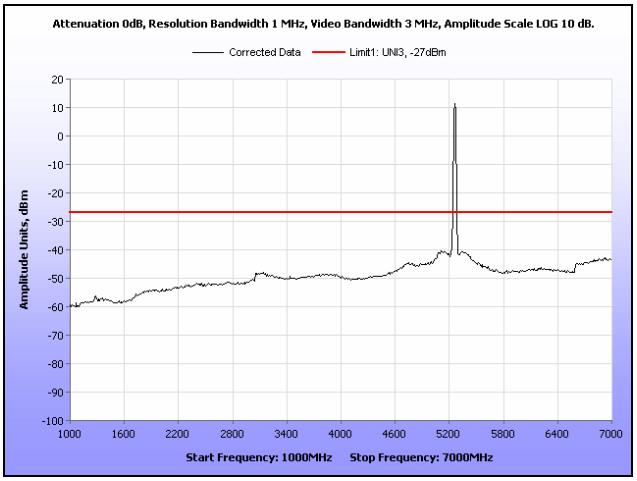


Plot 252. Radiated Spurious, 802.11a, 5700 MHz, 18 GHz – 40 GHz, Sector Antenna

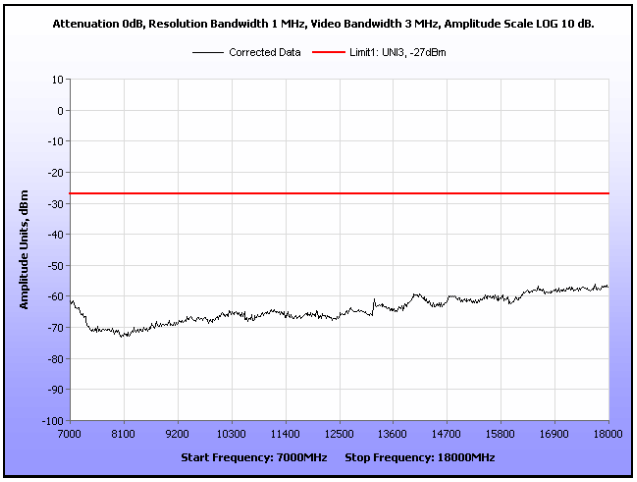
Radiated Spurious Emissions Limits, 802.11n 20 MHz, Sector Antenna



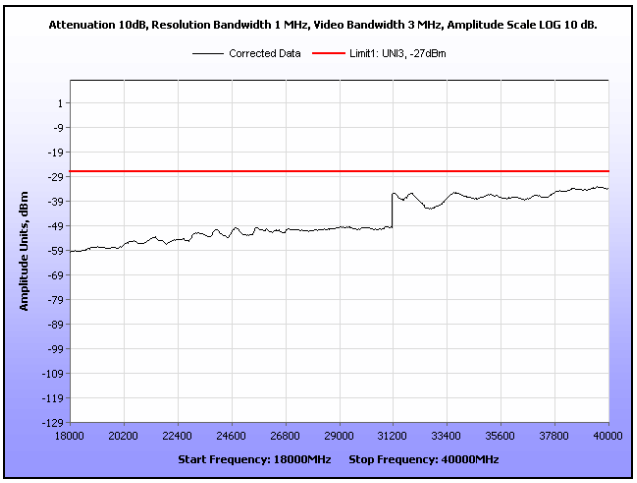
Plot 253. Radiated Spurious, 802.11n 20 MHz, 5260 MHz, 30 MHz – 1 GHz, Sector Antenna



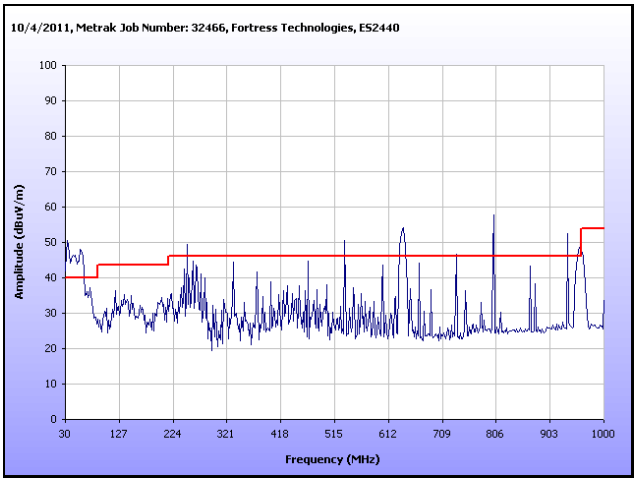
Plot 254. Radiated Spurious, 802.11n 20 MHz, 5260 MHz, 1 GHz – 7 GHz, Sector Antenna



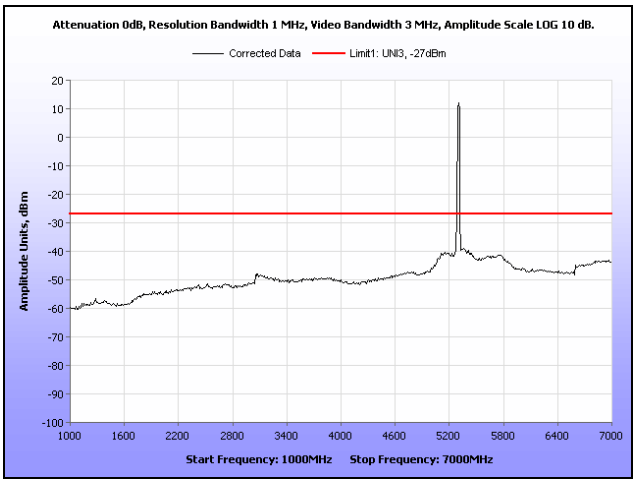
Plot 255. Radiated Spurious, 802.11n 20 MHz, 5260 MHz, 7 GHz – 18 GHz, Sector Antenna



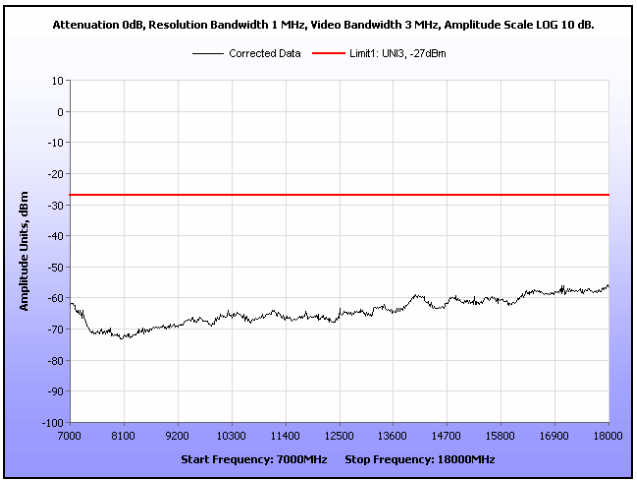
Plot 256. Radiated Spurious, 802.11n 20 MHz, 5260 MHz, 18 GHz – 40 GHz, Sector Antenna



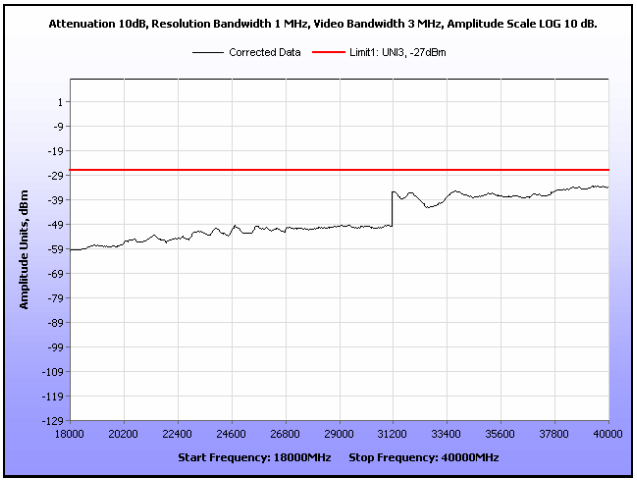
Plot 257. Radiated Spurious, 802.11n 20 MHz, 5300 MHz, 30 MHz – 1 GHz, Sector Antenna



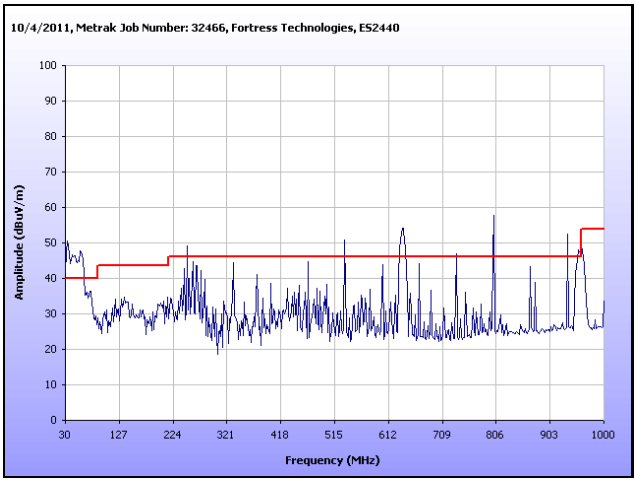
Plot 258. Radiated Spurious, 802.11n 20 MHz, 5300 MHz, 1 GHz – 7 GHz, Sector Antenna



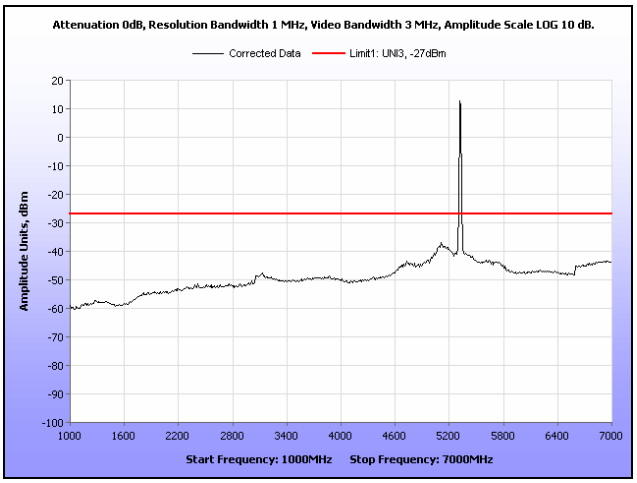
Plot 259. Radiated Spurious, 802.11n 20 MHz, 5300 MHz, 7 GHz – 18 GHz, Sector Antenna



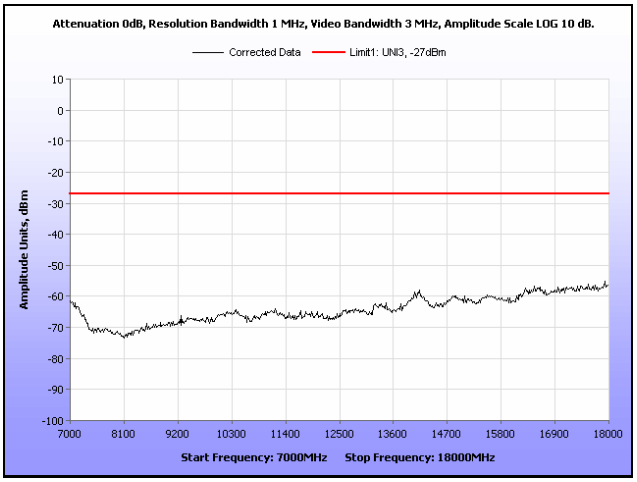
Plot 260. Radiated Spurious, 802.11n 20 MHz, 5300 MHz, 18 GHz – 40 GHz, Sector Antenna



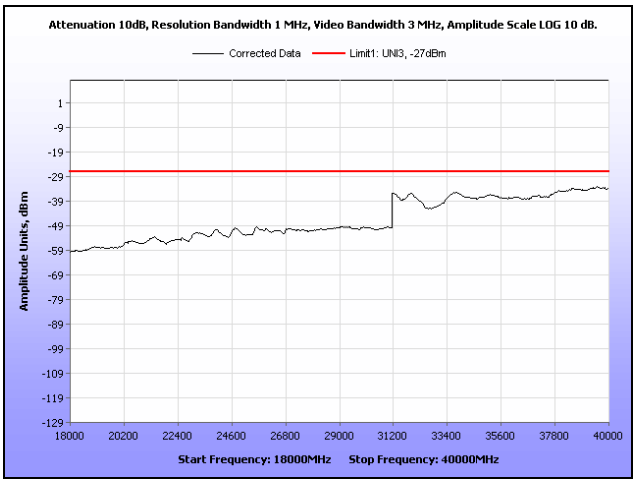
Plot 261. Radiated Spurious, 802.11n 20 MHz, 5320 MHz, 30 MHz – 1 GHz, Sector Antenna



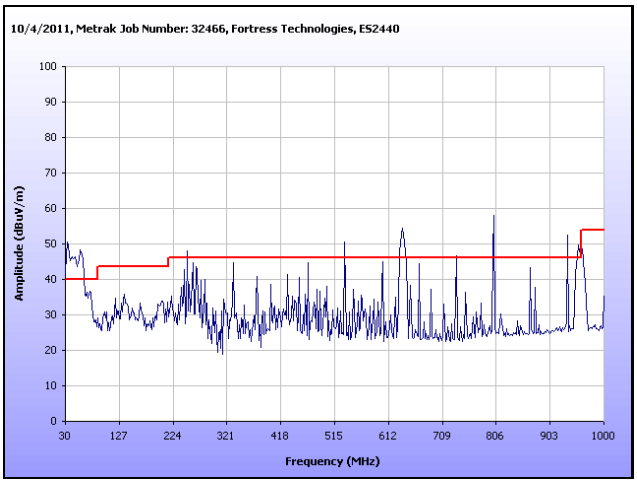
Plot 262. Radiated Spurious, 802.11n 20 MHz, 5320 MHz, 1 GHz – 7 GHz, Sector Antenna



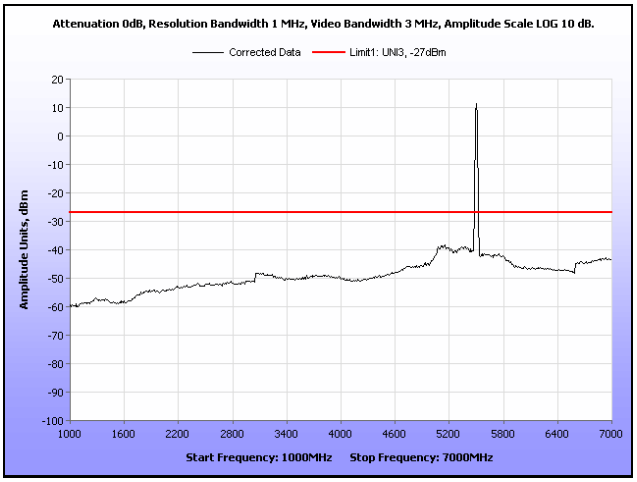
Plot 263. Radiated Spurious, 802.11n 20 MHz, 5320 MHz, 7 GHz – 18 GHz, Sector Antenna



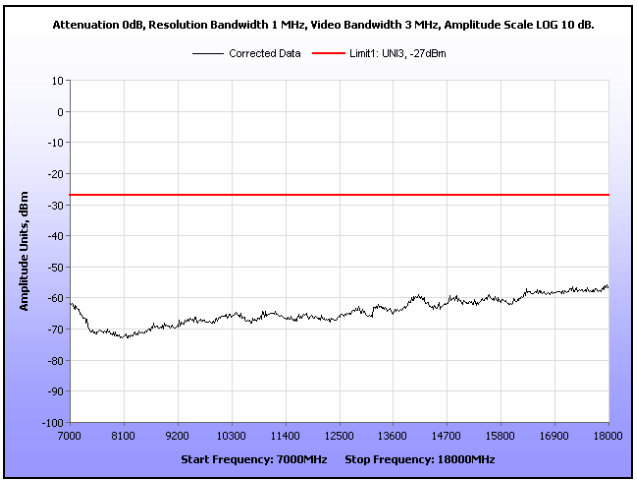
Plot 264. Radiated Spurious, 802.11n 20 MHz, 5320 MHz, 18 GHz – 40 GHz, Sector Antenna



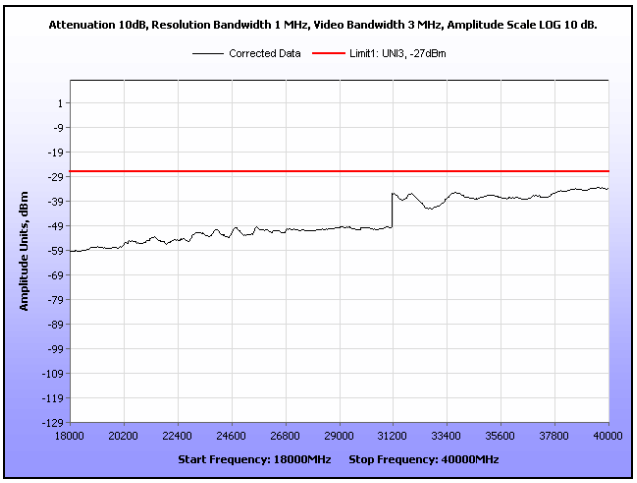
Plot 265. Radiated Spurious, 802.11n 20 MHz, 5500 MHz, 30 MHz – 1 GHz, Sector Antenna



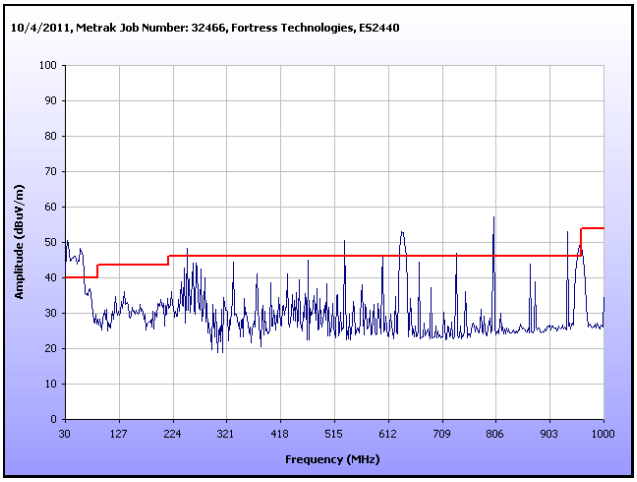
Plot 266. Radiated Spurious, 802.11n 20 MHz, 5500 MHz, 1 GHz – 7 GHz, Sector Antenna



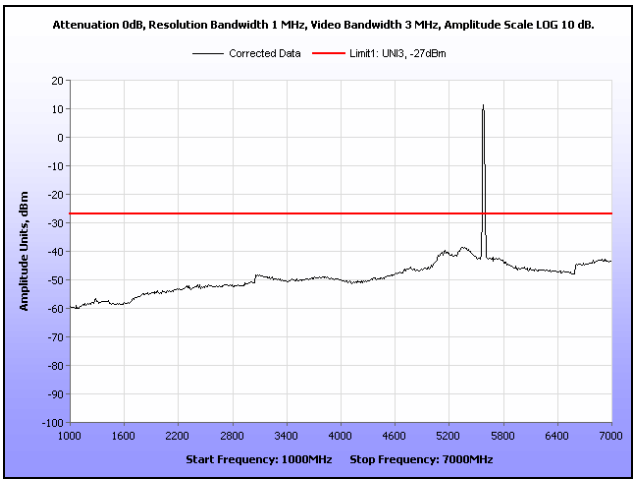
Plot 267. Radiated Spurious, 802.11n 20 MHz, 5500 MHz, 7 GHz – 18 GHz, Sector Antenna



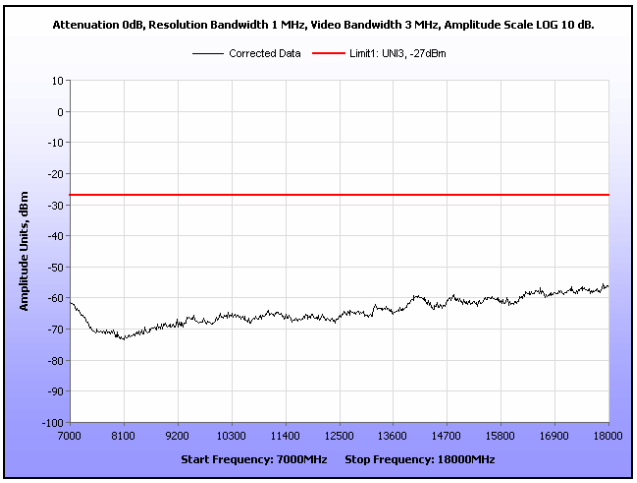
Plot 268. Radiated Spurious, 802.11n 20 MHz, 5500 MHz, 18 MHz – 40 GHz, Sector Antenna



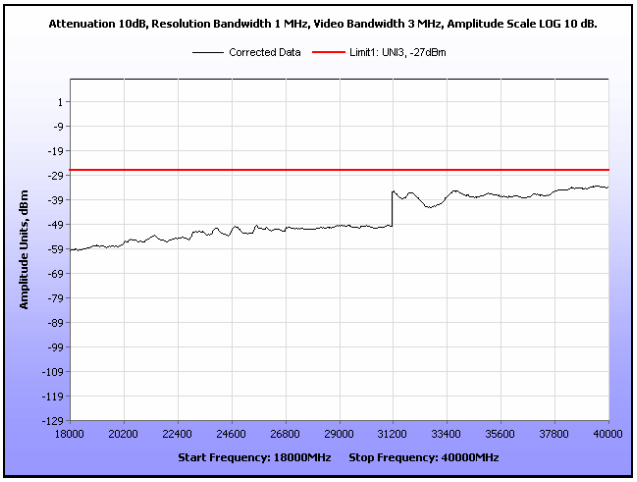
Plot 269. Radiated Spurious, 802.11n 20 MHz, 5580 MHz, 30 MHz – 1 GHz, Sector Antenna



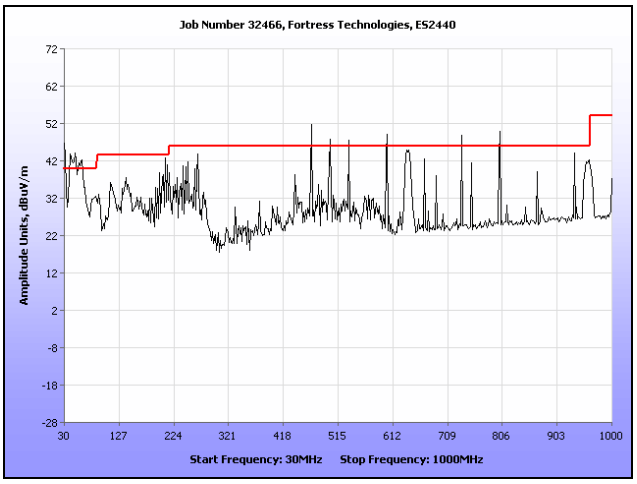
Plot 270. Radiated Spurious, 802.11n 20 MHz, 5580 MHz, 1 GHz – 7 GHz, Sector Antenna



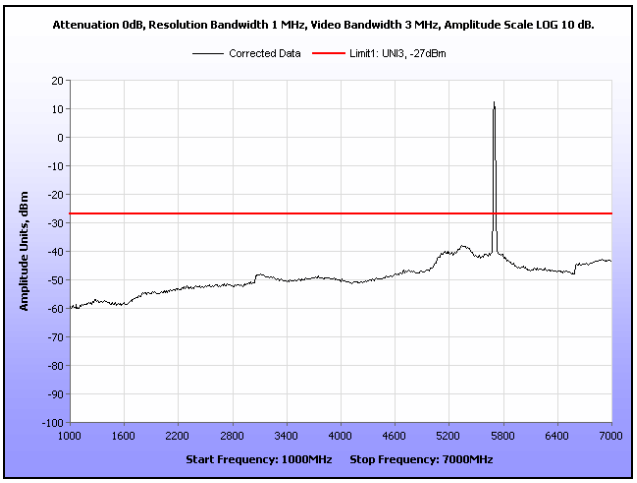
Plot 271. Radiated Spurious, 802.11n 20 MHz, 5580 MHz, 7 GHz – 18 GHz, Sector Antenna



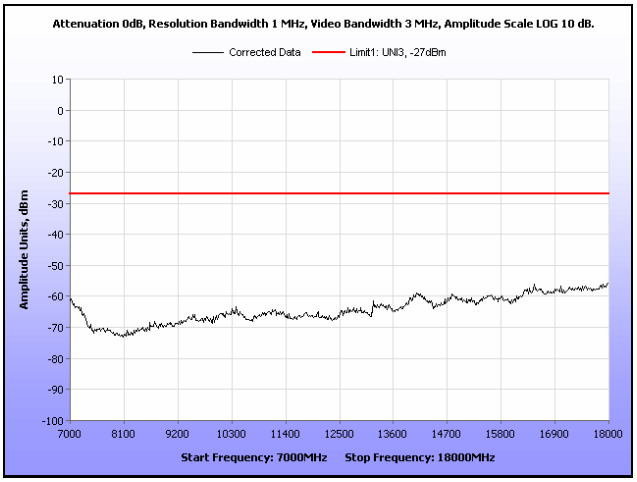
Plot 272. Radiated Spurious, 802.11n 20 MHz, 5580 MHz, 18 GHz – 40 GHz, Sector Antenna



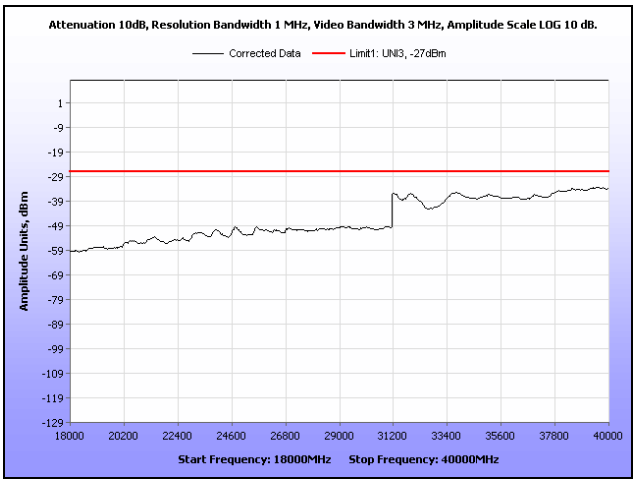
Plot 273. Radiated Spurious, 802.11n 20 MHz, 5700 MHz, 30 MHz – 1 GHz, Sector Antenna



Plot 274. Radiated Spurious, 802.11n 20 MHz, 5700 MHz, 1 GHz – 7 GHz, Sector Antenna

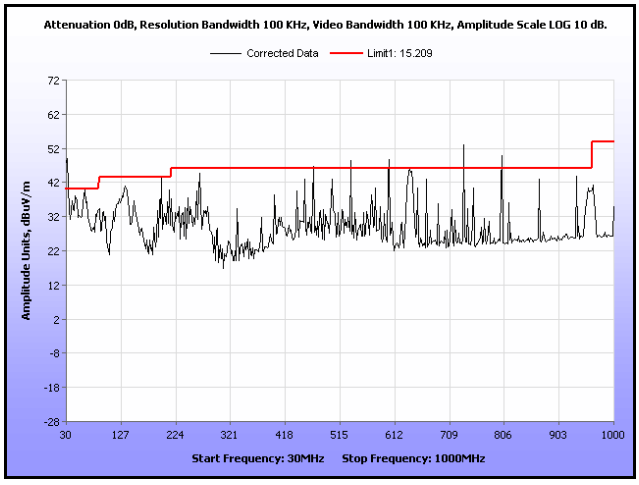


Plot 275. Radiated Spurious, 802.11n 20 MHz, 5700 MHz, 7 GHz – 18 GHz, Sector Antenna

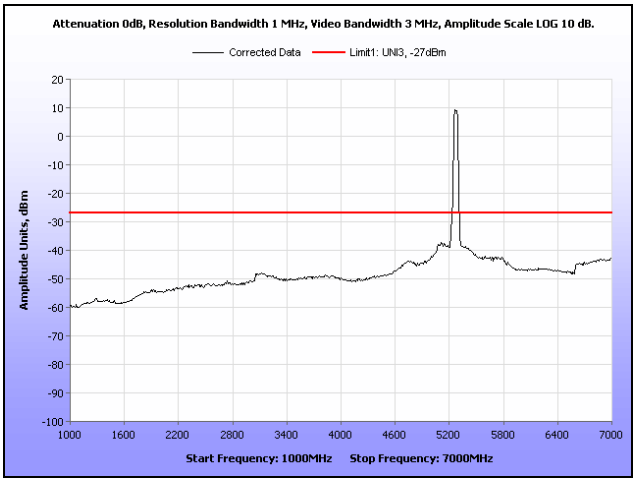


Plot 276. Radiated Spurious, 802.11n 20 MHz, 5700 MHz, 18 GHz – 40 GHz, Sector Antenna

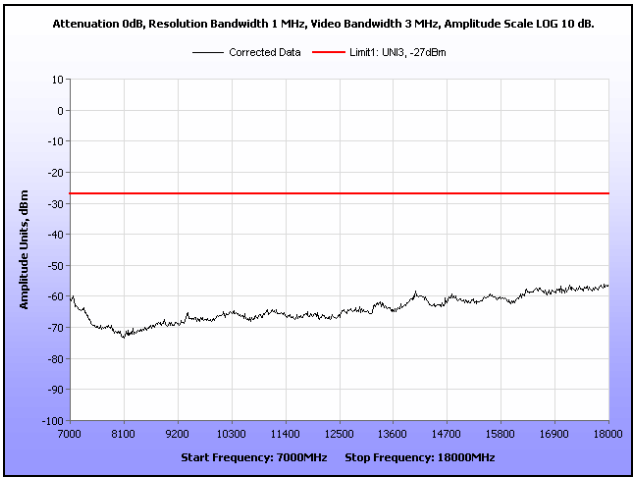
Radiated Spurious Emissions Limits, 802.11n 40 MHz, Sector Antenna



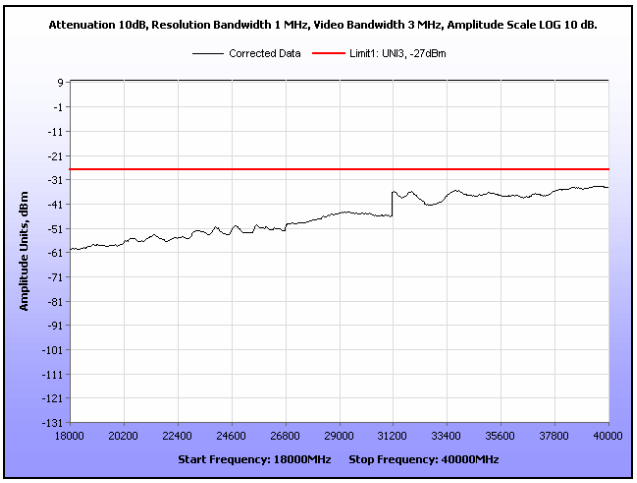
Plot 277. Radiated Spurious, 802.11n 40 MHz, 5270 MHz, 30 MHz – 1 GHz, Sector Antenna



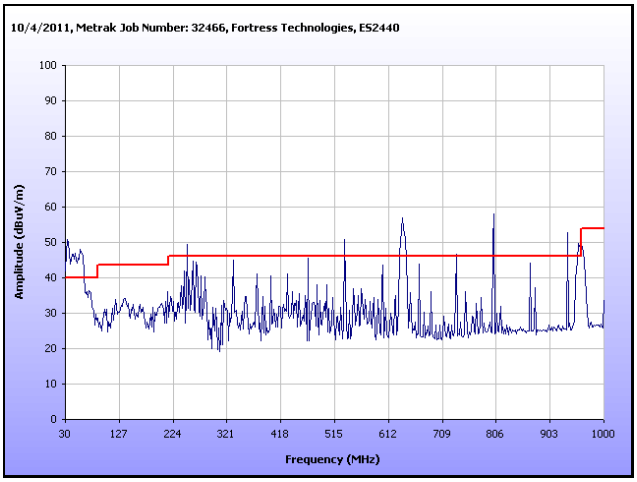
Plot 278. Radiated Spurious, 802.11n 40 MHz, 5270 MHz, 1 GHz – 7 GHz, Sector Antenna



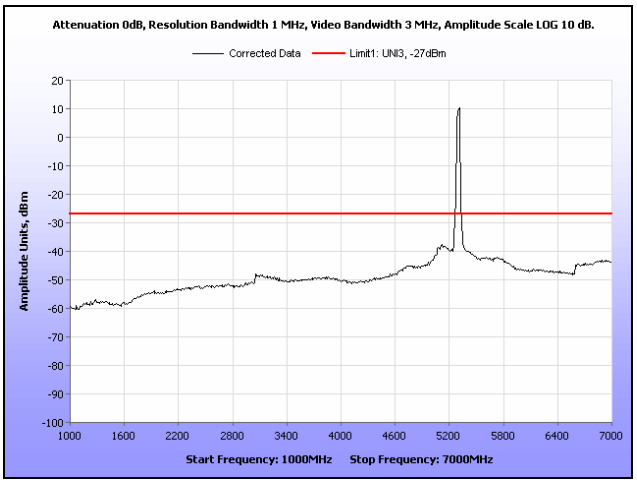
Plot 279. Radiated Spurious, 802.11n 40 MHz, 5270 MHz, 7 GHz – 18 GHz, Sector Antenna



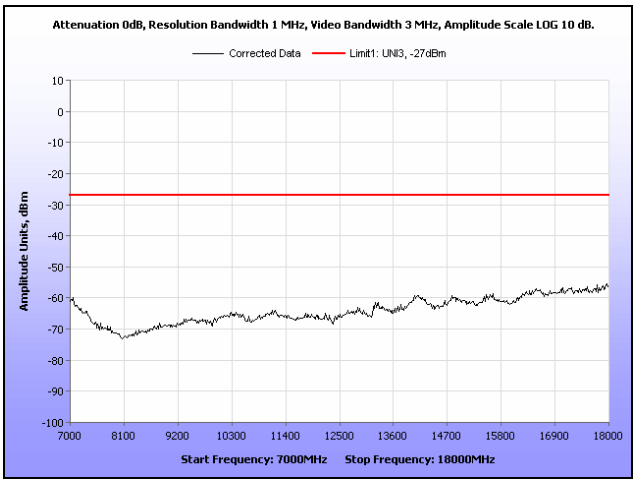
Plot 280. Radiated Spurious, 802.11n 40 MHz, 5270 MHz, 18 GHz – 40 GHz, Sector Antenna



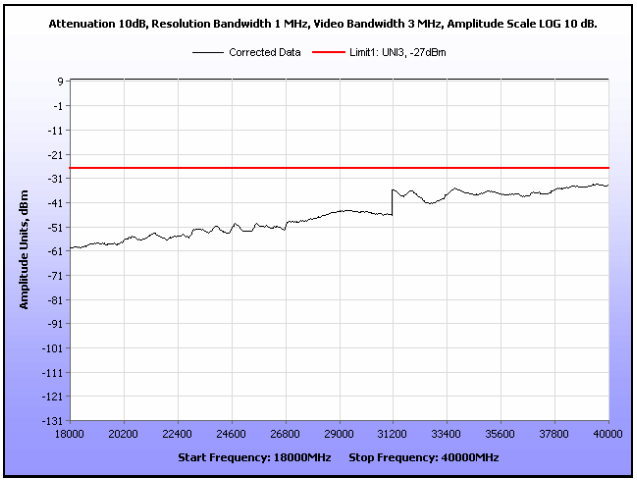
Plot 281. Radiated Spurious, 802.11n 40 MHz, 5300 MHz, 30 MHz – 1 GHz, Sector Antenna



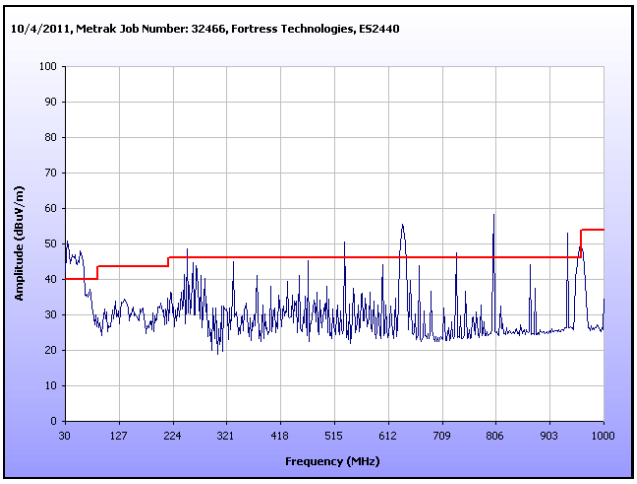
Plot 282. Radiated Spurious, 802.11n 40 MHz, 5300 MHz, 1 GHz – 7 GHz, Sector Antenna



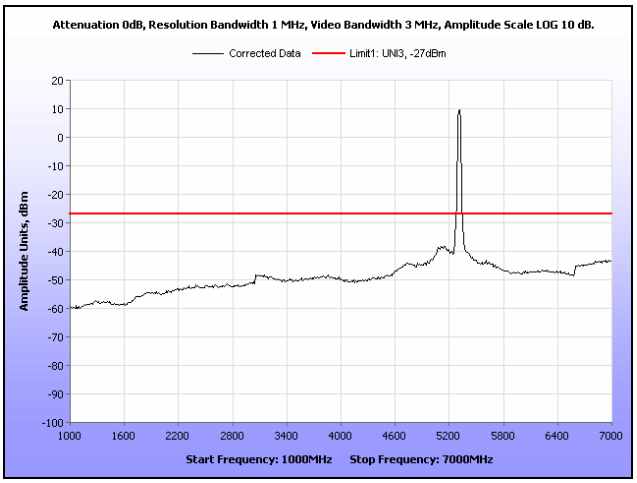
Plot 283. Radiated Spurious, 802.11n 40 MHz, 5300 MHz, 7 GHz – 18 GHz, Sector Antenna



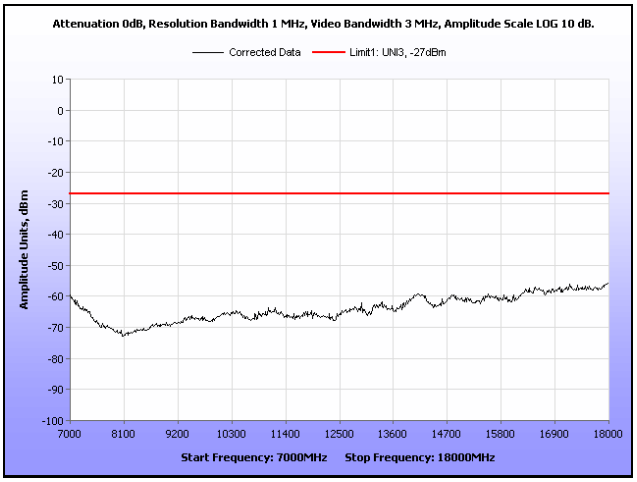
Plot 284. Radiated Spurious, 802.11n 40 MHz, 5300 MHz, 18 GHz – 40 GHz, Sector Antenna



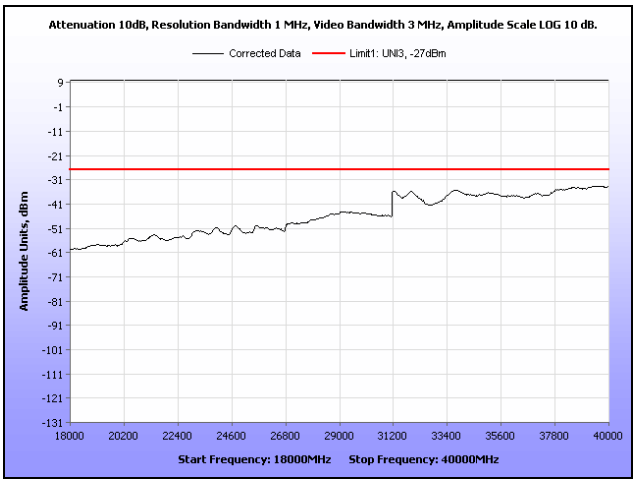
Plot 285. Radiated Spurious, 802.11n 40 MHz, 5310 MHz, 30 MHz – 1 GHz, Sector Antenna



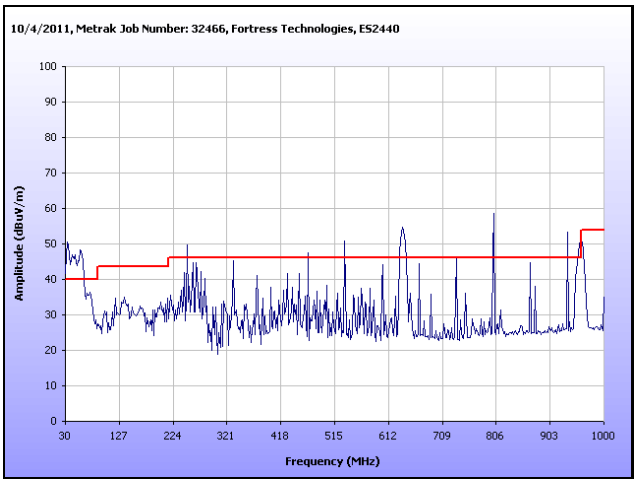
Plot 286. Radiated Spurious, 802.11n 40 MHz, 5310 MHz, 1 GHz – 7 GHz, Sector Antenna



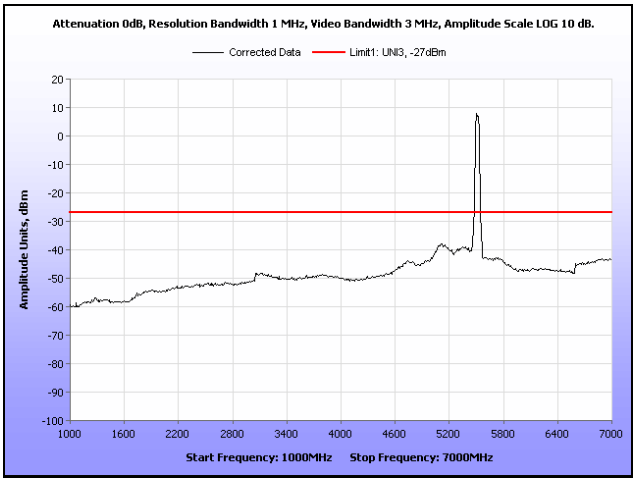
Plot 287. Radiated Spurious, 802.11n 40 MHz, 5310 MHz, 7 GHz – 18 GHz, Sector Antenna



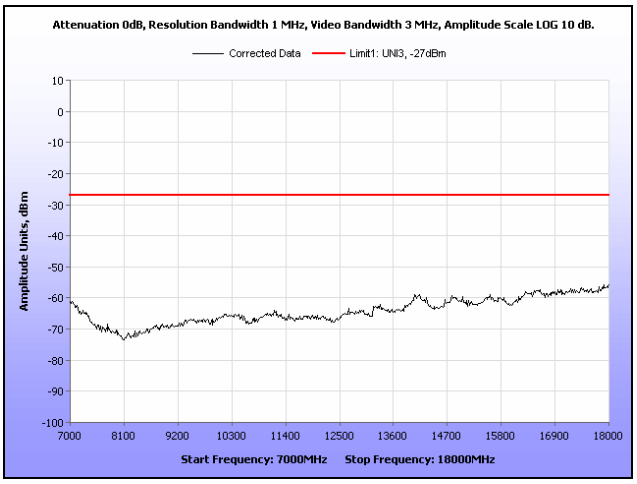
Plot 288. Radiated Spurious, 802.11n 40 MHz, 5310 MHz, 18 GHz – 40 GHz, Sector Antenna



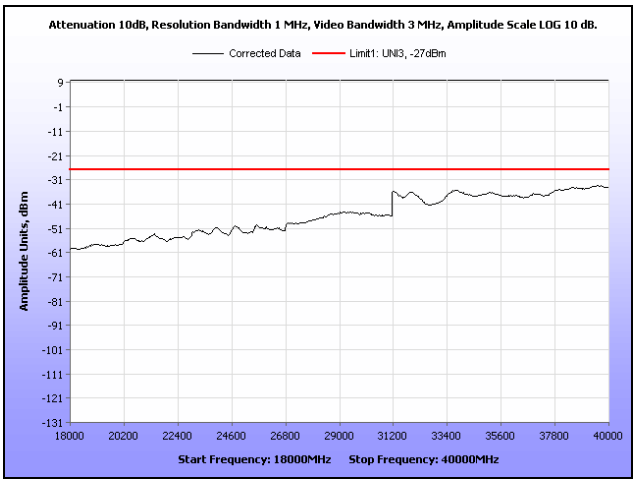
Plot 289. Radiated Spurious, 802.11n 40 MHz, 5510 MHz, 30 MHz – 1 GHz, Sector Antenna



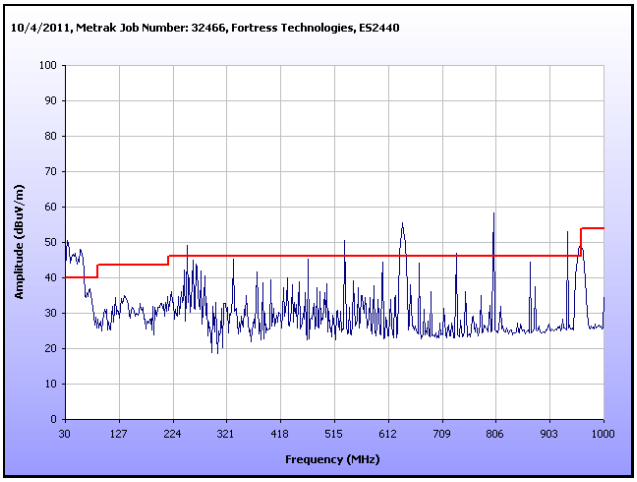
Plot 290. Radiated Spurious, 802.11n 40 MHz, 5510 MHz, 1 GHz – 7 GHz, Sector Antenna



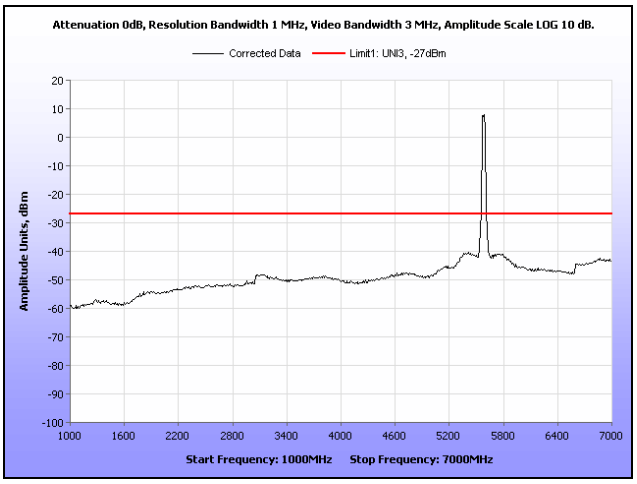
Plot 291. Radiated Spurious, 802.11n 40 MHz, 5510 MHz, 7 GHz – 18 GHz, Sector Antenna



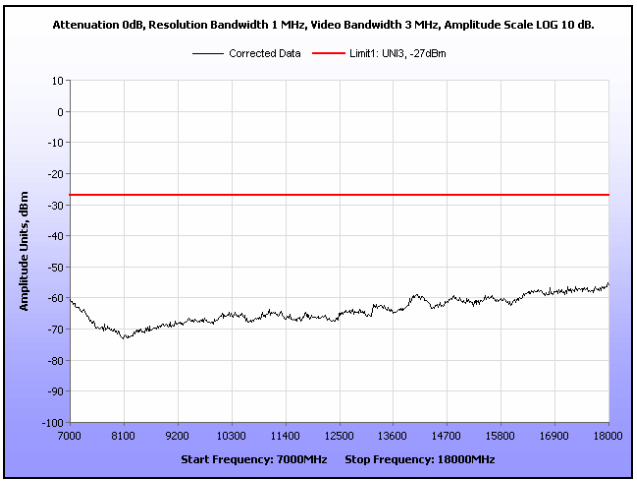
Plot 292. Radiated Spurious, 802.11n 40 MHz, 5510 MHz, 18 MHz – 40 GHz, Sector Antenna



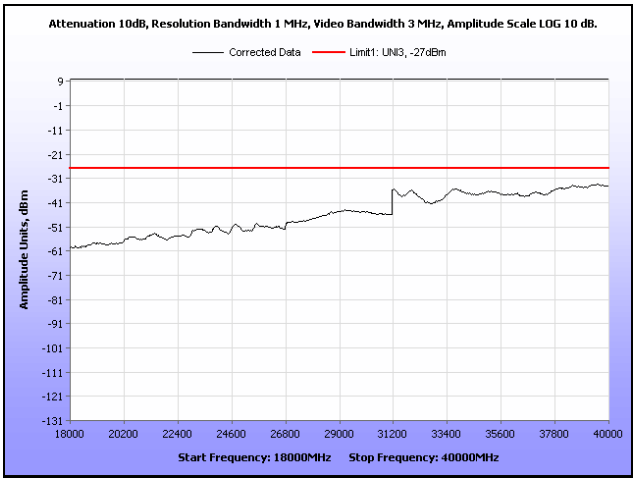
Plot 293. Radiated Spurious, 802.11n 40 MHz, 5580 MHz, 30 MHz – 1 GHz, Sector Antenna



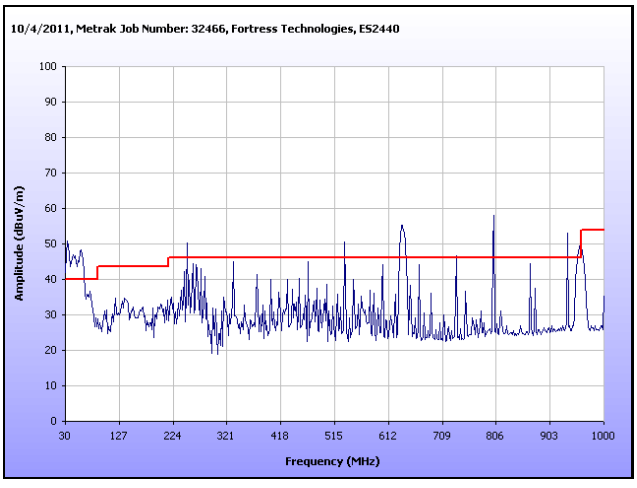
Plot 294. Radiated Spurious, 802.11n 40 MHz, 5580 MHz, 1 GHz – 7 GHz, Sector Antenna



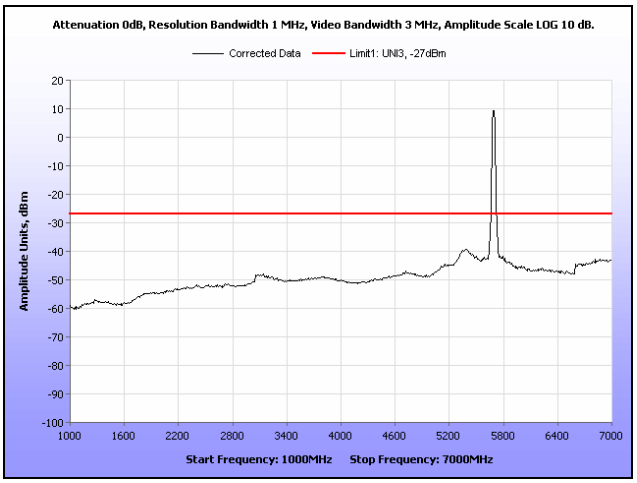
Plot 295. Radiated Spurious, 802.11n 40 MHz, 5580 MHz, 7 GHz – 18 GHz, Sector Antenna



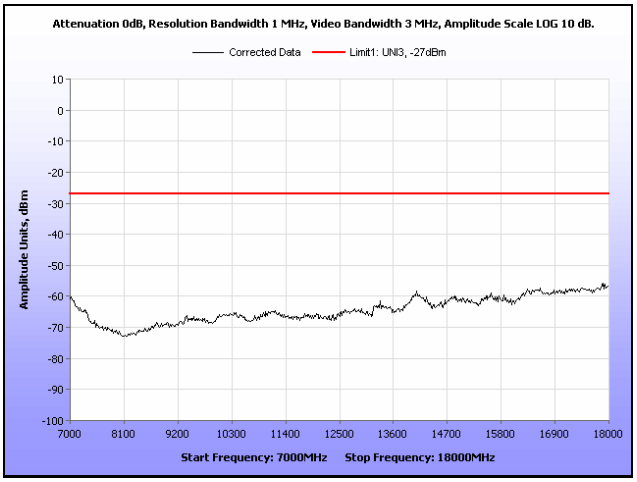
Plot 296. Radiated Spurious, 802.11n 40 MHz, 5580 MHz, 18 GHz – 40 GHz, Sector Antenna



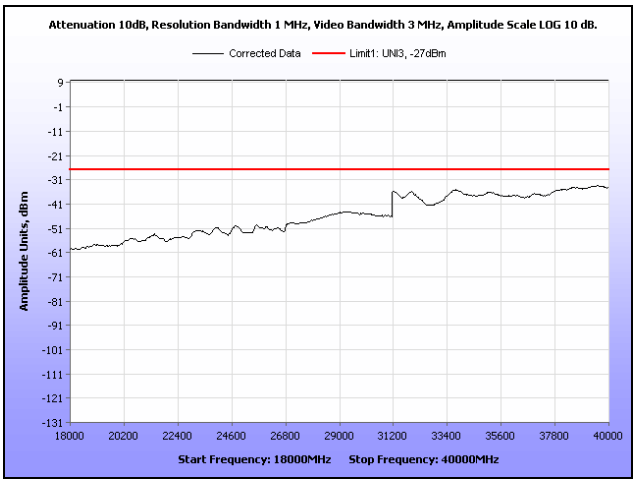
Plot 297. Radiated Spurious, 802.11n 40 MHz, 5690 MHz, 30 MHz – 1 GHz, Sector Antenna



Plot 298. Radiated Spurious, 802.11n 40 MHz, 5690 MHz, 1 GHz – 7 GHz, Sector Antenna

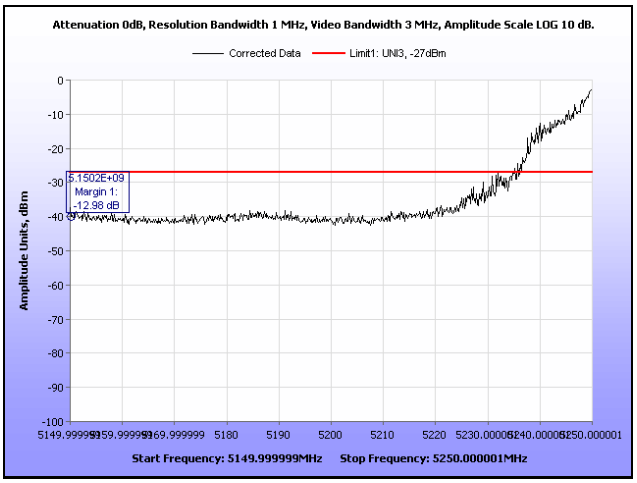


Plot 299. Radiated Spurious, 802.11n 40 MHz, 5690 MHz, 7 GHz – 18 GHz, Sector Antenna

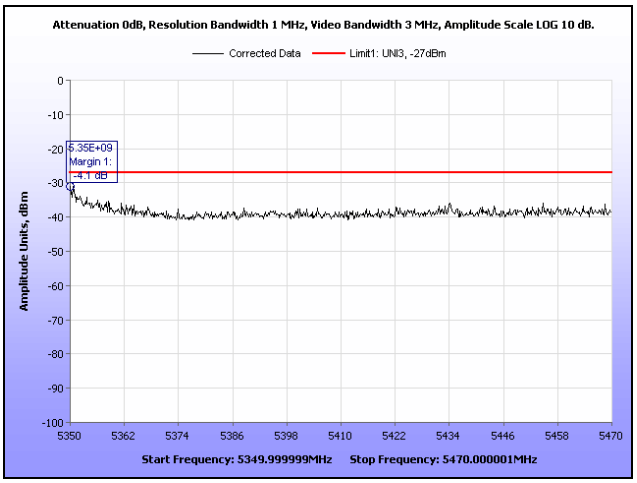


Plot 300. Radiated Spurious, 802.11n 40 MHz, 5690 MHz, 18 GHz – 40 GHz, Sector Antenna

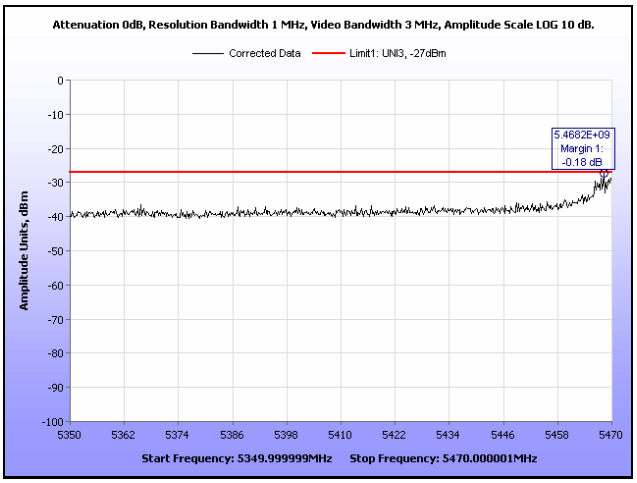
EIRP
EIRP, 802.11a, Omni Antenna



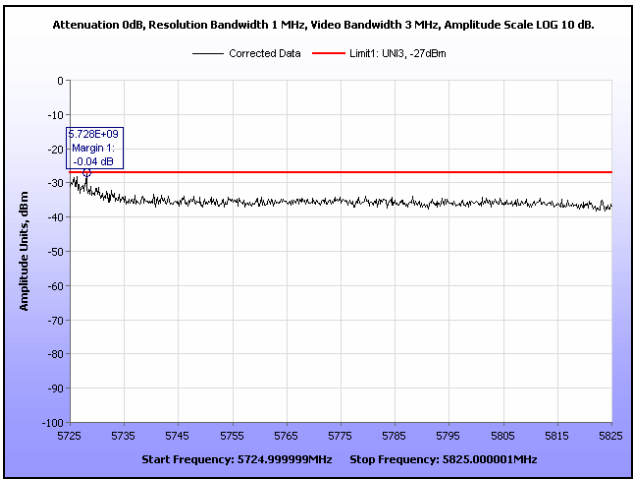
Plot 301. EIRP, 802.11a, 5260 MHz, Band Edge, Omni Antenna



Plot 302. EIRP, 802.11a, 5320 MHz, Band Edge, Omni Antenna

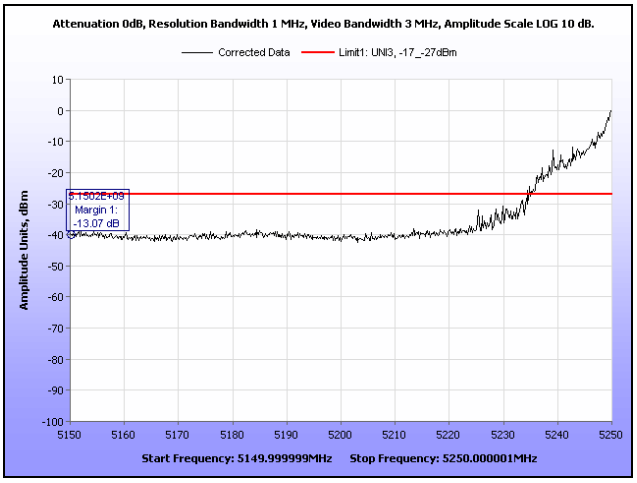


Plot 303. EIRP, 802.11a, 5500 MHz, Band Edge, Omni Antenna

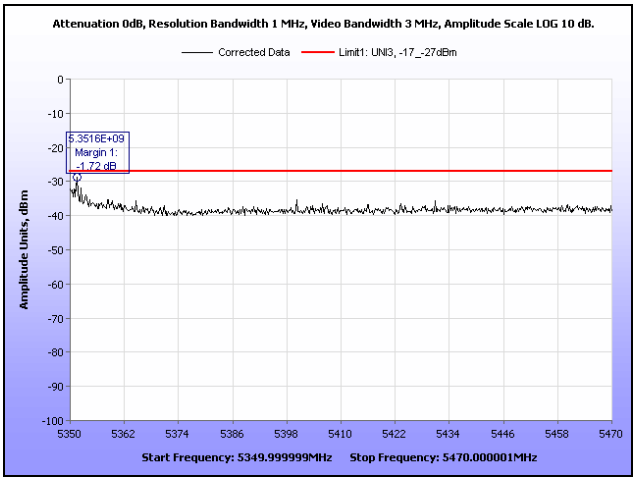


Plot 304. EIRP, 802.11a, 5700 MHz, Band Edge, Omni Antenna

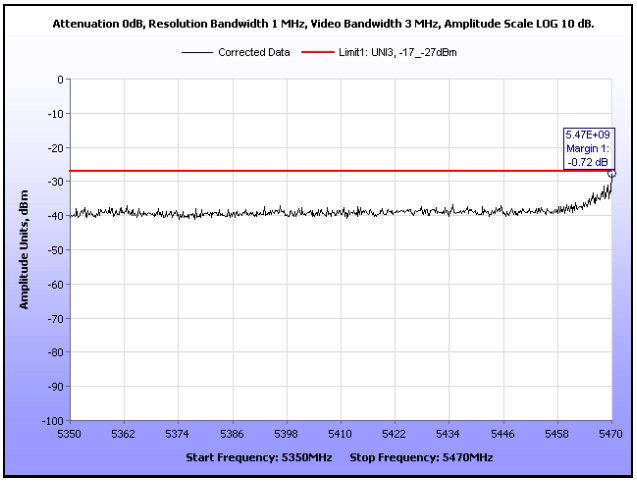
EIRP, 802.11n 20 MHz, Omni Antenna



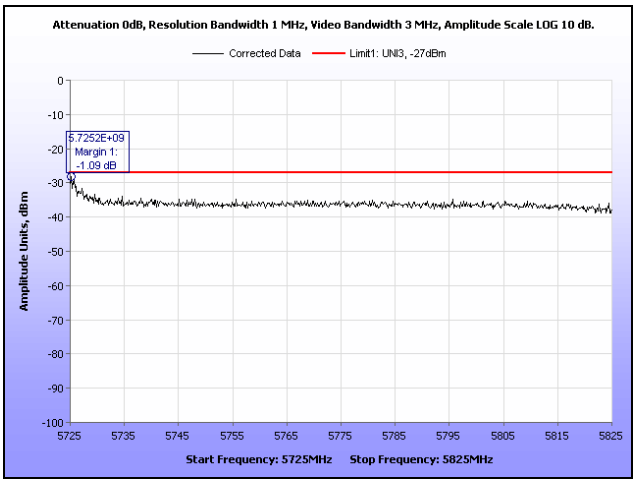
Plot 305. EIRP, 802.11n 20 MHz, 5260 MHz, Band Edge, Omni Antenna



Plot 306. EIRP, 802.11n 20 MHz, 5320 MHz, Band Edge, Omni Antenna

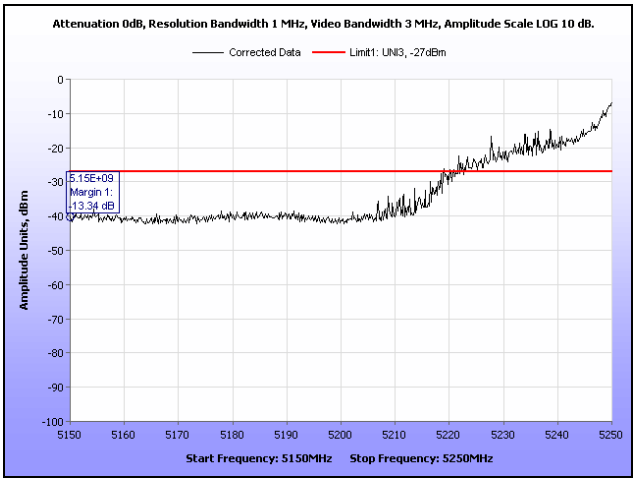


Plot 307. EIRP, 802.11n 20 MHz, 5500 MHz, Band Edge, Omni Antenna

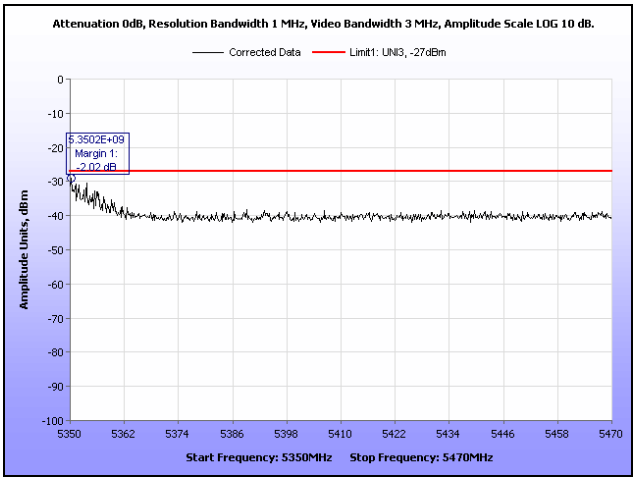


Plot 308. EIRP, 802.11n 20 MHz, 5700 MHz, Band Edge, Omni Antenna

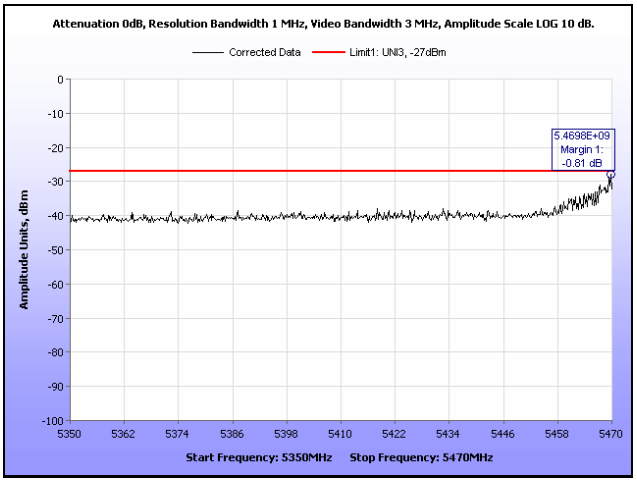
EIRP, 802.11n 40 MHz, Omni Antenna



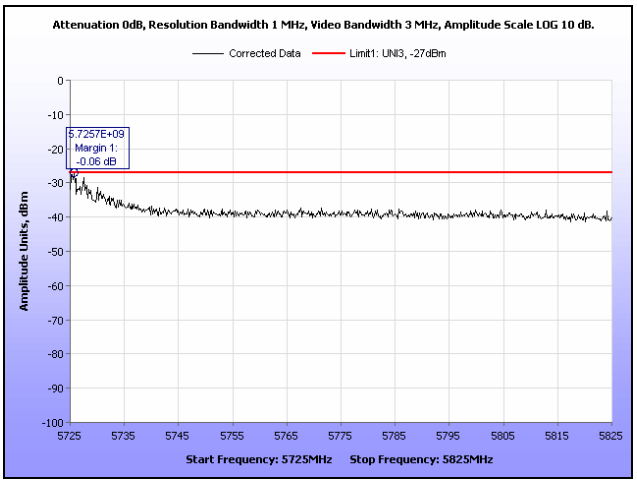
Plot 309. EIRP, 802.11n 40 MHz, 5270 MHz, Band Edge, Omni Antenna



Plot 310. EIRP, 802.11n 40 MHz, 5310 MHz, Band Edge, Omni Antenna

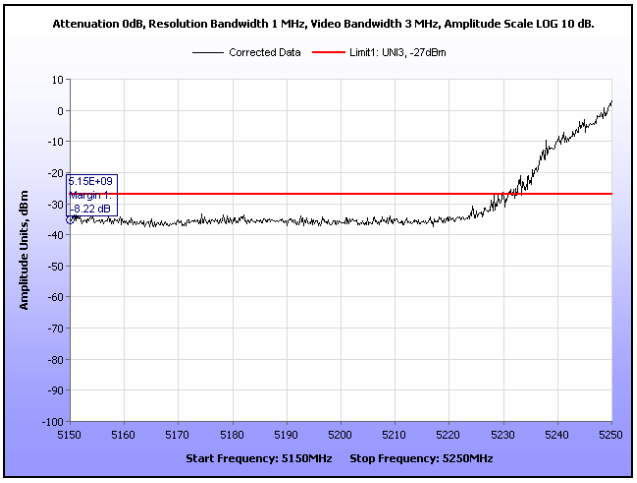


Plot 311. EIRP, 802.11n 40 MHz, 5510 MHz, Band Edge, Omni Antenna

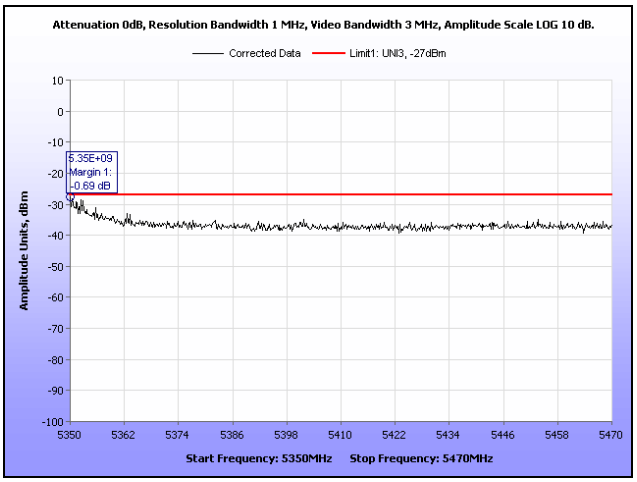


Plot 312. EIRP, 802.11n 40 MHz, 5690 MHz, Band Edge, Omni Antenna

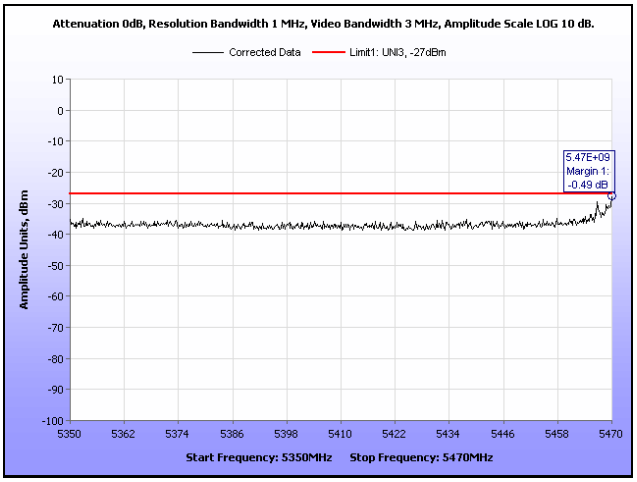
EIRP, 802.11a, Sector Antenna



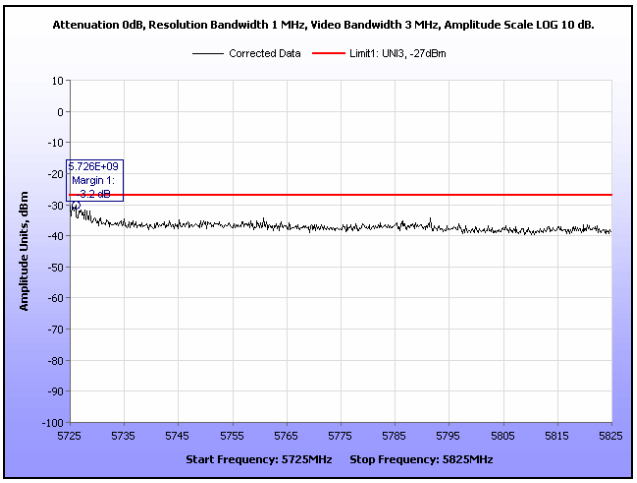
Plot 313. EIRP, 802.11a, 5260 MHz, Band Edge, Sector Antenna



Plot 314. EIRP, 802.11a, 5320 MHz, Band Edge, Sector Antenna

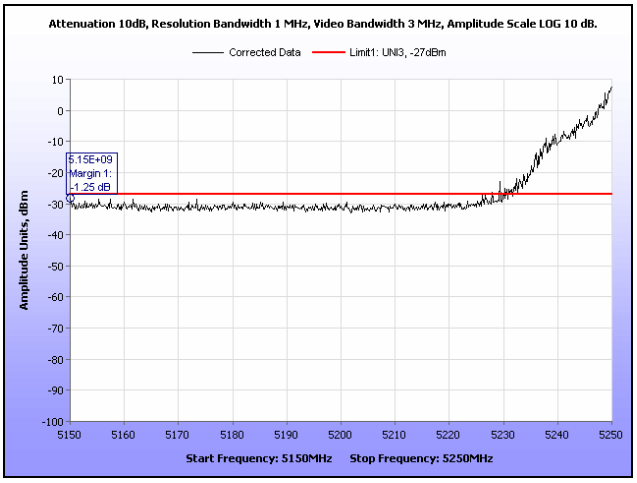


Plot 315. EIRP, 802.11a, 5500 MHz, Band Edge, Sector Antenna

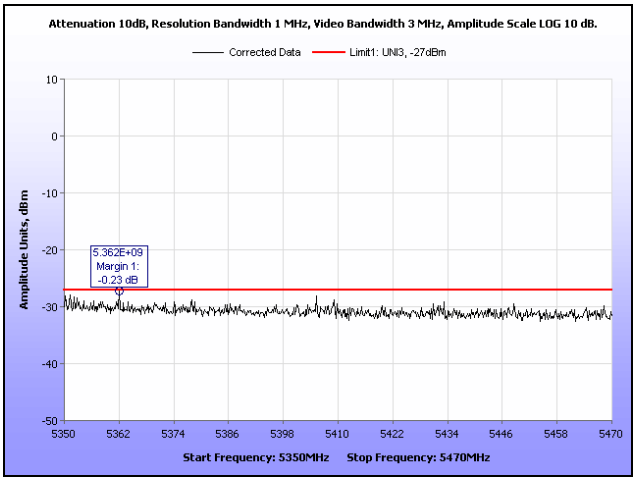


Plot 316. EIRP, 802.11a, 5700 MHz, Band Edge, Sector Antenna

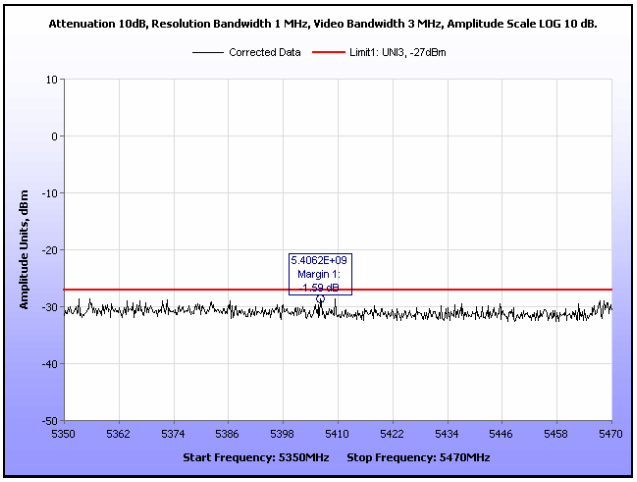
EIRP, 802.11n 20 MHz, Sector Antenna



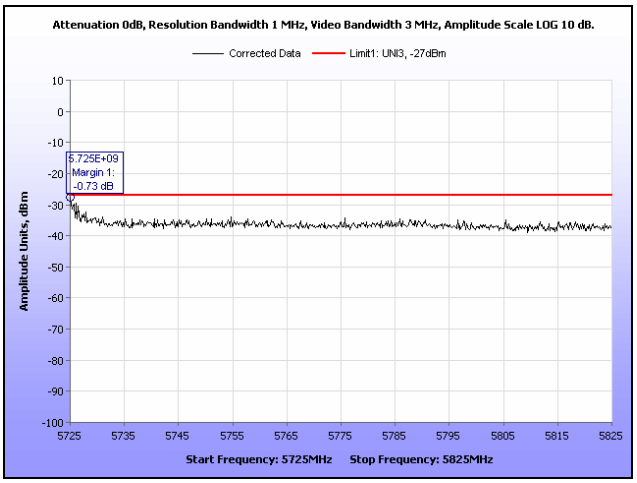
Plot 317. EIRP, 802.11n 20 MHz, 5260 MHz, Band Edge, Sector Antenna



Plot 318. EIRP, 802.11n 20 MHz, 5320 MHz, Band Edge, Sector Antenna

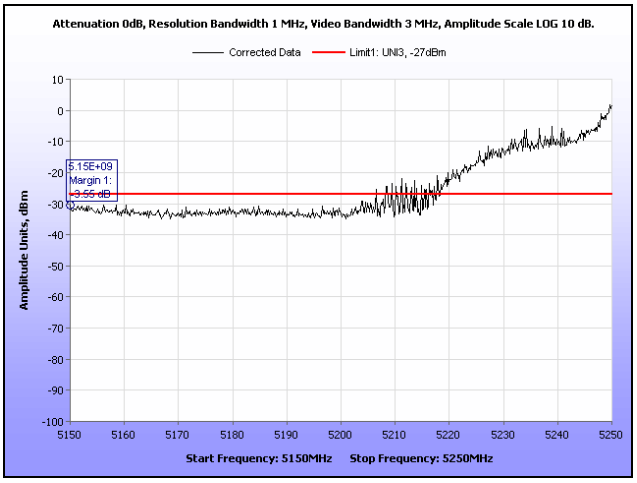


Plot 319. EIRP, 802.11n 20 MHz, 5500 MHz, Band Edge, Sector Antenna

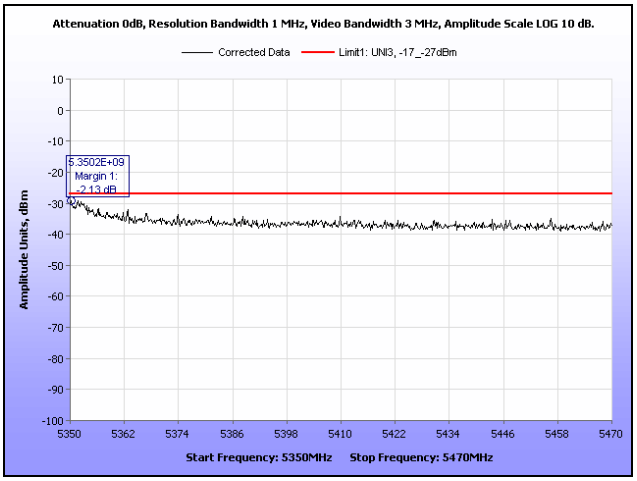


Plot 320. EIRP, 802.11n 20 MHz, 5700 MHz, Band Edge, Sector Antenna

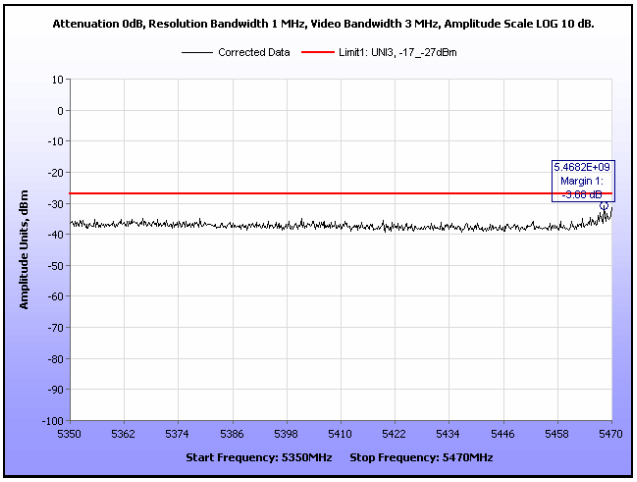
EIRP, 802.11n 40 MHz, Sector Antenna



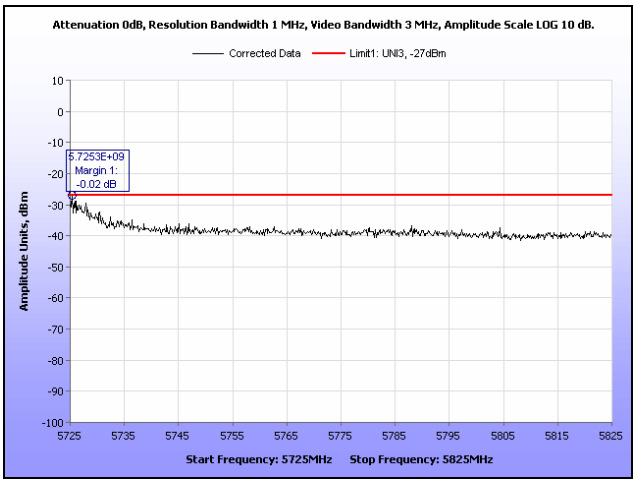
Plot 321. EIRP, 802.11n 40 MHz, 5270 MHz, Band Edge, Sector Antenna



Plot 322. EIRP, 802.11n 40 MHz, 5310 MHz, Band Edge, Sector Antenna

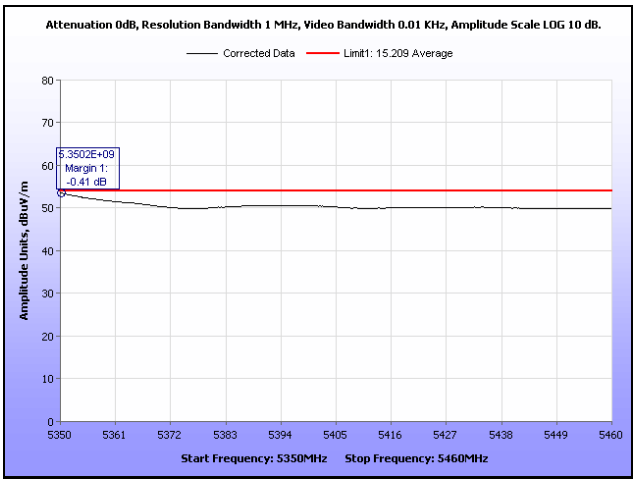


Plot 323. EIRP, 802.11n 40 MHz, 5510 MHz, Band Edge, Sector Antenna

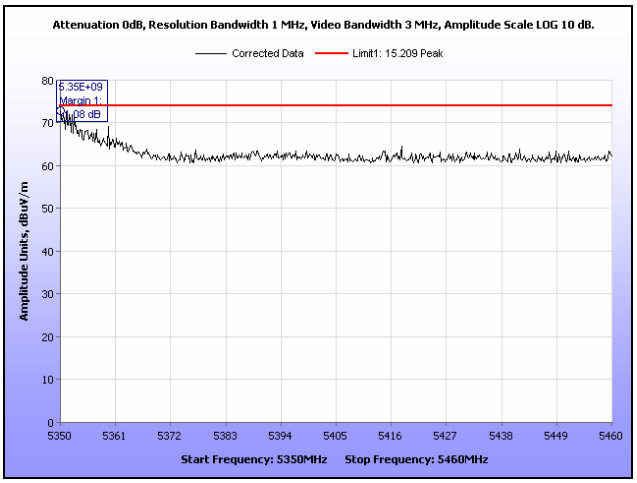


Plot 324. EIRP, 802.11n 40 MHz, 5690 MHz, Band Edge, Sector Antenna

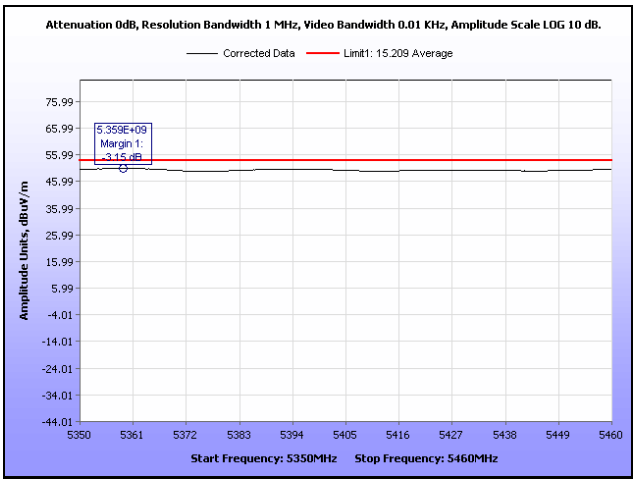
Restricted Band
Restricted Band, 802.11a, Omni Antenna



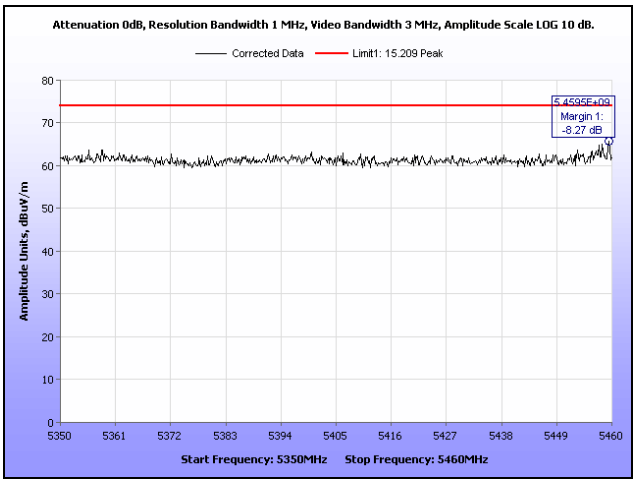
Plot 325. Restricted Band, 802.11a, 5320 MHz, Average, Omni Antenna



Plot 326. Restricted Band, 802.11a, 5320 MHz, Peak, Omni Antenna

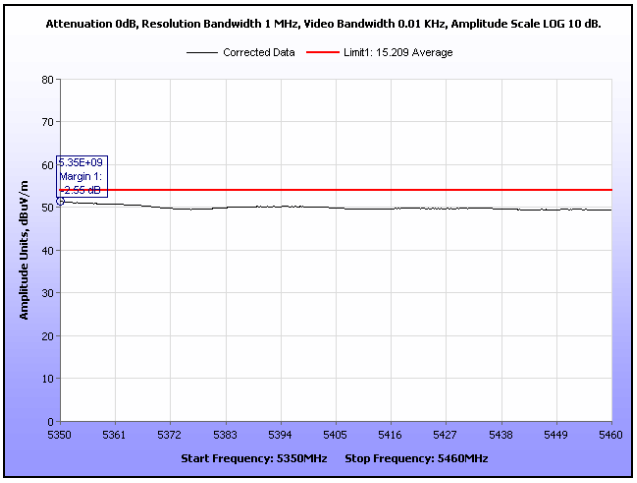


Plot 327. Restricted Band, 802.11a, 5500 MHz, Average, Omni Antenna

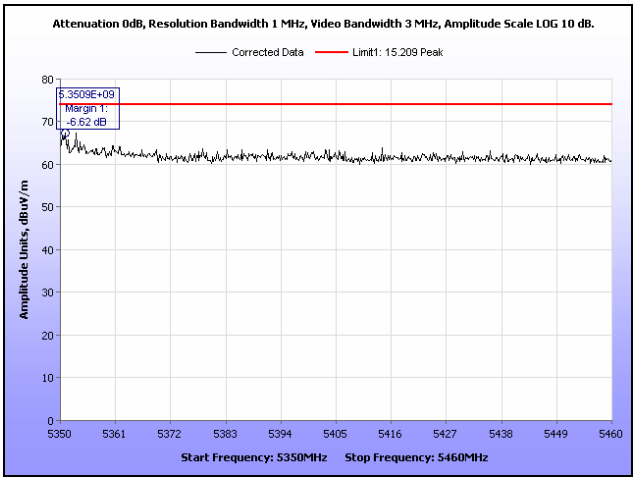


Plot 328. Restricted Band, 802.11a, 5500 MHz, Peak, Omni Antenna

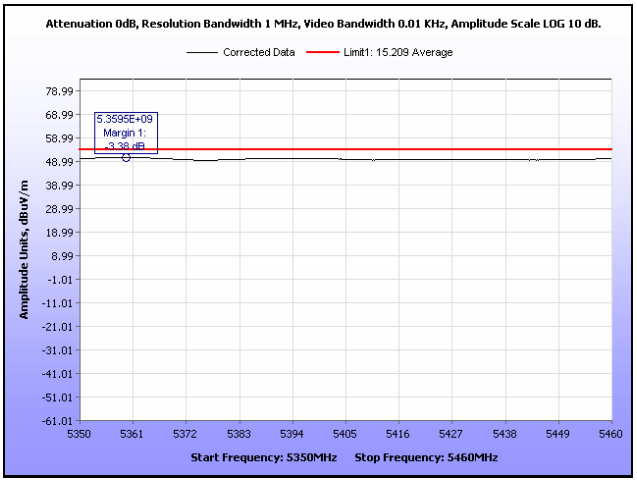
Restricted Band, 802.11n 20 MHz, Omni Antenna



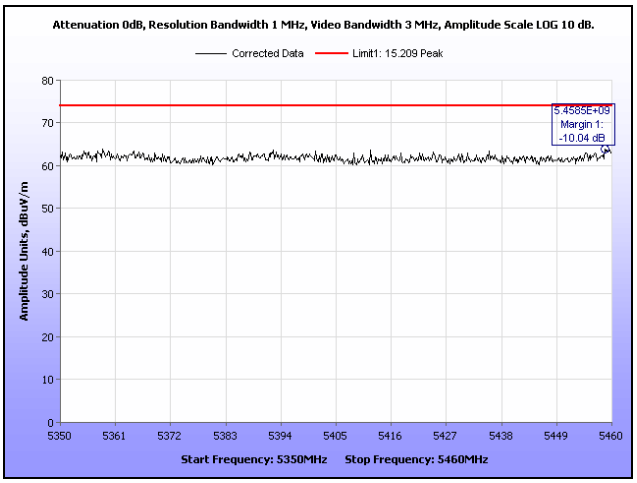
Plot 329. Restricted Band, 802.11n 20 MHz, 5320 MHz, Average, Omni Antenna



Plot 330. Restricted Band, 802.11n 20 MHz, 5320 MHz, Peak, Omni Antenna

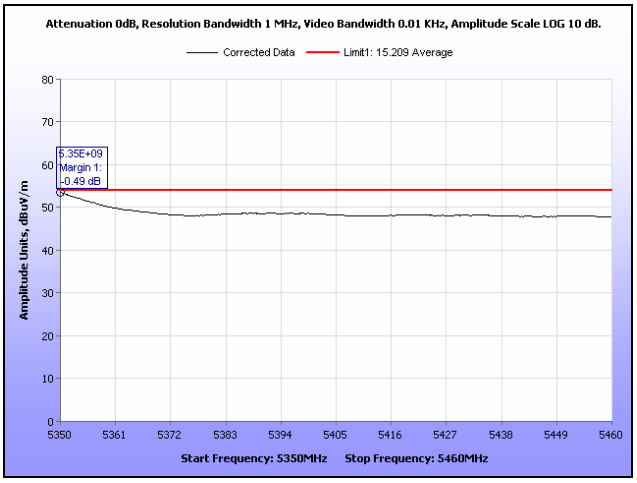


Plot 331. Restricted Band, 802.11n 20 MHz, 5500 MHz, Average, Omni Antenna

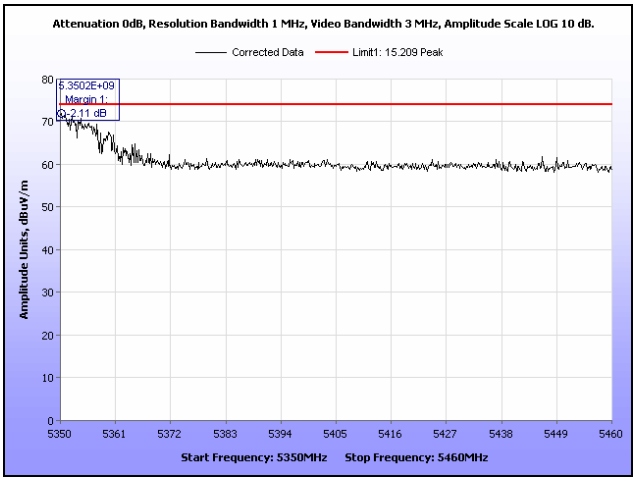


Plot 332. Restricted Band, 802.11n 20 MHz, 5500 MHz, Peak, Omni Antenna

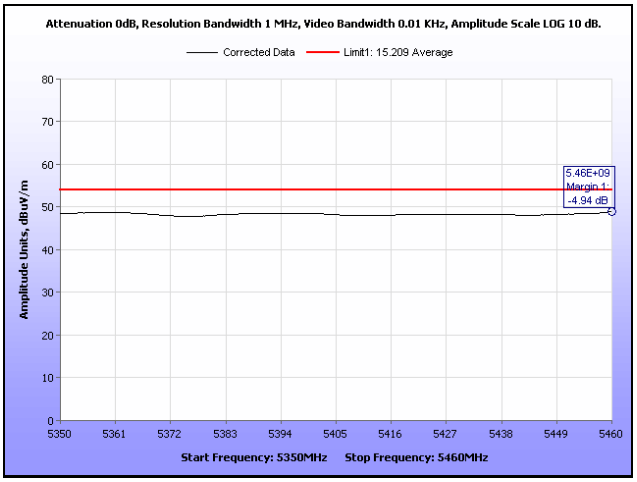
Restricted Band, 802.11n 40 MHz, Omni Antenna



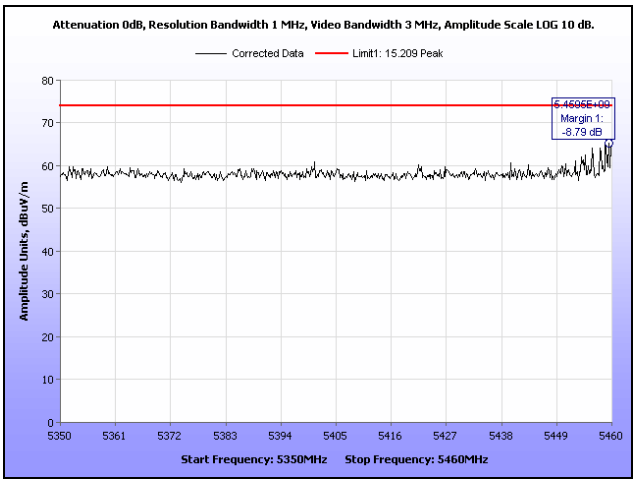
Plot 333. Restricted Band, 802.11n 40 MHz, 5310 MHz, Average, Omni Antenna



Plot 334. Restricted Band, 802.11n 40 MHz, 5310 MHz, Peak, Omni Antenna

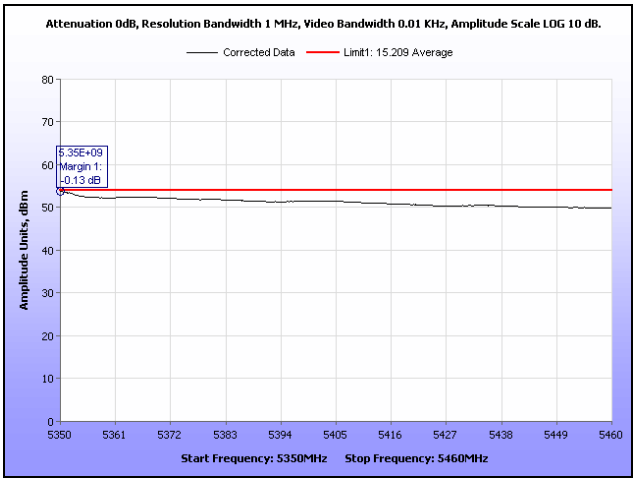


Plot 335. Restricted Band, 802.11n 40 MHz, 5510 MHz, Average, Omni Antenna

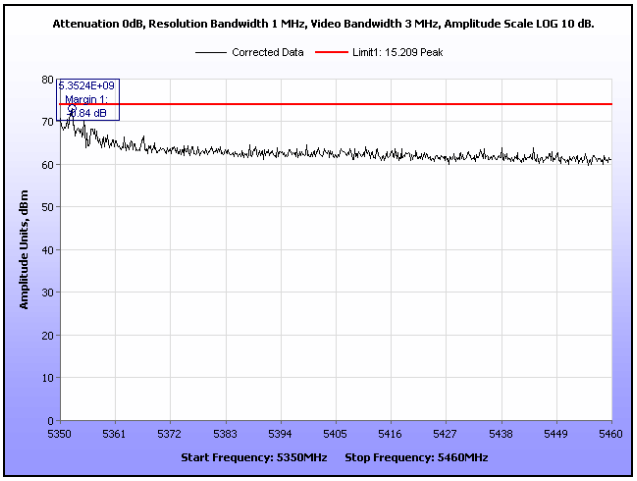


Plot 336. Restricted Band, 802.11n 40 MHz, 5510 MHz, Peak, Omni Antenna

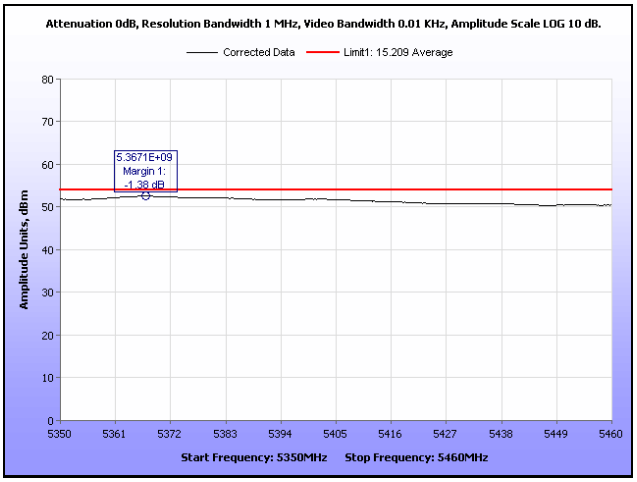
Restricted Band, 802.11a, Sector Antenna



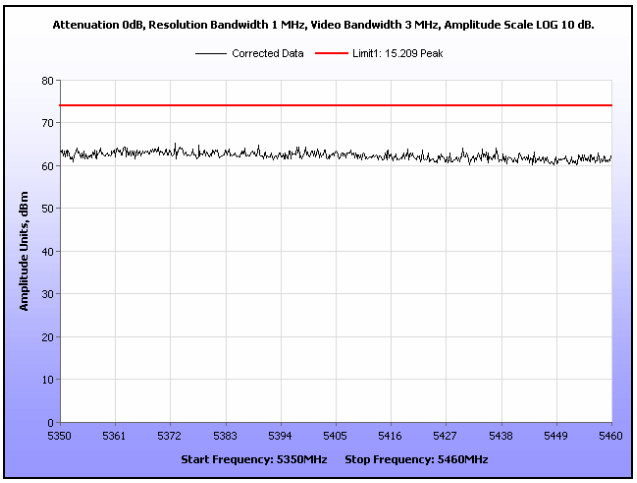
Plot 337. Restricted Band, 802.11a, 5320 MHz, Average, Sector Antenna



Plot 338. Restricted Band, 802.11a, 5320 MHz, Peak, Sector Antenna

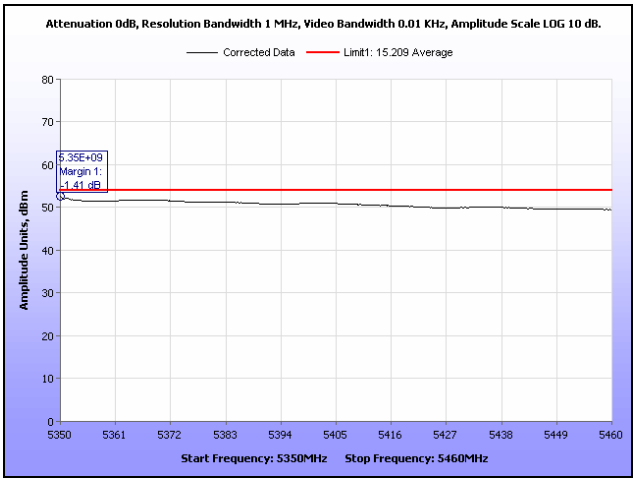


Plot 339. Restricted Band, 802.11a, 5500 MHz, Average, Sector Antenna

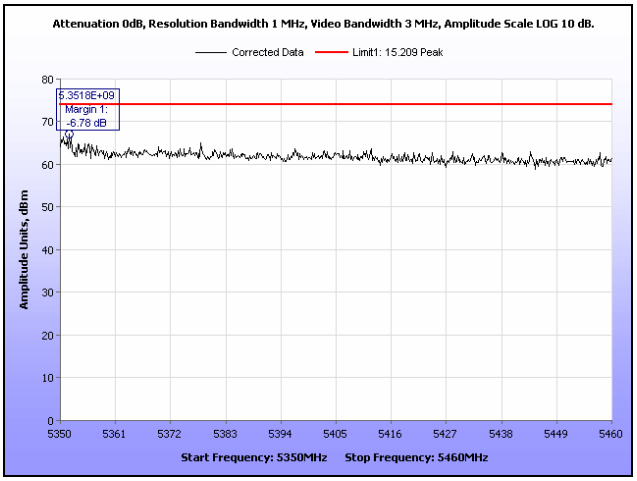


Plot 340. Restricted Band, 802.11a, 5500 MHz, Peak, Sector Antenna

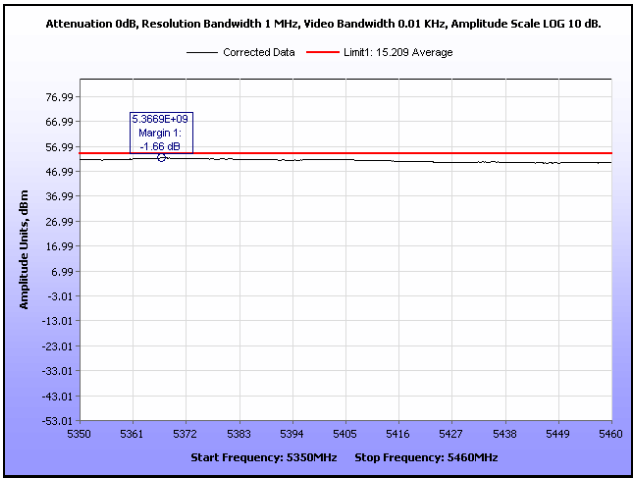
Restricted Band, 802.11n 20 MHz, Sector Antenna



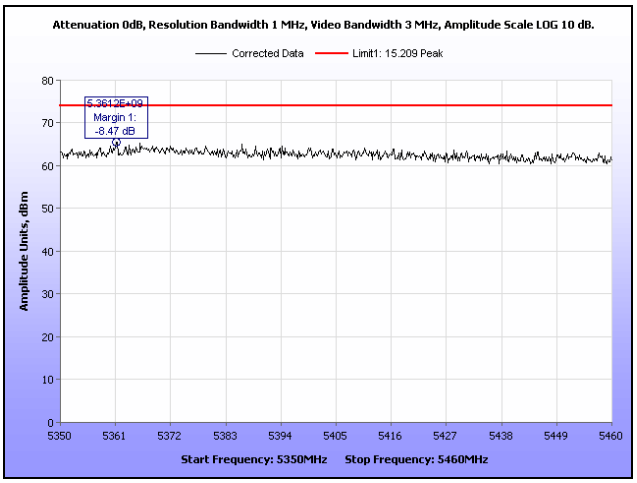
Plot 341. Restricted Band, 802.11n 20 MHz, 5320 MHz, Average, Sector Antenna



Plot 342. Restricted Band, 802.11n 20 MHz, 5320 MHz, Peak, Sector Antenna

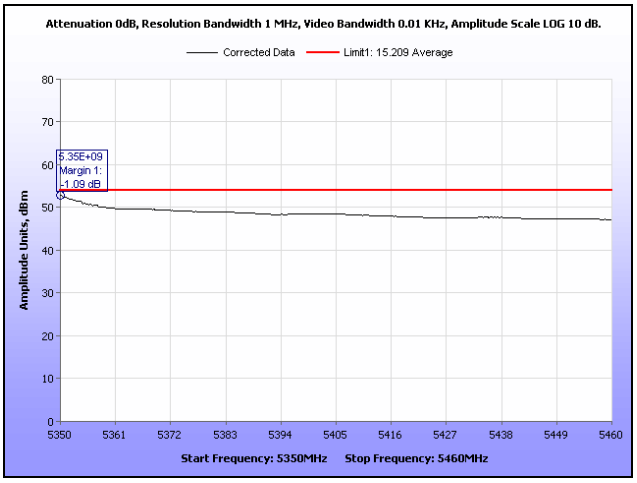


Plot 343. Restricted Band, 802.11n 20 MHz, 5500 MHz, Average, Sector Antenna

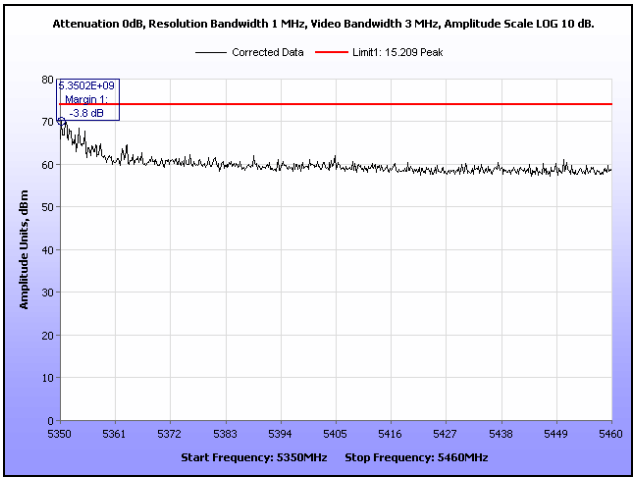


Plot 344. Restricted Band, 802.11n 20 MHz, 5500 MHz, Peak, Sector Antenna

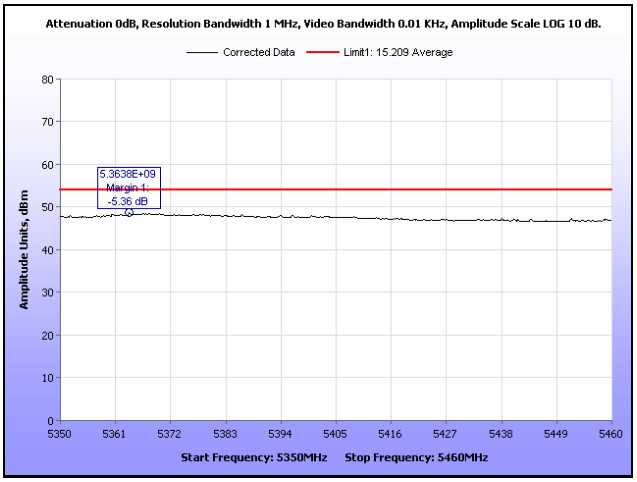
Restricted Band, 802.11n 40 MHz, Sector Antenna



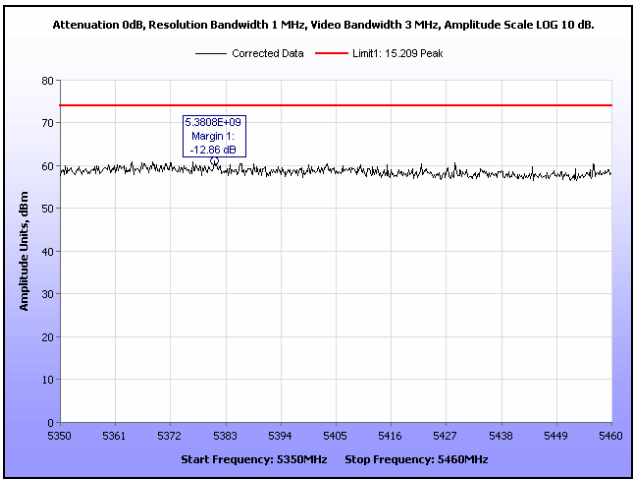
Plot 345. Restricted Band, 802.11n 40 MHz, 5310 MHz, Average, Sector Antenna



Plot 346. Restricted Band, 802.11n 40 MHz, 5310 MHz, Peak, Sector Antenna



Plot 347. Restricted Band, 802.11n 40 MHz, 5510 MHz, Average, Sector Antenna



Plot 348. Restricted Band, 802.11n 40 MHz, 5510 MHz, Peak, Sector Antenna

