



SPORTON International Inc.

No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.
Ph: 886-3-327-3456 / FAX: 886-3-327-0973 / www.sporton.com.tw

FCC RADIO TEST REPORT

Applicant's company	Proxim Wireless Corporation
Applicant Address	1561 Buckeye Drive, Milpitas, CA 95035, USA
FCC ID	HZB-MB83HP5
Manufacturer's company	Proxim Wireless Corporation
Manufacturer Address	1561 Buckeye Drive, Milpitas, CA 95035, USA

Product Name	802.11 a/b/g/n Mini-PCI module
Brand Name	Proxim
Model No.	MB82HP
Test Rule Part(s)	47 CFR FCC Part 15 Subpart E § 15.407
Test Freq. Range	5150 ~ 5250MHz
Received Date	Jun. 14, 2012
Final Test Date	Jul. 29, 2014
Submission Type	Class II Change

Statement

Test result included is for the IEEE 802.11n and IEEE 802.11a of the product.

The test result in this report refers exclusively to the presented test model / sample.

Without written approval of SPORTON International Inc., the test report shall not be reproduced except in full.

The measurements and test results shown in this test report were made in accordance with the procedures and found in compliance with the limit given in **ANSI C63.10-2009, 47 CFR FCC Part 15 Subpart E, KDB789033 D02 v01, KDB662911 D01 v02r01.**

The test equipment used to perform the test is calibrated and traceable to NML/ROC.



Table of Contents

1. CERTIFICATE OF COMPLIANCE	1
2. SUMMARY OF THE TEST RESULT	2
3. GENERAL INFORMATION	3
3.1. Product Details.....	3
3.2. Accessories.....	7
3.3. Table for Filed Antenna.....	8
3.4. Table for Carrier Frequencies	9
3.5. Table for Test Modes	10
3.6. Table for Testing Locations.....	13
3.7. Table for Class II Change	13
3.8. Table for Supporting Units	13
3.9. Table for Parameters of Test Software Setting	14
3.10. EUT Operation during Test	19
3.11. Duty Cycle.....	20
3.12. Test Configurations	24
4. TEST RESULT	26
4.1. 26dB Bandwidth and 99% Occupied Bandwidth Measurement.....	26
4.2. Maximum Conducted Output Power Measurement.....	99
4.3. Power Spectral Density Measurement	113
4.4. Radiated Emissions Measurement	154
4.5. Band Edge Emissions Measurement	237
4.6. Antenna Requirements	266
5. LIST OF MEASURING EQUIPMENTS	267
6. MEASUREMENT UNCERTAINTY.....	268
APPENDIX A. TEST PHOTOS	A1 ~ A9
APPENDIX B. MAXIMUM PERMISSIBLE EXPOSURE	B1 ~ B4
APPENDIX C. MAXIMUM E.I.R.P. AT ANY ELEVATION ANGLE ABOVE 30 DEGREES	

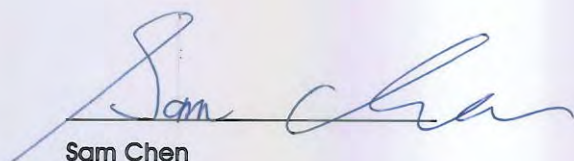
History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR062219-09AA	Rev. 01	Initial issue of report	Aug. 12, 2014

1. CERTIFICATE OF COMPLIANCE

Product Name : 802.11 a/b/g/n Mini-PCI module
Brand Name : Proxim
Model No. : MB82HP
Applicant : Proxim Wireless Corporation
Test Rule Part(s) : 47 CFR FCC Part 15 Subpart E § 15.407

Sporton International as requested by the applicant to evaluate the EMC performance of the product sample received on Jun. 14, 2012 would like to declare that the tested sample has been evaluated and found to be in compliance with the tested rule parts. The data recorded as well as the test configuration specified is true and accurate for showing the sample's EMC nature.



Sam Chen

SPORTON INTERNATIONAL INC.

2. SUMMARY OF THE TEST RESULT

Applied Standard: 47 CFR FCC Part 15 Subpart E				
Part	Rule Section	Description of Test	Result	Under Limit
4.1	15.407(a)	26dB Spectrum Bandwidth and 99% Occupied Bandwidth	Complies	-
4.2	15.407(a)	Maximum Conducted Output Power	Complies	1.87 dB
4.3	15.407(a)	Power Spectral Density	Complies	0.01 dB
4.4	15.407(b)	Radiated Emissions	Complies	0.06 dB
4.5	15.407(b)	Band Edge Emissions	Complies	0.05 dB
4.6	15.203	Antenna Requirements	Complies	-

Note: 1. The module (Model number: MB82HP) is Limited Module Approval and only limited to install to the AP (Proxim / MP 8200).

2. This EUT supports only 4.9GHz and 5GHz 11a/n without other frequency band.
The 2.4GHz band is disabled by firmware.

3. GENERAL INFORMATION

3.1. Product Details

IEEE 802.11n

Items	Description
Product Type	WLAN (2TX/3TX, 3RX)
Radio Type	Intentional Transceiver
Power Type	From host system
Modulation	see the below table for IEEE 802.11n
Data Modulation	OFDM (BPSK / QPSK / 16QAM / 64QAM)
Data Rate (Mbps)	see the below table for IEEE 802.11n
Frequency Range	5150 ~ 5250MHz
Channel Number	3 for 5 MHz bandwidth ; 3 for 10 MHz bandwidth ; 4 for 20 MHz bandwidth ; 2 for 40 MHz bandwidth
Channel Band Width (99%)	<u>For 2TX function:</u> Ant. 4 / P to P: MCS0 (5 MHz): 5.88 MHz ; MCS0 (10 MHz): 10.08 MHz ; MCS0 (20 MHz): 18.24 MHz ; MCS0 (40 MHz): 51.20 MHz <u>For 3TX function:</u> Ant. 1 / P to P: MCS0 (5 MHz): 7.32 MHz ; MCS0 (10 MHz): 11.76 MHz ; MCS0 (20 MHz): 21.76 MHz ; MCS0 (40 MHz): 36.48 MHz Ant. 1 / P to M: MCS0 (5 MHz): 6.88 MHz ; MCS0 (10 MHz): 11.76 MHz ; MCS0 (20 MHz): 21.76 MHz ; MCS0 (40 MHz): 36.48 MHz Ant. 2 / P to P: MCS0 (5 MHz): 7.08 MHz ; MCS0 (10 MHz): 12.96 MHz ; MCS0 (20 MHz): 23.20 MHz ; MCS0 (40 MHz): 36.80 MHz Ant. 2 / P to M: MCS0 (5 MHz): 6.84 MHz ; MCS0 (10 MHz): 12.16 MHz ; MCS0 (20 MHz): 23.20 MHz ; MCS0 (40 MHz): 36.80 MHz Ant. 3 / P to M: MCS0 (5 MHz): 6.76 MHz ; MCS0 (10 MHz): 12.32 MHz ; MCS0 (20 MHz): 18.24 MHz ; MCS0 (40 MHz): 36.80 MHz

Maximum Conducted Output Power	<u>For 2TX function:</u> Ant. 4 / P to P: MCS0 (5 MHz): 20.01 dBm ; MCS0 (10 MHz): 21.77 dBm ; MCS0 (20 MHz): 22.79 dBm ; MCS0 (40 MHz): 23.88 dBm <u>For 3TX function:</u> Ant. 1 / P to P: MCS0 (5 MHz): 25.71 dBm ; MCS0 (10 MHz): 25.05 dBm ; MCS0 (20 MHz): 26.13 dBm ; MCS0 (40 MHz): 25.05 dBm Ant. 1 / P to M: MCS0 (5 MHz): 22.31 dBm ; MCS0 (10 MHz): 24.12 dBm ; MCS0 (20 MHz): 26.13 dBm ; MCS0 (40 MHz): 25.05 dBm Ant. 2 / P to P: MCS0 (5 MHz): 25.78 dBm ; MCS0 (10 MHz): 26.02 dBm ; MCS0 (20 MHz): 26.13 dBm ; MCS0 (40 MHz): 24.01 dBm Ant. 2 / P to M: MCS0 (5 MHz): 22.31 dBm ; MCS0 (10 MHz): 24.99 dBm ; MCS0 (20 MHz): 26.13 dBm ; MCS0 (40 MHz): 24.01 dBm Ant. 3 / P to M: MCS0 (5 MHz): 19.24 dBm ; MCS0 (10 MHz): 21.78 dBm ; MCS0 (20 MHz): 23.42 dBm ; MCS0 (40 MHz): 24.89 dBm
Carrier Frequencies	Please refer to section 3.4
Antenna	Please refer to section 3.3

IEEE 802.11a

Items	Description
Product Type	WLAN (2TX/3TX, 3RX)
Radio Type	Intentional Transceiver
Power Type	From host system
Modulation	OFDM for IEEE 802.11a
Data Modulation	OFDM (BPSK / QPSK / 16QAM / 64QAM)
Data Rate (Mbps)	OFDM (6/9/12/18/24/36/48/54)
Frequency Range	5150 ~ 5250MHz
Channel Number	3 for 5 MHz bandwidth ; 3 for 10 MHz bandwidth ; 4 for 20 MHz bandwidth
Channel Band Width (99%)	<u>For 2TX function:</u> Ant. 4 / P to P: 11a (5MHz): 5.32 MHz ; 11a (10MHz): 9.84 MHz ; 11a (20MHz): 17.60 MHz <u>For 3TX function:</u> Ant. 1 / P to P: 11a (5MHz): 7.48 MHz ; 11a (10MHz): 12.00 MHz ; 11a (20MHz): 22.08 MHz Ant. 1 / P to M: 11a (5MHz): 6.72 MHz ; 11a (10MHz): 11.68 MHz ; 11a (20MHz): 22.08 MHz Ant. 2 / P to P: 11a (5MHz): 6.92 MHz ; 11a (10MHz): 12.56 MHz ; 11a (20MHz): 20.00 MHz Ant. 2 / P to M: 11a (5MHz): 6.72 MHz ; 11a (10MHz): 11.60 MHz ; 11a (20MHz): 20.00 MHz Ant. 3 / P to M: 11a (5MHz): 6.64 MHz ; 11a (10MHz): 11.28 MHz ; 11a (20MHz): 17.60 MHz

Maximum Conducted Output Power	<u>For 2TX function:</u> Ant. 4 / P to P: 11a (5MHz): 20.56 dBm ; 11a (10MHz): 21.71 dBm ; 11a (20MHz): 23.09 dBm <u>For 3TX function:</u> Ant. 1 / P to P: 11a (5MHz): 23.49 dBm ; 11a (10MHz): 25.09 dBm ; 11a (20MHz): 26.04 dBm Ant. 1 / P to M: 11a (5MHz): 22.11 dBm ; 11a (10MHz): 24.52 dBm ; 11a (20MHz): 26.04 dBm Ant. 2 / P to P: 11a (5MHz): 25.67 dBm ; 11a (10MHz): 26.03 dBm ; 11a (20MHz): 25.79 dBm Ant. 2 / P to M: 11a (5MHz): 22.11 dBm ; 11a (10MHz): 24.52 dBm ; 11a (20MHz): 25.79 dBm Ant. 3 / P to M: 11a (5MHz): 19.21 dBm ; 11a (10MHz): 21.70 dBm ; 11a (20MHz): 23.21 dBm
Carrier Frequencies	Please refer to section 3.4
Antenna	Please refer to section 3.3

Items	Description	
Communication Mode	☒ IP Based (Load Based)	☐ Frame Based
Beamforming Function	☐ With beamforming	☒ Without beamforming

Antenna & Band width

Antenna	Two (TX)				Three (TX)			
Band width Mode	5 MHz	10 MHz	20 MHz	40 MHz	5 MHz	10 MHz	20 MHz	40 MHz
IEEE 802.11a	V	V	V	X	V	V	V	X
IEEE 802.11n	V	V	V	V	V	V	V	V

IEEE 11a/n Spec.

Protocol	Number of Transmit Chains (NTX)	Data Rate / MCS
802.11a (5 MHz)	2	6-54 Mbps
802.11a (10 MHz)	2	6-54 Mbps
802.11a (20 MHz)	2	6-54 Mbps
802.11a (5 MHz)	3	6-54 Mbps
802.11a (10 MHz)	3	6-54 Mbps
802.11a (20 MHz)	3	6-54 Mbps
802.11n (5 MHz)	2	MCS0-15
802.11n (10 MHz)	2	MCS0-15
802.11n (20 MHz)	2	MCS0-15
802.11n (40 MHz)	2	MCS0-15
802.11n (5 MHz)	3	MCS0-23
802.11n (10 MHz)	3	MCS0-23
802.11n (20 MHz)	3	MCS0-23
802.11n (40 MHz)	3	MCS0-23
Note: Modulation modes consist of below configuration: 5 MHz/10 MHz/20 MHz: IEEE 802.11a, 5 MHz/10 MHz/20 MHz/40 MHz: IEEE 802.11n		

3.2. Accessories

N/A

3.3. Table for Filed Antenna

Set	Ant.	Chain	Brand	Model No.	Type	Connector	Attenuator (dBi)	Gain (dBi)	Cable Loss (dB)	True Gain (dBi)	Remark
1	1	1/2/3	MARS	MA-WA55-30	Panel	N-Type, Female	20	30	2	8	P to P/ P to M
2	2	1/2/3	MARS	MA-WB55-20	Sector	N-Type, Female	10	20	2	8	P to P/ P to M
3	3	1/2/3	SmartAnt	SAA08-220570	Ommi	N-Type, Female / N-Type, Male (optional)	-	10	2	8	P to M
4	4	1/3	CommScope	PX3F-52-N7A	Dish	N Female	20	34	2	12	P to P
5	5	1/3	MARS	MA-WA56-DP25N	Panel	N-Type, Female	20	23.5	2	1.5	P to P/ P to M
6	6	1/3	MARS	MA-WD56-DP16	Sector	N-Type, Female	10	16	2	4	P to P/ P to M

Note: 1. The EUT has total antennas amounted to six sets.

- Ant. 1 to 4 were selected to perform the test and written in this report due to the highest gain.
- Ant. 5 and Ant. 6 will follow conducted output power of Ant. 1 and Ant. 2, so its does not need to test.
- Ant. 5 does not need to assessment directional gain.
- Ant.4 is placed in different direction. Therefore, it will not be affected by array gain.
- The EUT can support both 2TX and 3TX functions.

For 2TX function (2TX/3RX):

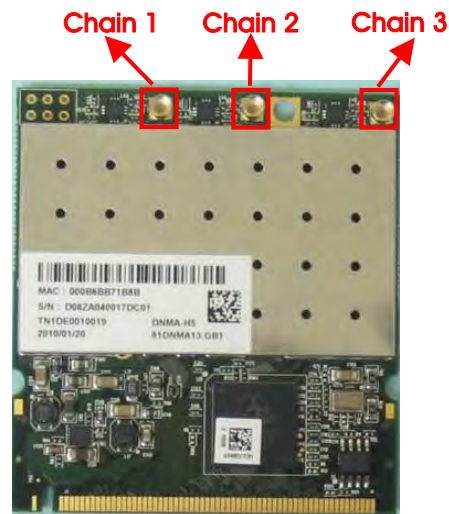
Ant. 4, Ant. 5 and Ant. 6 can be used as transmitting/receiving antennas.

Chain 1 and Chain 3 could transmit simultaneously, Chain 1, Chain 2 and Chain 3 could receive simultaneously.

For 3TX function (3TX/3RX):

Ant. 1, Ant. 2 and Ant. 3 can be used as transmitting/receiving antennas.

Chain 1, Chain 2 and Chain 3 could transmit/receive simultaneously.



3.4. Table for Carrier Frequencies

The EUT has four bandwidth system.

For 5MHz bandwidth systems, use Channel 36, 42, 48.

For 10MHz bandwidth systems, use Channel 36, 42, 48.

For 20MHz bandwidth systems, use Channel 36, 40, 44, 48.

For 40MHz bandwidth systems, use Channel 38, 46.

Frequency Band	Channel No.	Frequency	Channel No.	Frequency
5150~5250 MHz Band 1	36	5180 MHz	44	5220 MHz
	38	5190 MHz	46	5230 MHz
	40	5200 MHz	48	5240 MHz
	42	5210 MHz	-	-

3.5. Table for Test Modes

Preliminary tests were performed in different data rate to find the worst radiated emission. The data rate shown in the table below is the worst-case rate with respect to the specific test item. Investigation has been done on all the possible configurations for searching the worst cases. The following table is a list of the test modes shown in this test report.

Test Items	Mode		Data Rate	Channel	Chain
Max. Conducted Output Power	11n (5 MHz)	Band 1	MCS0	36/42/48	1+3/ 1+2+3
	11n (10 MHz)	Band 1	MCS0	36/42/48	1+3/ 1+2+3
	11n (20 MHz)	Band 1	MCS0	36/40/48	1+3/ 1+2+3
	11n (40 MHz)	Band 1	MCS0	38/46	1+3/ 1+2+3
	11a/BPSK (5 MHz)	Band 1	6Mbps	36/42/48	1+3/ 1+2+3
	11a/BPSK (10 MHz)	Band 1	6Mbps	36/42/48	1+3/ 1+2+3
	11a/BPSK (20 MHz)	Band 1	6Mbps	36/40/48	1+3/ 1+2+3
Power Spectral Density	11n (5 MHz)	Band 1	MCS0	36/42/48	1+3/ 1+2+3
	11n (10 MHz)	Band 1	MCS0	36/42/48	1+3/ 1+2+3
	11n (20 MHz)	Band 1	MCS0	36/40/48	1+3/ 1+2+3
	11n (40 MHz)	Band 1	MCS0	38/46	1+3/ 1+2+3
	11a/BPSK (5 MHz)	Band 1	6Mbps	36/42/48	1+3/ 1+2+3
	11a/BPSK (10 MHz)	Band 1	6Mbps	36/42/48	1+3/ 1+2+3
	11a/BPSK (20 MHz)	Band 1	6Mbps	36/40/48	1+3/ 1+2+3

26dB Spectrum Bandwidth 99% Occupied Bandwidth Measurement	11n (5 MHz)	Band 1	MCS0	36/42/48	1+3/ 1+2+3
	11n (10 MHz)	Band 1	MCS0	36/42/48	1+3/ 1+2+3
	11n (20 MHz)	Band 1	MCS0	36/40/48	1+3/ 1+2+3
	11n (40 MHz)	Band 1	MCS0	38/46	1+3/ 1+2+3
	11a/BPSK (5 MHz)	Band 1	6Mbps	36/42/48	1+3/ 1+2+3
	11a/BPSK (10 MHz)	Band 1	6Mbps	36/42/48	1+3/ 1+2+3
	11a/BPSK (20 MHz)	Band 1	6Mbps	36/40/48	1+3/ 1+2+3
Radiated Emission Above 1GHz	11n (5 MHz)	Band 1	MCS0	36/42/48	1+3/ 1+2+3
	11n (10 MHz)	Band 1	MCS0	36/42/48	1+3/ 1+2+3
	11n (20 MHz)	Band 1	MCS0	36/40/48	1+3/ 1+2+3
	11n (40 MHz)	Band 1	MCS0	38/46	1+3/ 1+2+3
	11a/BPSK (5 MHz)	Band 1	6Mbps	36/42/48	1+3/ 1+2+3
	11a/BPSK (10 MHz)	Band 1	6Mbps	36/42/48	1+3/ 1+2+3
	11a/BPSK (20 MHz)	Band 1	6Mbps	36/40/48	1+3/ 1+2+3

Band Edge Emission	11n (5 MHz)	Band 1	MCS0	36/42/48	1+3/ 1+2+3
	11n (10 MHz)	Band 1	MCS0	36/42/48	1+3/ 1+2+3
	11n (20 MHz)	Band 1	MCS0	36/40/48	1+3/ 1+2+3
	11n (40 MHz)	Band 1	MCS0	38/46	1+3/ 1+2+3
	11a/BPSK (5 MHz)	Band 1	6Mbps	36/42/48	1+3/ 1+2+3
	11a/BPSK (10 MHz)	Band 1	6Mbps	36/42/48	1+3/ 1+2+3
	11a/BPSK (20 MHz)	Band 1	6Mbps	36/40/48	1+3/ 1+2+3

The following test modes were performed for all tests:

Mode 1. EUT + Ant. 1 (3TX)

Mode 2. EUT + Ant. 2 (3TX)

Mode 3. EUT + Ant. 3 (3TX)

Mode 4. EUT + Ant. 4 (2TX)

All test results were recorded in the report.

Note: There are two modes of Ant. 1 and Ant 2, one is P to P, and the other is P to M, and all test results were recorded in the report.

3.6. Table for Testing Locations

Test Site Location					
Address:	No.8, Lane 724, Bo-ai St., Jhubei City, Hsinchu County 302, Taiwan, R.O.C.				
TEL:	886-3-656-9065				
FAX:	886-3-656-9085				
Test Site No.	Site Category	Location	FCC Reg. No.	IC File No.	VCCI Reg. No
03CH01-CB	SAC	Hsin Chu	262045	IC 4086D	-
CO01-CB	Conduction	Hsin Chu	262045	IC 4086D	-
TH01-CB	OVEN Room	Hsin Chu	-	-	-

Open Area Test Site (OATS); Semi Anechoic Chamber (SAC).

3.7. Table for Class II Change

This product is an extension of original one reported under Sporton project number: FR062219-03AA

Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
- Updating test rule to "New Rule" from "Old Rule". - Removing one antenna "Model No.: USI05-220170". - Removing one antenna "Model No.: MA-WO55-10NH", and change it adding one antenna "Model No.: SAA08-220570".	26dB Spectrum Bandwidth and 99% Occupied Bandwidth. - Maximum Conducted Output Power. - Power Spectral Density. - Radiated Emission Above 1GHz. - Band Edge Emissions. - Maximum Permissible Exposure.

3.8. Table for Supporting Units

For Test Site No: TH01-CB

Support Unit	Brand	Model	FCC ID
NB	DELL	D420	E2KWM3945ABG
Power Supply	Advanced	LPS-305	N/A
Test Fixture	VICOMM	DA-1412	N/A

For Test Site No: 03CH01-CB

Support Unit	Brand	Model	FCC ID
NB	DELL	E6220	DoC
Power Supply	Advanced	LPS-305	N/A
Test Fixture	VICOMM	DA-1412	N/A

3.9. Table for Parameters of Test Software Setting

During testing, Channel and Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

Test Mode 1 / P to P

Power Parameters of IEEE 802.11n MCS0 5 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5210 MHz	5240 MHz
MCS0 5 MHz	19.5	19.5	19

Power Parameters of IEEE 802.11n MCS0 10 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5210 MHz	5240 MHz
MCS0 10 MHz	17.5	18	19

Power Parameters of IEEE 802.11n MCS0 20 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5200 MHz	5240 MHz
MCS0 20 MHz	16.5	19	20

Power Parameters of IEEE 802.11n MCS0 40 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5190 MHz	5230 MHz	
MCS0 40 MHz	13.5	19	

Power Parameters of IEEE 802.11a 5 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5210 MHz	5240 MHz
802.11a 5 MHz	15.5	16.5	17

Power Parameters of IEEE 802.11a 10 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5210 MHz	5240 MHz
802.11a 10 MHz	17	19	19

Power Parameters of IEEE 802.11a 20 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5200 MHz	5240 MHz
802.11a 20 MHz	17.5	19	20

Test Mode 1 / P to M
Power Parameters of IEEE 802.11n MCS0 5 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5210 MHz	5240 MHz
MCS0 5 MHz	15.5	15.5	15.5

Power Parameters of IEEE 802.11n MCS0 10 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5210 MHz	5240 MHz
MCS0 10 MHz	17.5	18	18

Power Parameters of IEEE 802.11n MCS0 20 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5200 MHz	5240 MHz
MCS0 20 MHz	16.5	19	20

Power Parameters of IEEE 802.11n MCS0 40 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n	
Frequency	5190 MHz	5230 MHz
MCS0 40 MHz	13.5	19

Power Parameters of IEEE 802.11a 5 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5210 MHz	5240 MHz
802.11a 5 MHz	15.5	15.5	15

Power Parameters of IEEE 802.11a 10 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5210 MHz	5240 MHz
802.11a 10 MHz	17	18.5	18

Power Parameters of IEEE 802.11a 20 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5200 MHz	5240 MHz
802.11a 20 MHz	17.5	19	20

Test Mode 2 / P to P
Power Parameters of IEEE 802.11n MCS0 5 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5210 MHz	5240 MHz
MCS0 5 MHz	19.5	19.5	19

Power Parameters of IEEE 802.11n MCS0 10 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5210 MHz	5240 MHz
MCS0 10 MHz	19.5	20	20

Power Parameters of IEEE 802.11n MCS0 20 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5200 MHz	5240 MHz
MCS0 20 MHz	14.5	20	20

Power Parameters of IEEE 802.11n MCS0 40 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5190 MHz	5230 MHz	
MCS0 40 MHz	7.5	18	

Power Parameters of IEEE 802.11a 5 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5210 MHz	5240 MHz
802.11a 5 MHz	19.5	19	19

Power Parameters of IEEE 802.11a 10 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5210 MHz	5240 MHz
802.11a 10 MHz	19.5	20	20

Power Parameters of IEEE 802.11a 20 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5200 MHz	5240 MHz
802.11a 20 MHz	14.5	19.5	19.5

Test Mode 2 / P to M
Power Parameters of IEEE 802.11n MCS0 5 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5210 MHz	5240 MHz
MCS0 5 MHz	15.5	15.5	15.5

Power Parameters of IEEE 802.11n MCS0 10 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5210 MHz	5240 MHz
MCS0 10 MHz	19	19	18

Power Parameters of IEEE 802.11n MCS0 20 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5200 MHz	5240 MHz
MCS0 20 MHz	14.5	20	20

Power Parameters of IEEE 802.11n MCS0 40 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5190 MHz	5230 MHz	
MCS0 40 MHz	7.5	18	

Power Parameters of IEEE 802.11a 5 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5210 MHz	5240 MHz
802.11a 5 MHz	15.5	15.5	15

Power Parameters of IEEE 802.11a 10 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5210 MHz	5240 MHz
802.11a 10 MHz	18.5	18.5	18

Power Parameters of IEEE 802.11a 20 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5200 MHz	5240 MHz
802.11a 20 MHz	14.5	19.5	19.5

Test Mode 3 / P to M
Power Parameters of IEEE 802.11n MCS0 5 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5210 MHz	5240 MHz
MCS0 5 MHz	14	14	14

Power Parameters of IEEE 802.11n MCS0 10 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5210 MHz	5240 MHz
MCS0 10 MHz	15.5	15.5	15

Power Parameters of IEEE 802.11n MCS0 20 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5200 MHz	5240 MHz
MCS0 20 MHz	15.5	18	18

Power Parameters of IEEE 802.11n MCS0 40 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5190 MHz	5230 MHz	
MCS0 40 MHz	7.5	18.5	

Power Parameters of IEEE 802.11a 5 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5210 MHz	5240 MHz
802.11a 5 MHz	14	13.5	13.5

Power Parameters of IEEE 802.11a 10 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5210 MHz	5240 MHz
802.11a 10 MHz	15.5	15.5	15

Power Parameters of IEEE 802.11a 20 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5200 MHz	5240 MHz
802.11a 20 MHz	16	18	17.5

Test Mode 4 / P to P

Power Parameters of IEEE 802.11n MCS0 5 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5210 MHz	5240 MHz
MCS0 5 MHz	15	15	15

Power Parameters of IEEE 802.11n MCS0 10 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5210 MHz	5240 MHz
MCS0 10 MHz	17	17	17

Power Parameters of IEEE 802.11n MCS0 20 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5200 MHz	5240 MHz
MCS0 20 MHz	18.5	18.5	18.5

Power Parameters of IEEE 802.11n MCS0 40 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5190 MHz	5230 MHz	
MCS0 40 MHz	14	19.5	

Power Parameters of IEEE 802.11a 5 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5210 MHz	5240 MHz
802.11a 5 MHz	15	15	15.5

Power Parameters of IEEE 802.11a 10 MHz

Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5210 MHz	5240 MHz
802.11a 10 MHz	17	16.5	17

Power Parameters of IEEE 802.11a 20 MHz

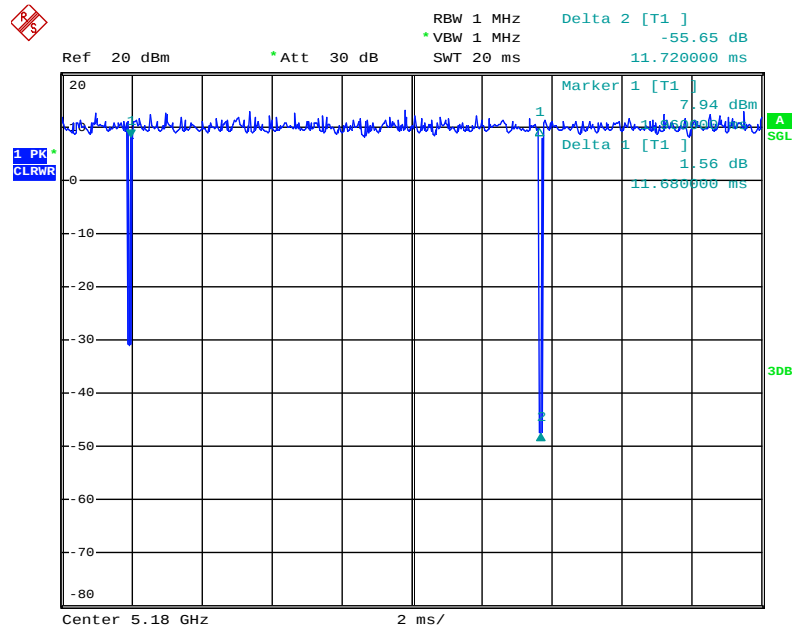
Test Software Version	Revision 0.9 BUILD #27 ART_11n		
Frequency	5180 MHz	5200 MHz	5240 MHz
802.11a 20 MHz	19	18.5	18

3.10.EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

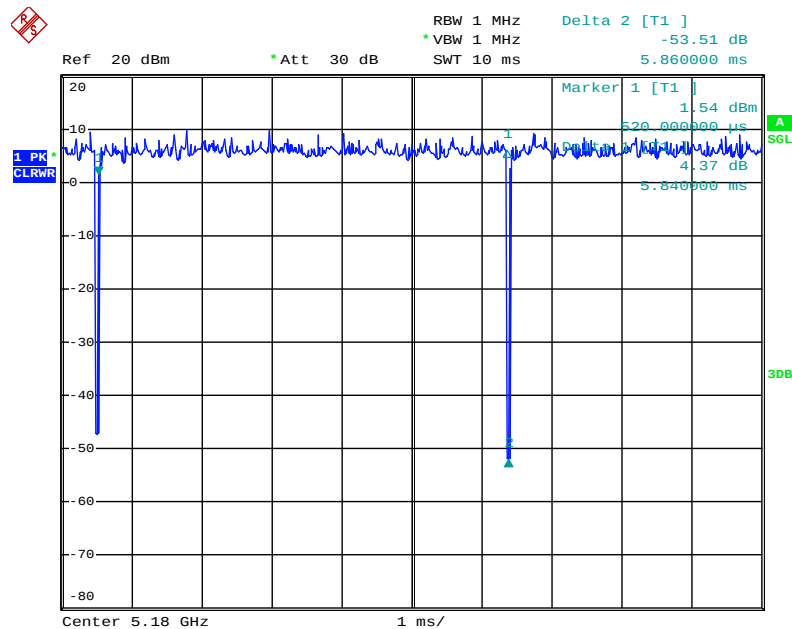
3.11. Duty Cycle

IEEE 802.11n MCS0 5 MHz



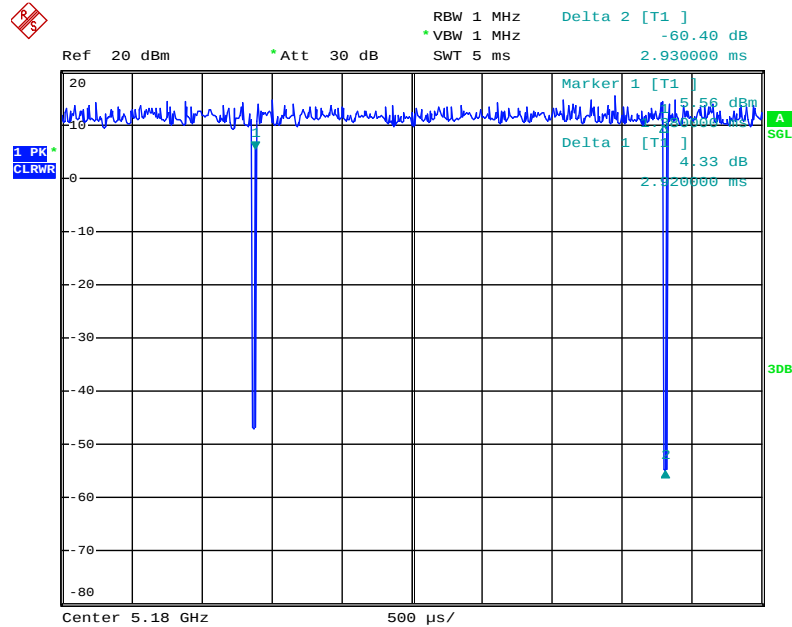
Date: 29.JUL.2014 22:04:15

IEEE 802.11n MCS0 10 MHz



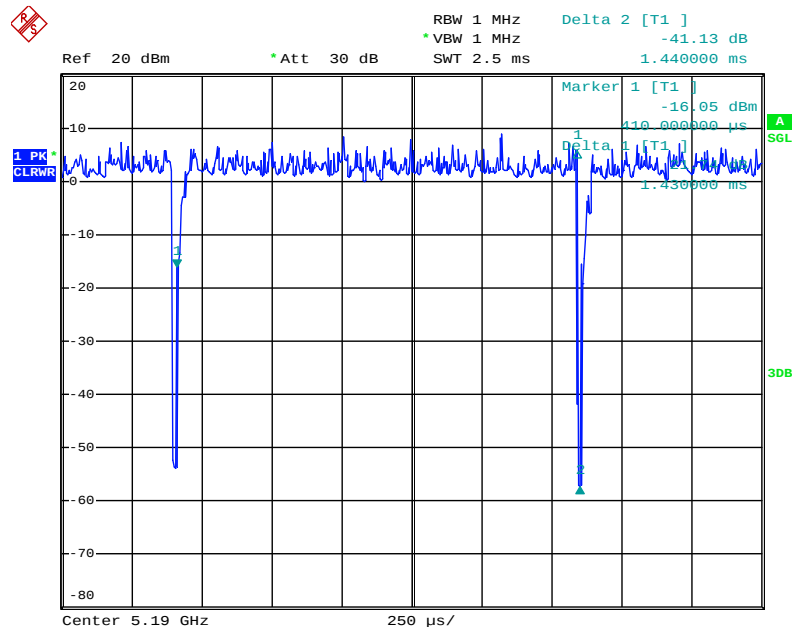
Date: 29.JUL.2014 22:06:31

IEEE 802.11n MCS0 20 MHz



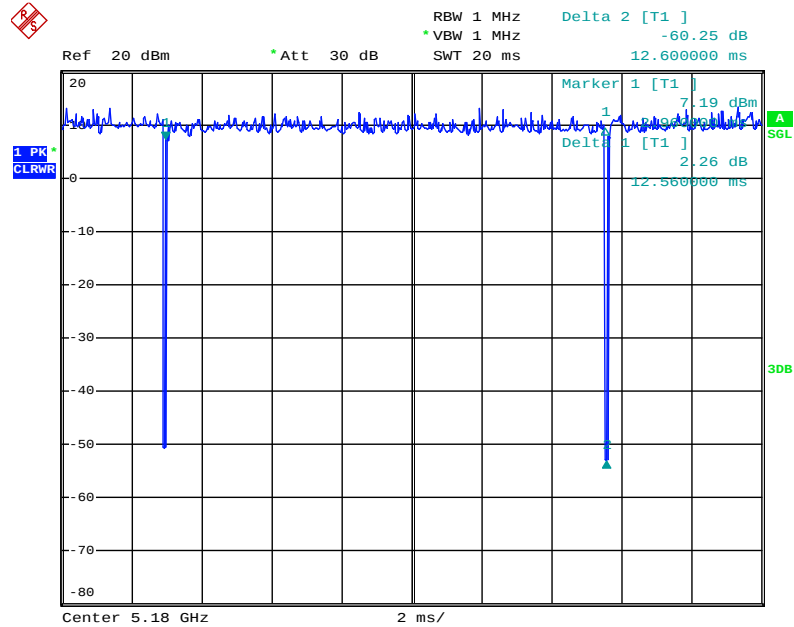
Date: 29.JUL.2014 22:08:23

IEEE 802.11n MCS0 40 MHz



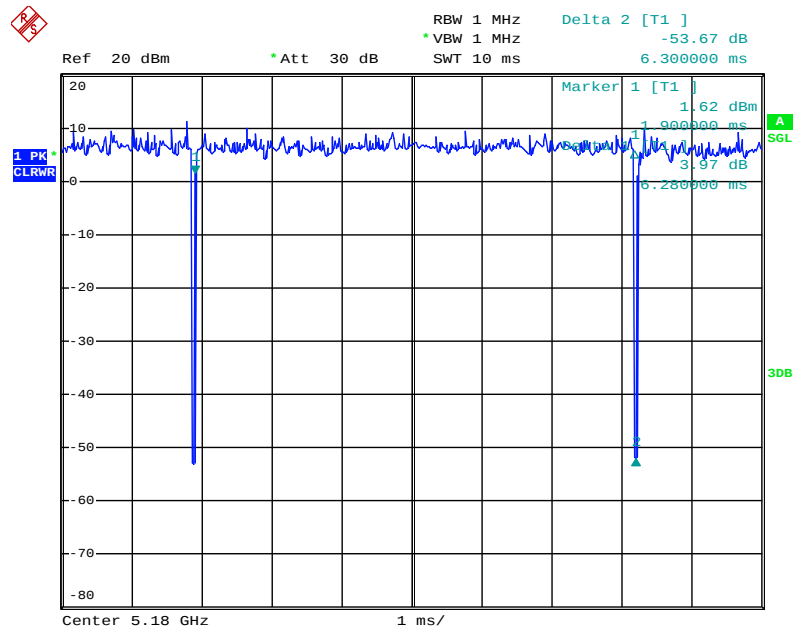
Date: 29.JUL.2014 22:09:32

IEEE 802.11a 5 MHz



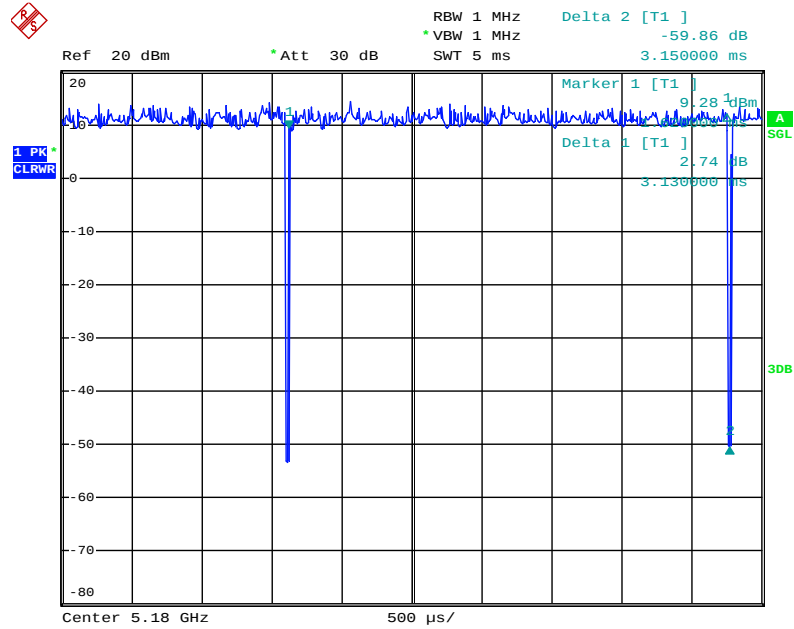
Date: 29.JUL.2014 22:00:04

IEEE 802.11a 10 MHz



Date: 29.JUL.2014 22:05:48

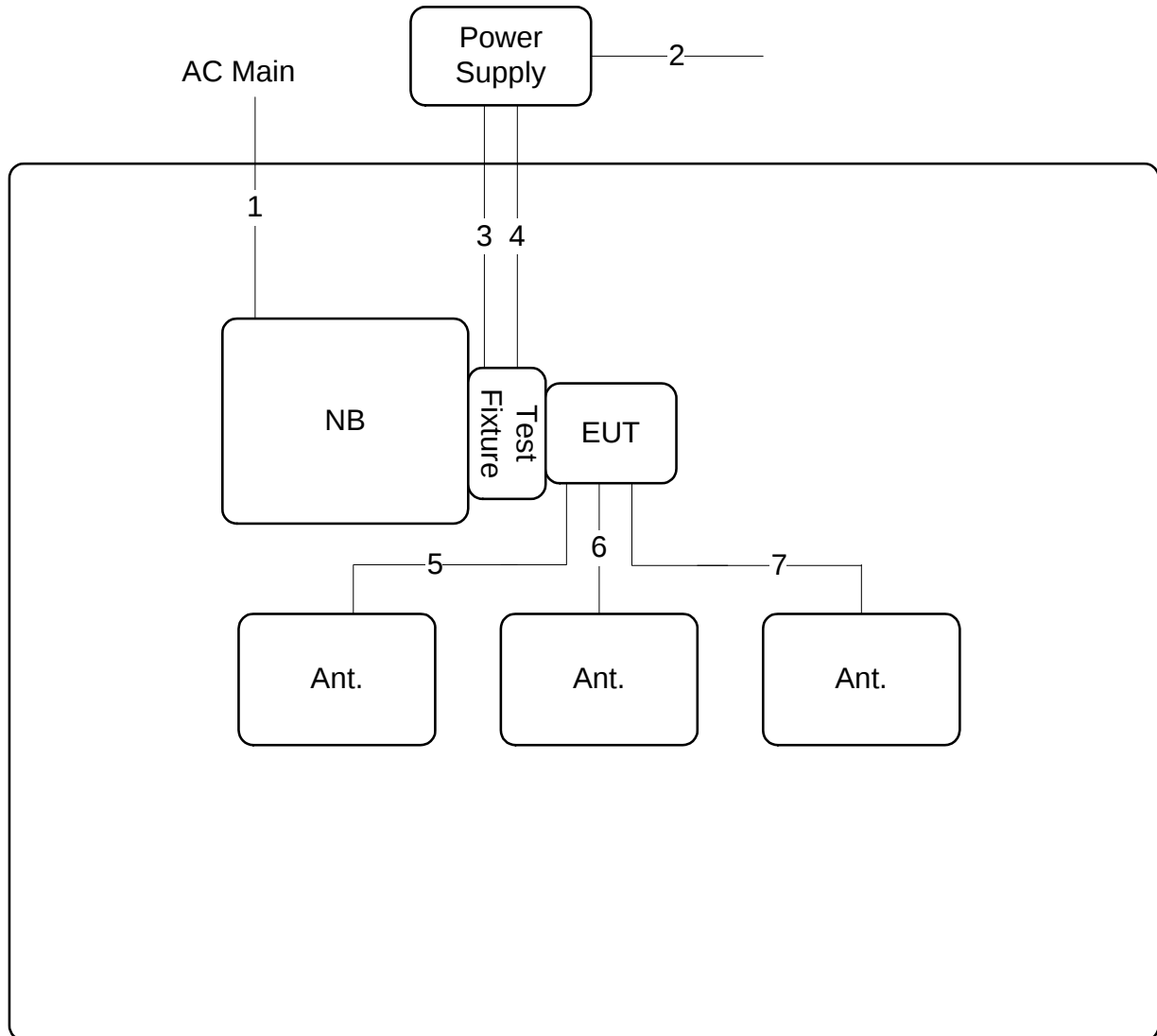
IEEE 802.11a 20 MHz



Date: 29.JUL.2014 22:07:39

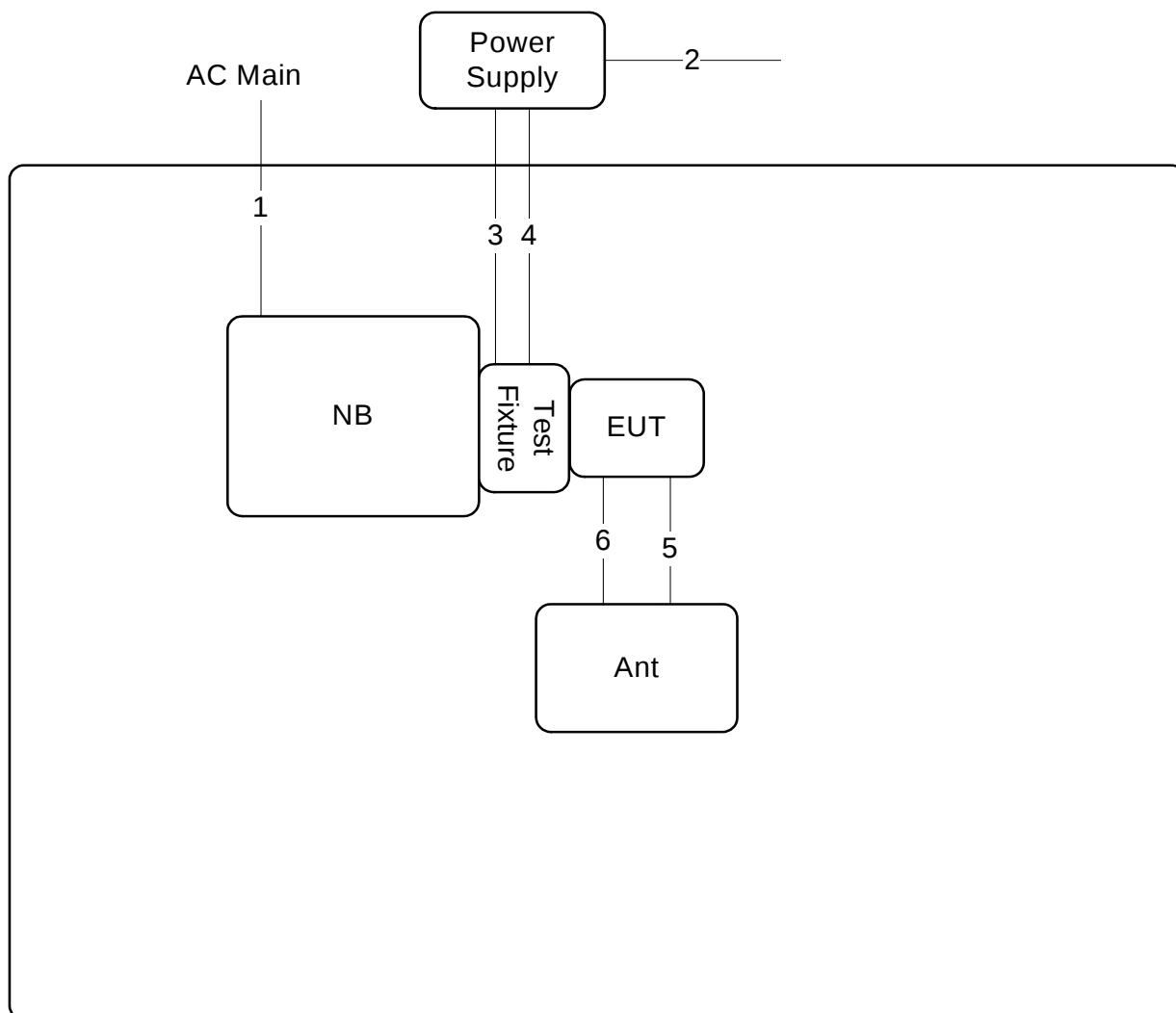
3.12. Test Configurations

Test Ant.: Ant. 1 ~ Ant. 3



Item	Connection	Shielded	Length
1	Power Cable	No	2.6m
2	Power Cable	No	1.5m
3	Crocodile Clip Cable	Yes	1m
4	Crocodile Clip Cable	Yes	1m
5	Antenna Cable	Yes	1m
6	Antenna Cable	Yes	1m
7	Antenna Cable	Yes	1m

Test Ant.: Ant. 4



Item	Connection	Shielded	Length
1	Power Cable	No	2.6m
2	Power Cable	No	1.5m
3	Crocodile Clip Cable	Yes	1m
4	Crocodile Clip Cable	Yes	1m
5	Antenna Cable	Yes	1m
6	Antenna Cable	Yes	1m

4. TEST RESULT

4.1. 26dB Bandwidth and 99% Occupied Bandwidth Measurement

4.1.1. Limit

No restriction limits.

4.1.2. Measuring Instruments and Setting

Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

26dB Bandwidth	
Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	> 26dB Bandwidth
RBW	Approximately 1% of the emission bandwidth
VBW	VBW > RBW
Detector	Peak
Trace	Max Hold
Sweep Time	Auto
99% Occupied Bandwidth	
Spectrum Parameters	Setting
Span	1.5 times to 5.0 times the OBW
RBW	1 % to 5 % of the OBW
VBW	$\geq 3 \times \text{RBW}$
Detector	Peak
Trace	Max Hold

4.1.3. Test Procedures

For Radiated 26dB Bandwidth and 99% Occupied Bandwidth Measurement:

1. The transmitter was radiated to the spectrum analyzer in peak hold mode.
2. Measure the maximum width of the emission that is 26 dB down from the peak of the emission.
Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

4.1.4. Test Setup Layout

For Radiated 26dB Bandwidth and 99% Occupied Bandwidth Measurement:

This test setup layout is the same as that shown in section 4.4.4.

4.1.5. Test Deviation

There is no deviation with the original standard.

4.1.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.1.7. Test Result of 26dB Bandwidth and 99% Occupied Bandwidth

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11n
Test Mode	Mode 1 / P to P		

Configuration IEEE 802.11n MCS0 5 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	9.44	5.76
42	5210 MHz	10.52	7.32
48	5240 MHz	8.64	5.68

Configuration IEEE 802.11n MCS0 10 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	15.60	10.08
42	5210 MHz	17.12	11.76
48	5240 MHz	19.28	10.80

Configuration IEEE 802.11n MCS0 20 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	24.16	17.76
40	5200 MHz	31.84	18.40
48	5240 MHz	37.28	21.76

Configuration IEEE 802.11n MCS0 40 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
38	5190 MHz	43.52	36.48
46	5230 MHz	69.12	36.16

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11a
Test Mode	Mode 1 / P to P		

Configuration IEEE 802.11a 5 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	7.80	5.24
42	5210 MHz	9.72	7.48
48	5240 MHz	7.72	5.88

Configuration IEEE 802.11a 10 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	14.16	9.84
42	5210 MHz	18.24	12.00
48	5240 MHz	17.92	10.40

Configuration IEEE 802.11a 20 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	21.12	16.16
40	5200 MHz	31.20	16.48
48	5240 MHz	39.36	22.08

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11n
Test Mode	Mode 1 / P to M		

Configuration IEEE 802.11n MCS0 5 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	8.56	5.24
42	5210 MHz	9.92	6.88
48	5240 MHz	7.80	5.92

Configuration IEEE 802.11n MCS0 10 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	15.60	10.08
42	5210 MHz	17.12	11.76
48	5240 MHz	16.72	10.08

Configuration IEEE 802.11n MCS0 20 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	24.16	17.76
40	5200 MHz	31.84	18.40
48	5240 MHz	37.28	21.76

Configuration IEEE 802.11n MCS0 40 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
38	5190 MHz	43.52	36.48
46	5230 MHz	69.12	36.16

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11a
Test Mode	Mode 1 / P to M		

Configuration IEEE 802.11a 5 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	7.80	5.24
42	5210 MHz	8.96	6.72
48	5240 MHz	7.40	5.28

Configuration IEEE 802.11a 10 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	14.16	9.84
42	5210 MHz	18.96	11.68
48	5240 MHz	15.60	9.76

Configuration IEEE 802.11a 20 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	21.12	16.16
40	5200 MHz	31.20	16.48
48	5240 MHz	39.36	22.08

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11n
Test Mode	Mode 2 / P to P		

Configuration IEEE 802.11n MCS0 5 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	7.88	6.12
42	5210 MHz	9.96	7.08
48	5240 MHz	9.92	6.00

Configuration IEEE 802.11n MCS0 10 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	15.12	11.68
42	5210 MHz	21.60	12.96
48	5240 MHz	20.00	11.68

Configuration IEEE 802.11n MCS0 20 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	24.16	19.04
40	5200 MHz	36.16	20.32
48	5240 MHz	30.56	23.20

Configuration IEEE 802.11n MCS0 40 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
38	5190 MHz	40.00	34.24
46	5230 MHz	67.84	36.80

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11a
Test Mode	Mode 2 / P to P		

Configuration IEEE 802.11a 5 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	9.64	5.60
42	5210 MHz	10.16	6.92
48	5240 MHz	9.08	5.56

Configuration IEEE 802.11a 10 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	18.96	10.64
42	5210 MHz	17.60	12.56
48	5240 MHz	16.80	11.28

Configuration IEEE 802.11a 20 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	23.20	17.12
40	5200 MHz	23.84	20.00
48	5240 MHz	34.88	18.88

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11n
Test Mode	Mode 2 / P to M		

Configuration IEEE 802.11n MCS0 5 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	8.08	5.40
42	5210 MHz	9.32	6.84
48	5240 MHz	7.68	5.32

Configuration IEEE 802.11n MCS0 10 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	16.56	10.48
42	5210 MHz	20.32	12.16
48	5240 MHz	15.20	11.28

Configuration IEEE 802.11n MCS0 20 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	24.16	19.04
40	5200 MHz	36.16	20.32
48	5240 MHz	30.56	23.20

Configuration IEEE 802.11n MCS0 40 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
38	5190 MHz	40.00	34.24
46	5230 MHz	67.84	36.80

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11a
Test Mode	Mode 2 / P to M		

Configuration IEEE 802.11a 5 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	7.52	4.96
42	5210 MHz	9.32	6.72
48	5240 MHz	8.08	5.24

Configuration IEEE 802.11a 10 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	17.20	9.84
42	5210 MHz	17.76	11.60
48	5240 MHz	15.92	9.60

Configuration IEEE 802.11a 20 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	23.20	17.12
40	5200 MHz	23.84	20.00
48	5240 MHz	34.88	18.88

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11n
Test Mode	Mode 3 / P to M		

Configuration IEEE 802.11n MCS0 5 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	7.48	5.84
42	5210 MHz	9.84	6.76
48	5240 MHz	7.80	5.20

Configuration IEEE 802.11n MCS0 10 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	15.12	9.52
42	5210 MHz	16.16	12.32
48	5240 MHz	13.84	9.68

Configuration IEEE 802.11n MCS0 20 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	24.16	17.92
40	5200 MHz	31.36	18.24
48	5240 MHz	29.92	18.08

Configuration IEEE 802.11n MCS0 40 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
38	5190 MHz	45.44	36.80
46	5230 MHz	72.00	38.08

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11a
Test Mode	Mode 3 / P to M		

Configuration IEEE 802.11a 5 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	6.72	4.92
42	5210 MHz	8.76	6.64
48	5240 MHz	7.60	5.20

Configuration IEEE 802.11a 10 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	12.00	9.12
42	5210 MHz	16.00	11.28
48	5240 MHz	14.72	8.96

Configuration IEEE 802.11a 20 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	24.32	17.28
40	5200 MHz	25.44	17.44
48	5240 MHz	25.12	17.60

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11n
Test Mode	Mode 4 / P to P		

Configuration IEEE 802.11n MCS0 5 MHz / Chain 1 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	7.60	5.88
42	5210 MHz	7.92	5.84
48	5240 MHz	7.80	5.88

Configuration IEEE 802.11n MCS0 10 MHz / Chain 1 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	15.68	9.92
42	5210 MHz	15.76	10.08
48	5240 MHz	15.60	10.08

Configuration IEEE 802.11n MCS0 20 MHz / Chain 1 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	28.96	17.92
40	5200 MHz	28.32	17.92
48	5240 MHz	30.88	18.24

Configuration IEEE 802.11n MCS0 40 MHz / Chain 1 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
38	5190 MHz	44.16	36.48
46	5230 MHz	83.52	51.20

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11a
Test Mode	Mode 4 / P to P		

Configuration IEEE 802.11a 5 MHz / Chain 1 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	7.12	4.92
42	5210 MHz	7.32	4.92
48	5240 MHz	8.32	5.32

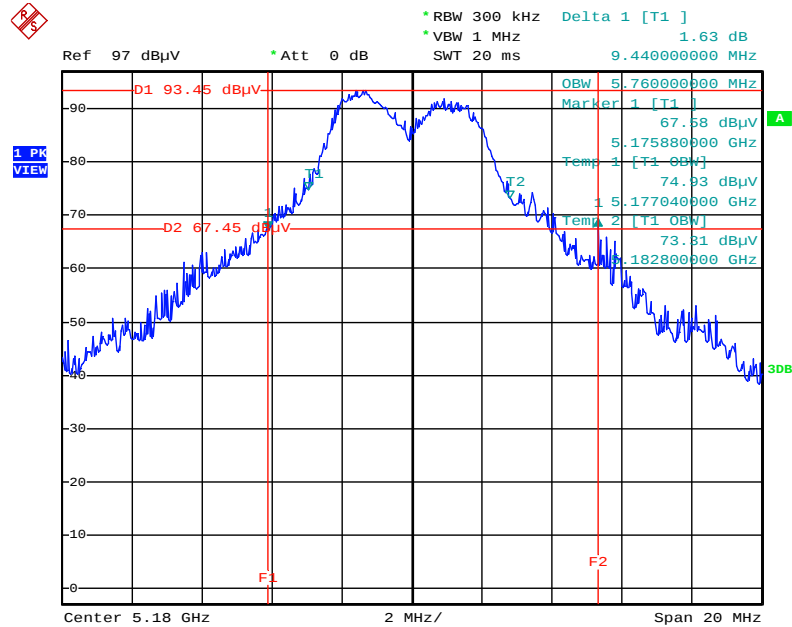
Configuration IEEE 802.11a 10 MHz / Chain 1 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	14.16	9.84
42	5210 MHz	14.80	9.60
48	5240 MHz	14.48	9.68

Configuration IEEE 802.11a 20 MHz / Chain 1 + Chain 3

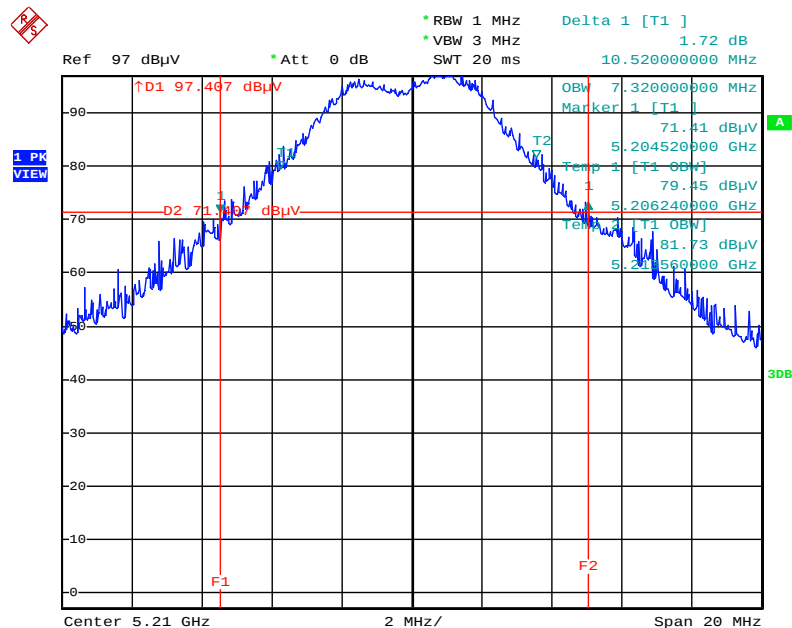
Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	31.36	17.60
40	5200 MHz	26.08	17.60
48	5240 MHz	26.24	17.60

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 5 MHz /
Mode 1 / P to P / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



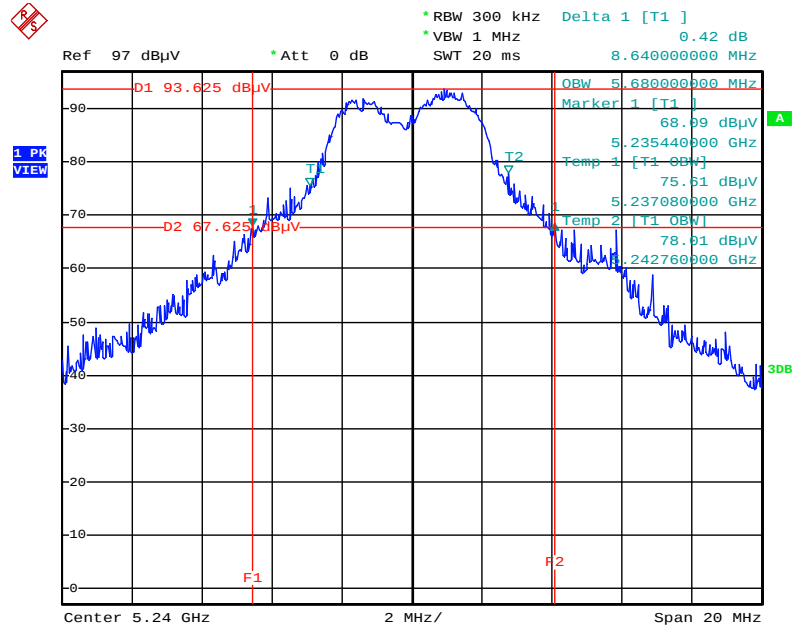
Date: 29.JUL.2014 16:53:13

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 5 MHz /
Mode 1 / P to P / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



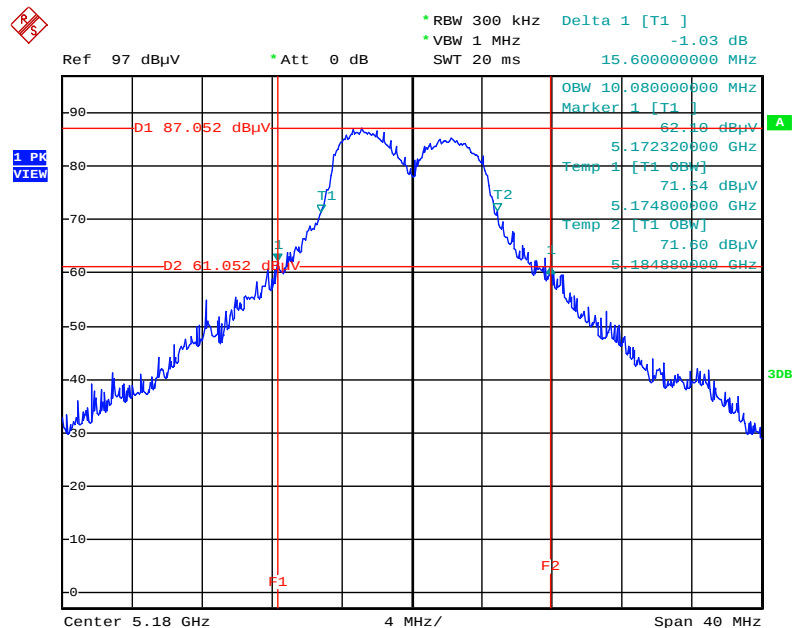
Date: 29.JUL.2014 16:53:56

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 5 MHz /
Mode 1 / P to P / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



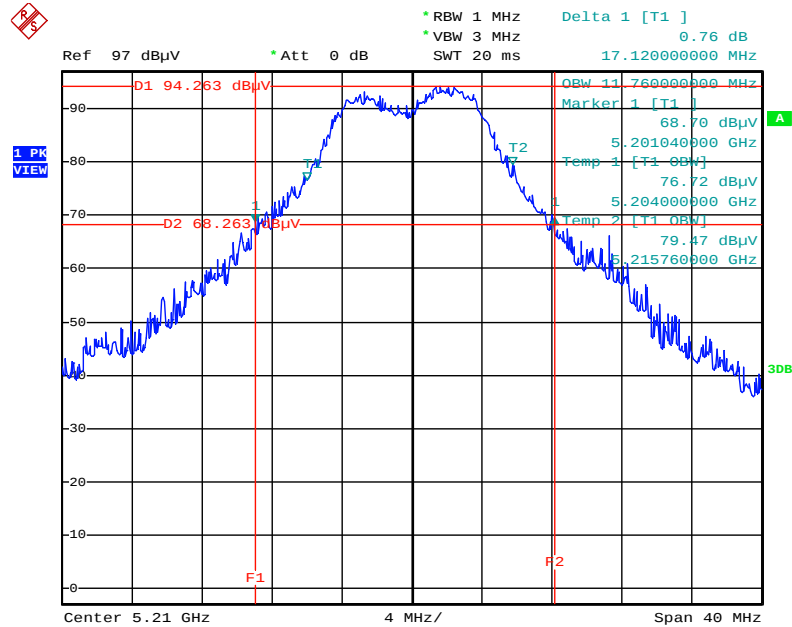
Date: 29.JUL.2014 16:54:19

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 10 MHz /
Mode 1 / P to P / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



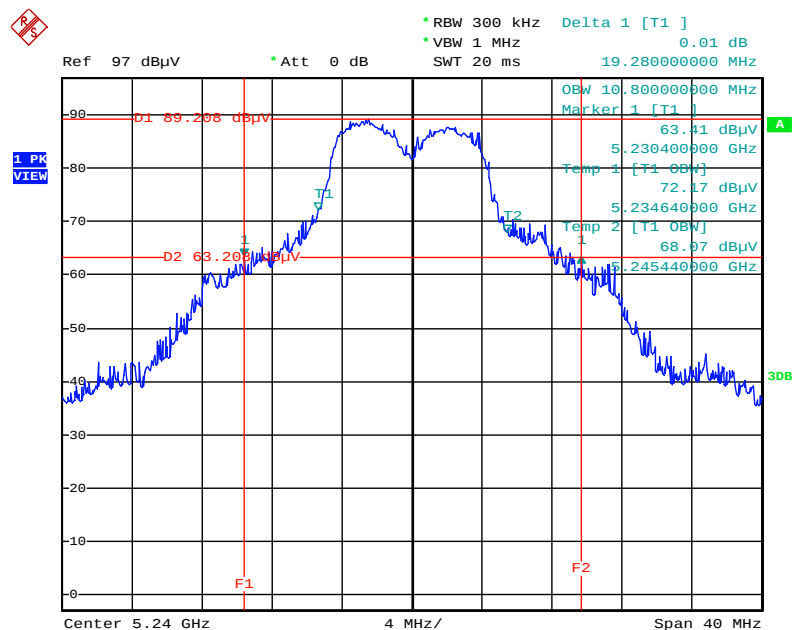
Date: 29.JUL.2014 15:31:18

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 10 MHz /
Mode 1 / P to P / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



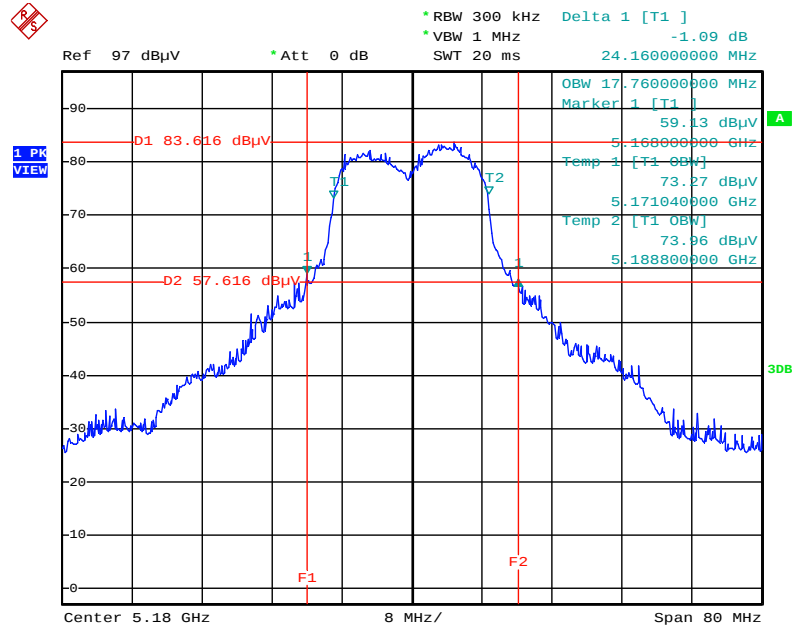
Date: 29.JUL.2014 15:32:13

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 10 MHz /
Mode 1 / P to P / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



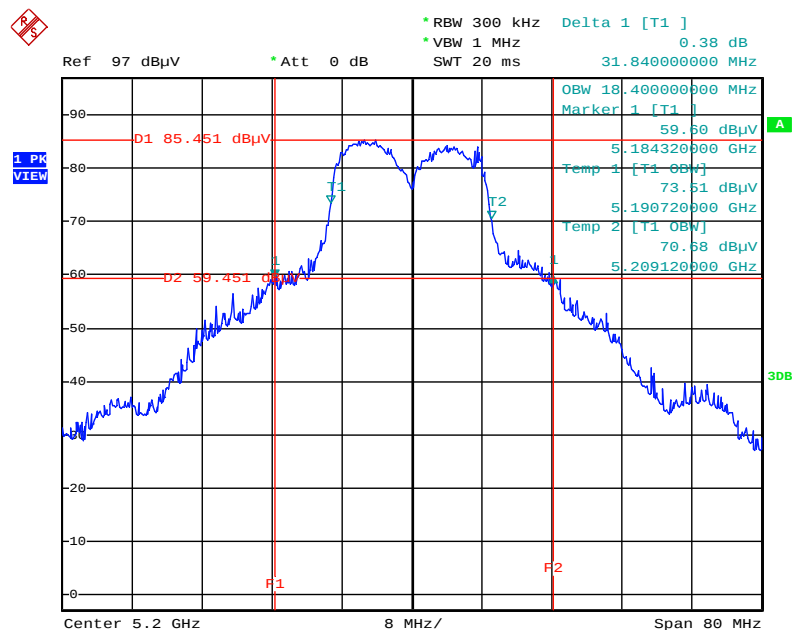
Date: 29.JUL.2014 16:48:33

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 20 MHz /
Mode 1 / P to P / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



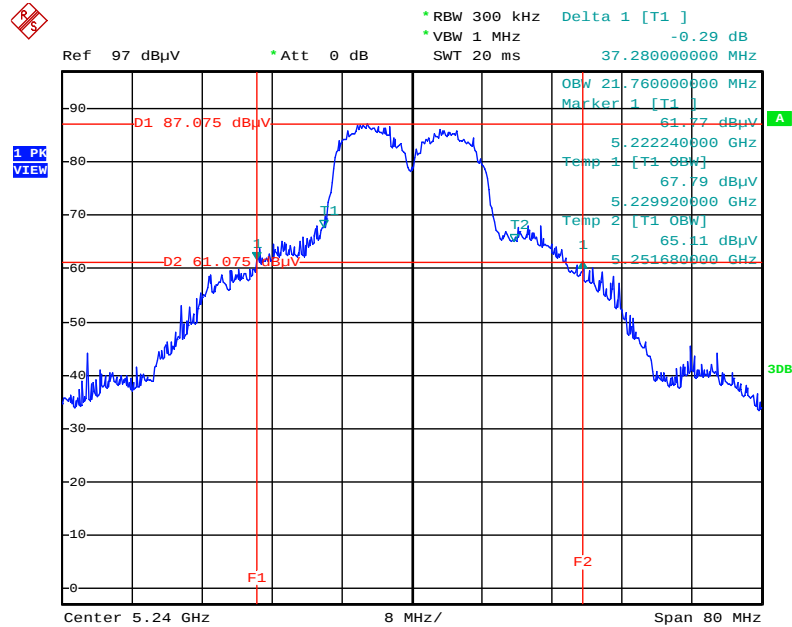
Date: 29.JUL.2014 15:39:08

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 20 MHz /
Mode 1 / P to P / Chain 1 + Chain 2 + Chain 3 / 5200 MHz



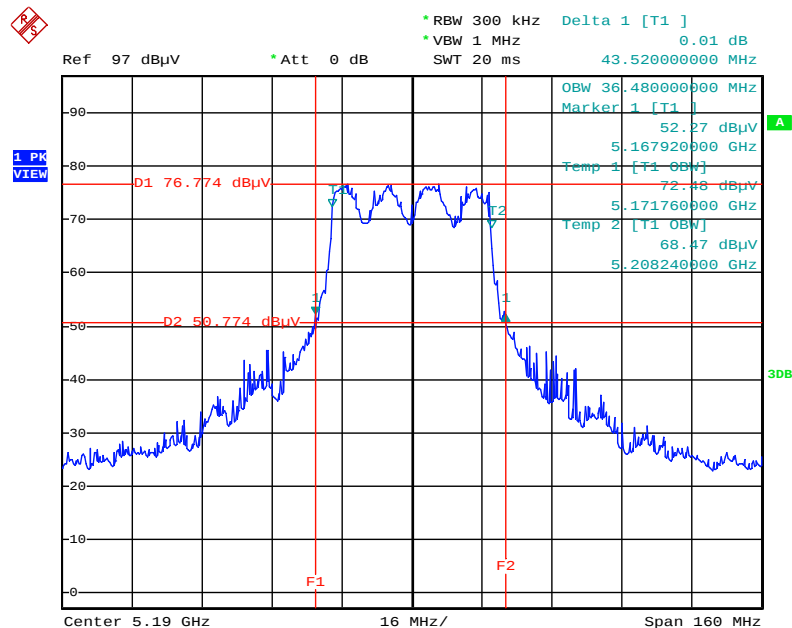
Date: 29.JUL.2014 15:38:30

**26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 20 MHz /
Mode 1 / P to P / Chain 1 + Chain 2 + Chain 3 / 5240 MHz**



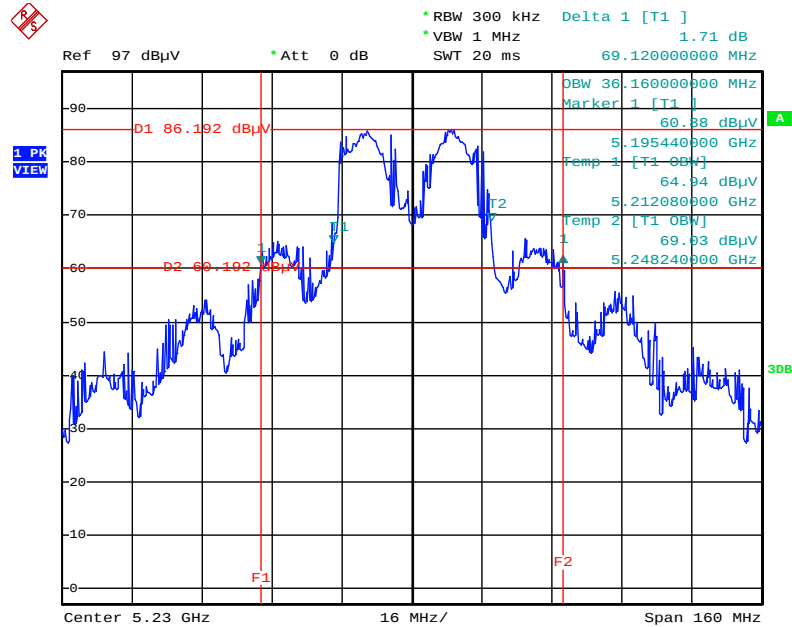
Date: 29.JUL.2014 15:38:01

**26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 40 MHz /
Mode 1 / P to P / Chain 1 + Chain 2 + Chain 3 / 5190 MHz**



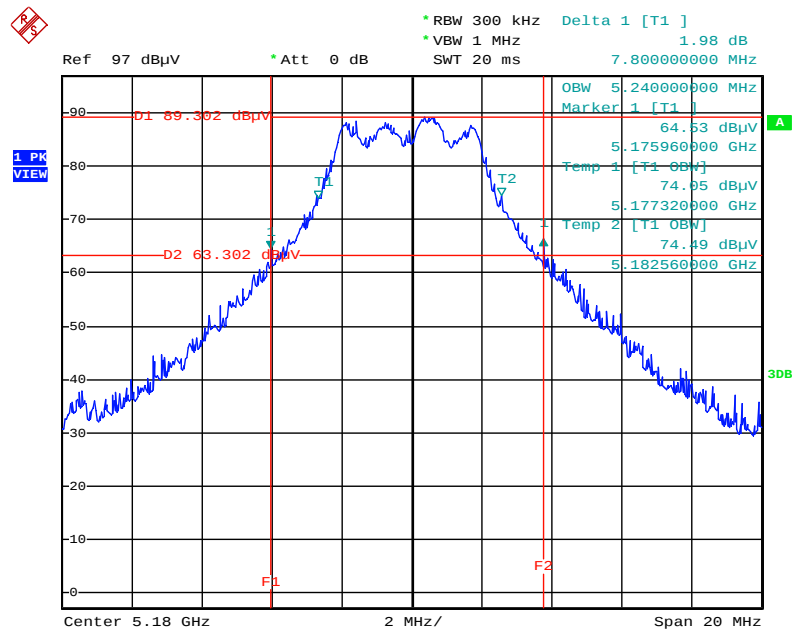
Date: 29.JUL.2014 15:39:56

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 40 MHz /
Mode 1 / P to P / Chain 1 + Chain 2 + Chain 3 / 5230 MHz



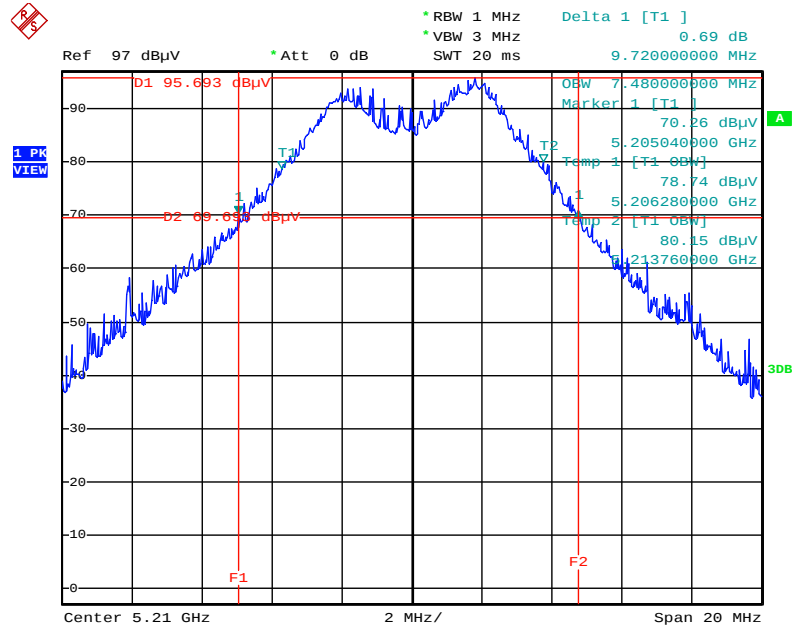
Date: 29.JUL.2014 15:40:36

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 5 MHz / Mode 1 /
P to P / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



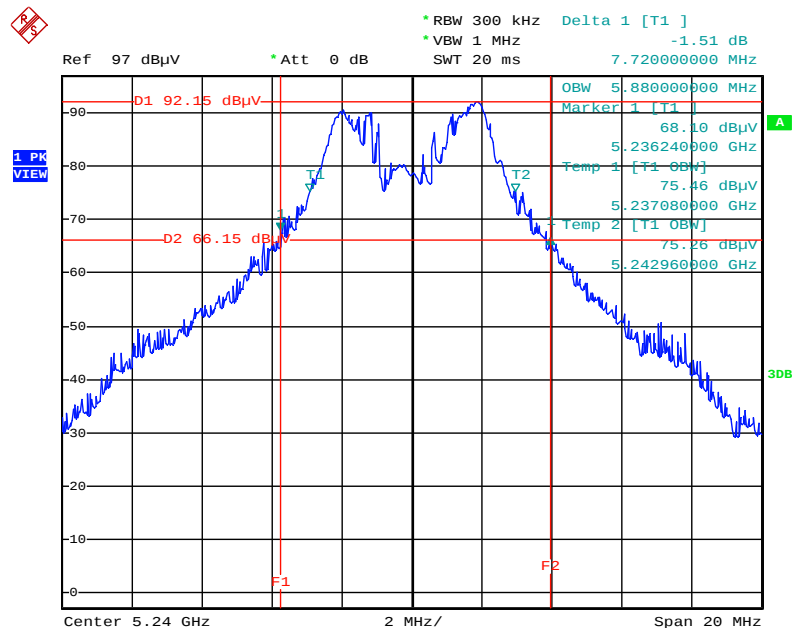
Date: 29.JUL.2014 15:23:37

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 5 MHz / Mode 1 / P to P / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



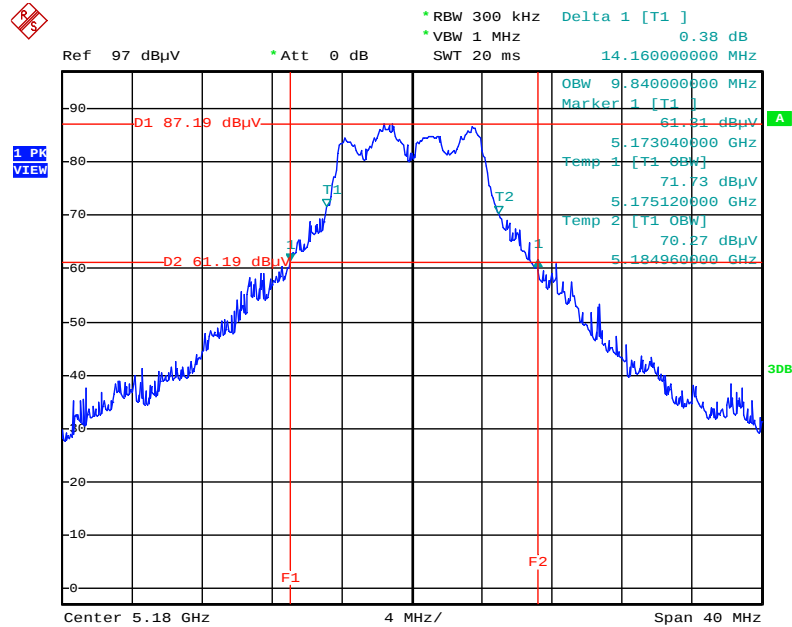
Date: 29.JUL.2014 16:43:03

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 5 MHz / Mode 1 / P to P / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



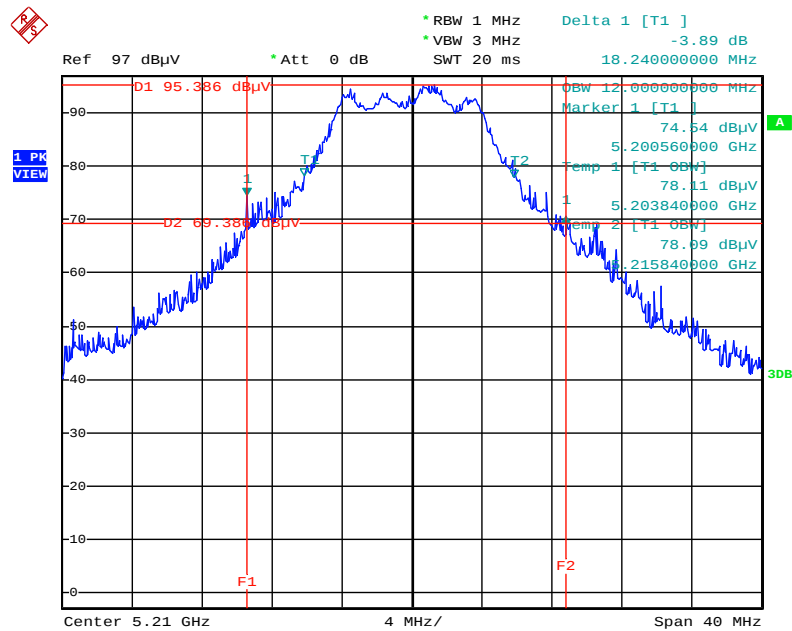
Date: 29.JUL.2014 16:43:34

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 10 MHz / Mode 1 / P to P / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



Date: 29.JUL.2014 15:34:23

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 10 MHz / Mode 1 / P to P / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



Date: 29.JUL.2014 16:51:48



*RBW 300 kHz Delta 1 [T1]
 *VBW 1 MHz
 *Att 0 dB
 SWT 20 ms
 Ref 97 dBμV
 17.920000000 MHz
 -1.52 dB

1 PK VIEW
 10.400000000 MHz
 Marker 1 [T1]
 65.45 dBμV
 5.230640000 GHz
 Temp 1 [T1 BW]
 71.69 dBμV
 5.234880000 GHz
 Temp 2 [T1 BW]
 70.86 dBμV
 5.245280000 GHz

Center 5.24 GHz
 4 MHz/
 Span 40 MHz

Ref 97 dBμV * Att 0 dB

* RBW 300 kHz Delta 1 [T1]
 * VBW 1 MHz -0.13 dB
 SWT 20 ms 21.120000000 MHz

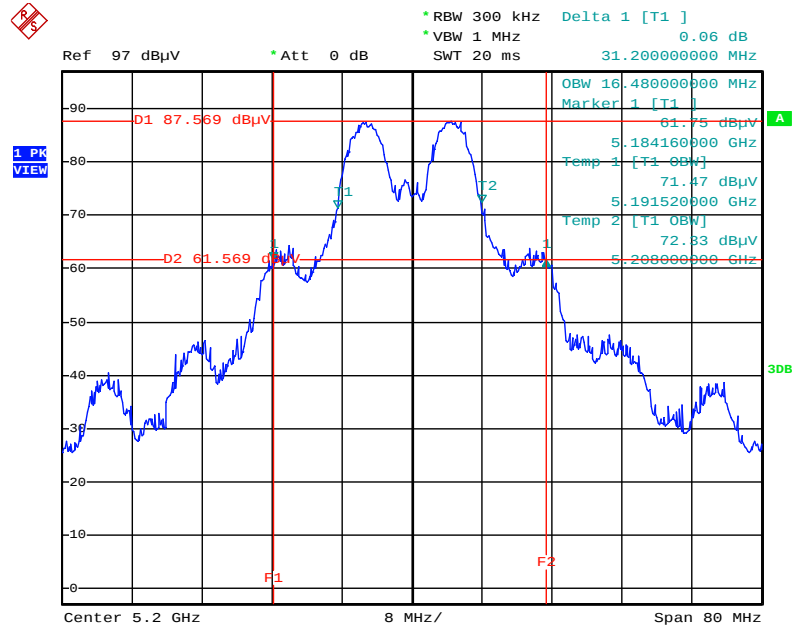
OBW 16.160000000 MHz
 Marker 1 [T1] 60.67 dBμV
 5.169280000 GHz
 Temp 1 [T1 OBW] 72.96 dBμV
 5.171680000 GHz
 Temp 2 [T1 OBW] 71.91 dBμV
 5.187840000 GHz

D1 86.26 dBμV
 D2 60.26 dBμV

Center 5.18 GHz 8 MHz/ Span 80 MHz

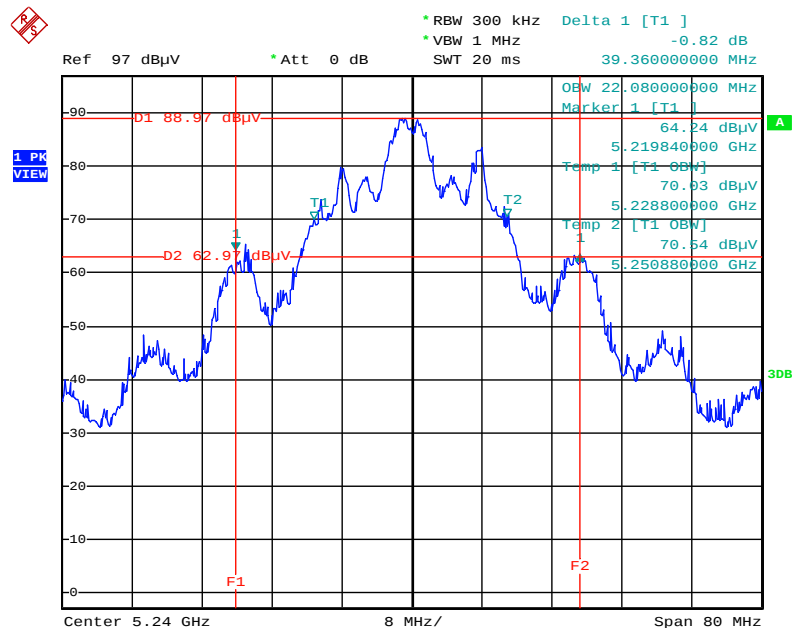
Issued Date : Aug. 12, 2014

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 20 MHz / Mode 1 / P to P / Chain 1 + Chain 2 + Chain 3 / 5200 MHz



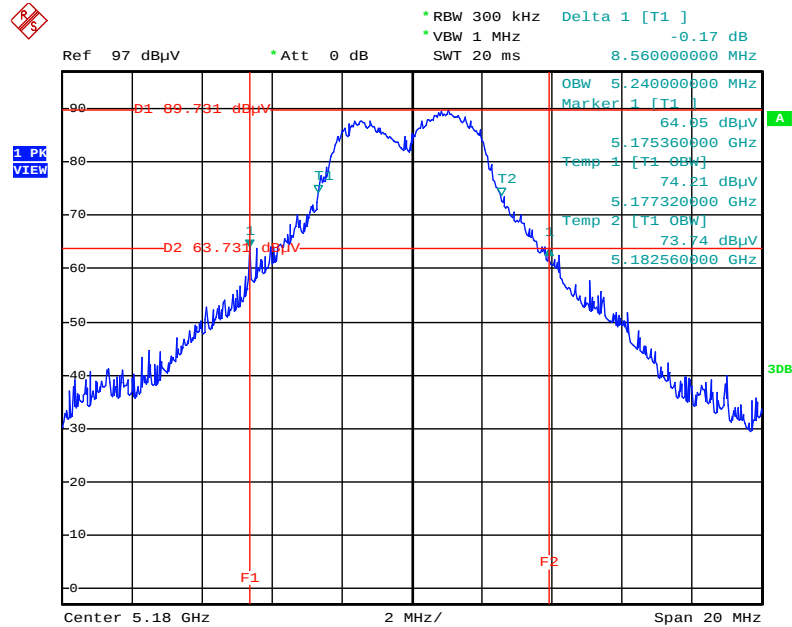
Date: 29.JUL.2014 15:36:47

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 20 MHz / Mode 1 / P to P / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



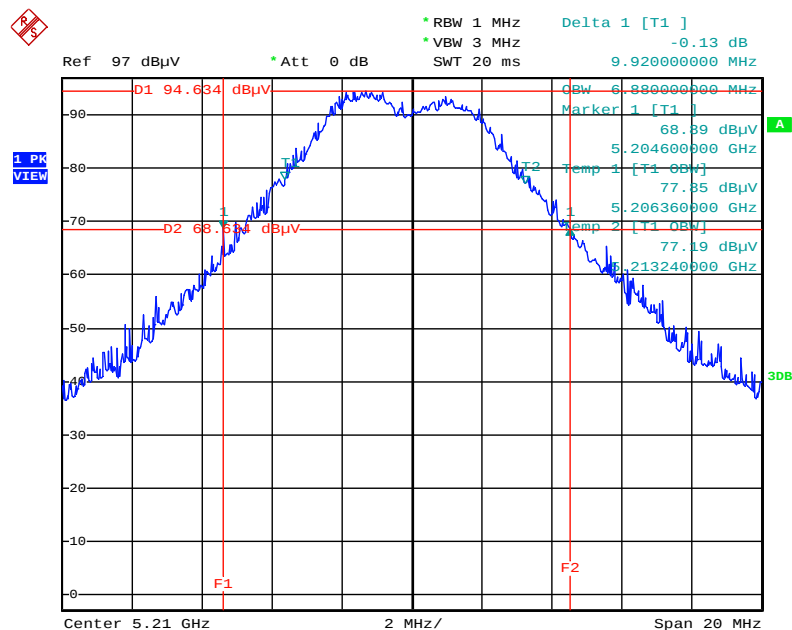
Date: 29.JUL.2014 15:37:19

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 5 MHz /
Mode 1 / P to M / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



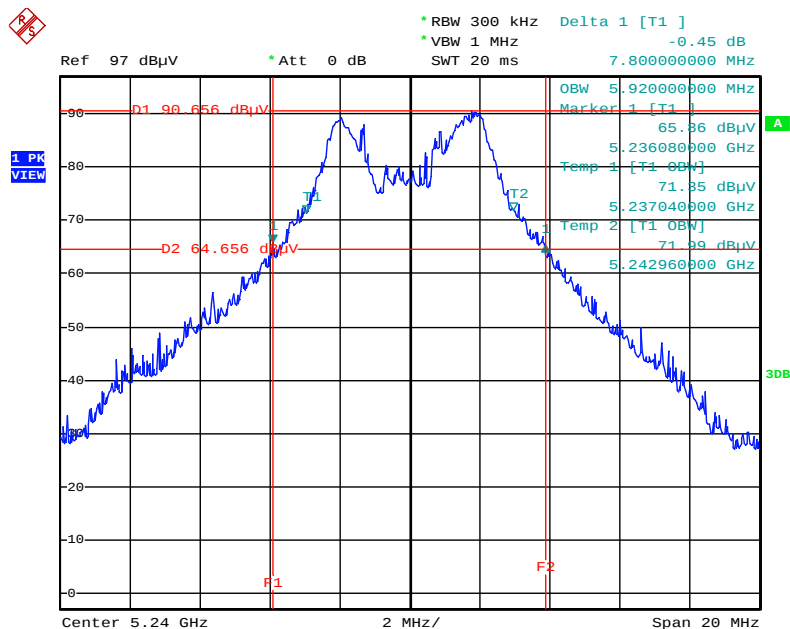
Date: 29.JUL.2014 15:26:56

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 5 MHz /
Mode 1 / P to M / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



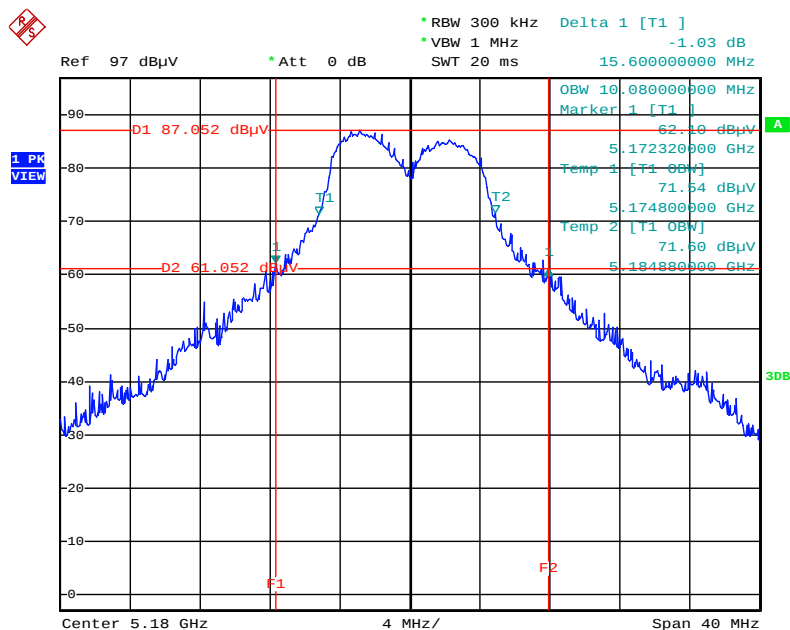
Date: 29.JUL.2014 15:26:31

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 5 MHz / Mode 1 / P to M / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



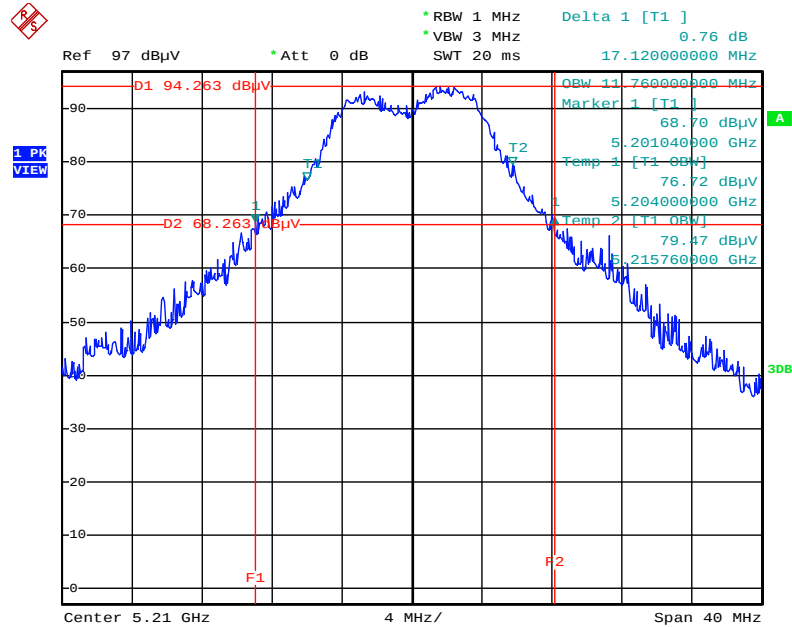
Date: 29.JUL.2014 15:26:04

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 10 MHz / Mode 1 / P to M / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



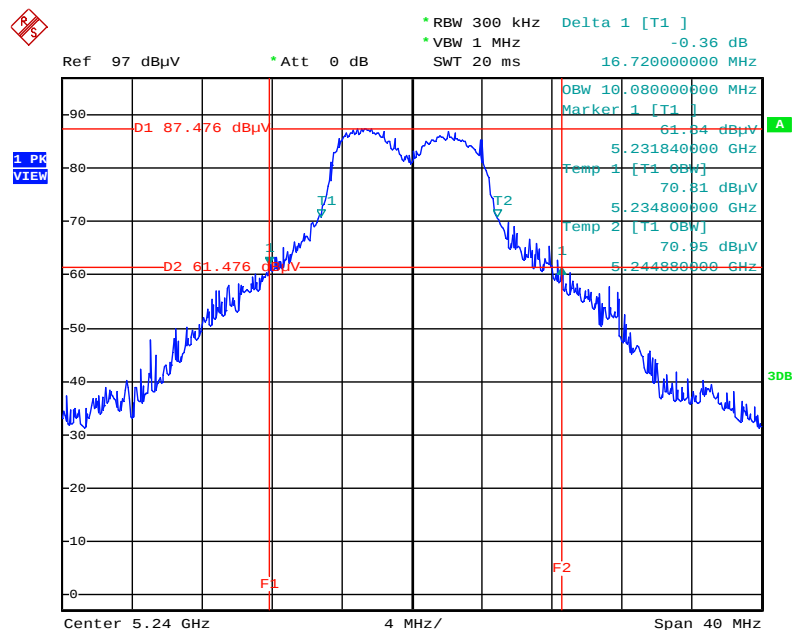
Date: 29.JUL.2014 15:31:18

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 10 MHz /
Mode 1 / P to M / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



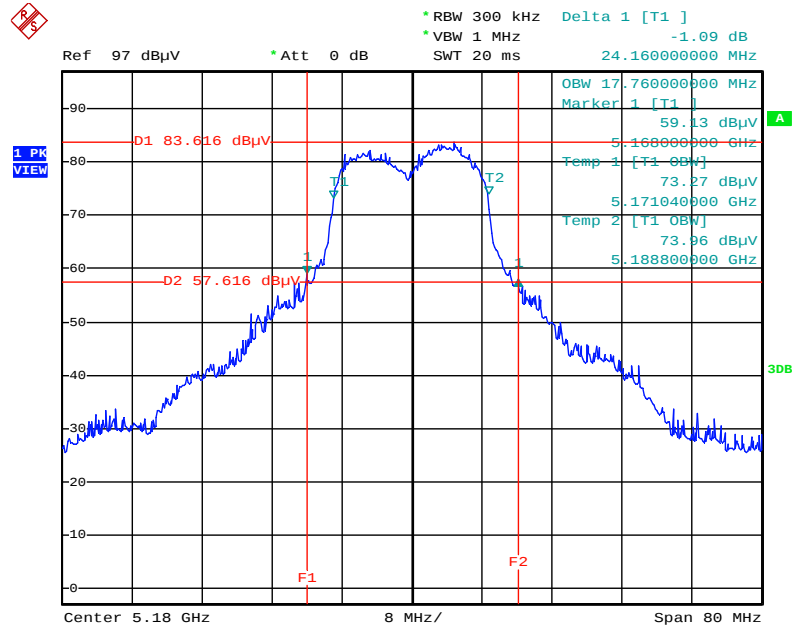
Date: 29.JUL.2014 15:32:13

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 10 MHz /
Mode 1 / P to M / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



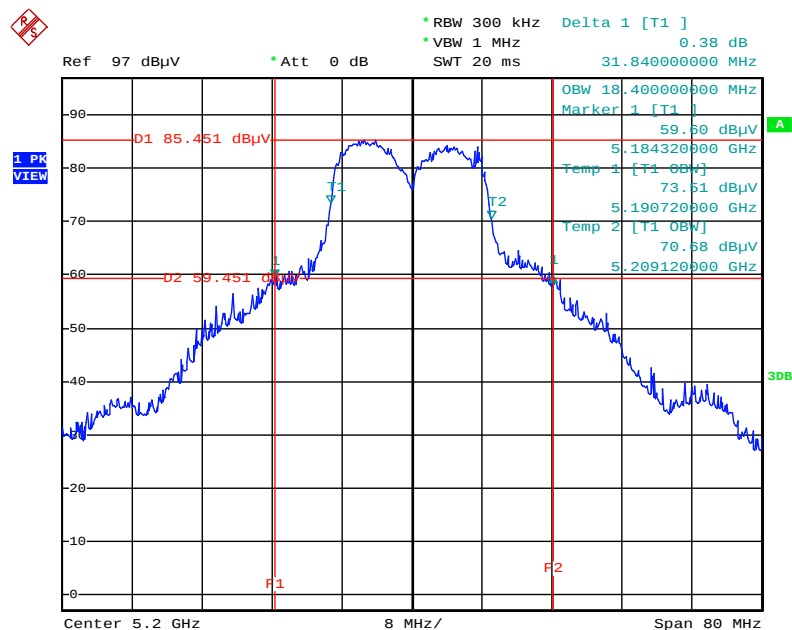
Date: 29.JUL.2014 15:32:42

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 20 MHz /
Mode 1 / P to M / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



Date: 29.JUL.2014 15:39:08

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 20 MHz /
Mode 1 / P to M / Chain 1 + Chain 2 + Chain 3 / 5200 MHz



Date: 29.JUL.2014 15:38:30

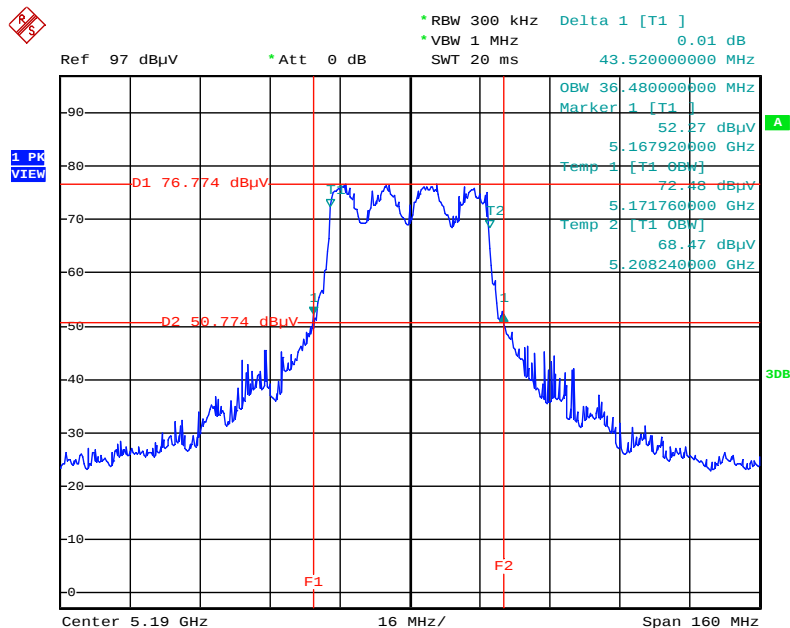


Ref 97 dBμV * Att 0 dB * RBW 300 kHz Delta 1 [T1] -0.29 dB
 VBW 1 MHz SWT 20 ms 37.28000000 MHz

OBW 21.76000000 MHz
 Marker 1 [T1]
 61.77 dBμV
 5.222240000 GHz
 Temp 1 [T1 OBW]
 67.79 dBμV
 5.229920000 GHz
 Temp 2 [T1 OBW]
 65.11 dBμV
 5.251680000 GHz

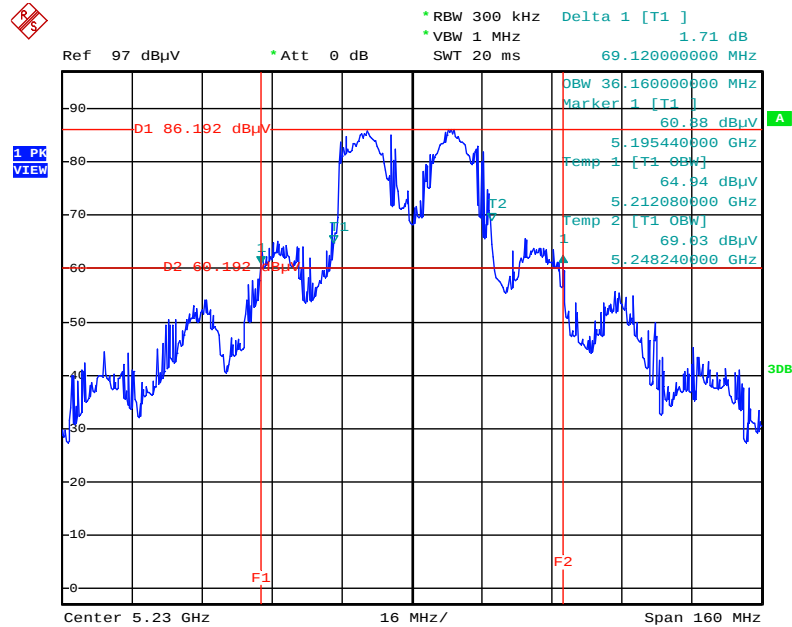
Center 5.24 GHz 8 MHz/ Span 80 MHz

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 40 MHz / Mode 1 / P to M / Chain 1 + Chain 2 + Chain 3 / 5190 MHz



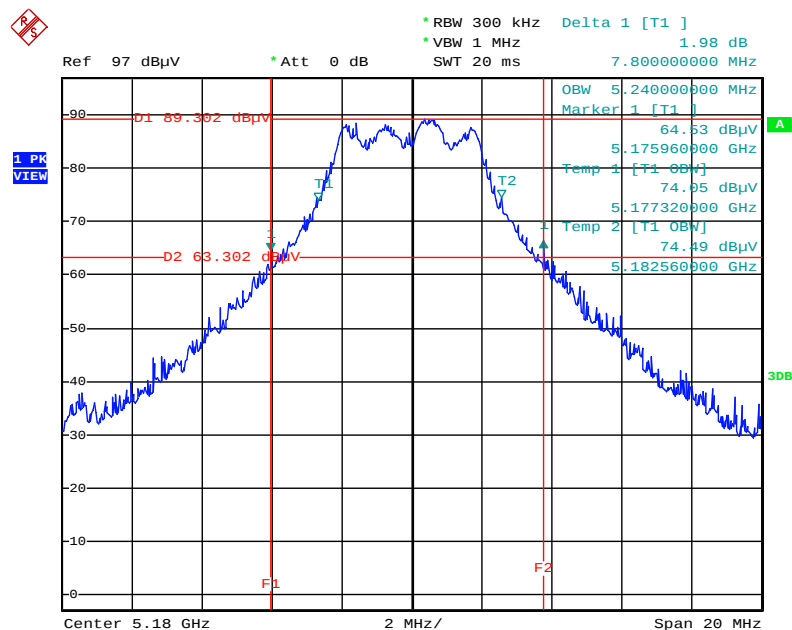
Page No. : 53 of 268
Issued Date : Aug. 12, 2014

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 40 MHz /
Mode 1 / P to M / Chain 1 + Chain 2 + Chain 3 / 5230 MHz



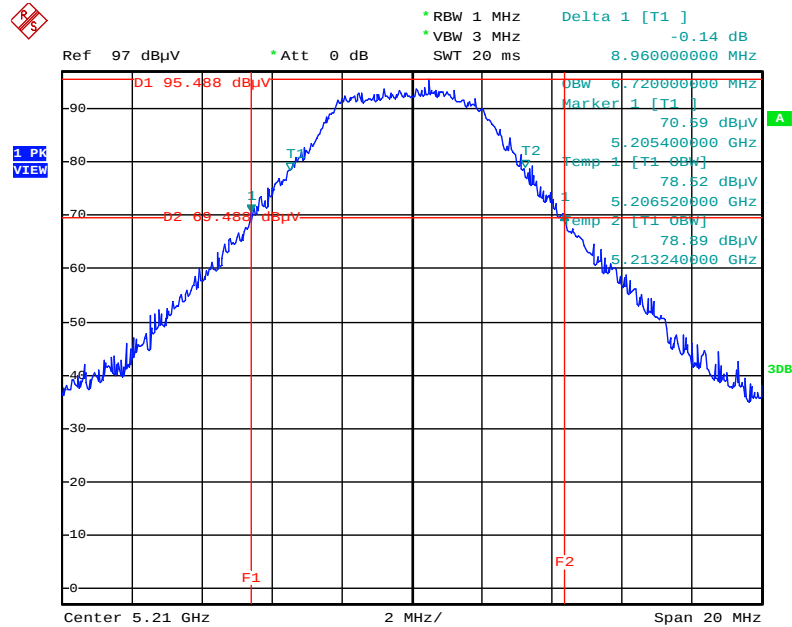
Date: 29.JUL.2014 15:40:36

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 5 MHz / Mode 1 /
P to M / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



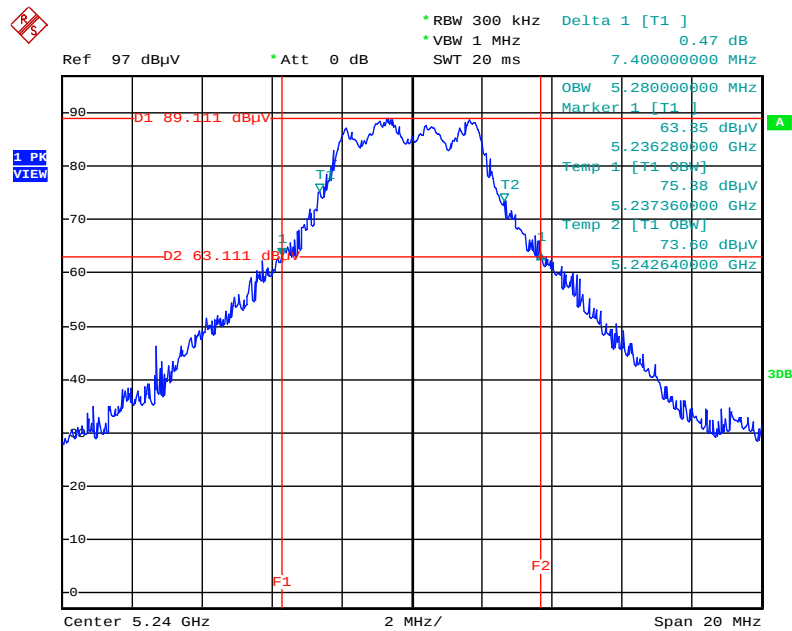
Date: 29.JUL.2014 15:23:37

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 5 MHz / Mode 1 / P to M / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



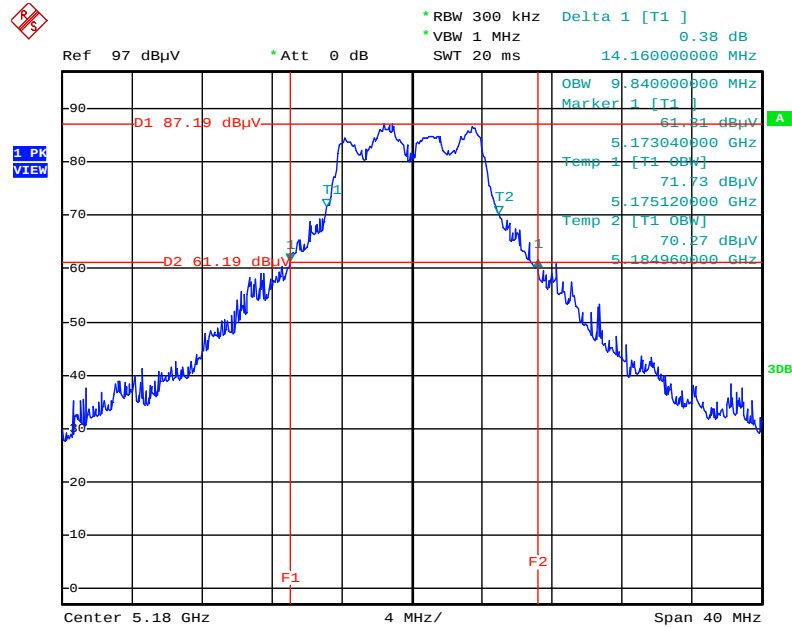
Date: 29.JUL.2014 15:24:43

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 5 MHz / Mode 1 / P to M / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



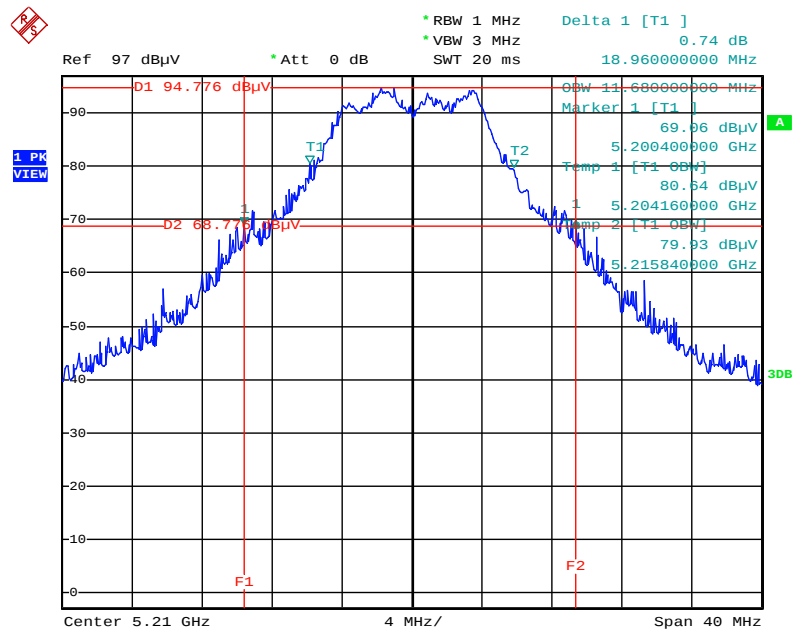
Date: 29.JUL.2014 15:25:17

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 10 MHz / Mode 1 / P to M / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



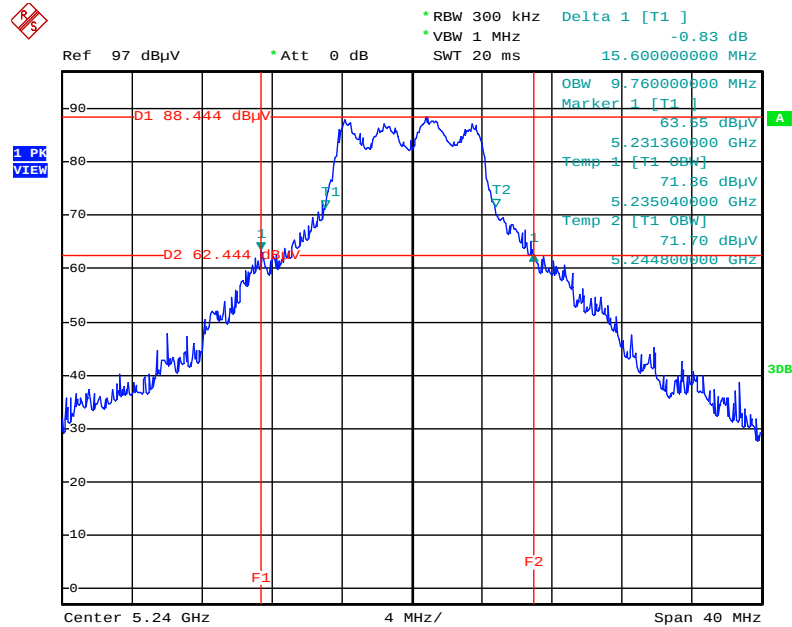
Date: 29.JUL.2014 15:34:23

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 10 MHz / Mode 1 / P to M / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



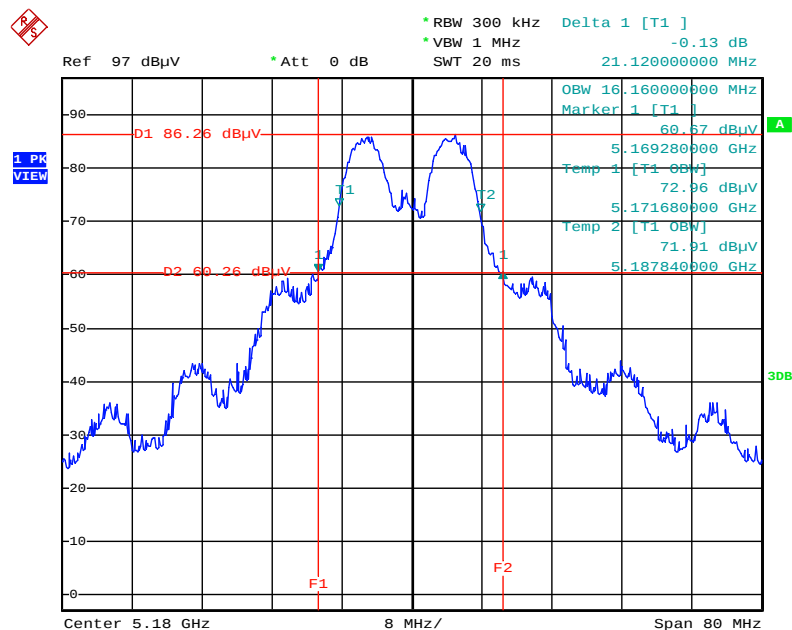
Date: 29.JUL.2014 15:33:45

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 10 MHz / Mode 1 / P to M / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



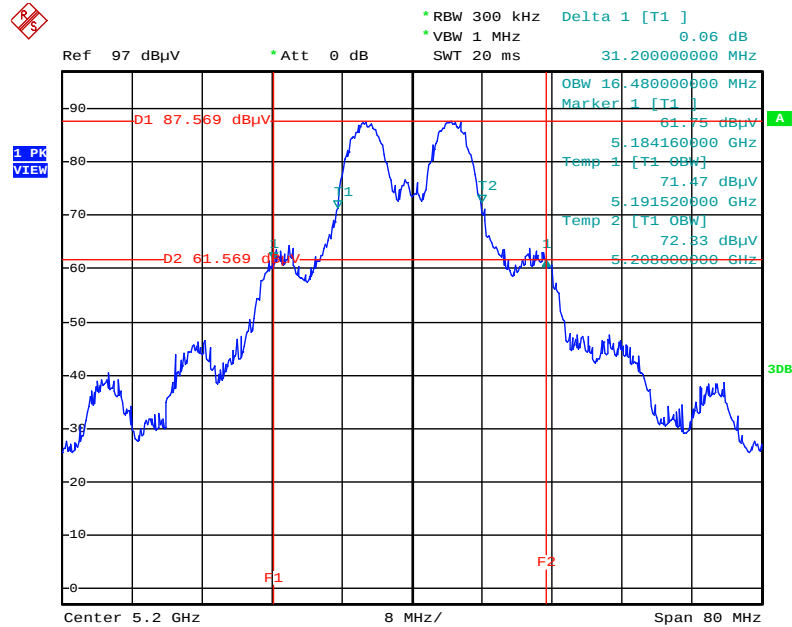
Date: 29.JUL.2014 15:33:18

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 20 MHz / Mode 1 / P to M / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



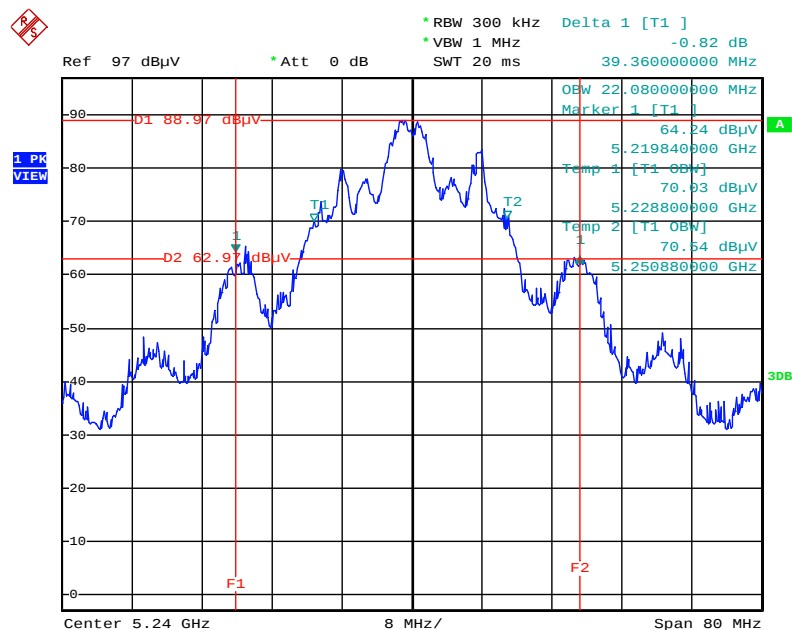
Date: 29.JUL.2014 15:36:14

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 20 MHz / Mode 1 /
P to M / Chain 1 + Chain 2 + Chain 3 / 5200 MHz



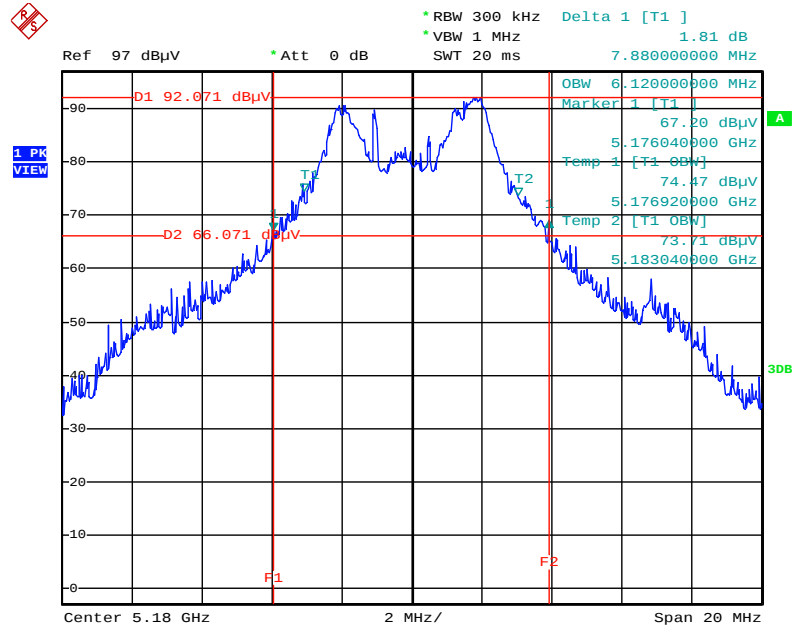
Date: 29.JUL.2014 15:36:47

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 20 MHz / Mode 1 /
P to M / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



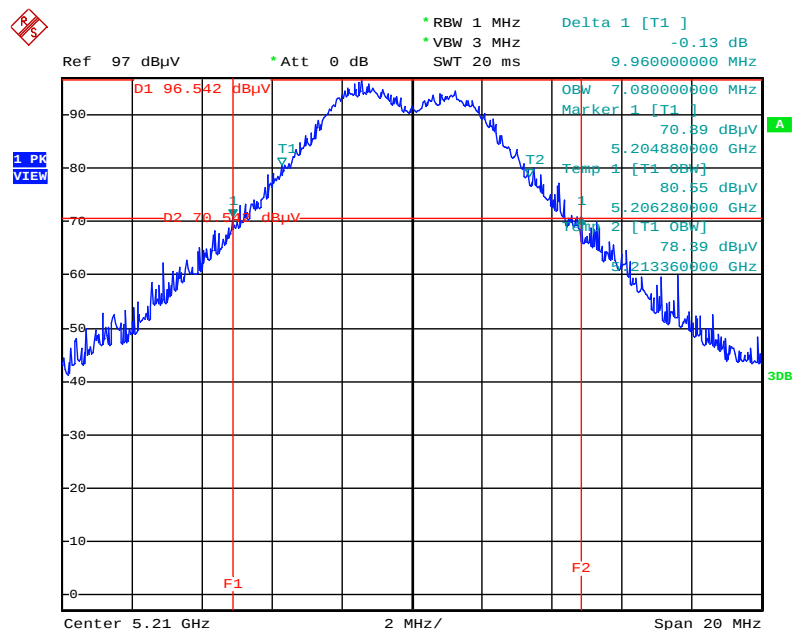
Date: 29.JUL.2014 15:37:19

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 5 MHz / Mode 2 / P to P / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



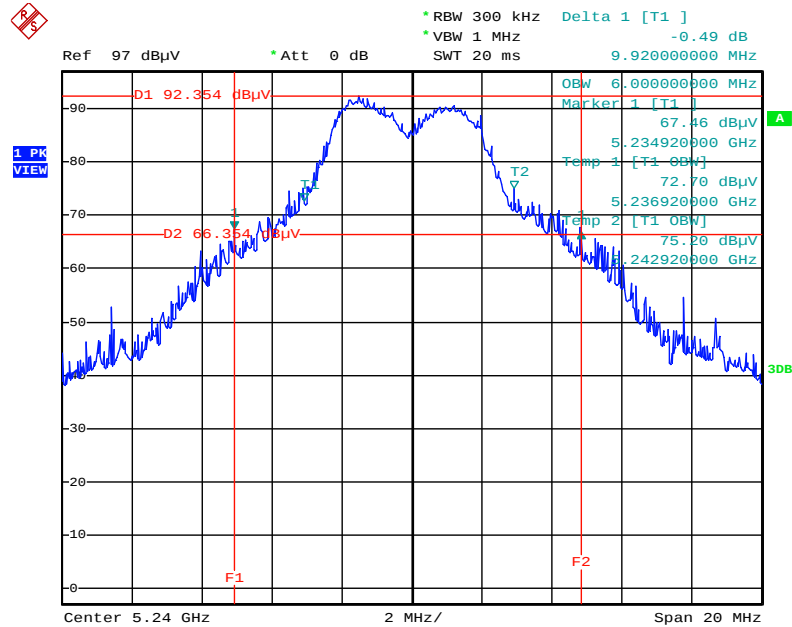
Date: 29.JUL.2014 18:02:36

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 5 MHz / Mode 2 / P to P / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



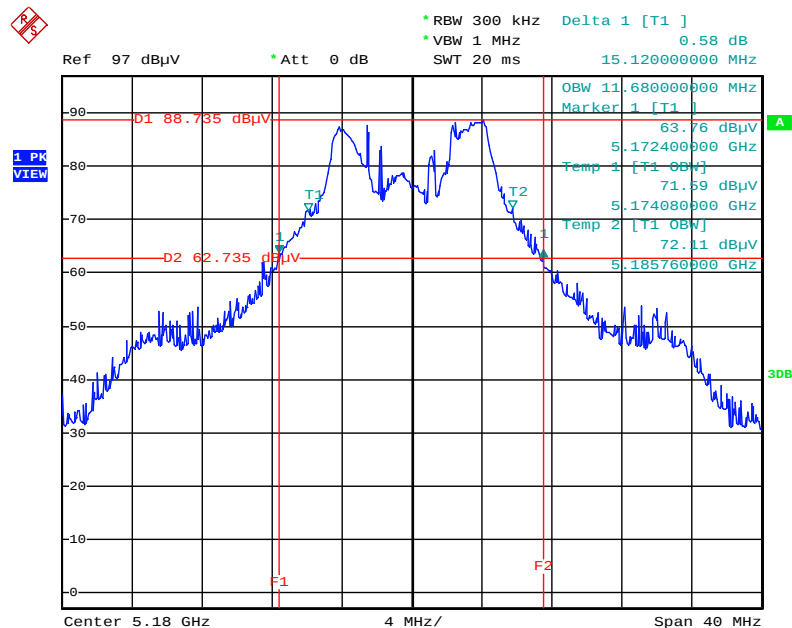
Date: 29.JUL.2014 18:01:57

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 5 MHz / Mode 2 / P to P / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



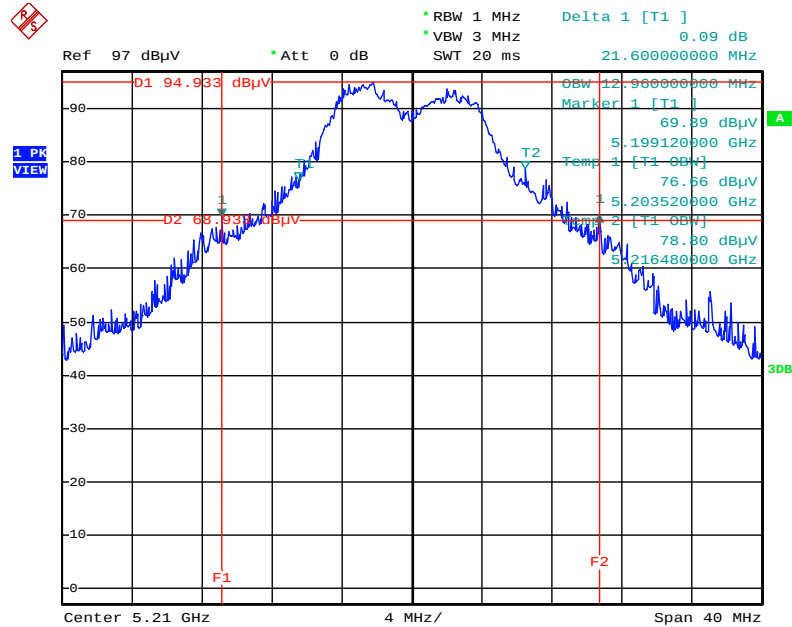
Date: 29.JUL.2014 18:01:06

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 10 MHz / Mode 2 / P to P / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



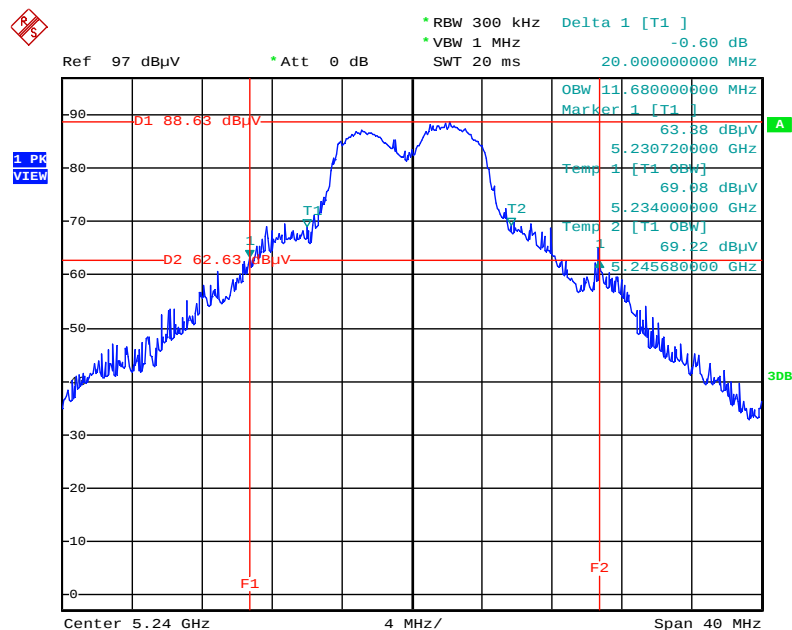
Date: 29.JUL.2014 18:03:36

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 10 MHz /
Mode 2 / P to P / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



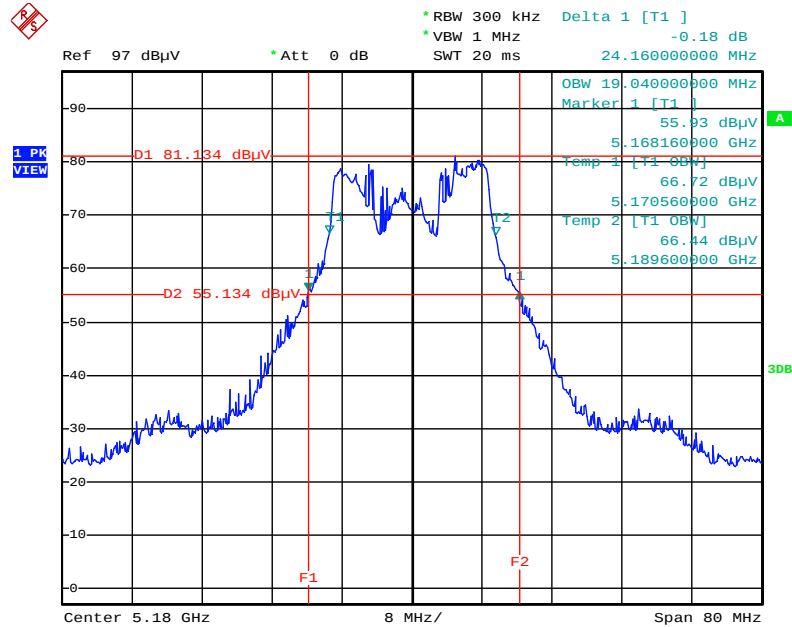
Date: 29.JUL.2014 18:04:03

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 10 MHz /
Mode 2 / P to P / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



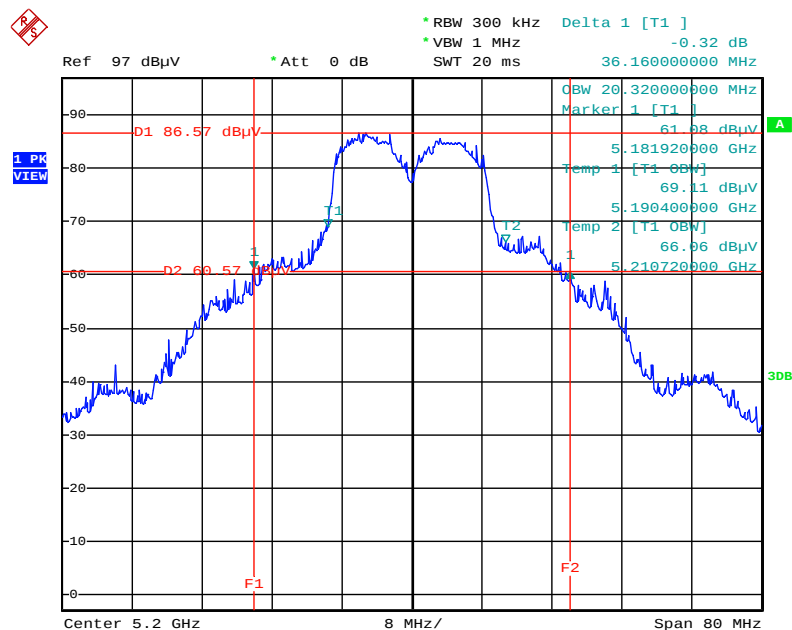
Date: 29.JUL.2014 18:04:57

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 20 MHz /
Mode 2 / P to P / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



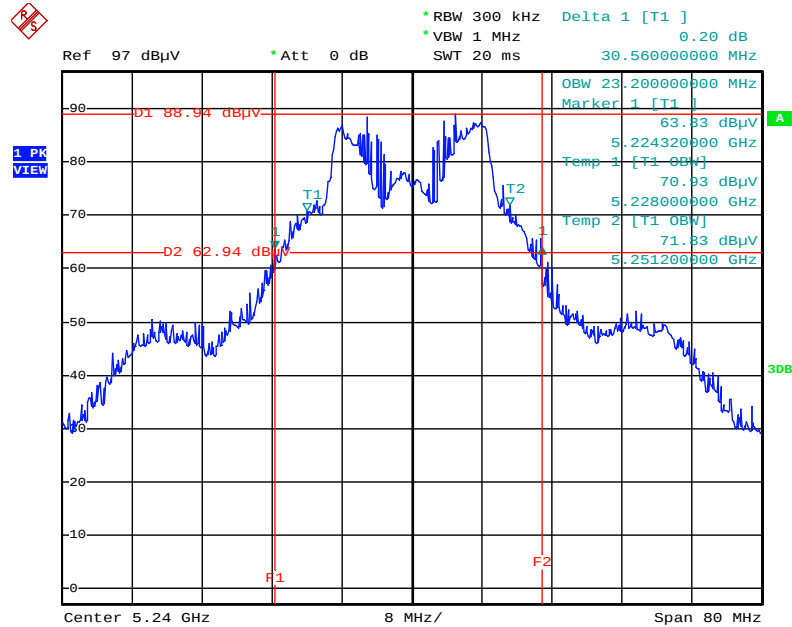
Date: 29.JUL.2014 17:47:26

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 20 MHz /
Mode 2 / P to P / Chain 1 + Chain 2 + Chain 3 / 5200 MHz



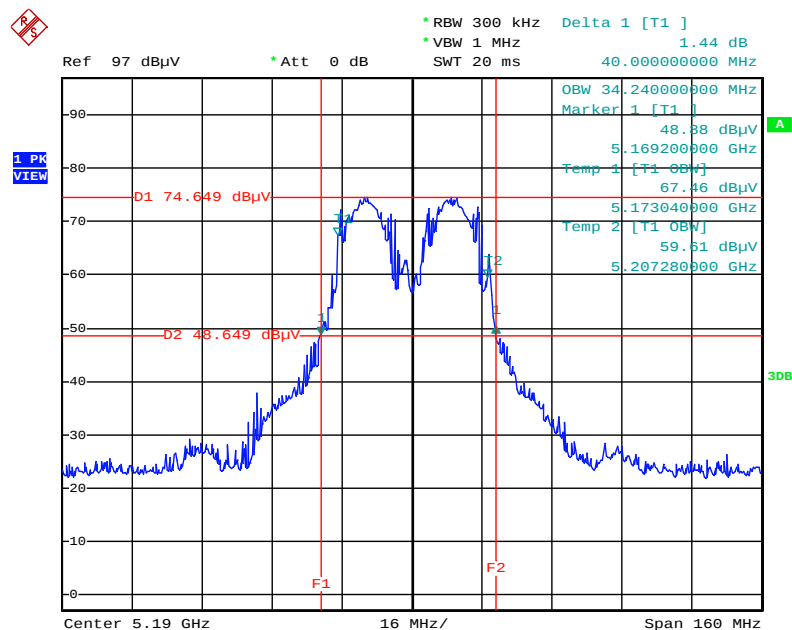
Date: 29.JUL.2014 17:46:57

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 20 MHz /
Mode 2 / P to P / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



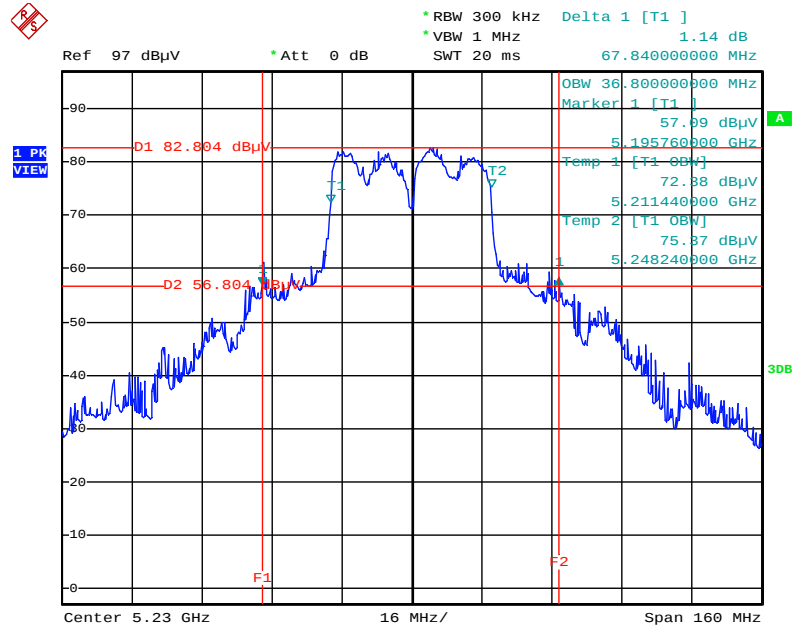
Date: 29.JUL.2014 17:46:32

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 40 MHz /
Mode 2 / P to P / Chain 1 + Chain 2 + Chain 3 / 5190 MHz



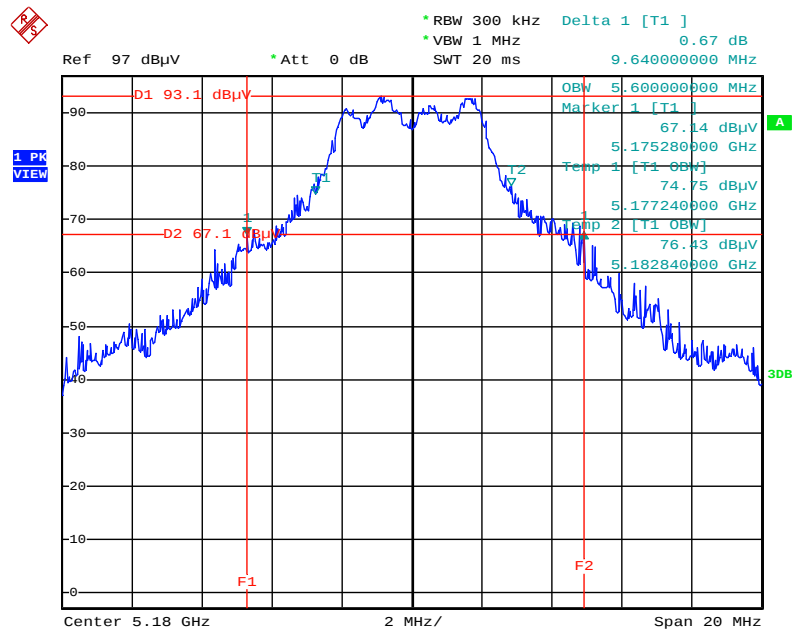
Date: 29.JUL.2014 17:48:12

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 40 MHz /
Mode 2 / P to P / Chain 1 + Chain 2 + Chain 3 / 5230 MHz



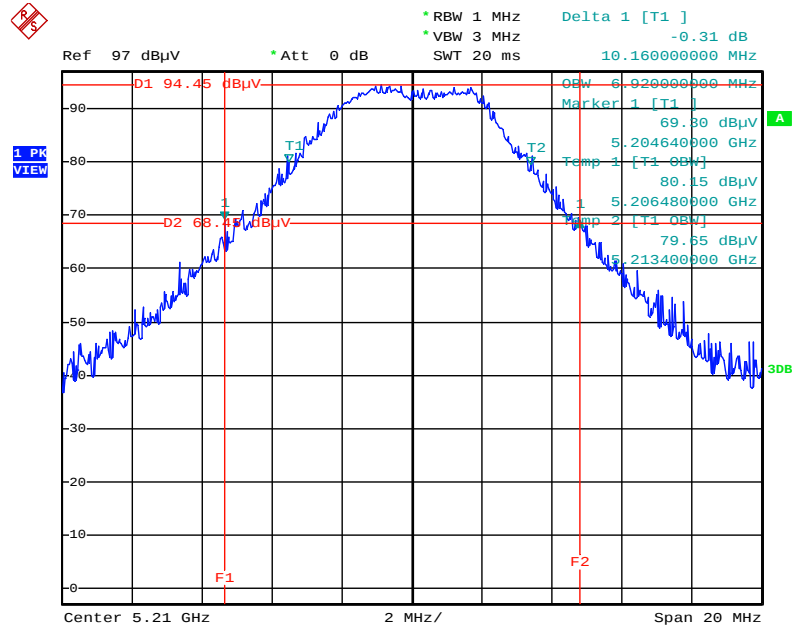
Date: 29.JUL.2014 17:49:30

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 5 MHz / Mode 2 /
P to P / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



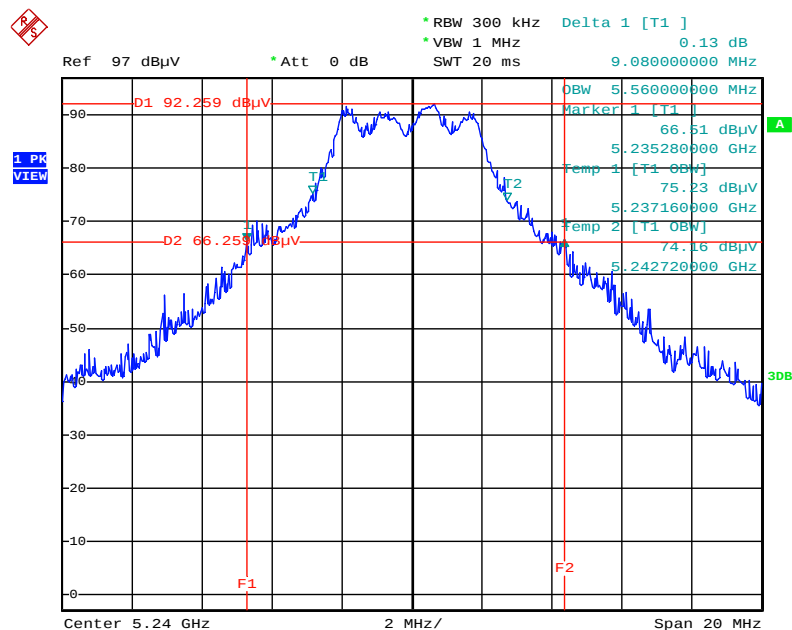
Date: 29.JUL.2014 17:57:52

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 5 MHz / Mode 2 / P to P / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



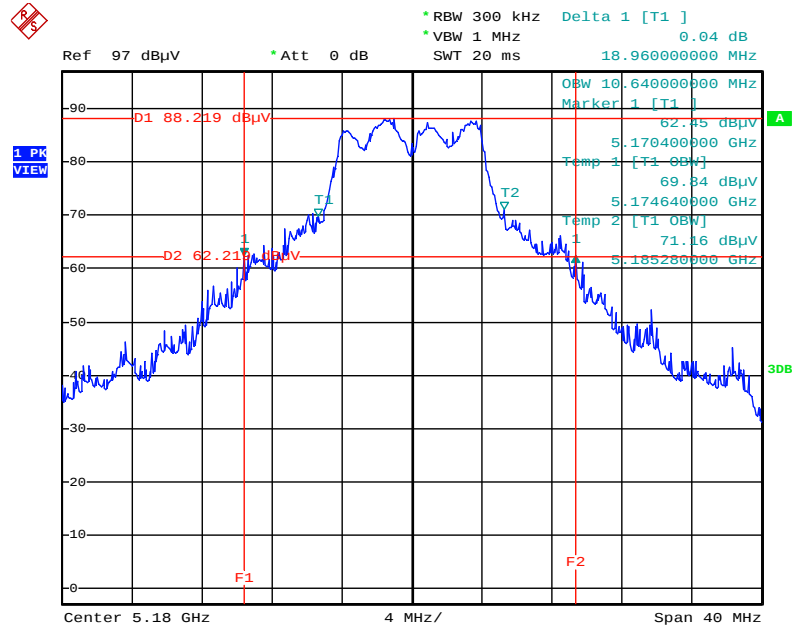
Date: 29.JUL.2014 18:00:09

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 5 MHz / Mode 2 / P to P / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



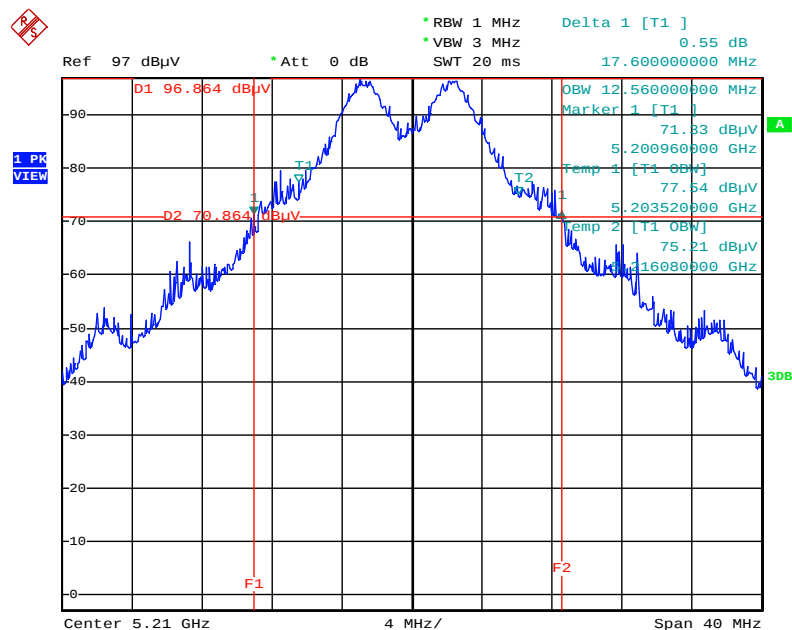
Date: 29.JUL.2014 18:00:40

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 10 MHz / Mode 2 / P to P / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



Date: 29.JUL.2014 18:06:45

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 10 MHz / Mode 2 / P to P / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



Date: 29.JUL.2014 18:05:52



Ref 97 dBμV * Att 0 dB * RBW 300 kHz Delta 1 [T1] -0.87 dB
SWT 20 ms 16.80000000 MHz

OBW 11.280000000 MHz
Marker 1 [T1] 66.85 dBμV
5.231440000 GHz
Temp 1 [T1 OBW] 68.81 dBμV
5.234240000 GHz
Temp 2 [T1 OBW] 66.71 dBμV
5.245520000 GHz

D1 90.819 dBμV
D2 64.819 dBμV
F1
F2

Center 5.24 GHz 4 MHz/ Span 40 MHz

1 PK VIEW

Ref 97 dBμV * Att 0 dB RBW 300 kHz VBW 1 MHz SWT 20 ms Delta 1 [T1] 0.19 dB 23.200000000 MHz

OBW 17.120000000 MHz
Marker 1 [T1] 55.47 dBμV
5.168480000 GHz
Temp 1 [T1 OBW] 69.61 dBμV
5.171360000 GHz
Temp 2 [T1 OBW] 70.65 dBμV
5.188480000 GHz

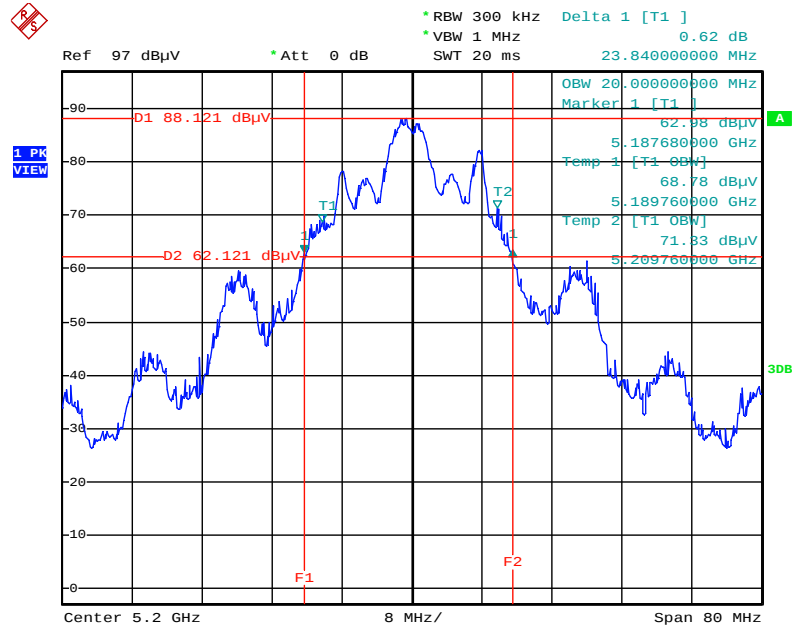
D1 81.343 dBμV
D2 55.343 dBμV

F1 F2

Center 5.18 GHz 8 MHz/ Span 80 MHz

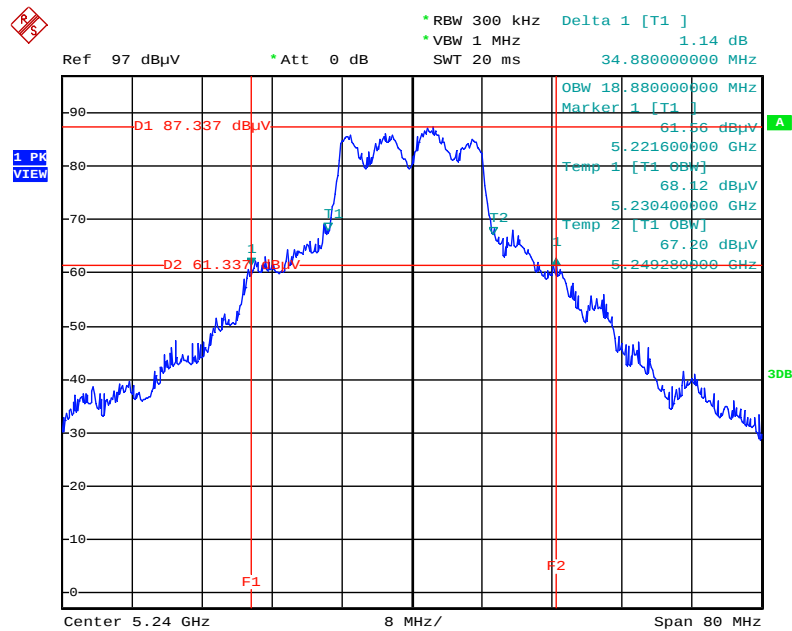
Issued Date : Aug. 12, 2014

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 20 MHz / Mode 2 / P to P / Chain 1 + Chain 2 + Chain 3 / 5200 MHz



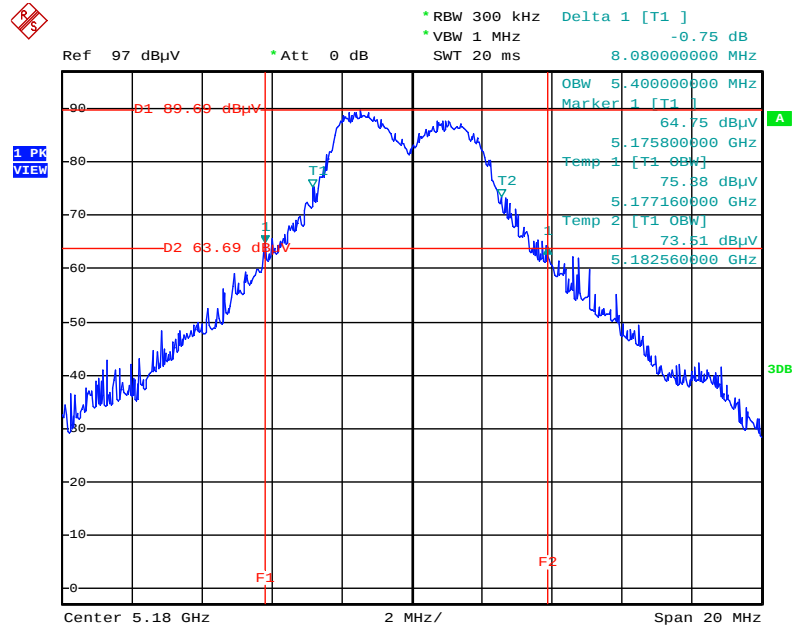
Date: 29.JUL.2014 17:45:03

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 20 MHz / Mode 2 / P to P / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



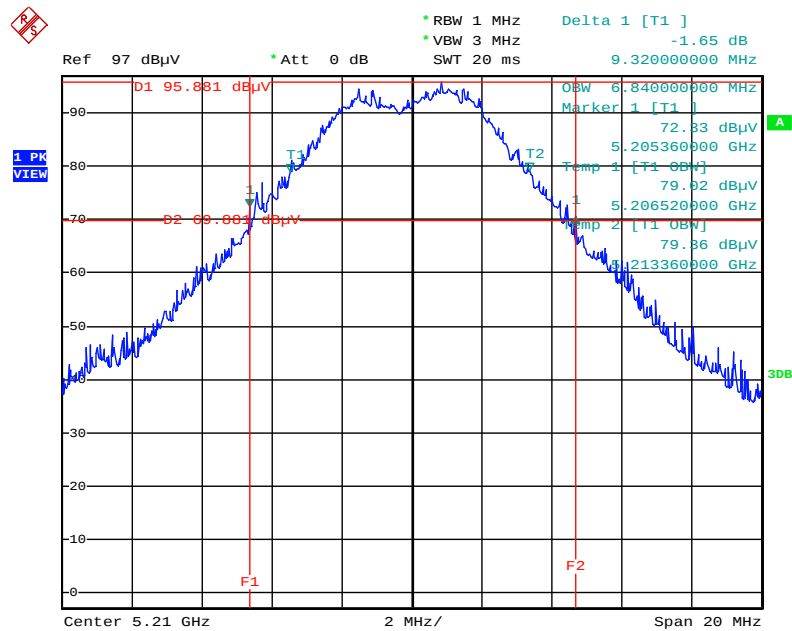
Date: 29.JUL.2014 17:45:55

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 5 MHz / Mode 2 / P to M / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



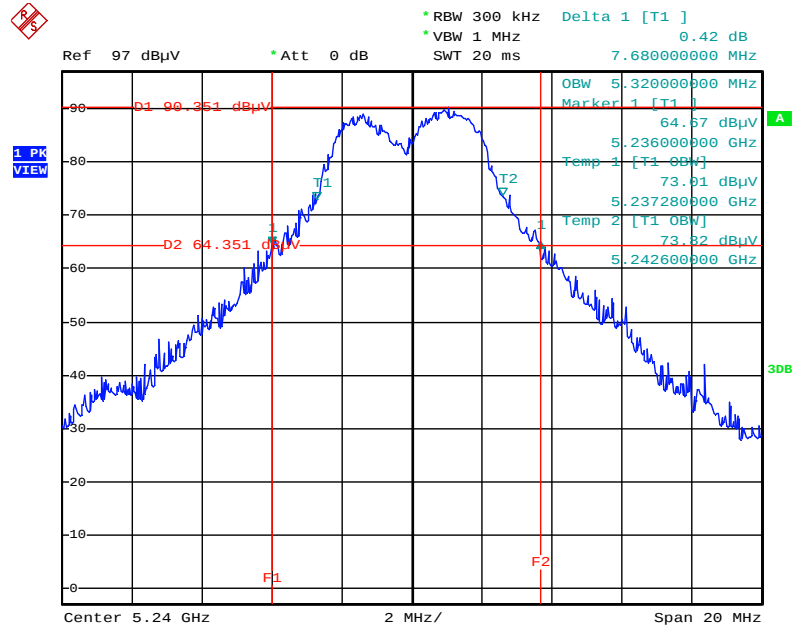
Date: 29.JUL.2014 17:39:47

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 5 MHz / Mode 2 / P to M / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



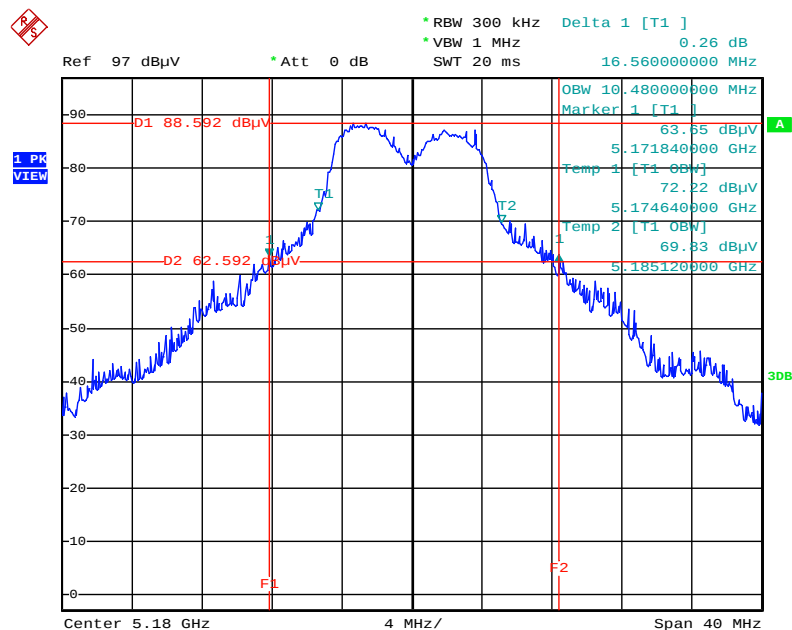
Date: 29.JUL.2014 17:39:24

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 5 MHz /
Mode 2 / P to M / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



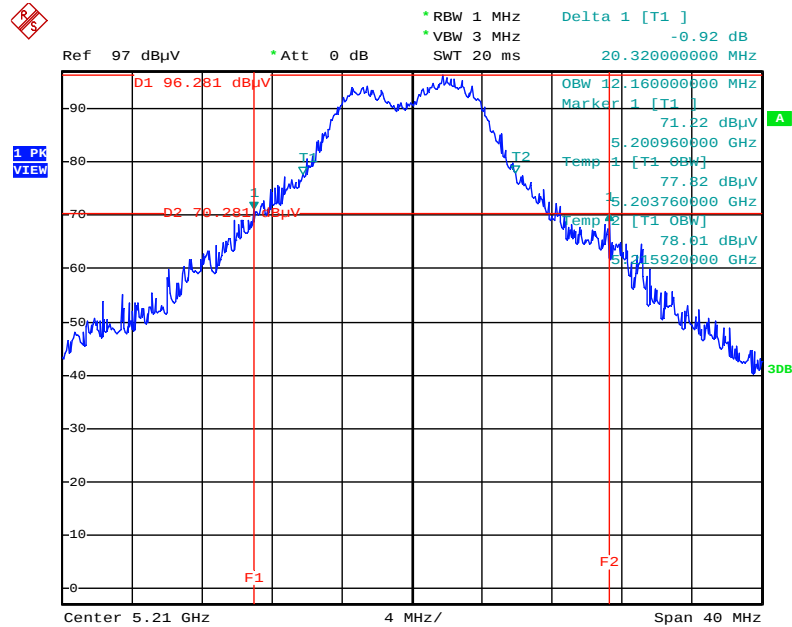
Date: 29.JUL.2014 17:39:00

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 10 MHz /
Mode 2 / P to M / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



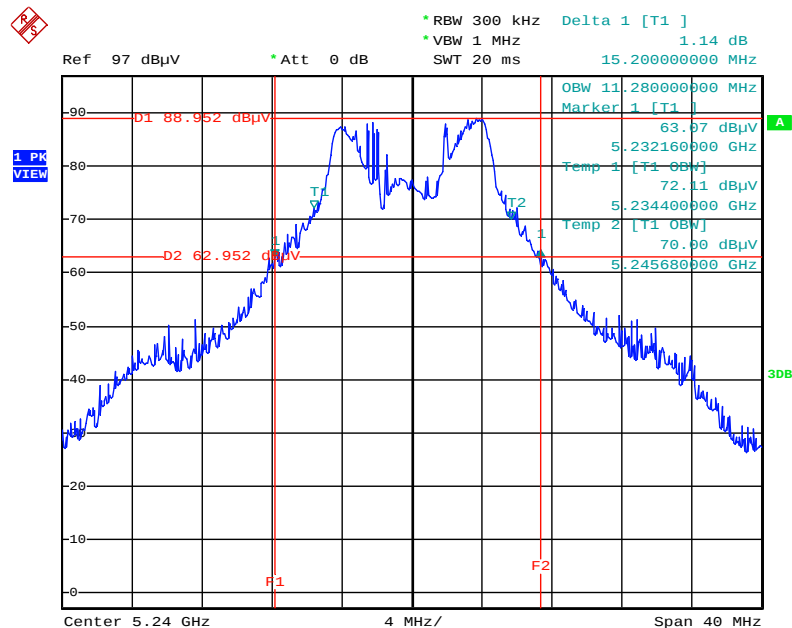
Date: 29.JUL.2014 17:43:22

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 10 MHz /
Mode 2 / P to M / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



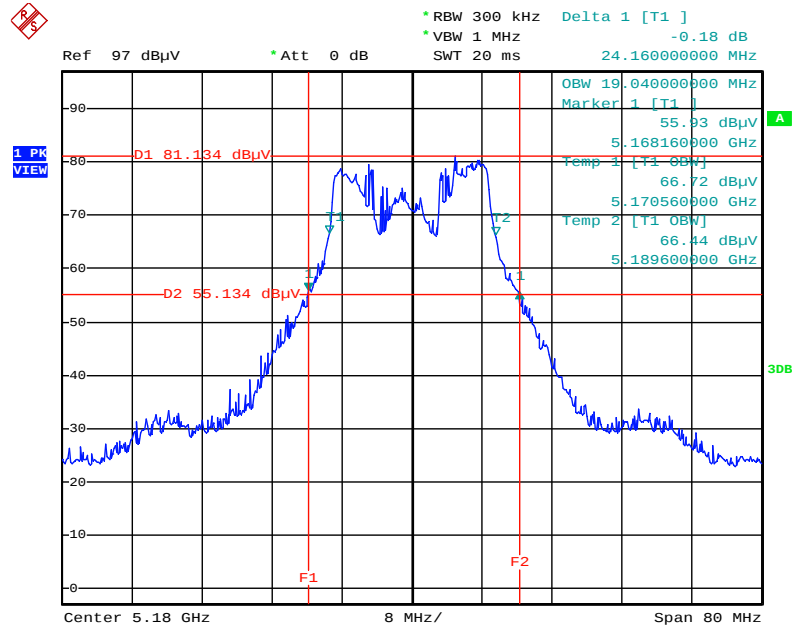
Date: 29.JUL.2014 17:42:57

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 10 MHz /
Mode 2 / P to M / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



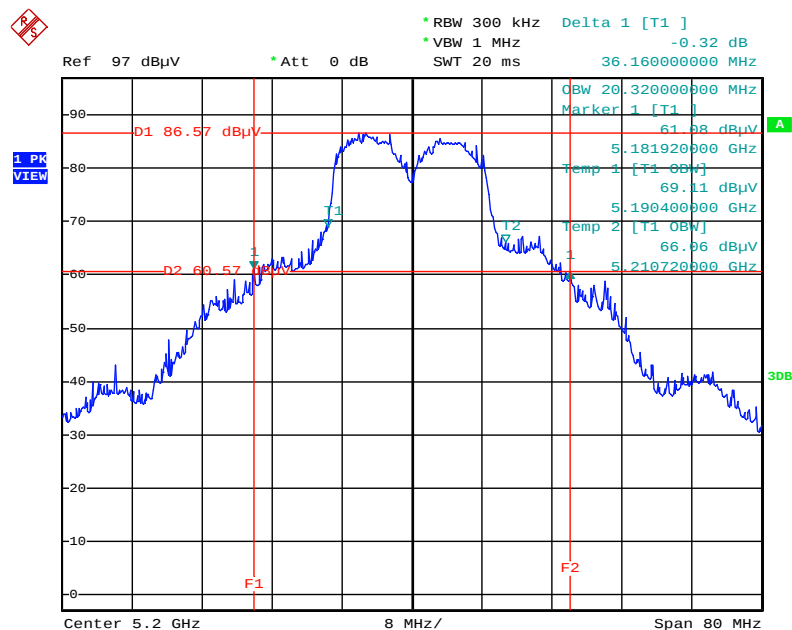
Date: 29.JUL.2014 17:42:20

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 20 MHz /
Mode 2 / P to M / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



Date: 29.JUL.2014 17:47:26

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 20 MHz /
Mode 2 / P to M / Chain 1 + Chain 2 + Chain 3 / 5200 MHz



Date: 29.JUL.2014 17:46:57



Ref 97 dBμV * Att 0 dB * RBW 300 kHz Delta 1 [T1] 0.20 dB
 SWT 20 ms 30.56000000 MHz

OBW 23.20000000 MHz
 Marker 1 [T1] 63.83 dBμV
 5.224320000 GHz
 Temp 1 [T1 OBW] 70.93 dBμV
 5.228000000 GHz
 Temp 2 [T1 OBW] 71.83 dBμV
 5.251200000 GHz

D1 88.94 dBμV
 D2 62.94 dBμV

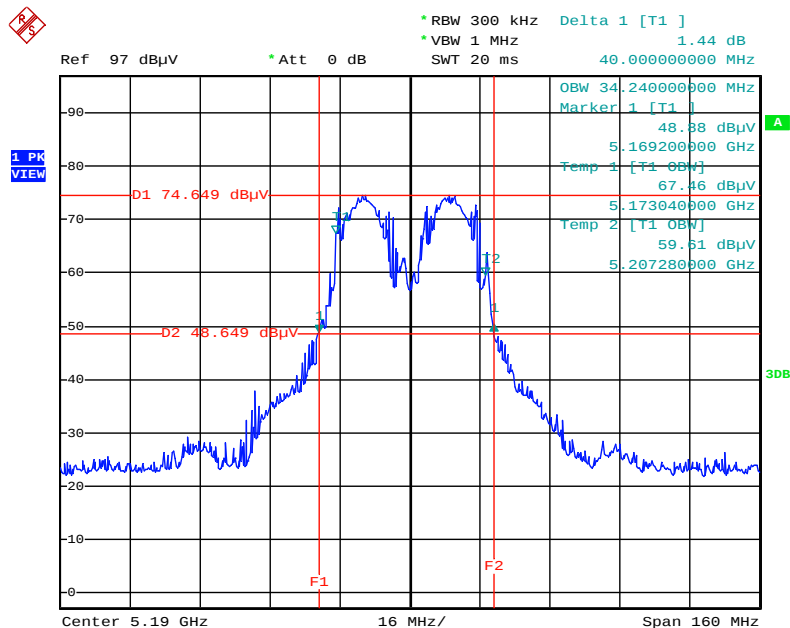
T1
 T2

F1 F2

Center 5.24 GHz 8 MHz/ Span 80 MHz

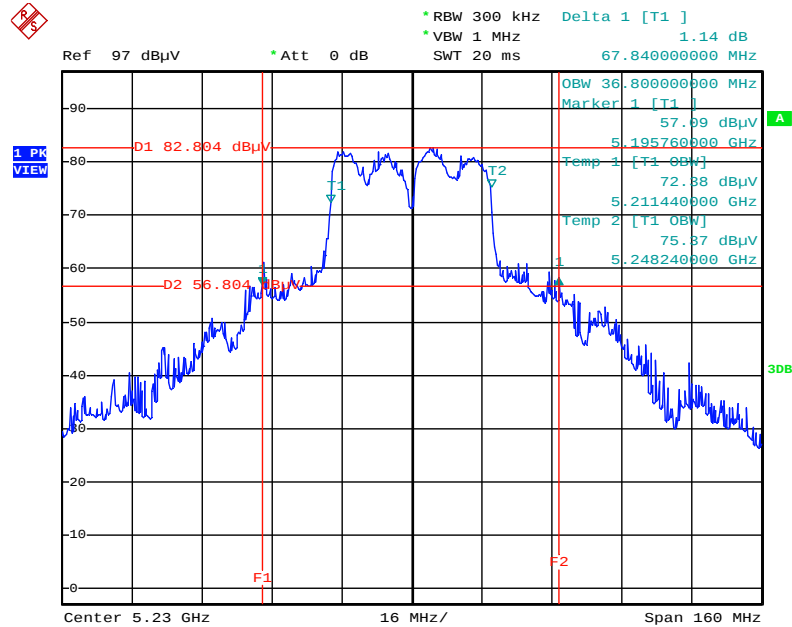
1 PK VIEW

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 40 MHz / Mode 2 / P to M / Chain 1 + Chain 2 + Chain 3 / 5190 MHz



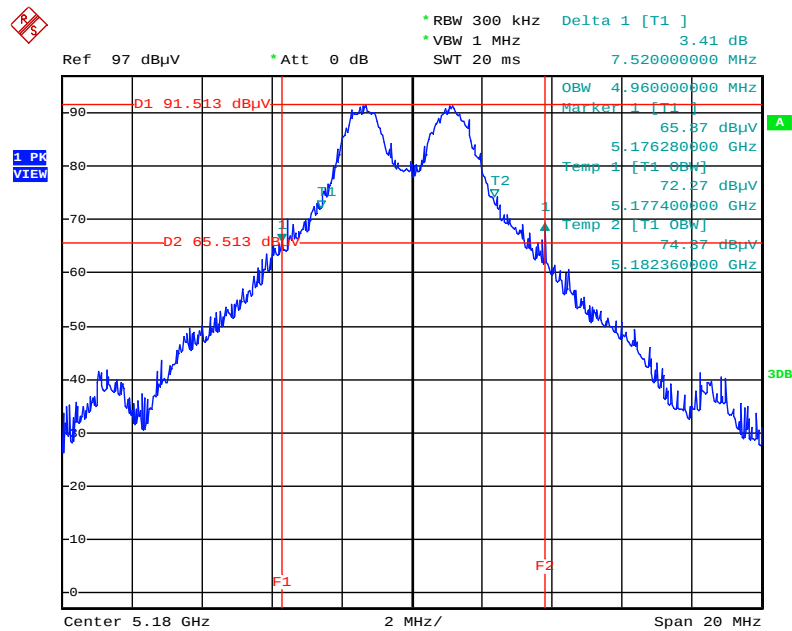
Date: 29.JUL.2014 17:48:12

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 40 MHz / Mode 2 / P to M / Chain 1 + Chain 2 + Chain 3 / 5230 MHz



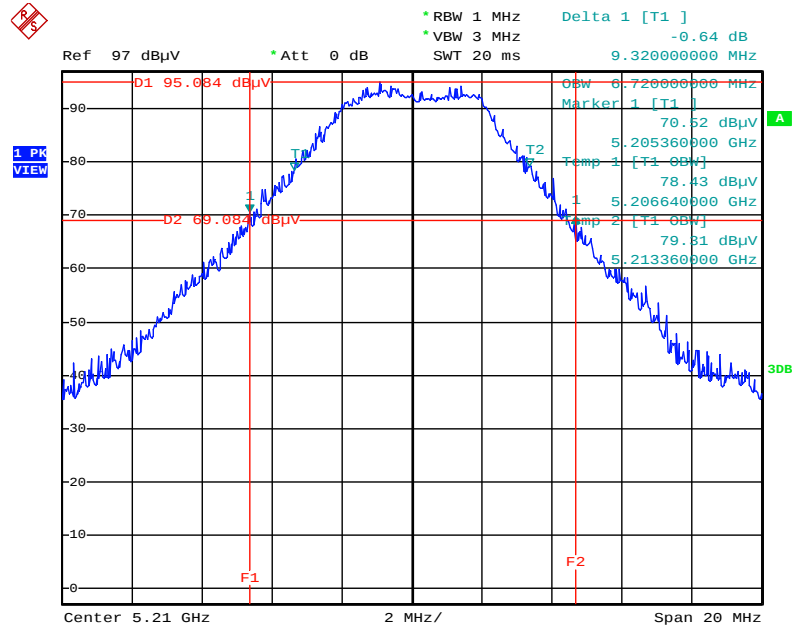
Date: 29.JUL.2014 17:49:30

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 5 MHz / Mode 2 / P to M / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



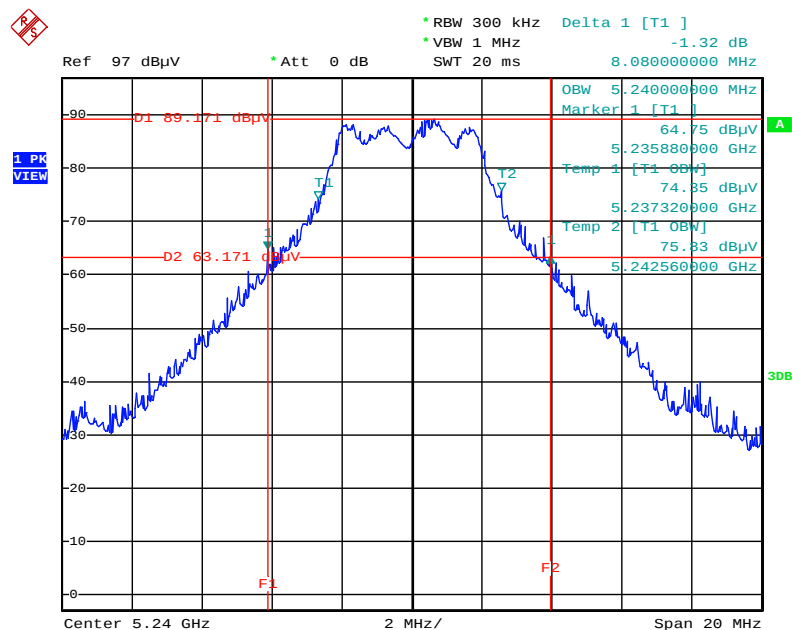
Date: 29.JUL.2014 17:37:24

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 5 MHz / Mode 2 / P to M / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



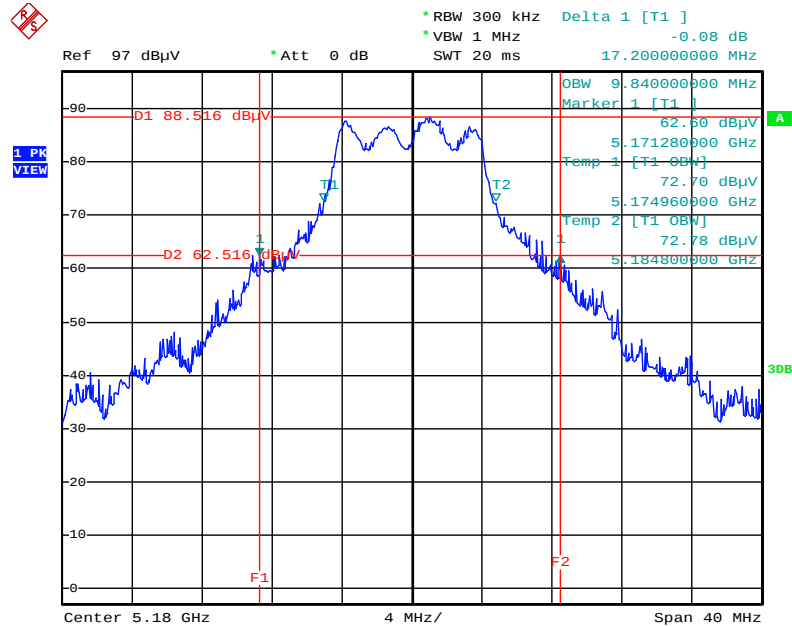
Date: 29.JUL.2014 17:37:50

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 5 MHz / Mode 2 / P to M / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



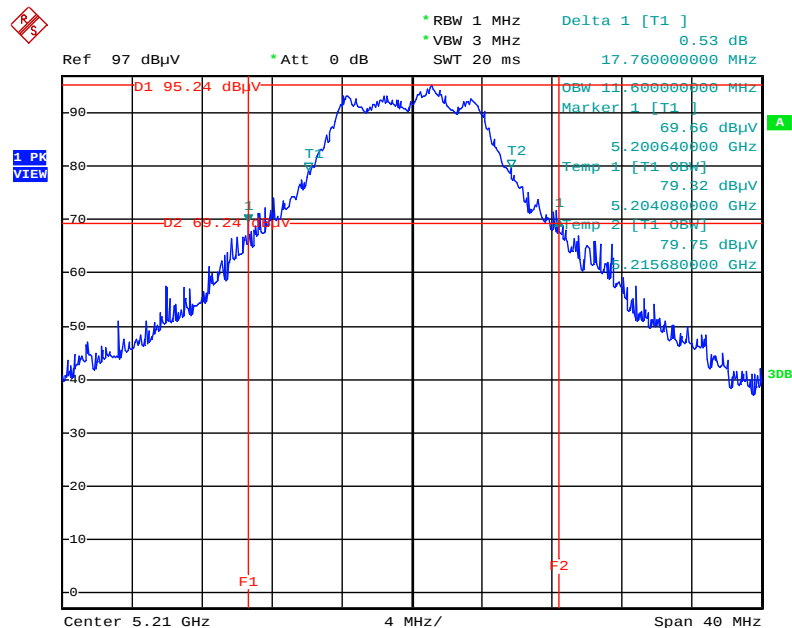
Date: 29.JUL.2014 17:38:18

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 10 MHz / Mode 2 / P to M / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



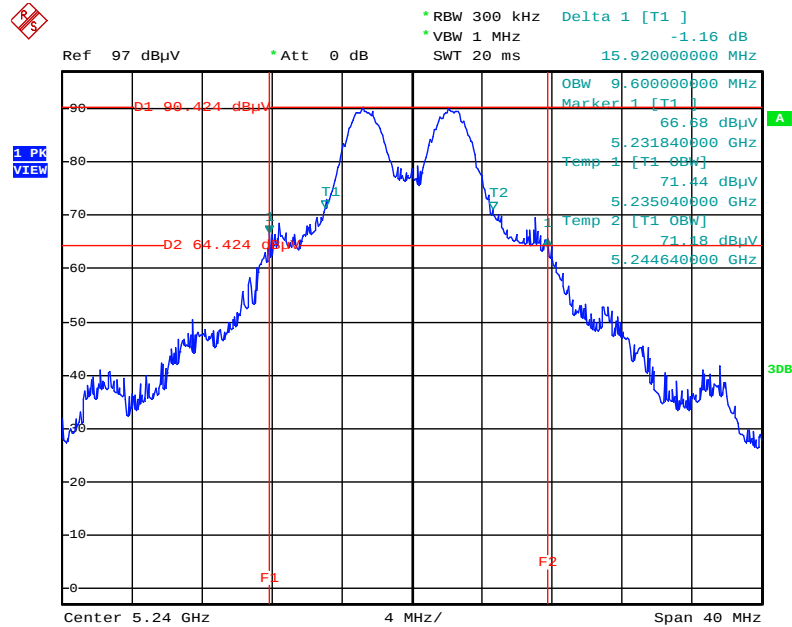
Date: 29.JUL.2014 17:40:56

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 10 MHz / Mode 2 / P to M / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



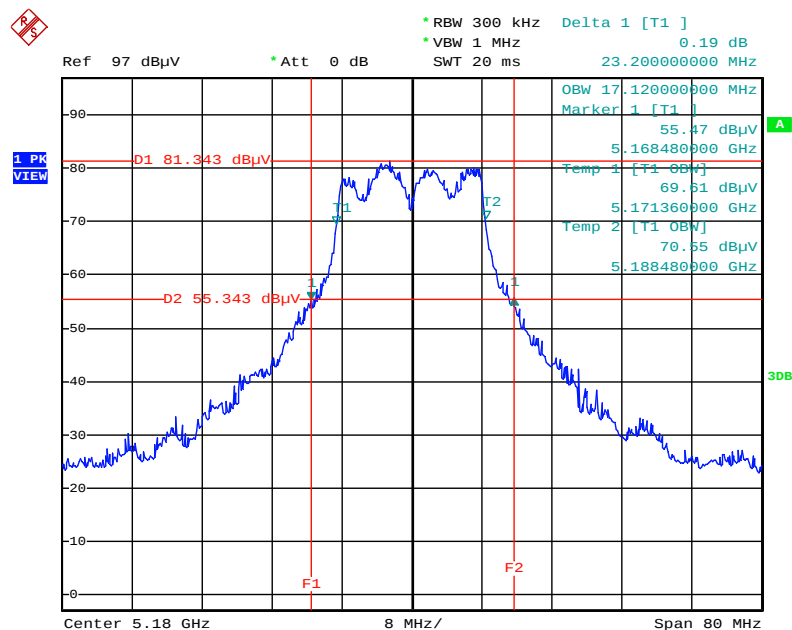
Date: 29.JUL.2014 17:41:22

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 10 MHz / Mode 2 / P to M / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



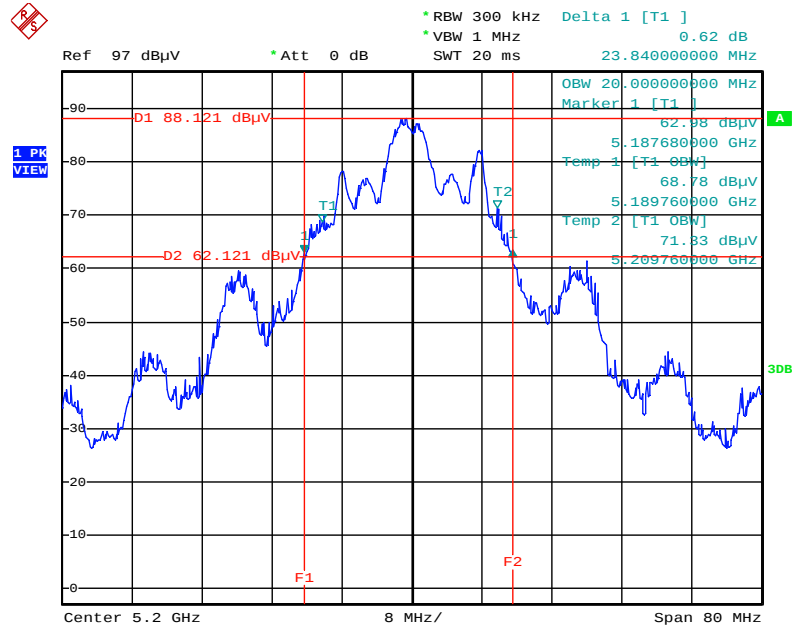
Date: 29.JUL.2014 17:41:48

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 20 MHz / Mode 2 / P to M / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



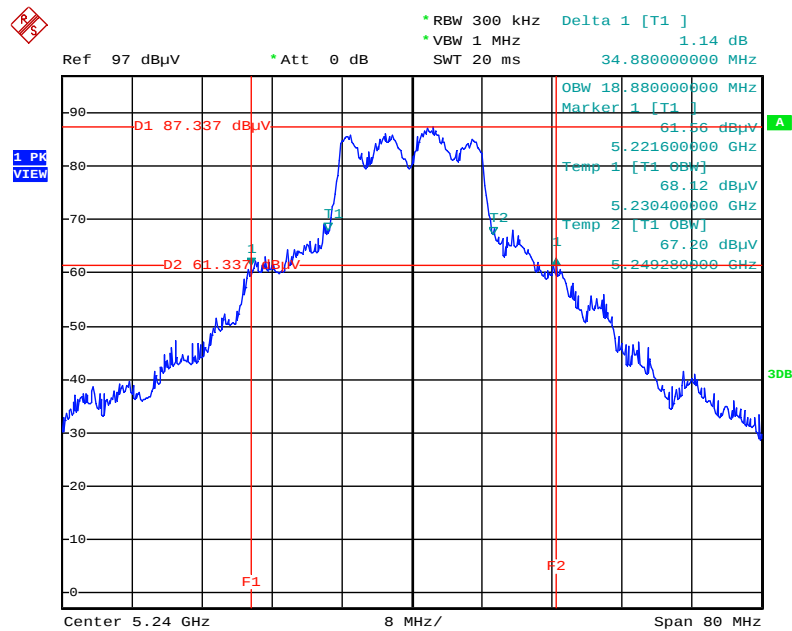
Date: 29.JUL.2014 17:44:36

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 20 MHz / Mode 2 / P to M / Chain 1 + Chain 2 + Chain 3 / 5200 MHz



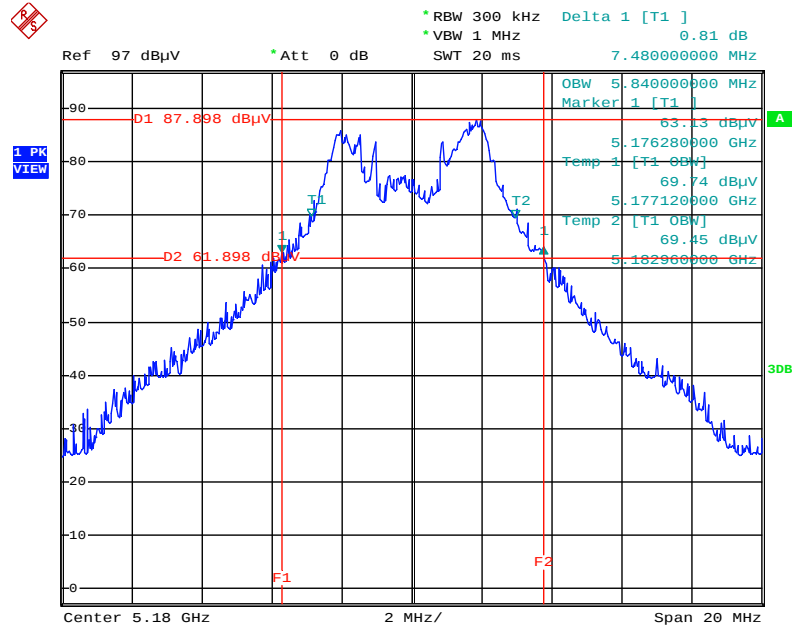
Date: 29.JUL.2014 17:45:03

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 20 MHz / Mode 2 / P to M / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



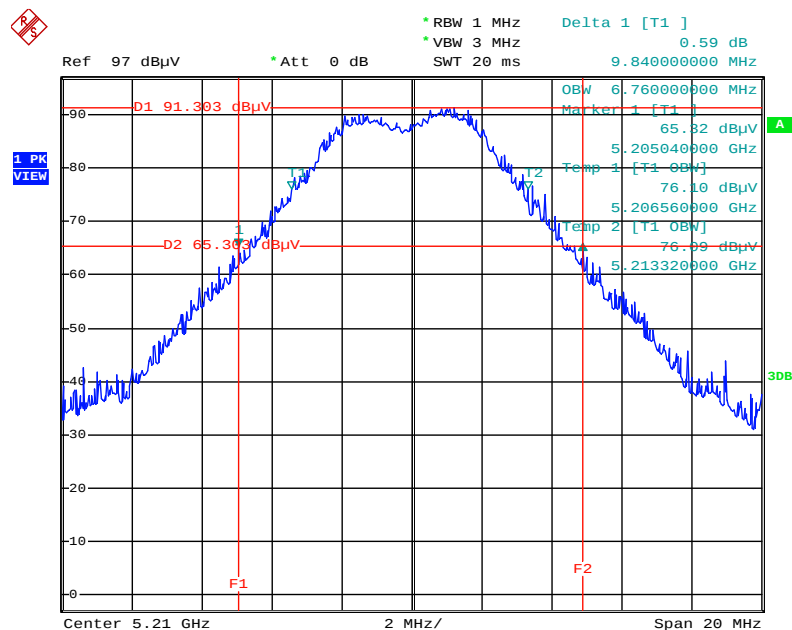
Date: 29.JUL.2014 17:45:55

**26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 5 MHz /
Mode 3 / P to M / Chain 1 + Chain 2 + Chain 3 / 5180 MHz**



Date: 29.JUL.2014 19:44:06

**26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 5 MHz /
Mode 3 / P to M / Chain 1 + Chain 2 + Chain 3 / 5210 MHz**



Date: 29.JUL.2014 19:43:22



Ref 97 dBμV *Att 0 dB SWT 20 ms

*RBW 300 kHz Delta 1 [T1] -1.47 dB
*VBW 1 MHz 7.800000000 MHz

OBW 5.200000000 MHz
Marker 1 [T1] 62.42 dBμV
5.235880000 GHz
Temp 1 [T1 OBW] 69.14 dBμV
5.237320000 GHz
Temp 2 [T1 OBW] 69.57 dBμV
5.242520000 GHz

D1 86.893 dBμV
D2 60.893 dBμV

F1 F2

Center 5.24 GHz 2 MHz/ Span 20 MHz

1 PK VIEW

Ref 97 dBμV * Att 0 dB

* RBW 300 kHz Delta 1 [T1] 0.56 dB
 * VBW 1 MHz
 SWT 20 ms 15.120000000 MHz

OBW 9.520000000 MHz
 Marker 1 [T1]
 55.64 dBμV
 5.172320000 GHz
 Temp 1 [T1 00V]
 67.65 dBμV
 5.175200000 GHz
 Temp 2 [T1 00V]
 67.64 dBμV
 5.184720000 GHz

1 PK VIEW

D1 81.448 dBμV

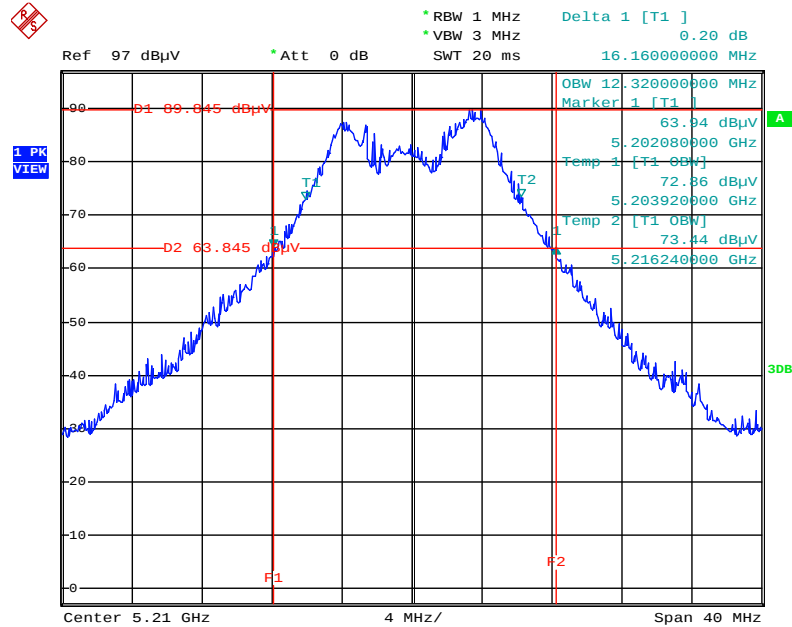
D2 55.448 dBμV

F1 F2

Center 5.18 GHz 4 MHz/ Span 40 MHz

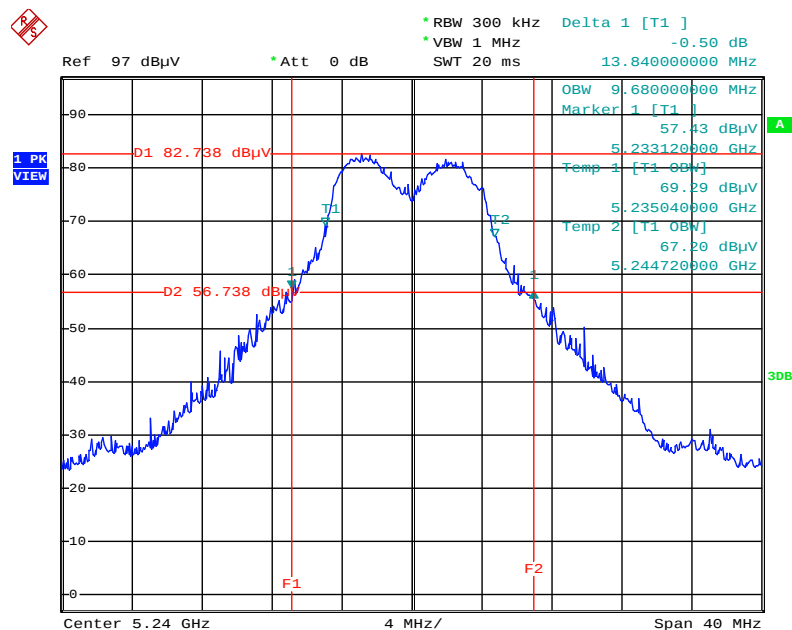
Issued Date : Aug. 12, 2014

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 10 MHz /
Mode 3 / P to M / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



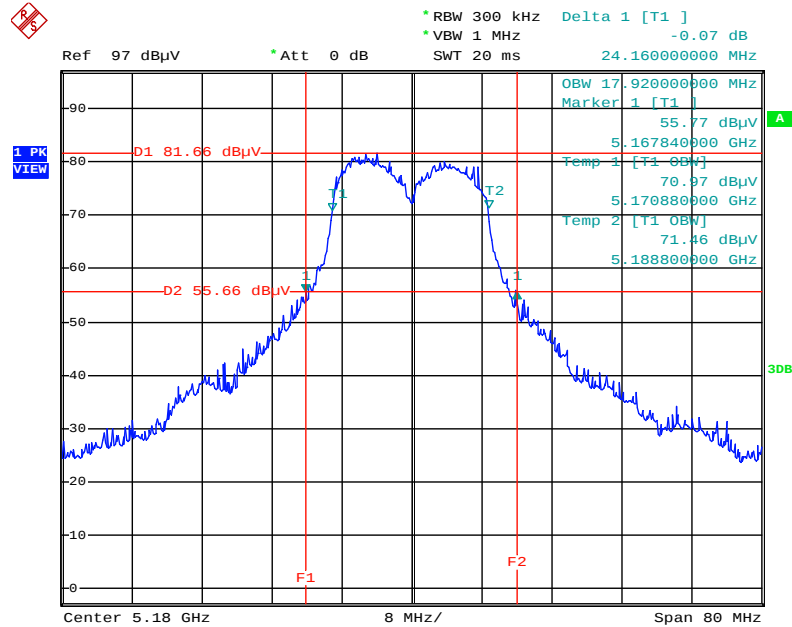
Date: 29.JUL.2014 19:47:23

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 10 MHz /
Mode 3 / P to M / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



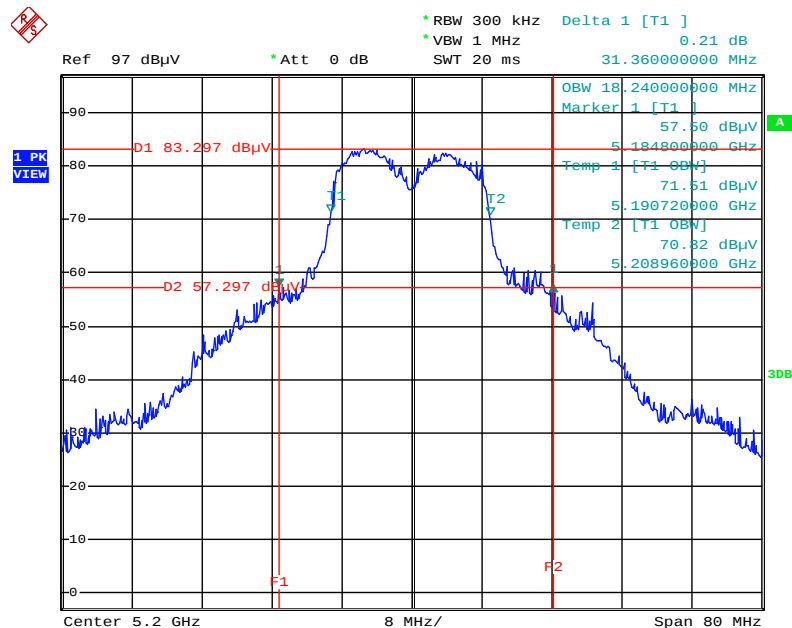
Date: 29.JUL.2014 19:46:54

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 20 MHz /
Mode 3 / P to M / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



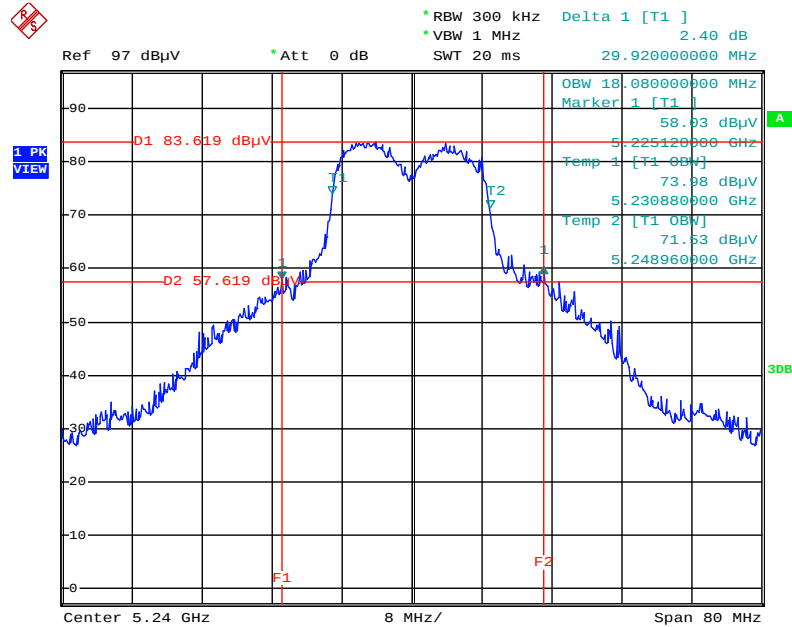
Date: 29.JUL.2014 19:55:06

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 20 MHz /
Mode 3 / P to M / Chain 1 + Chain 2 + Chain 3 / 5200 MHz



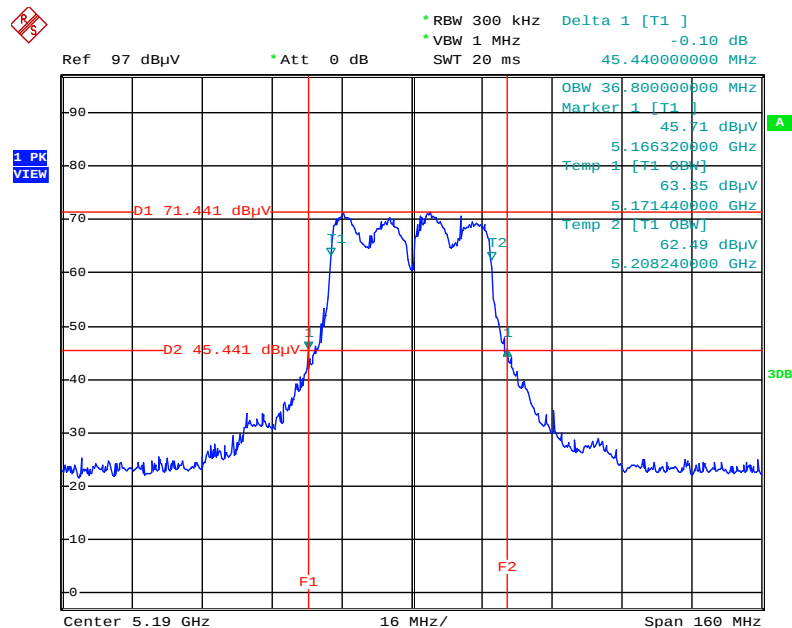
Date: 29.JUL.2014 19:54:21

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 20 MHz /
Mode 3 / P to M / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



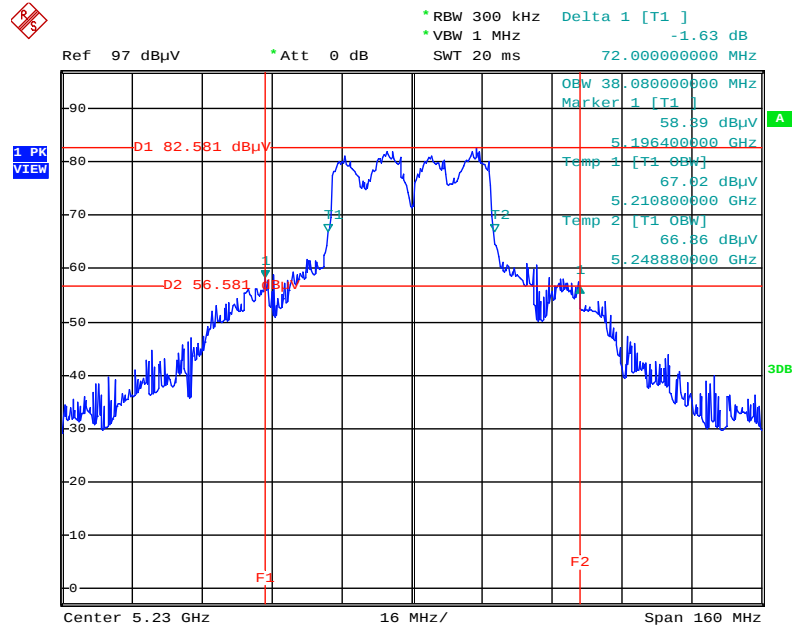
Date: 29.JUL.2014 19:53:49

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 40 MHz /
Mode 3 / P to M / Chain 1 + Chain 2 + Chain 3 / 5190 MHz



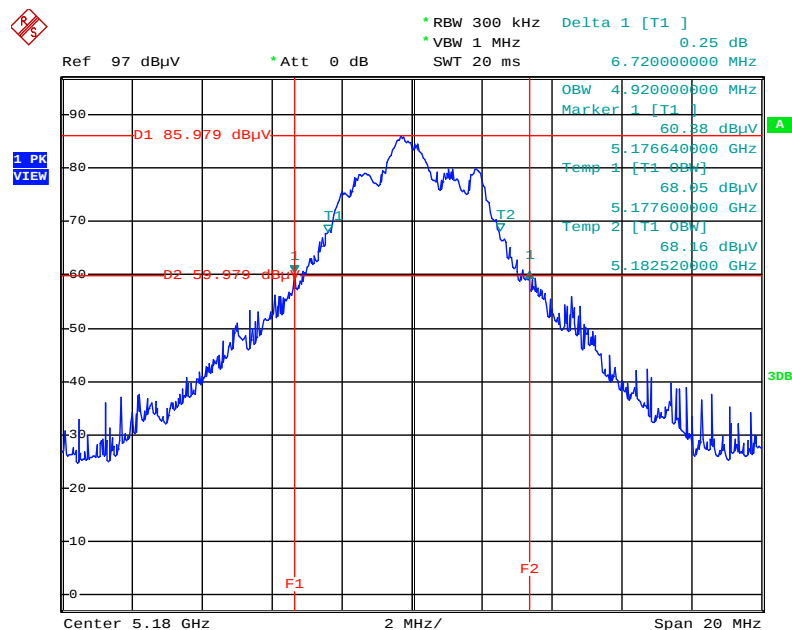
Date: 29.JUL.2014 19:56:05

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 40 MHz /
Mode 3 / P to M / Chain 1 + Chain 2 + Chain 3 / 5230 MHz



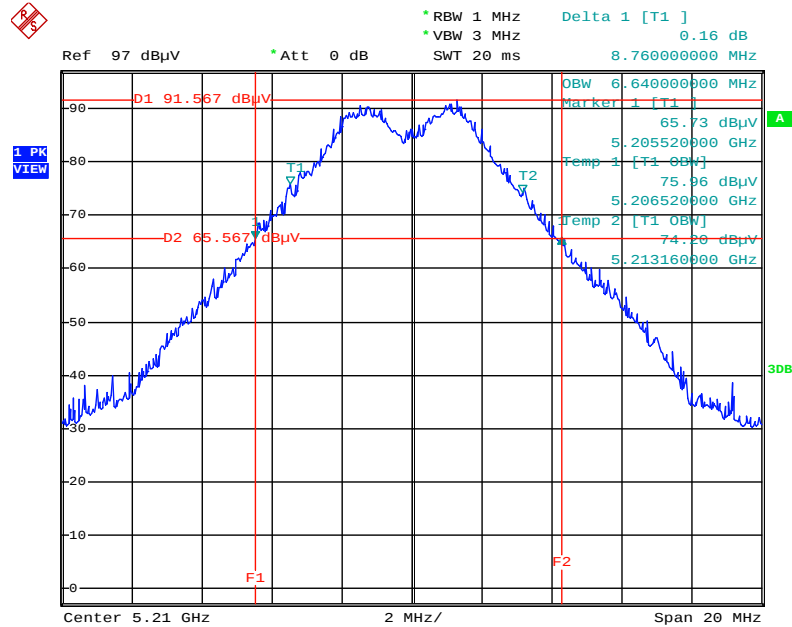
Date: 29.JUL.2014 19:56:46

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 5 MHz / Mode 3 /
P to M / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



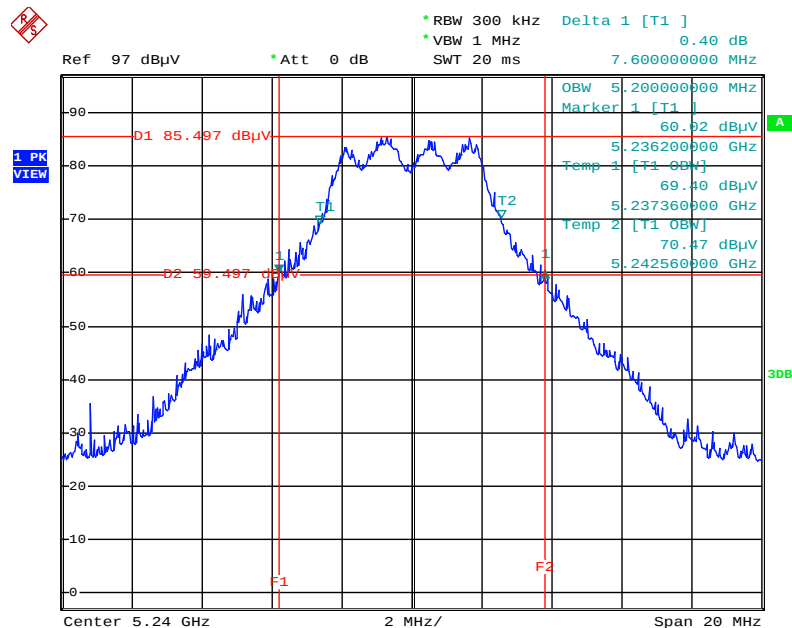
Date: 29.JUL.2014 19:38:29

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 5 MHz / Mode 3 / P to M / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



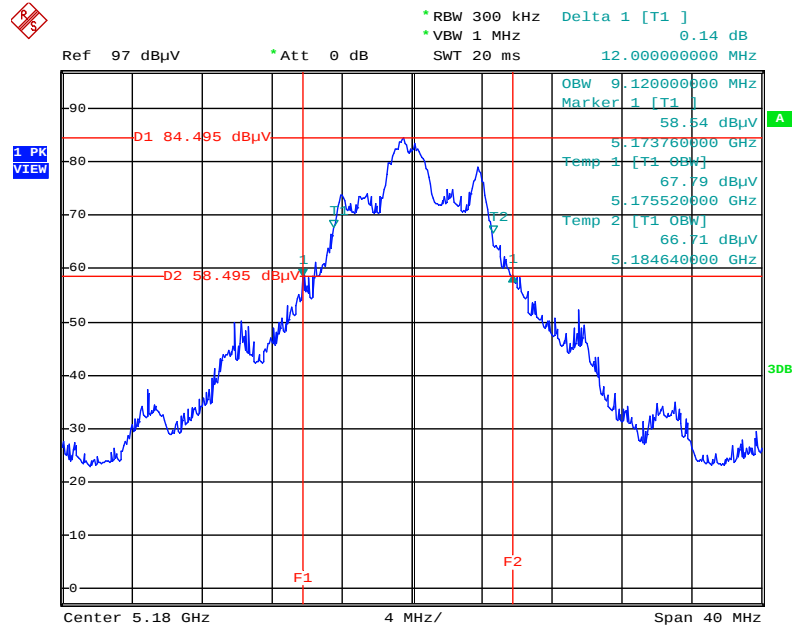
Date: 29.JUL.2014 19:40:21

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 5 MHz / Mode 3 / P to M / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



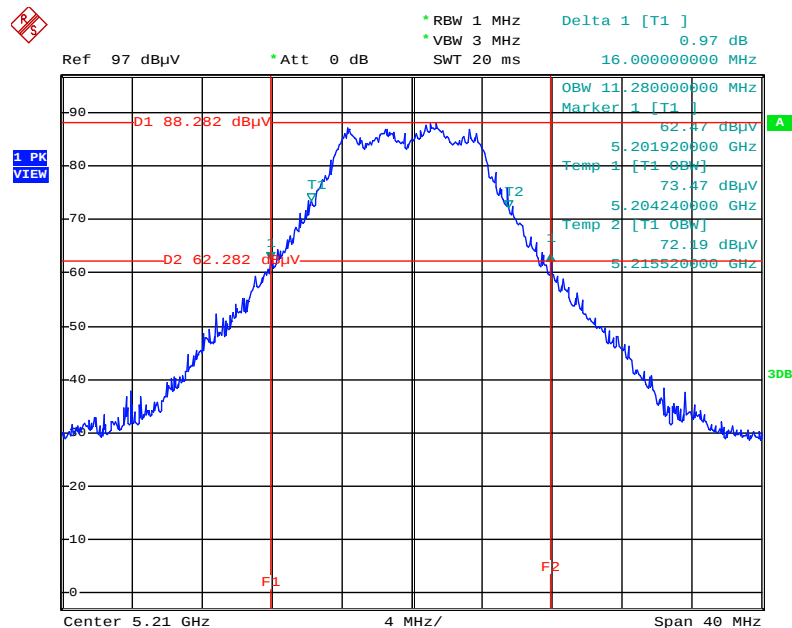
Date: 29.JUL.2014 19:40:54

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 10 MHz / Mode 3 / P to M / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



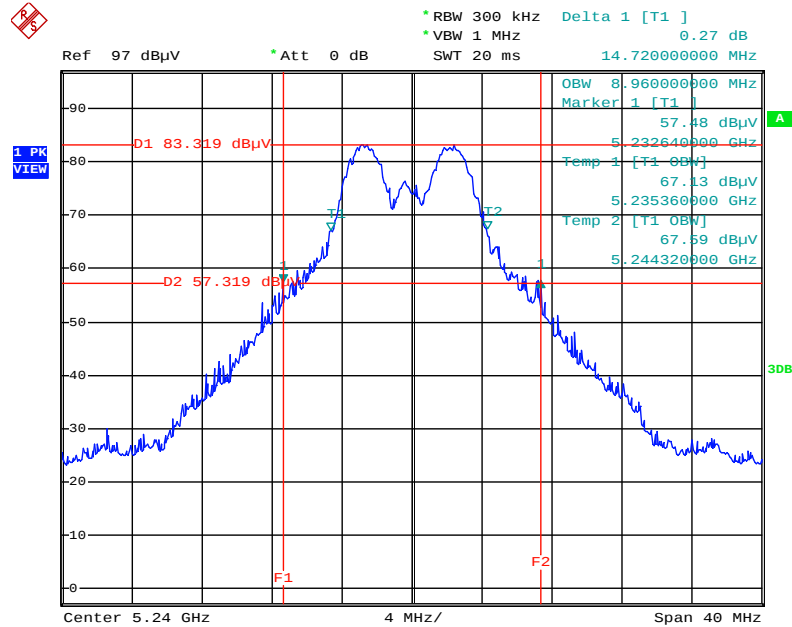
Date: 29.JUL.2014 19:45:15

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 10 MHz / Mode 3 / P to M / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



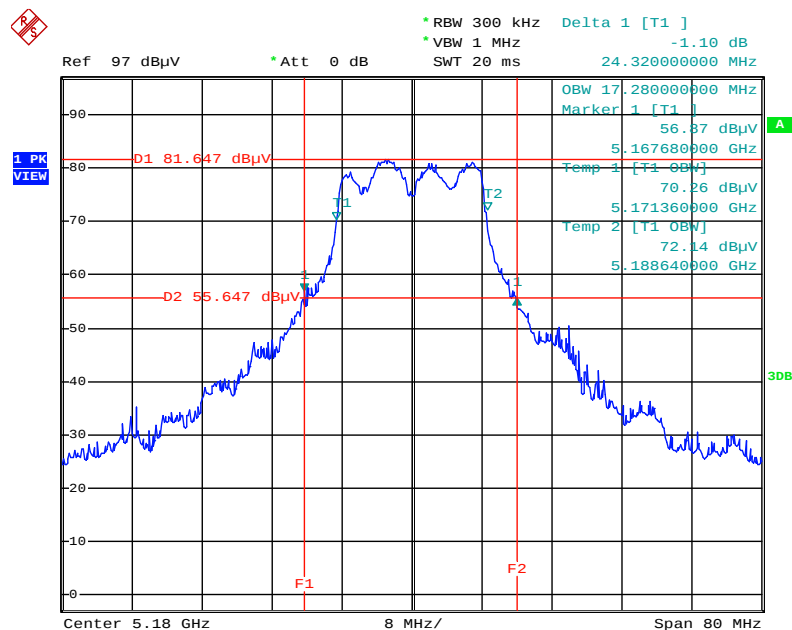
Date: 29.JUL.2014 19:45:46

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 10 MHz / Mode 3 / P to M / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



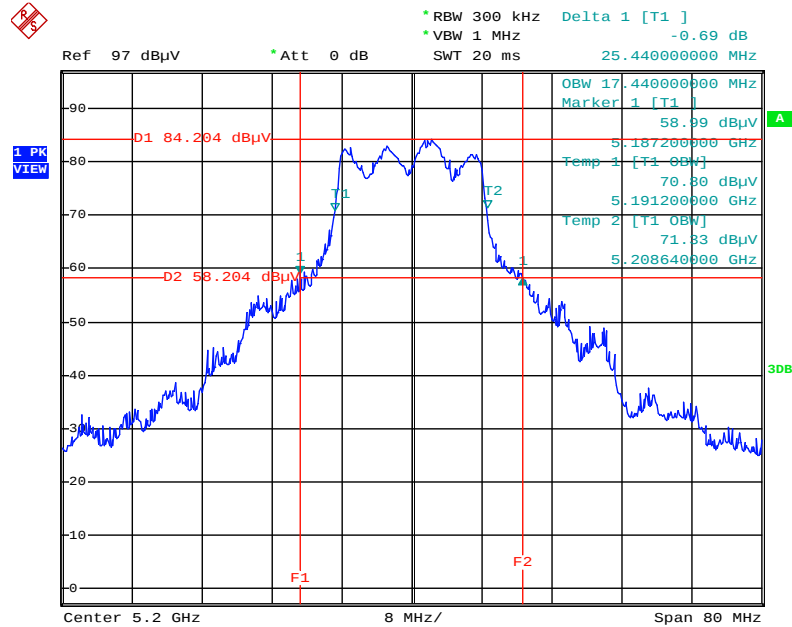
Date: 29.JUL.2014 19:46:16

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 20 MHz / Mode 3 / P to M / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



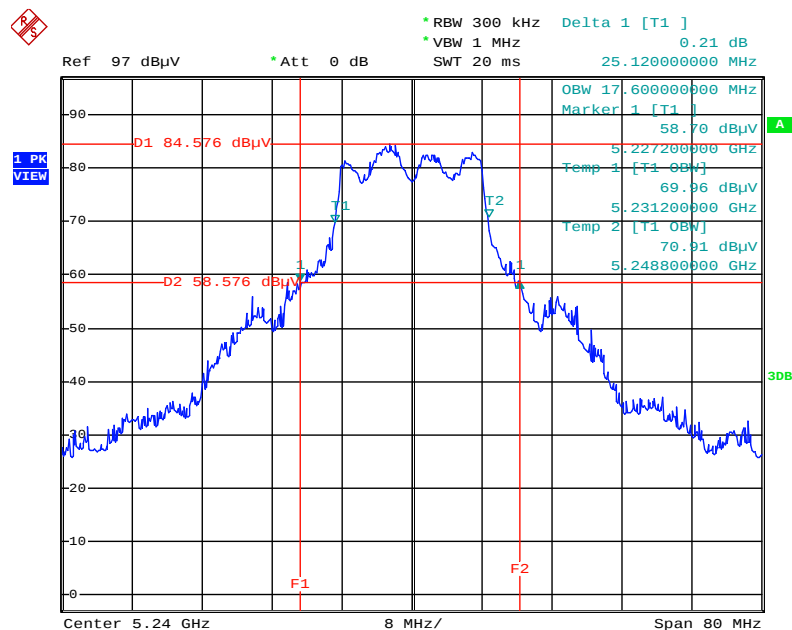
Date: 29.JUL.2014 19:49:51

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 20 MHz / Mode 3 / P to M / Chain 1 + Chain 2 + Chain 3 / 5200 MHz



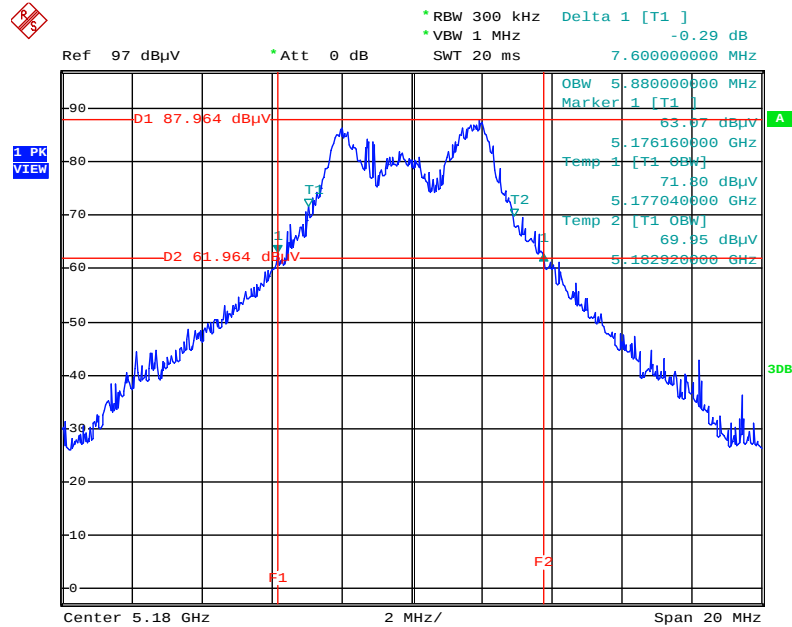
Date: 29.JUL.2014 19:50:46

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 20 MHz / Mode 3 / P to M / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



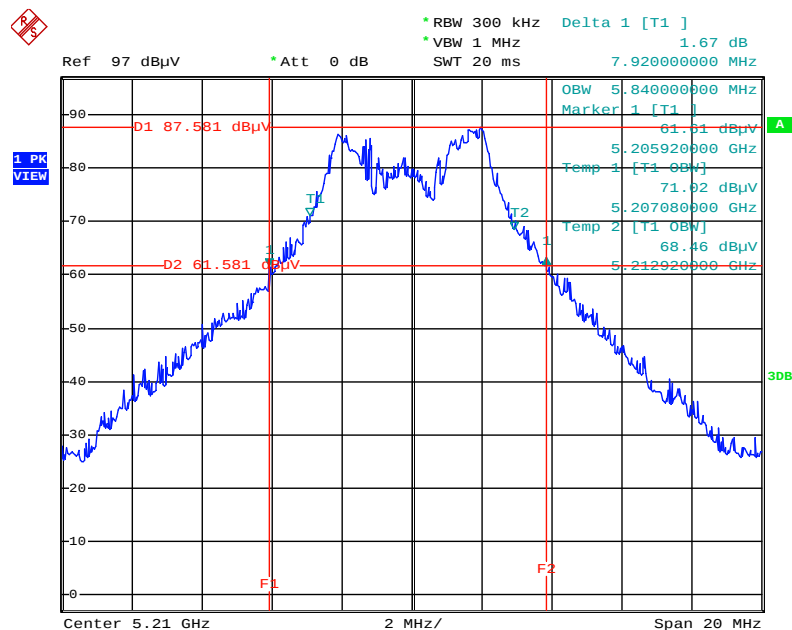
Date: 29.JUL.2014 19:52:34

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 5 MHz / Mode 4 / P to P / Chain 1 + Chain 3 / 5180 MHz



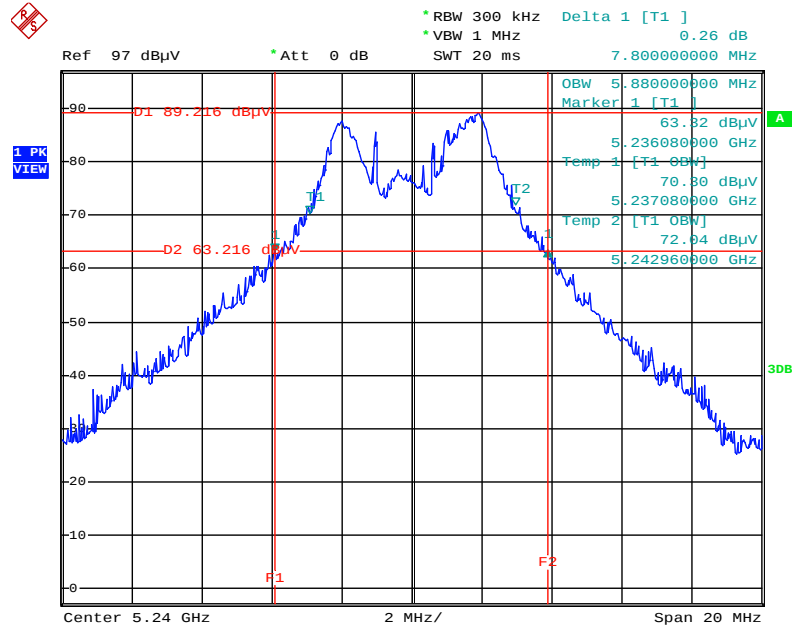
Date: 29.JUL.2014 20:14:47

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 5 MHz / Mode 4 / P to P / Chain 1 + Chain 3 / 5210 MHz



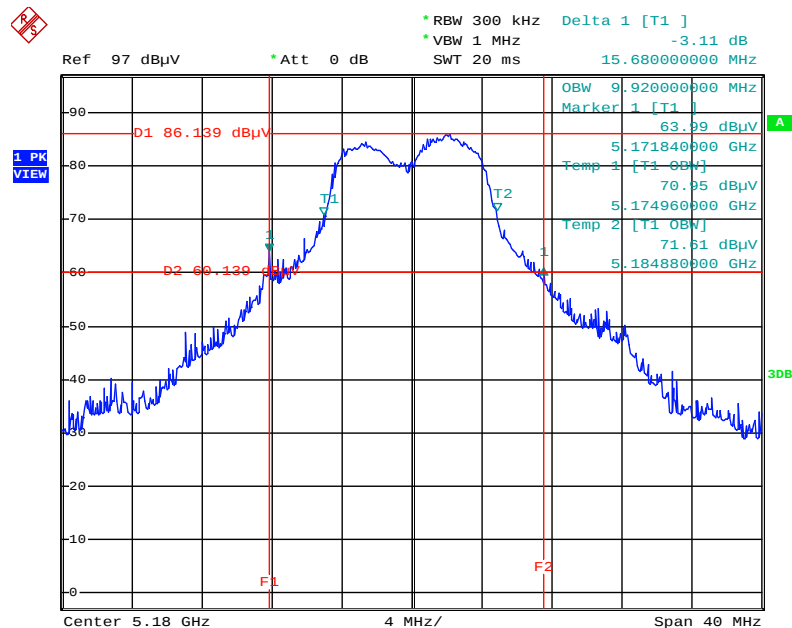
Date: 29.JUL.2014 20:14:14

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 5 MHz / Mode 4 / P to P / Chain 1 + Chain 3 / 5240 MHz



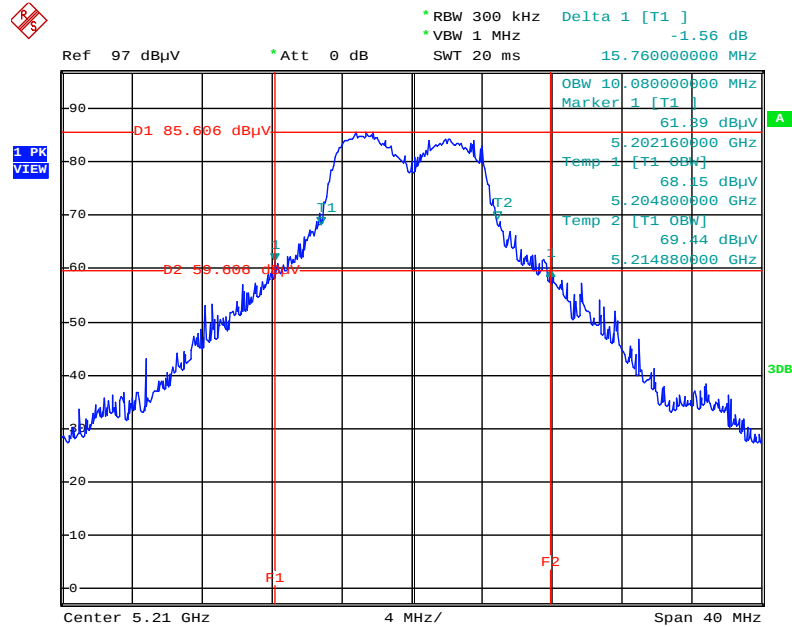
Date: 29.JUL.2014 20:13:24

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 10 MHz / Mode 4 / P to P / Chain 1 + Chain 3 / 5180 MHz



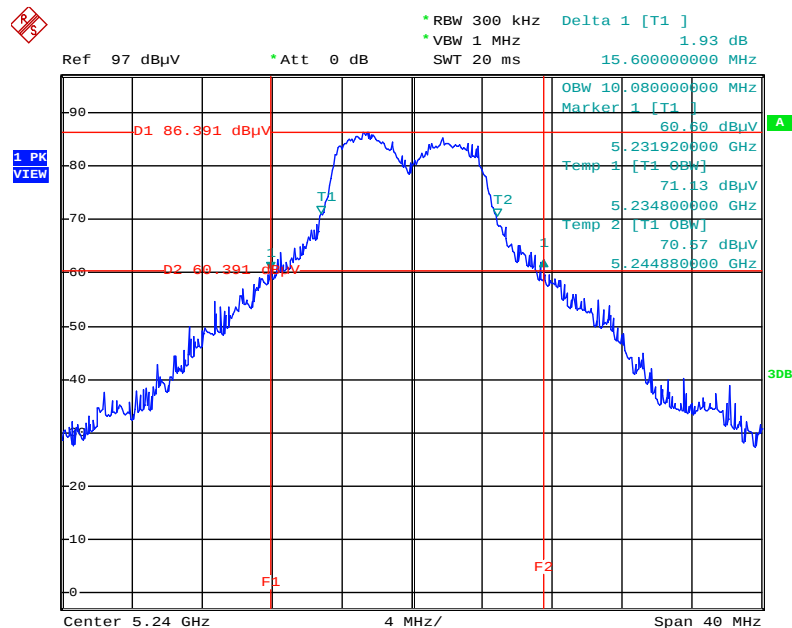
Date: 29.JUL.2014 20:21:00

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 10 MHz / Mode 4 / P to P / Chain 1 + Chain 3 / 5210 MHz



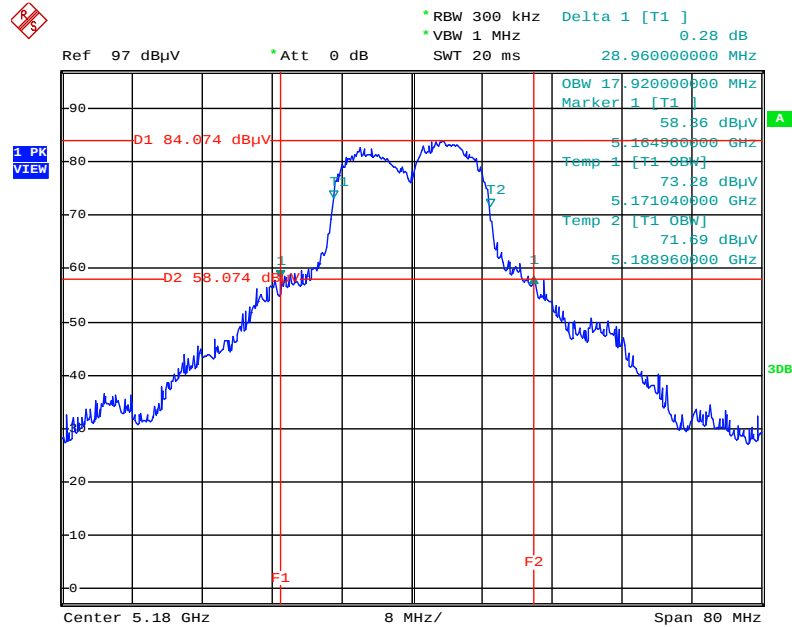
Date: 29.JUL.2014 20:20:24

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 10 MHz / Mode 4 / P to P / Chain 1 + Chain 3 / 5240 MHz



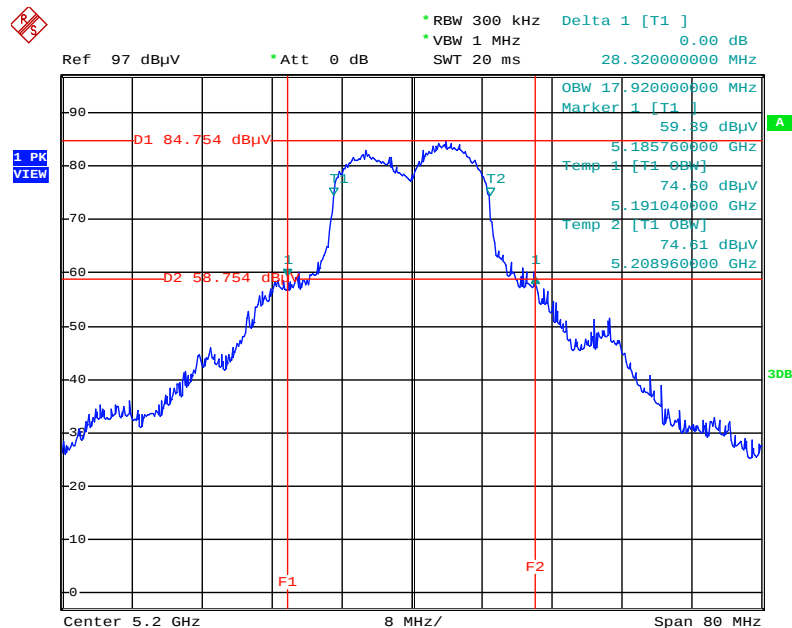
Date: 29.JUL.2014 20:19:44

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 20 MHz /
Mode 4 / P to P / Chain 1 + Chain 3 / 5180 MHz



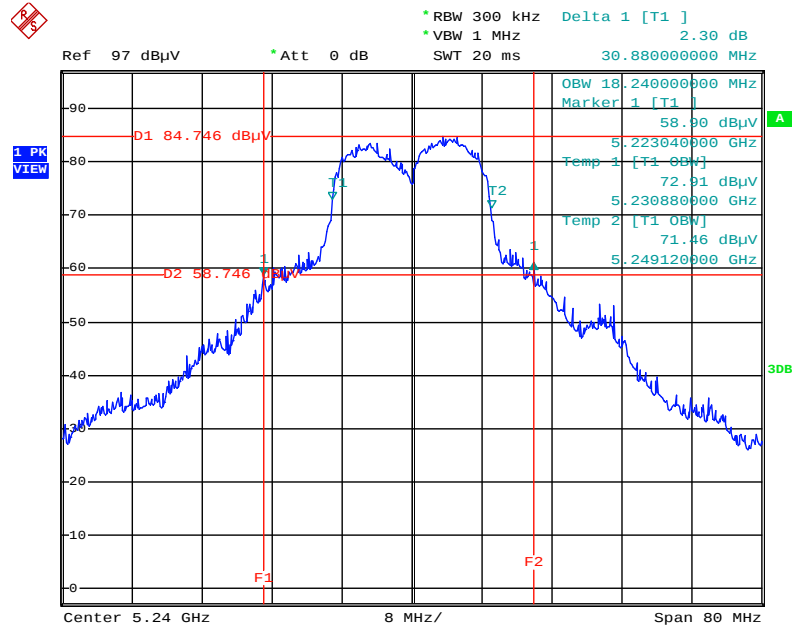
Date: 29.JUL.2014 20:00:51

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 20 MHz /
Mode 4 / P to P / Chain 1 + Chain 3 / 5200 MHz



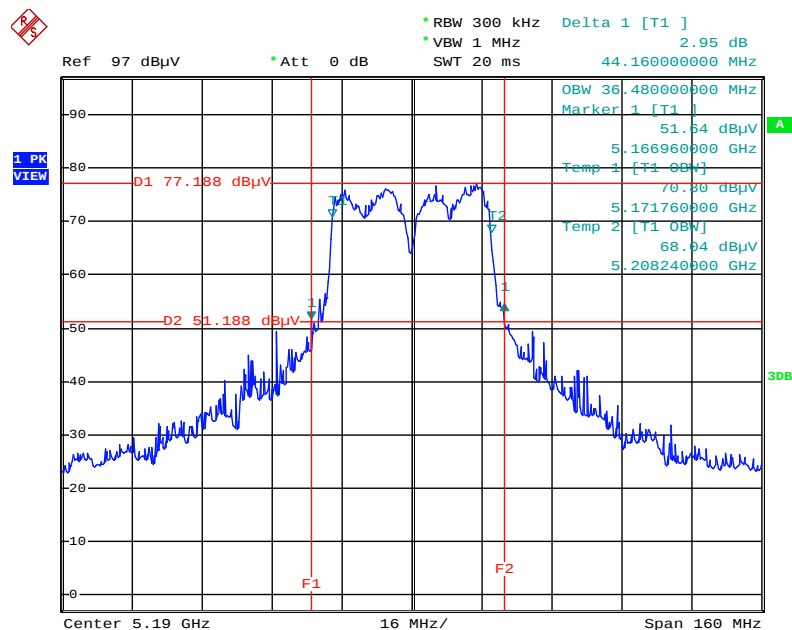
Date: 29.JUL.2014 20:01:24

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 20 MHz / Mode 4 / P to P / Chain 1 + Chain 3 / 5240 MHz



Date: 29.JUL.2014 20:01:58

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11n MCS0 40 MHz / Mode 4 / P to P / Chain 1 + Chain 3 / 5190 MHz



Date: 29.JUL.2014 19:59:56



Ref 97 dBμV Att 0 dB Delta 1 [T1] -0.09 dB
RBW 300 kHz VBW 1 MHz SWT 20 ms 83.52000000 MHz

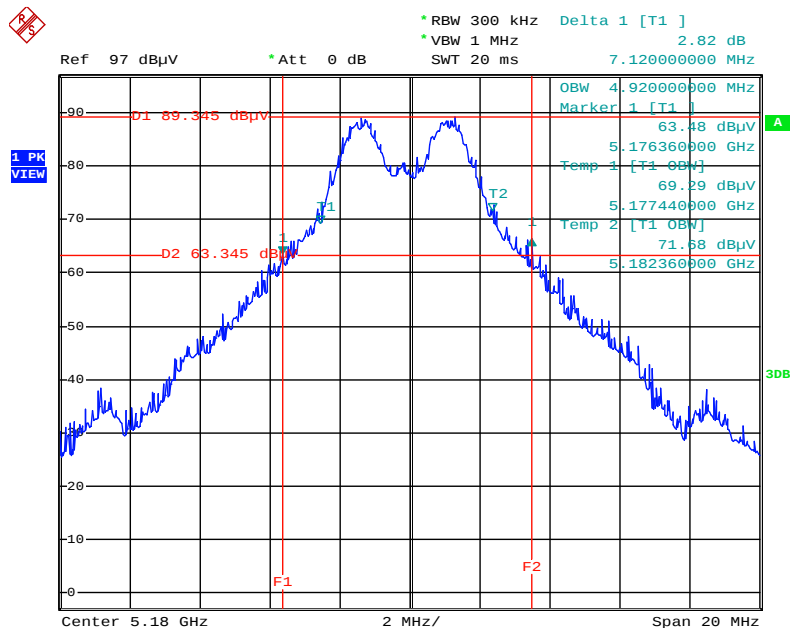
OBW 51.20000000 MHz
Marker 1 [T1] 58.93 dBμV
5.189680000 GHz
Temp 1 [T1 OBW] 63.46 dBμV
5.204720000 GHz
Temp 2 [T1 OBW] 60.93 dBμV
5.255920000 GHz

D1 83.521 dBμV
D2 57.5 dBμV

F1 F2

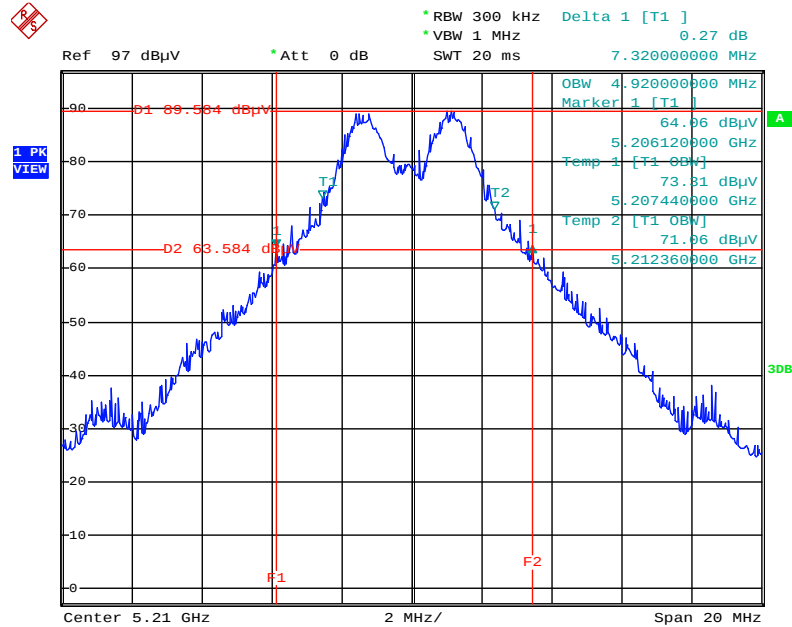
Center 5.23 GHz 16 MHz/ Span 160 MHz

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 5 MHz / Mode 4 / P to P / Chain 1 + Chain 3 / 5180 MHz



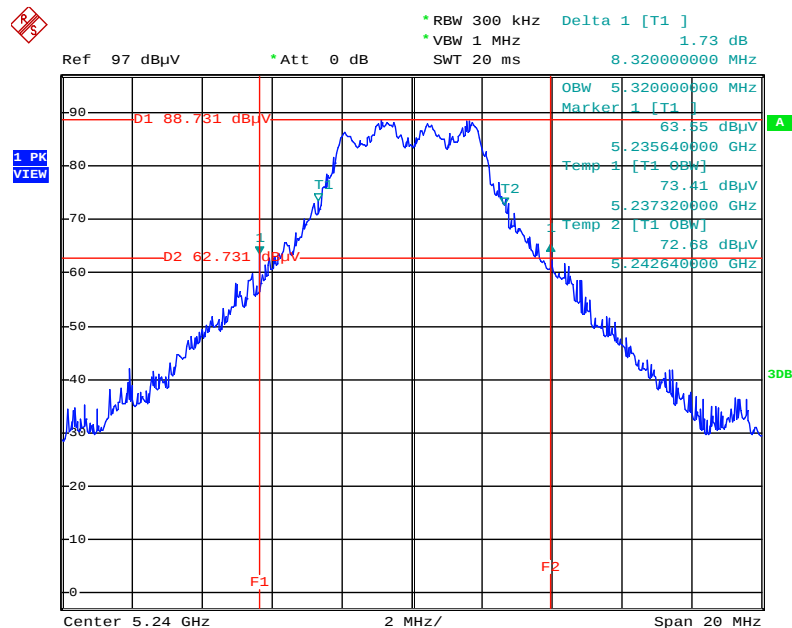
Issued Date : Aug. 12, 2014

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 5 MHz / Mode 4 / P to P / Chain 1 + Chain 3 / 5210 MHz



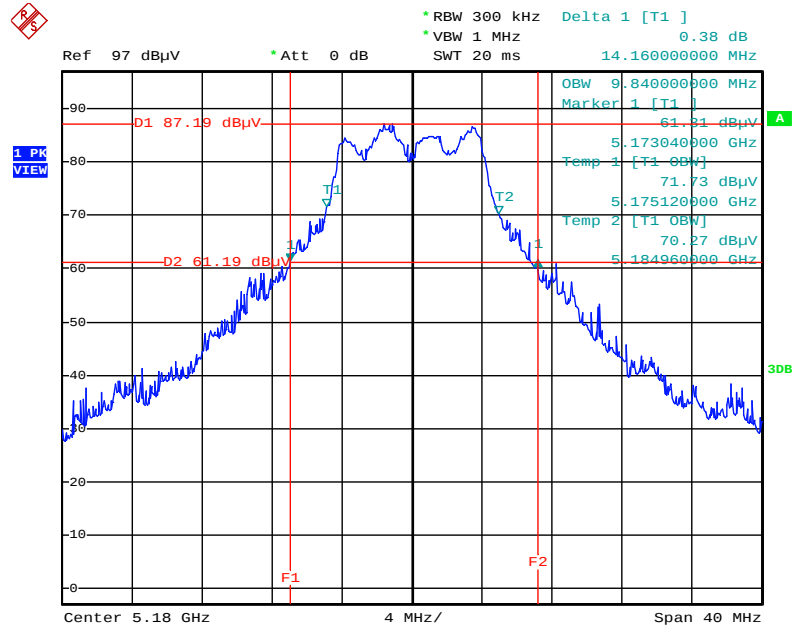
Date: 29.JUL.2014 20:09:55

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 5 MHz / Mode 4 / P to P / Chain 1 + Chain 3 / 5240 MHz



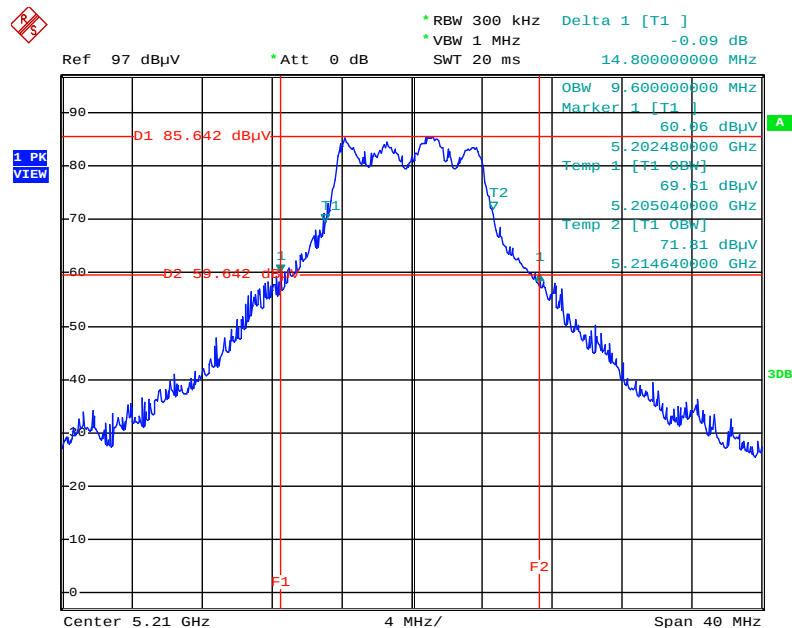
Date: 29.JUL.2014 20:10:42

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 10 MHz / Mode 4 / P to P / Chain 1 + Chain 3 / 5180 MHz



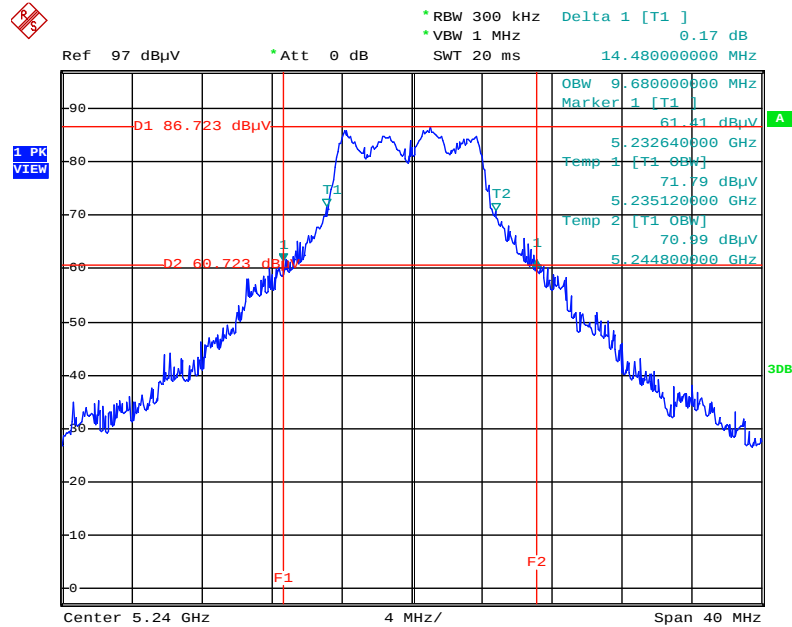
Date: 29.JUL.2014 15:34:23

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 10 MHz / Mode 4 / P to P / Chain 1 + Chain 3 / 5210 MHz



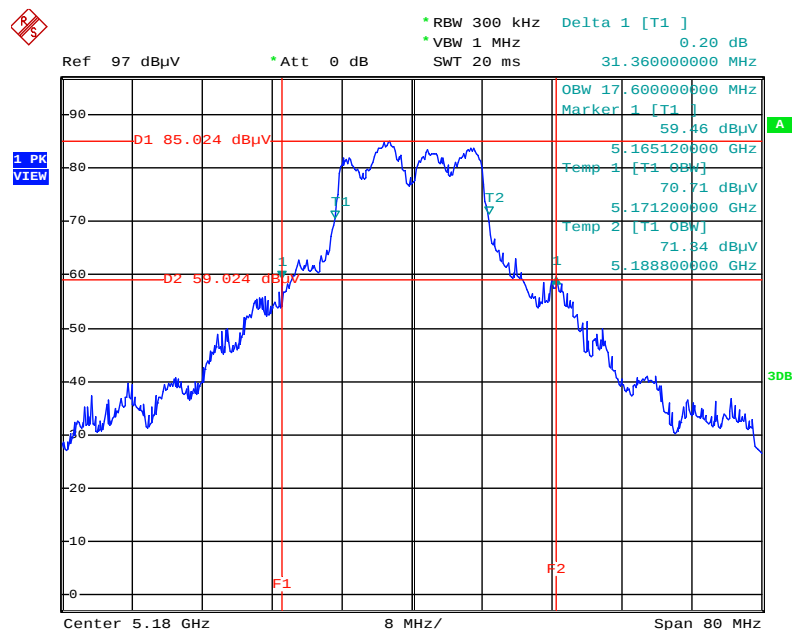
Date: 29.JUL.2014 20:16:49

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 10 MHz / Mode 4 / P to P / Chain 1 + Chain 3 / 5240 MHz



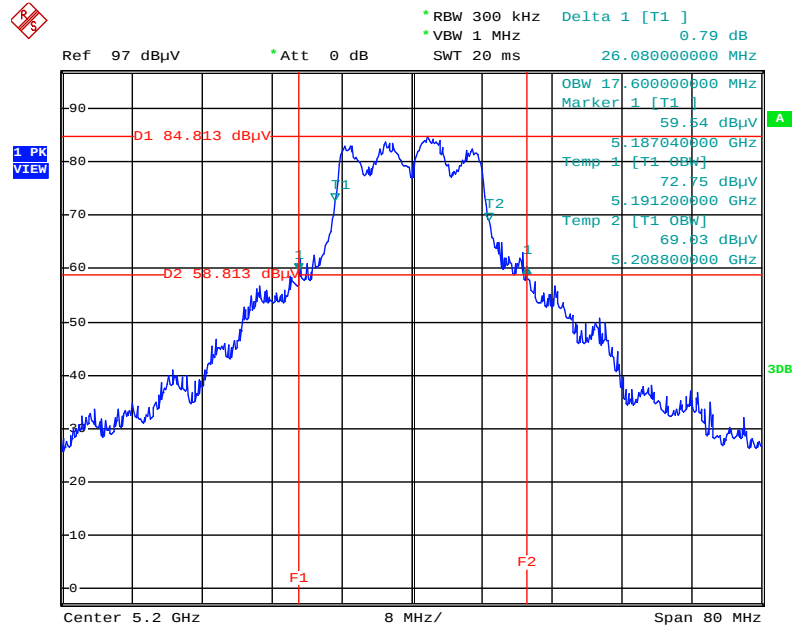
Date: 29.JUL.2014 20:17:53

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 20 MHz / Mode 4 / P to P / Chain 1 + Chain 3 / 5180 MHz



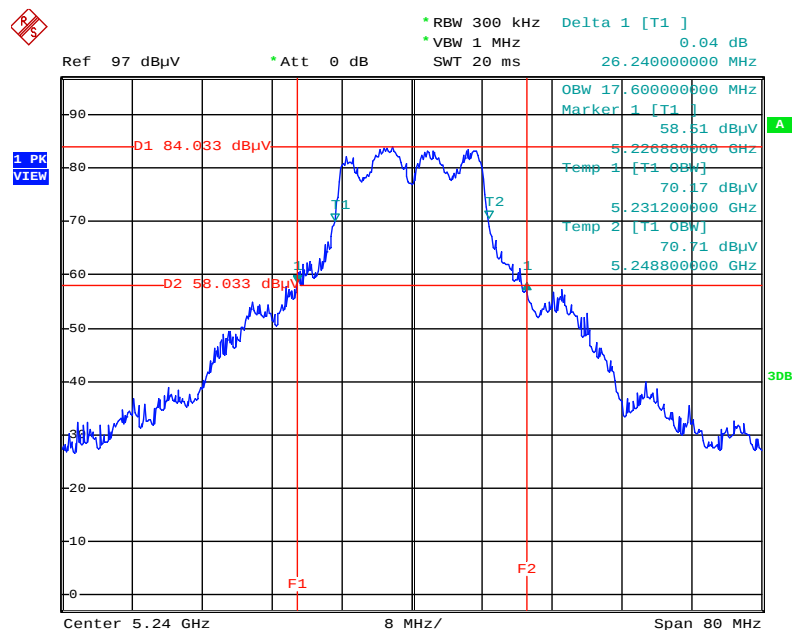
Date: 29.JUL.2014 20:04:05

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 20 MHz / Mode 4 / P to P / Chain 1 + Chain 3 / 5200 MHz



Date: 29.JUL.2014 20:03:25

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a 20 MHz / Mode 4 / P to P / Chain 1 + Chain 3 / 5240 MHz



Date: 29.JUL.2014 20:02:48

4.2. Maximum Conducted Output Power Measurement

4.2.1. Limit

For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple colocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

4.2.2. Measuring Instruments and Setting

Please refer to section 5 of equipments list in this report. The following table is the setting of the power meter.

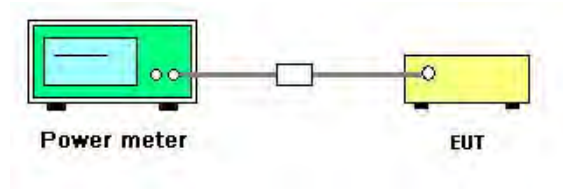
Power Meter Parameter	Setting
Bandwidth	50MHz bandwidth is greater than the EUT emission bandwidth
Detector	AVERAGE

4.2.3. Test Procedures

1. The transmitter output (antenna port) was connected to the power meter.
2. Test was performed in accordance with KDB789033 D02 v01 for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - section (E) Maximum conducted output power =>3. Measurement using a Power Meter (PM) =>b) Method PM-G (Measurement using a gated RF average power meter).
3. Multiple antenna systems was performed in accordance with KDB662911 D01 v02r01 Emissions Testing of Transmitters with Multiple Outputs in the Same Band.
4. When measuring maximum conducted output power with multiple antenna systems, add every result

of the values by mathematic formula.

4.2.4. Test Setup Layout



4.2.5. Test Deviation

There is no deviation with the original standard.

4.2.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.2.7. Test Result of Maximum Conducted Output Power

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11n
Test Date	Jul. 28, 2014	Test Mode	Mode 1 / P to P

Configuration IEEE 802.11n MCS0 5 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	20.54	21.64	20.07	25.57	30.00	Complies
42	5210 MHz	20.65	21.74	20.28	25.71	30.00	Complies
48	5240 MHz	20.32	21.76	20.12	25.57	30.00	Complies

Configuration IEEE 802.11n MCS0 10 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	18.50	19.52	17.80	23.44	30.00	Complies
42	5210 MHz	18.77	19.69	18.29	23.73	30.00	Complies
48	5240 MHz	19.62	21.34	19.66	25.05	30.00	Complies

Configuration IEEE 802.11n MCS0 20 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	16.92	18.16	17.61	22.36	30.00	Complies
40	5200 MHz	19.46	20.53	19.93	24.77	30.00	Complies
48	5240 MHz	20.55	22.16	21.22	26.13	30.00	Complies

Configuration IEEE 802.11n MCS0 40 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
38	5190 MHz	12.13	12.81	13.08	17.46	30.00	Complies
46	5230 MHz	19.26	21.11	20.28	25.05	30.00	Complies

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11a
Test Date	Jul. 28, 2014	Test Mode	Mode 1 / P to P

Configuration IEEE 802.11a 5 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	16.83	18.28	16.73	22.11	30.00	Complies
42	5210 MHz	17.76	19.01	17.41	22.89	30.00	Complies
48	5240 MHz	18.15	19.74	18.05	23.49	30.00	Complies

Configuration IEEE 802.11a 10 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	17.71	19.1	17.63	22.97	30.00	Complies
42	5210 MHz	19.74	20.95	19.27	24.82	30.00	Complies
48	5240 MHz	19.61	21.4	19.72	25.09	30.00	Complies

Configuration IEEE 802.11a 20 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	17.53	18.96	18.57	23.17	30.00	Complies
40	5200 MHz	19.24	20.45	19.98	24.69	30.00	Complies
48	5240 MHz	20.33	21.99	21.33	26.04	30.00	Complies

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11n
Test Date	Jul. 28, 2014	Test Mode	Mode 1 / P to M

Configuration IEEE 802.11n MCS0 5 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	16.54	18.29	16.55	21.98	28.00	Complies
42	5210 MHz	16.41	18.13	16.66	21.91	28.00	Complies
48	5240 MHz	16.64	18.74	16.91	22.31	28.00	Complies

Note: Antenna true gain=8dBi >6dBi, so power limit=30 – (8 – 6)=28.00dBm.

Configuration IEEE 802.11n MCS0 10 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	18.50	19.52	17.80	23.44	28.00	Complies
42	5210 MHz	18.77	19.69	18.29	23.73	28.00	Complies
48	5240 MHz	18.43	20.51	18.83	24.12	28.00	Complies

Note: Antenna true gain=8dBi >6dBi, so power limit=30 – (8 – 6)=28.00dBm.

Configuration IEEE 802.11n MCS0 20 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	16.92	18.16	17.61	22.36	28.00	Complies
40	5200 MHz	19.46	20.53	19.93	24.77	28.00	Complies
48	5240 MHz	20.55	22.16	21.22	26.13	28.00	Complies

Note: Antenna true gain=8dBi >6dBi, so power limit=30 – (8 – 6)=28.00dBm.

Configuration IEEE 802.11n MCS0 40 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
38	5190 MHz	12.13	12.81	13.08	17.46	28.00	Complies
46	5230 MHz	19.26	21.11	20.28	25.05	28.00	Complies

Note: Antenna true gain=8dBi >6dBi, so power limit=30 – (8 – 6)=28.00dBm.

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11a
Test Date	Jul. 28, 2014	Test Mode	Mode 1 / P to M

Configuration IEEE 802.11a 5 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	16.83	18.28	16.73	22.11	28.00	Complies
42	5210 MHz	16.64	18.13	16.81	22.02	28.00	Complies
48	5240 MHz	16.09	17.78	16.34	21.57	28.00	Complies

Note: Antenna true gain=8dBi >6dBi, so power limit=30 – (8 – 6)=28.00dBm.

Configuration IEEE 802.11a 10 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	17.71	19.10	17.63	22.97	28.00	Complies
42	5210 MHz	19.26	20.71	19.07	24.52	28.00	Complies
48	5240 MHz	18.64	20.43	18.96	24.19	28.00	Complies

Note: Antenna true gain=8dBi >6dBi, so power limit=30 – (8 – 6)=28.00dBm.

Configuration IEEE 802.11a 20 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	17.53	18.96	18.57	23.17	28.00	Complies
40	5200 MHz	19.24	20.45	19.98	24.69	28.00	Complies
48	5240 MHz	20.33	21.99	21.33	26.04	28.00	Complies

Note: Antenna true gain=8dBi >6dBi, so power limit=30 – (8 – 6)=28.00dBm.

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11n
Test Date	Jul. 28, 2014	Test Mode	Mode 2 / P to P

Configuration IEEE 802.11n MCS0 5 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	20.67	21.59	20.18	25.62	30.00	Complies
42	5210 MHz	20.81	21.85	20.19	25.78	30.00	Complies
48	5240 MHz	20.32	21.76	20.12	25.57	30.00	Complies

Configuration IEEE 802.11n MCS0 10 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	20.44	21.01	19.82	25.22	30.00	Complies
42	5210 MHz	20.91	21.87	20.38	25.87	30.00	Complies
48	5240 MHz	20.90	22.13	20.57	26.02	30.00	Complies

Configuration IEEE 802.11n MCS0 20 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	13.73	14.56	14.67	19.11	30.00	Complies
40	5200 MHz	20.63	21.84	21.15	26.01	30.00	Complies
48	5240 MHz	20.55	22.16	21.22	26.13	30.00	Complies

Configuration IEEE 802.11n MCS0 40 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
38	5190 MHz	8.22	9.89	9.54	14.05	30.00	Complies
46	5230 MHz	18.14	20.15	19.19	24.01	30.00	Complies

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11a
Test Date	Jul. 28, 2014	Test Mode	Mode 2 / P to P

Configuration IEEE 802.11a 5 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	20.76	21.62	20.20	25.67	30.00	Complies
42	5210 MHz	20.31	21.52	19.93	25.41	30.00	Complies
48	5240 MHz	20.03	21.95	20.01	25.53	30.00	Complies

Configuration IEEE 802.11a 10 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	20.72	21.24	19.94	25.44	30.00	Complies
42	5210 MHz	20.77	22.11	20.39	25.93	30.00	Complies
48	5240 MHz	20.87	22.09	20.68	26.03	30.00	Complies

Configuration IEEE 802.11a 20 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	13.66	14.59	14.74	19.13	30.00	Complies
40	5200 MHz	19.94	21.11	20.78	25.41	30.00	Complies
48	5240 MHz	19.98	21.86	21.01	25.79	30.00	Complies

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11n
Test Date	Jul. 28, 2014	Test Mode	Mode 2 / P to M

Configuration IEEE 802.11n MCS0 5 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	16.54	18.29	16.55	21.98	28.00	Complies
42	5210 MHz	16.41	18.13	16.66	21.91	28.00	Complies
48	5240 MHz	16.64	18.74	16.91	22.31	28.00	Complies

Note: Antenna true gain=8dBi >6dBi, so power limit=30 – (8 – 6)=28.00dBm.

Configuration IEEE 802.11n MCS0 10 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	19.94	20.71	19.34	24.80	28.00	Complies
42	5210 MHz	19.85	21.11	19.54	24.99	28.00	Complies
48	5240 MHz	18.43	20.51	18.83	24.12	28.00	Complies

Note: Antenna true gain=8dBi >6dBi, so power limit=30 – (8 – 6)=28.00dBm.

Configuration IEEE 802.11n MCS0 20 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	13.73	14.56	14.67	19.11	28.00	Complies
40	5200 MHz	20.63	21.84	21.15	26.01	28.00	Complies
48	5240 MHz	20.55	22.16	21.22	26.13	28.00	Complies

Note: Antenna true gain=8dBi >6dBi, so power limit=30 – (8 – 6)=28.00dBm.

Configuration IEEE 802.11n MCS0 40 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
38	5190 MHz	8.22	9.89	9.54	14.05	28.00	Complies
46	5230 MHz	18.14	20.15	19.19	24.01	28.00	Complies

Note: Antenna true gain=8dBi >6dBi, so power limit=30 – (8 – 6)=28.00dBm.

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11a
Test Date	Jul. 28, 2014	Test Mode	Mode 2 / P to M

Configuration IEEE 802.11a 5 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	16.83	18.28	16.73	22.11	28.00	Complies
42	5210 MHz	16.64	18.13	16.81	22.02	28.00	Complies
48	5240 MHz	16.09	17.78	16.34	21.57	28.00	Complies

Note: Antenna true gain=8dBi >6dBi, so power limit=30 – (8 – 6)=28.00dBm.

Configuration IEEE 802.11a 10 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	19.24	20.43	19.04	24.39	28.00	Complies
42	5210 MHz	19.26	20.71	19.07	24.52	28.00	Complies
48	5240 MHz	18.64	20.43	18.96	24.19	28.00	Complies

Note: Antenna true gain=8dBi >6dBi, so power limit=30 – (8 – 6)=28.00dBm.

Configuration IEEE 802.11a 20 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	13.66	14.59	14.74	19.13	28.00	Complies
40	5200 MHz	19.94	21.11	20.78	25.41	28.00	Complies
48	5240 MHz	19.98	21.86	21.01	25.79	28.00	Complies

Note: Antenna true gain=8dBi >6dBi, so power limit=30 – (8 – 6)=28.00dBm.

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11n
Test Date	Jul. 28, 2014	Test Mode	Mode 3 / P to M

Configuration IEEE 802.11n MCS0 5 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	14.09	14.83	14.02	19.10	28.00	Complies
42	5210 MHz	14.11	14.55	14.06	19.02	28.00	Complies
48	5240 MHz	14.65	14.88	13.81	19.24	28.00	Complies

Note: Antenna true gain=8dBi >6dBi, so power limit=30 – (8 – 6)=28.00dBm.

Configuration IEEE 802.11n MCS0 10 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	16.13	17.84	16.29	21.60	28.00	Complies
42	5210 MHz	16.67	17.88	16.33	21.78	28.00	Complies
48	5240 MHz	15.83	17.40	16.24	21.31	28.00	Complies

Note: Antenna true gain=8dBi >6dBi, so power limit=30 – (8 – 6)=28.00dBm.

Configuration IEEE 802.11n MCS0 20 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	16.04	17.44	17.08	21.66	28.00	Complies
40	5200 MHz	18.01	19.26	17.73	23.16	28.00	Complies
48	5240 MHz	18.08	19.61	18.08	23.42	28.00	Complies

Note: Antenna true gain=8dBi >6dBi, so power limit=30 – (8 – 6)=28.00dBm.

Configuration IEEE 802.11n MCS0 40 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
38	5190 MHz	8.22	9.89	9.54	14.05	28.00	Complies
46	5230 MHz	19.13	20.98	20.05	24.89	28.00	Complies

Note: Antenna true gain=8dBi >6dBi, so power limit=30 – (8 – 6)=28.00dBm.

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11a
Test Date	Jul. 28, 2014	Test Mode	Mode 3 / P to M

Configuration IEEE 802.11a 5 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	13.94	15.14	14.13	19.21	28.00	Complies
42	5210 MHz	13.22	14.23	12.87	18.25	28.00	Complies
48	5240 MHz	13.30	14.23	12.92	18.29	28.00	Complies

Note: Antenna true gain=8dBi >6dBi, so power limit=30 – (8 – 6)=28.00dBm.

Configuration IEEE 802.11a 10 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	16.26	17.94	16.36	21.70	28.00	Complies
42	5210 MHz	16.18	17.84	16.43	21.65	28.00	Complies
48	5240 MHz	15.80	17.72	16.20	21.43	28.00	Complies

Note: Antenna true gain=8dBi >6dBi, so power limit=30 – (8 – 6)=28.00dBm.

Configuration IEEE 802.11a 20 MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	16.56	17.89	17.47	22.11	28.00	Complies
40	5200 MHz	17.94	19.33	17.89	23.21	28.00	Complies
48	5240 MHz	17.63	19.41	17.80	23.13	28.00	Complies

Note: Antenna true gain=8dBi >6dBi, so power limit=30 – (8 – 6)=28.00dBm.

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11n
Test Date	Jul. 28, 2014	Test Mode	Mode 4 / P to P

Configuration IEEE 802.11n MCS0 5 MHz

Channel	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Chain 1	Chain 3	Total		
36	5180 MHz	15.96	15.72	18.85	30.00	Complies
42	5210 MHz	15.96	15.72	18.85	30.00	Complies
48	5240 MHz	15.96	15.72	18.85	30.00	Complies

Configuration IEEE 802.11n MCS0 10 MHz

Channel	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Chain 1	Chain 3	Total		
36	5180 MHz	17.80	19.09	21.50	30.00	Complies
42	5210 MHz	17.77	19.13	21.51	30.00	Complies
48	5240 MHz	17.73	19.59	21.77	30.00	Complies

Configuration IEEE 802.11n MCS0 20 MHz

Channel	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Chain 1	Chain 3	Total		
36	5180 MHz	18.63	20.27	22.54	30.00	Complies
40	5200 MHz	18.58	20.39	22.59	30.00	Complies
48	5240 MHz	18.54	20.75	22.79	30.00	Complies

Configuration IEEE 802.11n MCS0 40 MHz

Channel	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Chain 1	Chain 3	Total		
38	5190 MHz	13.65	13.43	16.55	30.00	Complies
46	5230 MHz	20.08	21.53	23.88	30.00	Complies

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11a
Test Date	Jul. 28, 2014	Test Mode	Mode 4 / P to P

Configuration IEEE 802.11a 5 MHz

Channel	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Chain 1	Chain 3	Total		
36	5180 MHz	15.79	15.58	18.70	30.00	Complies
42	5210 MHz	16.06	15.95	19.02	30.00	Complies
48	5240 MHz	16.41	18.45	20.56	30.00	Complies

Configuration IEEE 802.11a 10 MHz

Channel	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Chain 1	Chain 3	Total		
36	5180 MHz	17.81	19.23	21.59	30.00	Complies
42	5210 MHz	17.24	18.79	21.09	30.00	Complies
48	5240 MHz	17.71	19.51	21.71	30.00	Complies

Configuration IEEE 802.11a 20 MHz

Channel	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Chain 1	Chain 3	Total		
36	5180 MHz	19.38	20.68	23.09	30.00	Complies
40	5200 MHz	18.68	20.51	22.70	30.00	Complies
48	5240 MHz	18.21	20.29	22.38	30.00	Complies

Note: Maximum e.i.r.p. at any elevation angle above 30 degrees data (please refer to Appendix C).

4.3. Power Spectral Density Measurement

4.3.1. Limit

The power spectral density is defined as the highest level of power in dBm per MHz generated by the transmitter within the power envelope. The following table is power spectral density limits and decrease power density limit rule refer to section 4.2.1.

Frequency Range	Power Spectral Density limit (dBm/MHz)
5.15~5.25 GHz	17

4.3.2. Measuring Instruments and Setting

Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

For 5.15-5.35 GHz

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RBW	1000 kHz
VBW	3000 kHz
Detector	RMS
Trace	AVERAGE
Sweep Time	Auto
Trace Average	100 times

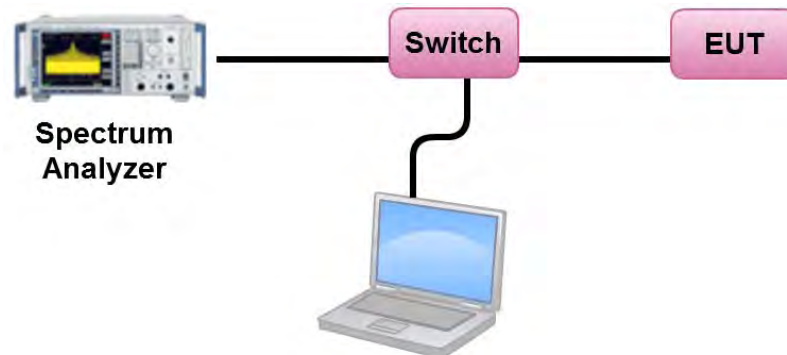
4.3.3. Test Procedures

For 5.15-5.35 GHz

1. The transmitter output (antenna port) was connected RF switch to the spectrum analyzer.
2. Test was performed in accordance with KDB789033 D02 v01 for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - section (F) Maximum Power Spectral Density (PSD).
3. Multiple antenna systems was performed in accordance KDB662911 D01 v02r01 in-Band Power Spectral Density (PSD) Measurements (a) Measure and sum the spectra across the outputs.
4. When measuring first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3 and so on up to the Nth output to obtain the value for the first frequency bin of the summed spectrum. The summed spectrum value for each of the other frequency bins is computed in the same way.

4.3.4. Test Setup Layout

For 5.15-5.35 GHz



4.3.5. Test Deviation

There is no deviation with the original standard.

4.3.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.3.7. Test Result of Power Spectral Density

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11n
Test Date	Jul. 28, 2014	Test Mode	Mode 1 / P to P

Configuration IEEE 802.11n MCS0 5 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	16.62	17.00	Complies
42	5210 MHz	16.86	17.00	Complies
48	5240 MHz	16.67	17.00	Complies

Configuration IEEE 802.11n MCS0 10 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	11.61	17.00	Complies
42	5210 MHz	12.11	17.00	Complies
48	5240 MHz	13.86	17.00	Complies

Configuration IEEE 802.11n MCS0 20 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	8.97	17.00	Complies
40	5200 MHz	11.12	17.00	Complies
48	5240 MHz	13.13	17.00	Complies

Configuration IEEE 802.11n MCS0 40 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
38	5190 MHz	1.50	17.00	Complies
46	5230 MHz	8.73	17.00	Complies

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11a
Test Date	Jul. 28, 2014	Test Mode	Mode 1 / P to P

Configuration IEEE 802.11a 5 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	13.05	17.00	Complies
42	5210 MHz	14.05	17.00	Complies
48	5240 MHz	14.92	17.00	Complies

Configuration IEEE 802.11a 10 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	11.58	17.00	Complies
42	5210 MHz	13.61	17.00	Complies
48	5240 MHz	14.05	17.00	Complies

Configuration IEEE 802.11a 20 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	10.02	17.00	Complies
40	5200 MHz	11.49	17.00	Complies
48	5240 MHz	13.09	17.00	Complies

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11n
Test Date	Jul. 28, 2014	Test Mode	Mode 1 / P to M

Configuration IEEE 802.11n MCS0 5 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	12.92	13.24	Complies
42	5210 MHz	13.11	13.24	Complies
48	5240 MHz	13.23	13.24	Complies

Note: Directional gain = $10 \cdot \log \left[\frac{\sum_{j=1}^{N_{\text{ant}}} \left\{ \sum_{k=1}^{N_{\text{ant}}} g_{j,k} \right\}^2}{N_{\text{ANT}}} \right] = 9.76 \text{dBi} > 6 \text{dBi}$, so limit = $17 - (9.76 - 6) = 13.24 \text{dBm}$.

Configuration IEEE 802.11n MCS0 10 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	11.61	13.24	Complies
42	5210 MHz	12.11	13.24	Complies
48	5240 MHz	12.85	13.24	Complies

Note: Directional gain = $10 \cdot \log \left[\frac{\sum_{j=1}^{N_{\text{ant}}} \left\{ \sum_{k=1}^{N_{\text{ant}}} g_{j,k} \right\}^2}{N_{\text{ANT}}} \right] = 9.76 \text{dBi} > 6 \text{dBi}$, so limit = $17 - (9.76 - 6) = 13.24 \text{dBm}$.

Configuration IEEE 802.11n MCS0 20 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	8.97	13.24	Complies
40	5200 MHz	11.12	13.24	Complies
48	5240 MHz	13.13	13.24	Complies

Note: Directional gain = $10 \cdot \log \left[\frac{\sum_{j=1}^{N_{\text{ant}}} \left\{ \sum_{k=1}^{N_{\text{ant}}} g_{j,k} \right\}^2}{N_{\text{ANT}}} \right] = 9.76 \text{dBi} > 6 \text{dBi}$, so limit = $17 - (9.76 - 6) = 13.24 \text{dBm}$.

Configuration IEEE 802.11n MCS0 40 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
38	5190 MHz	1.50	13.24	Complies
46	5230 MHz	8.73	13.24	Complies

Note: Directional gain = $10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 9.76 \text{dBi} > 6 \text{dBi}$, so limit = $17 - (9.76 - 6) = 13.24 \text{dBm}$.

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11a
Test Date	Jul. 28, 2014	Test Mode	Mode 1 / P to M

Configuration IEEE 802.11a 5 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	13.05	13.24	Complies
42	5210 MHz	13.23	13.24	Complies
48	5240 MHz	13.07	13.24	Complies

Note: Directional gain = $10 \cdot \log \left[\frac{\sum_{j=1}^{N_{\text{ant}}} \left\{ \sum_{k=1}^{N_{\text{ant}}} g_{j,k} \right\}^2}{N_{\text{ANT}}} \right] = 9.76 \text{dBi} > 6 \text{dBi}$, so limit = $17 - (9.76 - 6) = 13.24 \text{dBm}$.

Configuration IEEE 802.11a 10 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	11.58	13.24	Complies
42	5210 MHz	12.94	13.24	Complies
48	5240 MHz	13.02	13.24	Complies

Note: Directional gain = $10 \cdot \log \left[\frac{\sum_{j=1}^{N_{\text{ant}}} \left\{ \sum_{k=1}^{N_{\text{ant}}} g_{j,k} \right\}^2}{N_{\text{ANT}}} \right] = 9.76 \text{dBi} > 6 \text{dBi}$, so limit = $17 - (9.76 - 6) = 13.24 \text{dBm}$.

Configuration IEEE 802.11a 20 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	10.02	13.24	Complies
40	5200 MHz	11.49	13.24	Complies
48	5240 MHz	13.09	13.24	Complies

Note: Directional gain = $10 \cdot \log \left[\frac{\sum_{j=1}^{N_{\text{ant}}} \left\{ \sum_{k=1}^{N_{\text{ant}}} g_{j,k} \right\}^2}{N_{\text{ANT}}} \right] = 9.76 \text{dBi} > 6 \text{dBi}$, so limit = $17 - (9.76 - 6) = 13.24 \text{dBm}$.

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11n
Test Date	Jul. 28, 2014	Test Mode	Mode 2 / P to P

Configuration IEEE 802.11n MCS0 5 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	16.62	17.00	Complies
42	5210 MHz	16.86	17.00	Complies
48	5240 MHz	16.67	17.00	Complies

Configuration IEEE 802.11n MCS0 10 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	13.84	17.00	Complies
42	5210 MHz	14.57	17.00	Complies
48	5240 MHz	14.90	17.00	Complies

Configuration IEEE 802.11n MCS0 20 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	5.61	17.00	Complies
40	5200 MHz	12.55	17.00	Complies
48	5240 MHz	13.13	17.00	Complies

Configuration IEEE 802.11n MCS0 40 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
38	5190 MHz	-2.38	17.00	Complies
46	5230 MHz	7.72	17.00	Complies

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11a
Test Date	Jul. 28, 2014	Test Mode	Mode 2 / P to P

Configuration IEEE 802.11a 5 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	16.97	17.00	Complies
42	5210 MHz	16.45	17.00	Complies
48	5240 MHz	16.99	17.00	Complies

Configuration IEEE 802.11a 10 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	14.14	17.00	Complies
42	5210 MHz	14.71	17.00	Complies
48	5240 MHz	15.08	17.00	Complies

Configuration IEEE 802.11a 20 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	5.67	17.00	Complies
40	5200 MHz	12.18	17.00	Complies
48	5240 MHz	12.45	17.00	Complies

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11n
Test Date	Jul. 28, 2014	Test Mode	Mode 2 / P to M

Configuration IEEE 802.11n MCS0 5 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	12.92	13.24	Complies
42	5210 MHz	13.11	13.24	Complies
48	5240 MHz	13.23	13.24	Complies

Note: Directional gain = $10 \cdot \log \left[\frac{\sum_{j=1}^{N_{\text{ant}}} \left\{ \sum_{k=1}^{N_{\text{ant}}} g_{j,k} \right\}^2}{N_{\text{ANT}}} \right] = 9.76 \text{dBi} > 6 \text{dBi}$, so limit = $17 - (9.76 - 6) = 13.24 \text{dBm}$.

Configuration IEEE 802.11n MCS0 10 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	12.99	13.24	Complies
42	5210 MHz	13.13	13.24	Complies
48	5240 MHz	12.85	13.24	Complies

Note: Directional gain = $10 \cdot \log \left[\frac{\sum_{j=1}^{N_{\text{ant}}} \left\{ \sum_{k=1}^{N_{\text{ant}}} g_{j,k} \right\}^2}{N_{\text{ANT}}} \right] = 9.76 \text{dBi} > 6 \text{dBi}$, so limit = $17 - (9.76 - 6) = 13.24 \text{dBm}$.

Configuration IEEE 802.11n MCS0 20 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	5.61	13.24	Complies
40	5200 MHz	12.55	13.24	Complies
48	5240 MHz	13.13	13.24	Complies

Note: Directional gain = $10 \cdot \log \left[\frac{\sum_{j=1}^{N_{\text{ant}}} \left\{ \sum_{k=1}^{N_{\text{ant}}} g_{j,k} \right\}^2}{N_{\text{ANT}}} \right] = 9.76 \text{dBi} > 6 \text{dBi}$, so limit = $17 - (9.76 - 6) = 13.24 \text{dBm}$.

Configuration IEEE 802.11n MCS0 40 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
38	5190 MHz	-2.38	13.24	Complies
46	5230 MHz	7.72	13.24	Complies

Note: Directional gain = $10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 9.76 \text{ dBi} > 6 \text{ dBi}$, so limit = $17 - (9.76 - 6) = 13.24 \text{ dBm}$.

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11a
Test Date	Jul. 28, 2014	Test Mode	Mode 2 / P to M

Configuration IEEE 802.11a 5 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	13.05	13.24	Complies
42	5210 MHz	13.23	13.24	Complies
48	5240 MHz	13.07	13.24	Complies

Note: Directional gain = $10 \cdot \log \left[\frac{\sum_{j=1}^{N_{\text{sig}}} \left\{ \sum_{k=1}^{N_{\text{ant}}} g_{j,k} \right\}^2}{N_{\text{ANT}}} \right] = 9.76 \text{dBi} > 6 \text{dBi}$, so limit = $17 - (9.76 - 6) = 13.24 \text{dBm}$.

Configuration IEEE 802.11a 10 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	13.05	13.24	Complies
42	5210 MHz	12.94	13.24	Complies
48	5240 MHz	13.02	13.24	Complies

Note: Directional gain = $10 \cdot \log \left[\frac{\sum_{j=1}^{N_{\text{sig}}} \left\{ \sum_{k=1}^{N_{\text{ant}}} g_{j,k} \right\}^2}{N_{\text{ANT}}} \right] = 9.76 \text{dBi} > 6 \text{dBi}$, so limit = $17 - (9.76 - 6) = 13.24 \text{dBm}$.

Configuration IEEE 802.11a 20 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	5.67	13.24	Complies
40	5200 MHz	12.18	13.24	Complies
48	5240 MHz	12.45	13.24	Complies

Note: Directional gain = $10 \cdot \log \left[\frac{\sum_{j=1}^{N_{\text{sig}}} \left\{ \sum_{k=1}^{N_{\text{ant}}} g_{j,k} \right\}^2}{N_{\text{ANT}}} \right] = 9.76 \text{dBi} > 6 \text{dBi}$, so limit = $17 - (9.76 - 6) = 13.24 \text{dBm}$.

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11n
Test Date	Jul. 28, 2014	Test Mode	Mode 3 / P to M

Configuration IEEE 802.11n MCS0 5 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	10.20	10.23	Complies
42	5210 MHz	10.00	10.23	Complies
48	5240 MHz	10.10	10.23	Complies

Note: Directional gain = $10 \cdot \log \left[\frac{\sum_{j=1}^{N_{\text{ant}}} \left\{ \sum_{k=1}^{N_{\text{ant}}} g_{j,k} \right\}^2}{N_{\text{ANT}}} \right] = 12.77 \text{ dBi} > 6 \text{ dBi}$, so limit = $17 - (12.77 - 6) = 10.23 \text{ dBm}$.

Configuration IEEE 802.11n MCS0 10 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	10.20	10.23	Complies
42	5210 MHz	10.00	10.23	Complies
48	5240 MHz	10.10	10.23	Complies

Note: Directional gain = $10 \cdot \log \left[\frac{\sum_{j=1}^{N_{\text{ant}}} \left\{ \sum_{k=1}^{N_{\text{ant}}} g_{j,k} \right\}^2}{N_{\text{ANT}}} \right] = 12.77 \text{ dBi} > 6 \text{ dBi}$, so limit = $17 - (12.77 - 6) = 10.23 \text{ dBm}$.

Configuration IEEE 802.11n MCS0 20 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	7.93	10.23	Complies
40	5200 MHz	9.55	10.23	Complies
48	5240 MHz	9.82	10.23	Complies

Note: Directional gain = $10 \cdot \log \left[\frac{\sum_{j=1}^{N_{\text{ant}}} \left\{ \sum_{k=1}^{N_{\text{ant}}} g_{j,k} \right\}^2}{N_{\text{ANT}}} \right] = 12.77 \text{ dBi} > 6 \text{ dBi}$, so limit = $17 - (12.77 - 6) = 10.23 \text{ dBm}$.

Configuration IEEE 802.11n MCS0 40 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
38	5190 MHz	-2.38	10.23	Complies
46	5230 MHz	8.26	10.23	Complies

Note: Directional gain = $10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 12.77 \text{ dBi} > 6 \text{ dBi}$, so limit = $17 - (12.77 - 6) = 10.23 \text{ dBm}$.

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11a
Test Date	Jul. 28, 2014	Test Mode	Mode 3 / P to M

Configuration IEEE 802.11a 5 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	10.18	10.23	Complies
42	5210 MHz	9.74	10.23	Complies
48	5240 MHz	9.90	10.23	Complies

Note: Directional gain = $10 \cdot \log \left[\frac{\sum_{j=1}^{N_{\text{ant}}} \left\{ \sum_{k=1}^{N_{\text{ant}}} g_{j,k} \right\}^2}{N_{\text{ANT}}} \right] = 12.77 \text{ dBi} > 6 \text{ dBi}$, so limit = $17 - (12.77 - 6) = 10.23 \text{ dBm}$.

Configuration IEEE 802.11a 10 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	10.18	10.23	Complies
42	5210 MHz	9.74	10.23	Complies
48	5240 MHz	9.90	10.23	Complies

Note: Directional gain = $10 \cdot \log \left[\frac{\sum_{j=1}^{N_{\text{ant}}} \left\{ \sum_{k=1}^{N_{\text{ant}}} g_{j,k} \right\}^2}{N_{\text{ANT}}} \right] = 12.77 \text{ dBi} > 6 \text{ dBi}$, so limit = $17 - (12.77 - 6) = 10.23 \text{ dBm}$.

Configuration IEEE 802.11a 20 MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	8.79	10.23	Complies
40	5200 MHz	9.79	10.23	Complies
48	5240 MHz	10.02	10.23	Complies

Note: Directional gain = $10 \cdot \log \left[\frac{\sum_{j=1}^{N_{\text{ant}}} \left\{ \sum_{k=1}^{N_{\text{ant}}} g_{j,k} \right\}^2}{N_{\text{ANT}}} \right] = 12.77 \text{ dBi} > 6 \text{ dBi}$, so limit = $17 - (12.77 - 6) = 10.23 \text{ dBm}$.

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11n
Test Date	Jul. 28, 2014	Test Mode	Mode 4 / P to P

Configuration IEEE 802.11n MCS0 5 MHz / Chain 1 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	9.84	17.00	Complies
42	5210 MHz	9.64	17.00	Complies
48	5240 MHz	11.41	17.00	Complies

Configuration IEEE 802.11n MCS0 10 MHz / Chain 1 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	9.78	17.00	Complies
42	5210 MHz	10.22	17.00	Complies
48	5240 MHz	10.45	17.00	Complies

Configuration IEEE 802.11n MCS0 20 MHz / Chain 1 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	9.01	17.00	Complies
40	5200 MHz	9.04	17.00	Complies
48	5240 MHz	9.24	17.00	Complies

Configuration IEEE 802.11n MCS0 40 MHz / Chain 1 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
38	5190 MHz	0.56	17.00	Complies
46	5230 MHz	7.83	17.00	Complies

Temperature	26°C	Humidity	63%
Test Engineer	Wen Chao	Configurations	IEEE 802.11a
Test Date	Jul. 28, 2014	Test Mode	Mode 4 / P to P

Configuration IEEE 802.11a 5 MHz / Chain 1 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	9.98	17.00	Complies
42	5210 MHz	9.92	17.00	Complies
48	5240 MHz	12.21	17.00	Complies

Configuration IEEE 802.11a 10 MHz / Chain 1 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	10.33	17.00	Complies
42	5210 MHz	9.98	17.00	Complies
48	5240 MHz	10.60	17.00	Complies

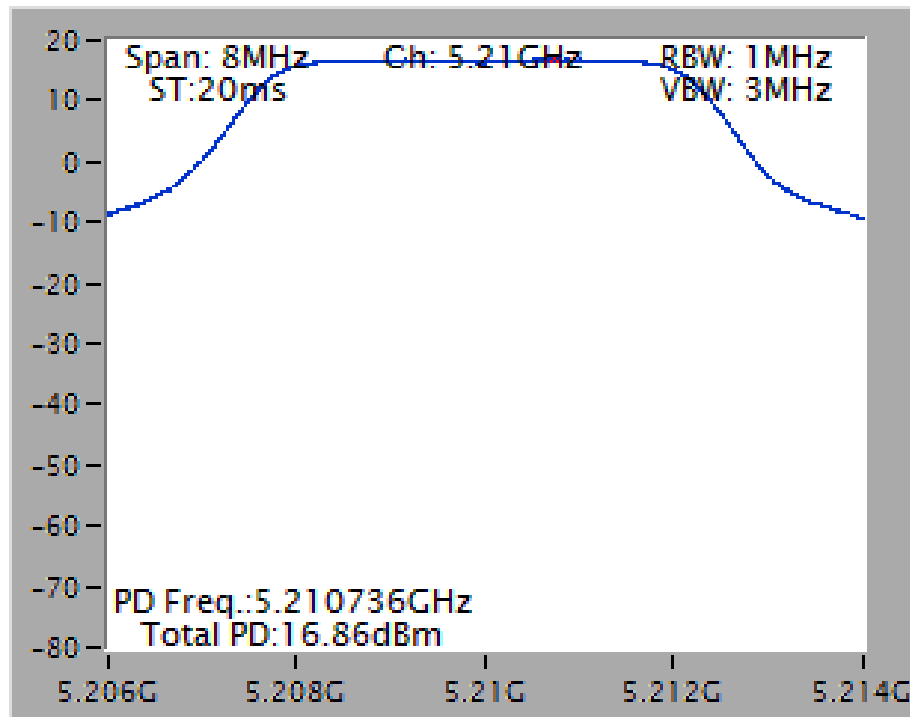
Configuration IEEE 802.11a 20 MHz / Chain 1 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	9.61	17.00	Complies
40	5200 MHz	9.21	17.00	Complies
48	5240 MHz	9.25	17.00	Complies

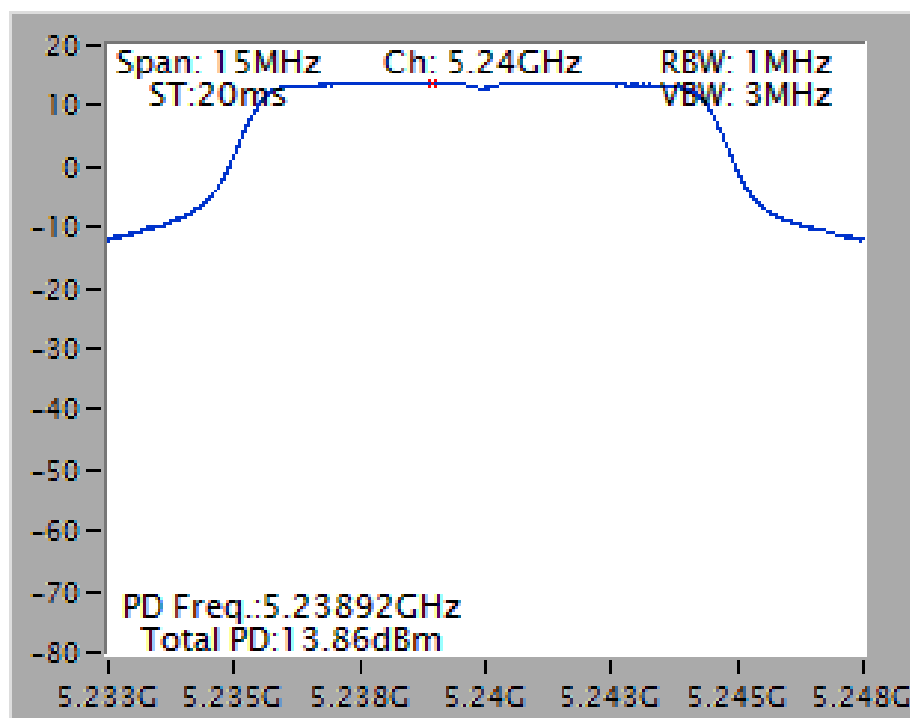
Note: All the test values were listed in the report.

For plots, only the channel with worse result was shown.

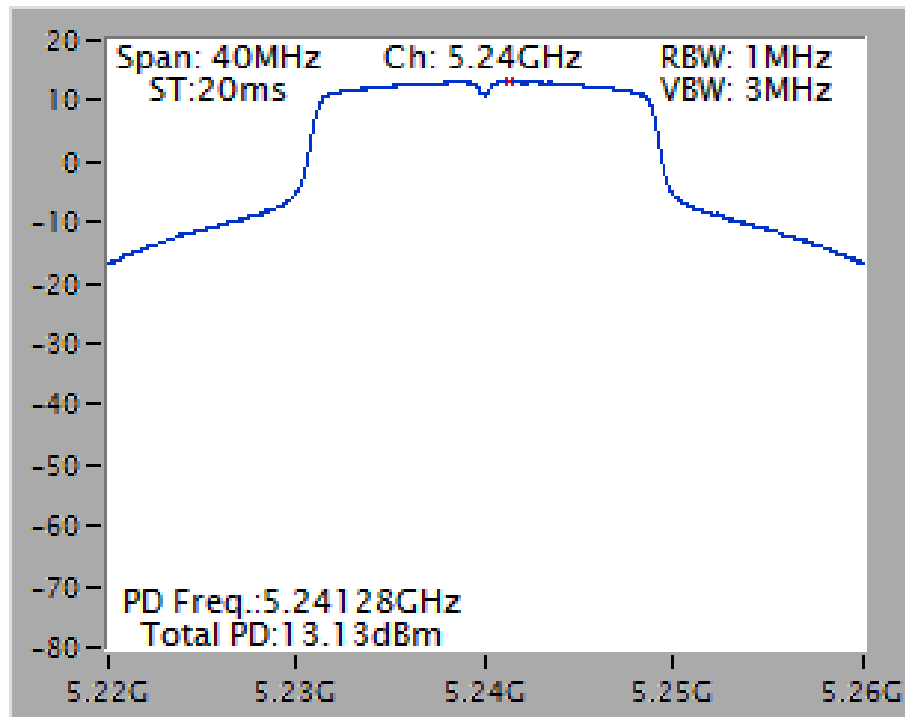
Power Density Plot on Configuration IEEE 802.11n MCS0 5 MHz / Mode 1 / P to P / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



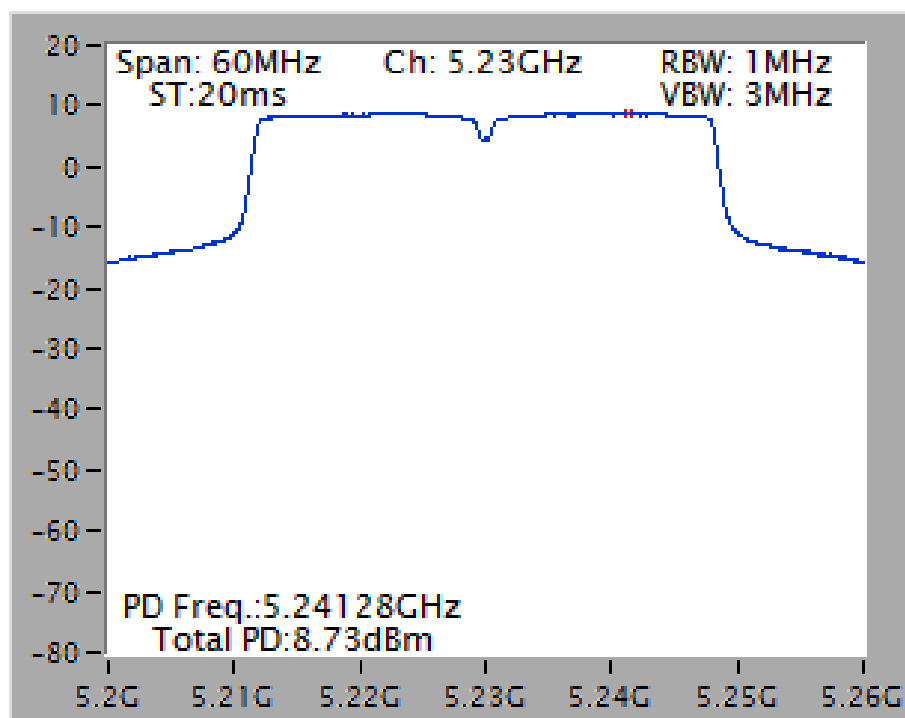
Power Density Plot on Configuration IEEE 802.11n MCS0 10 MHz / Mode 1 / P to P / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



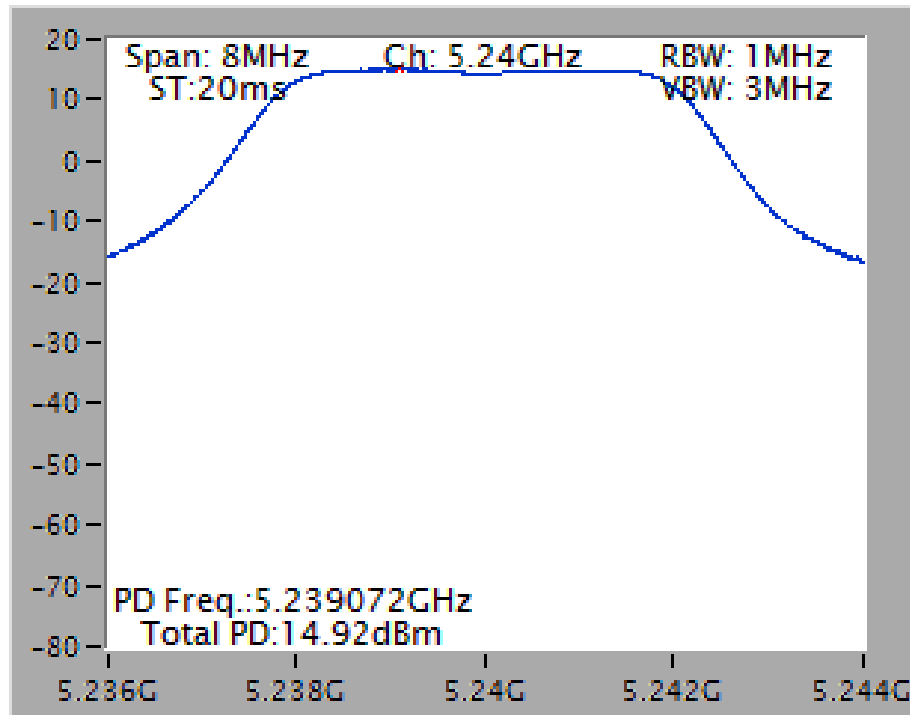
Power Density Plot on Configuration IEEE 802.11n MCS0 20 MHz / Mode 1 / P to P / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



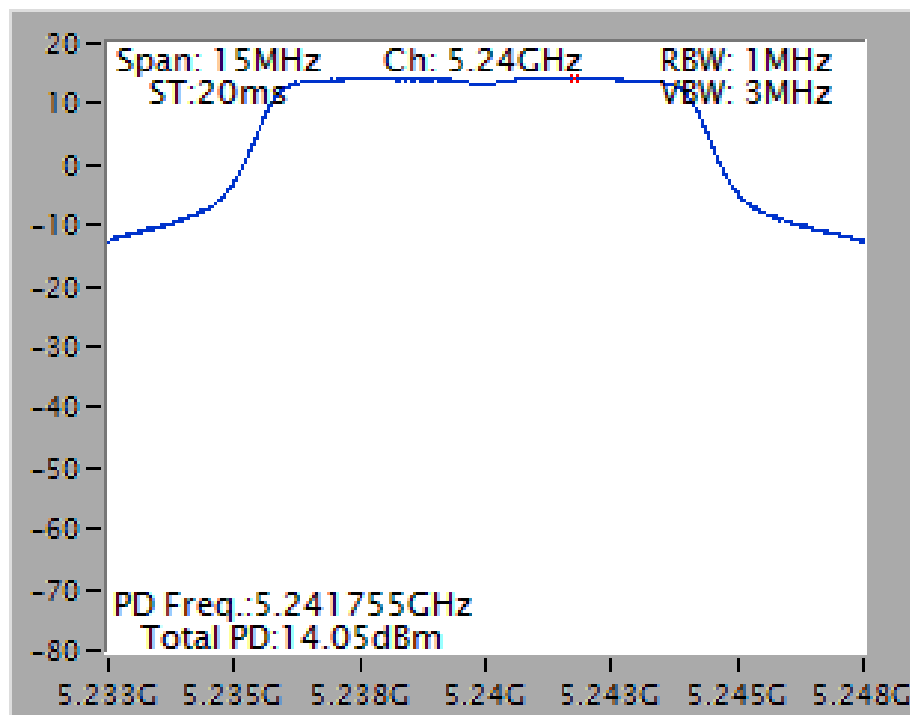
Power Density Plot on Configuration IEEE 802.11n MCS0 40 MHz / Mode 1 / P to P / Chain 1 + Chain 2 + Chain 3 / 5230 MHz



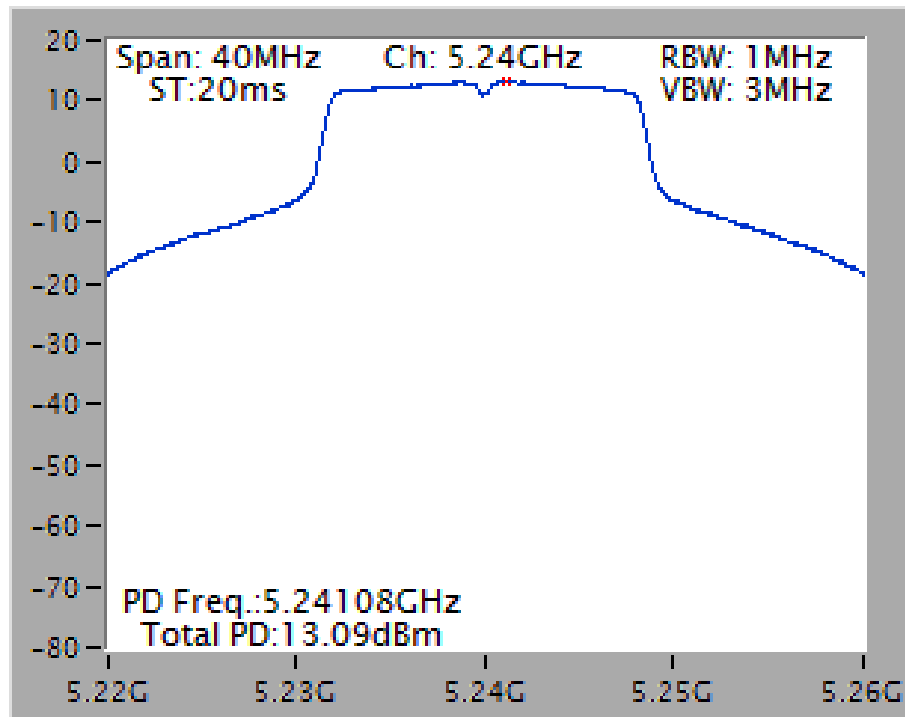
Power Density Plot on Configuration IEEE 802.11a 5 MHz / Mode 1 / P to P / Chain 1 + Chain 2 + Chain 3
/ 5240 MHz



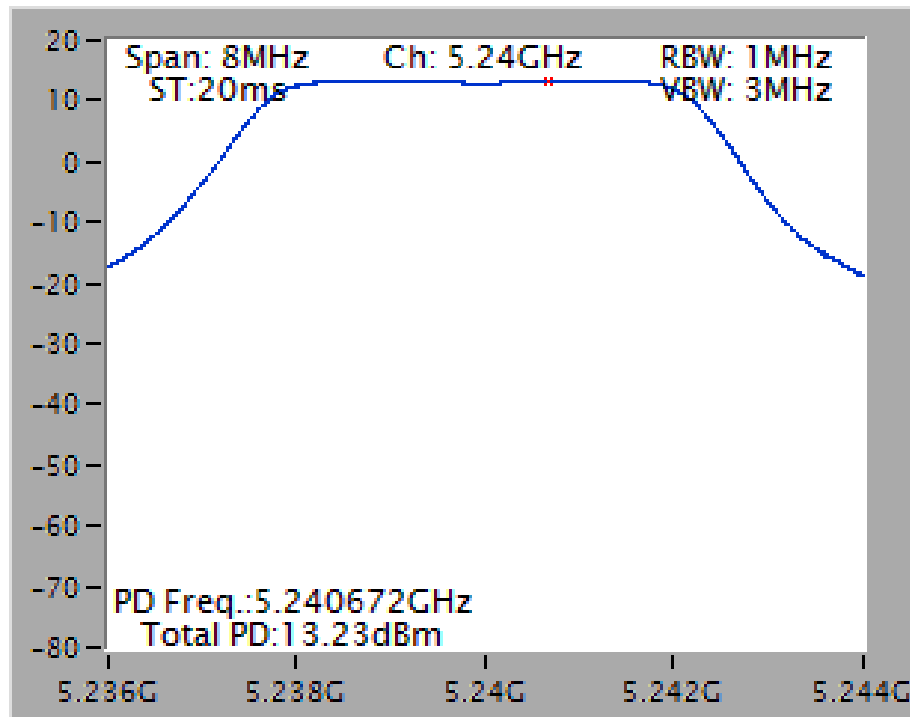
Power Density Plot on Configuration IEEE 802.11a 10 MHz / Mode 1 / P to P / Chain 1 + Chain 2 +
Chain 3 / 5240 MHz



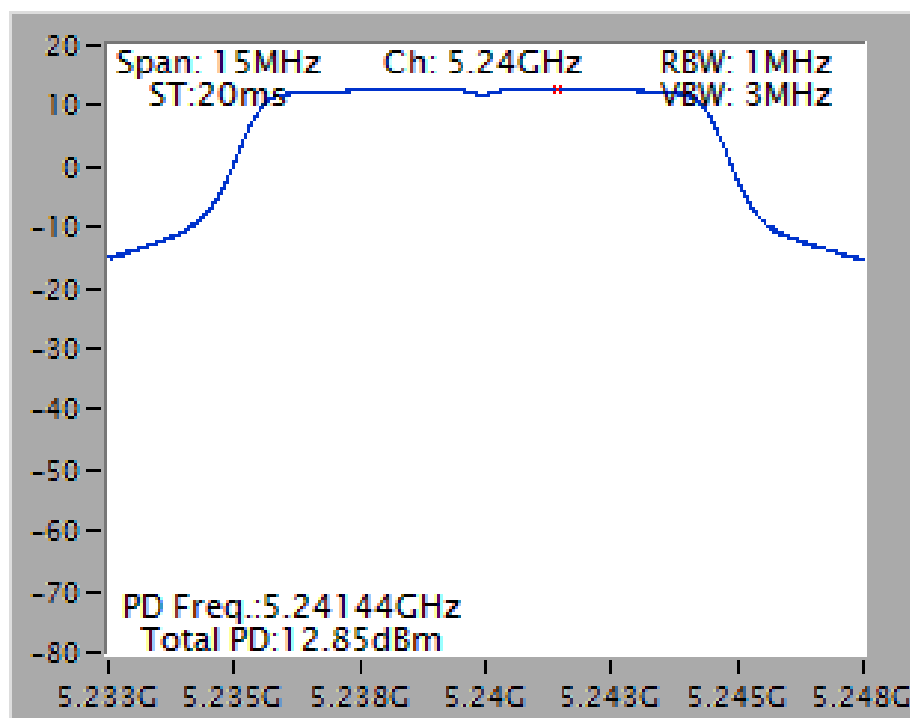
Power Density Plot on Configuration IEEE 802.11a 20 MHz / Mode 1 / P to P / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



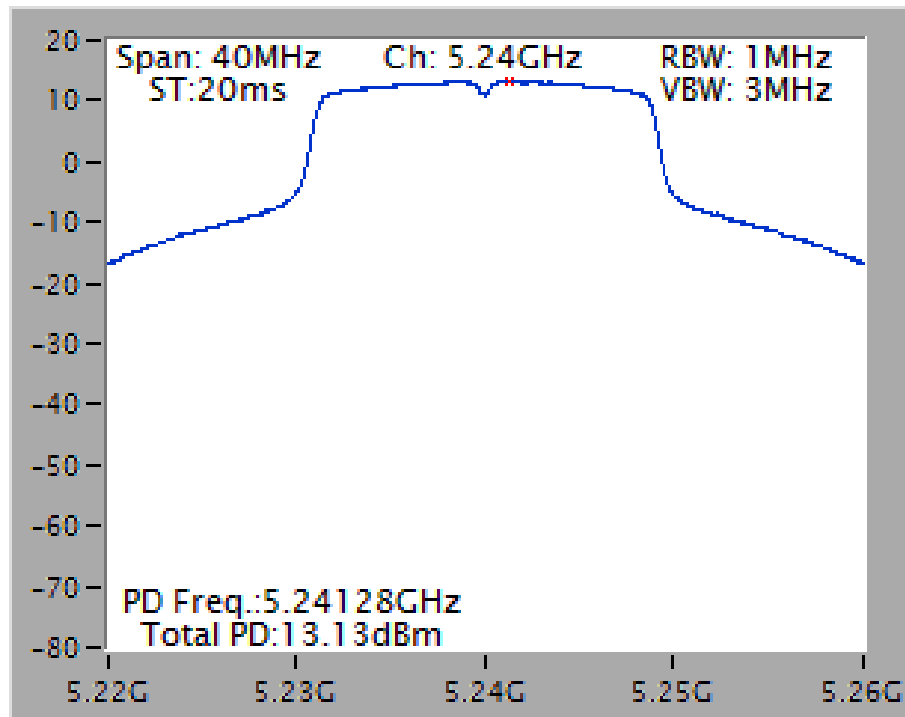
Power Density Plot on Configuration IEEE 802.11n MCS0 5 MHz / Mode 1 / P to M / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



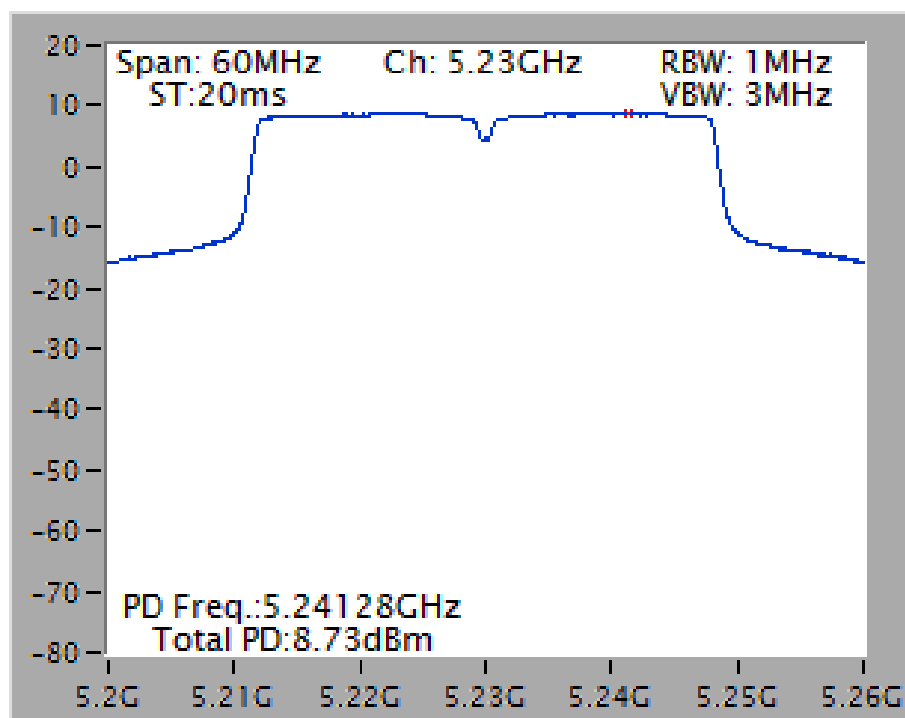
Power Density Plot on Configuration IEEE 802.11n MCS0 10 MHz / Mode 1 / P to M / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



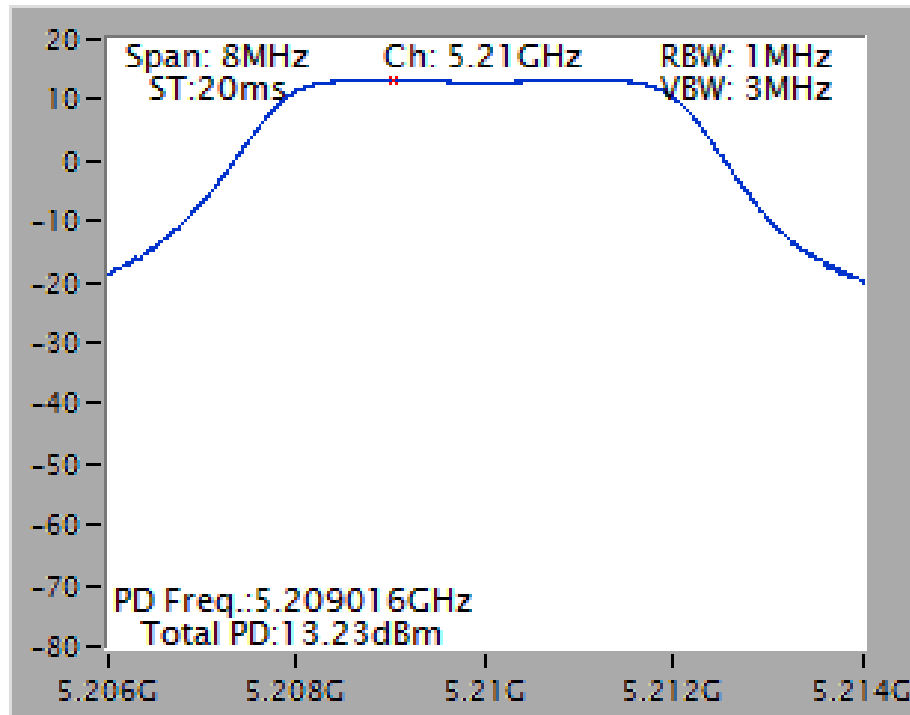
Power Density Plot on Configuration IEEE 802.11n MCS0 20 MHz / Mode 1 / P to M / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



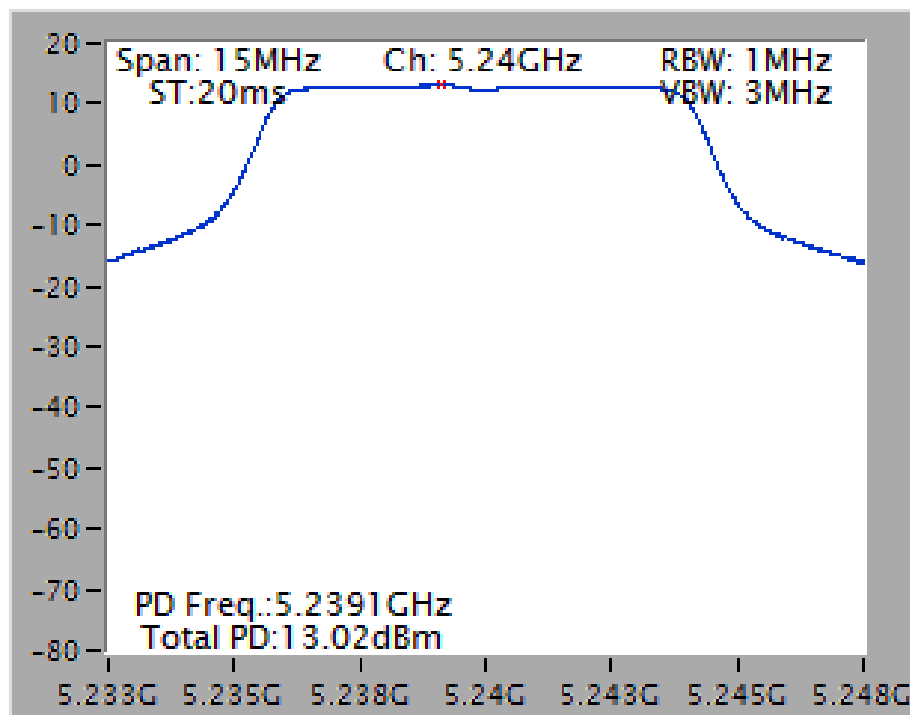
Power Density Plot on Configuration IEEE 802.11n MCS0 40 MHz / Mode 1 / P to M / Chain 1 + Chain 2 + Chain 3 / 5230 MHz



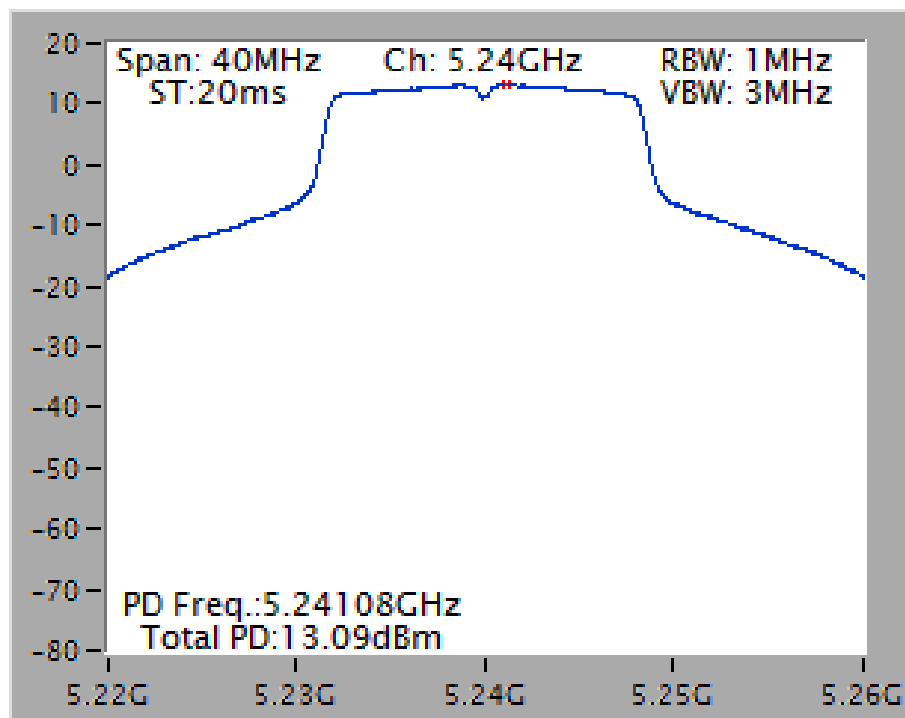
Power Density Plot on Configuration IEEE 802.11a 5 MHz / Mode 1 / P to M / Chain 1 + Chain 2 + Chain 3
/ 5210 MHz



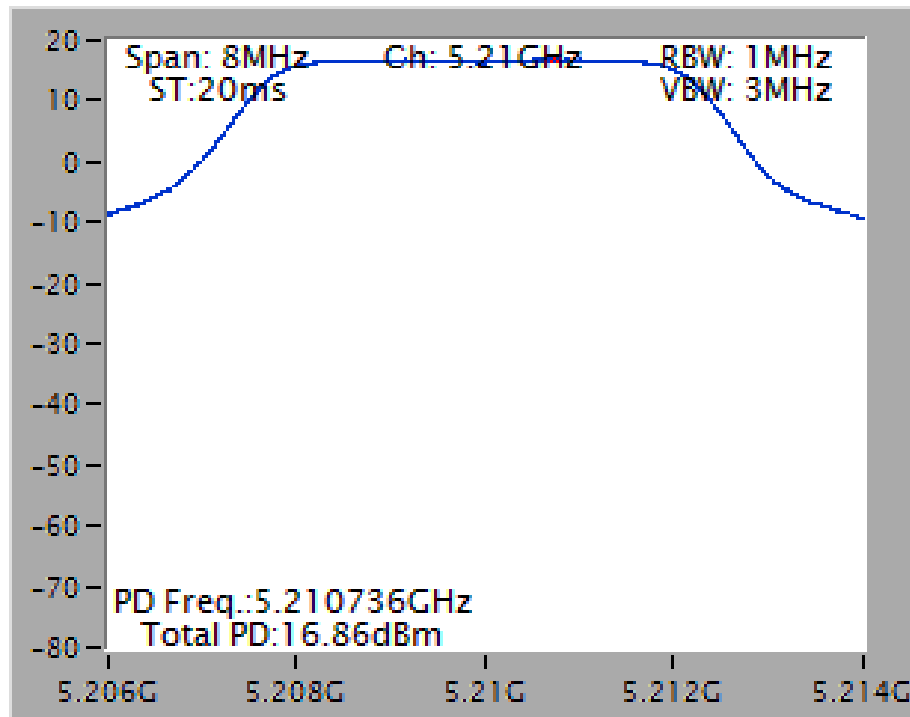
Power Density Plot on Configuration IEEE 802.11a 10 MHz / Mode 1 / P to M / Chain 1 + Chain 2 +
Chain 3 / 5240 MHz



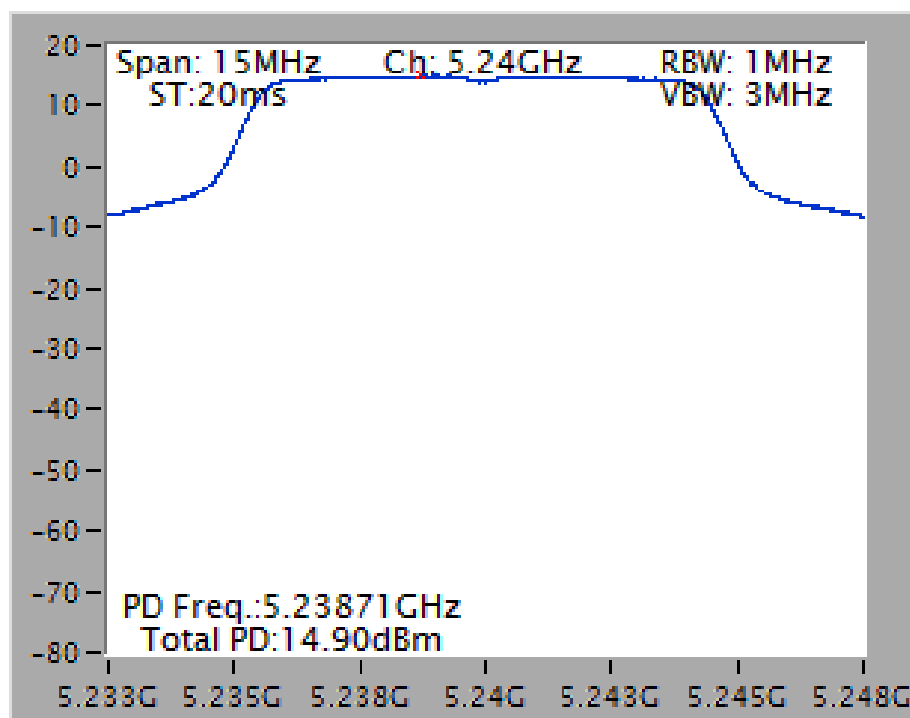
Power Density Plot on Configuration IEEE 802.11a 20 MHz / Mode 1 / P to M / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



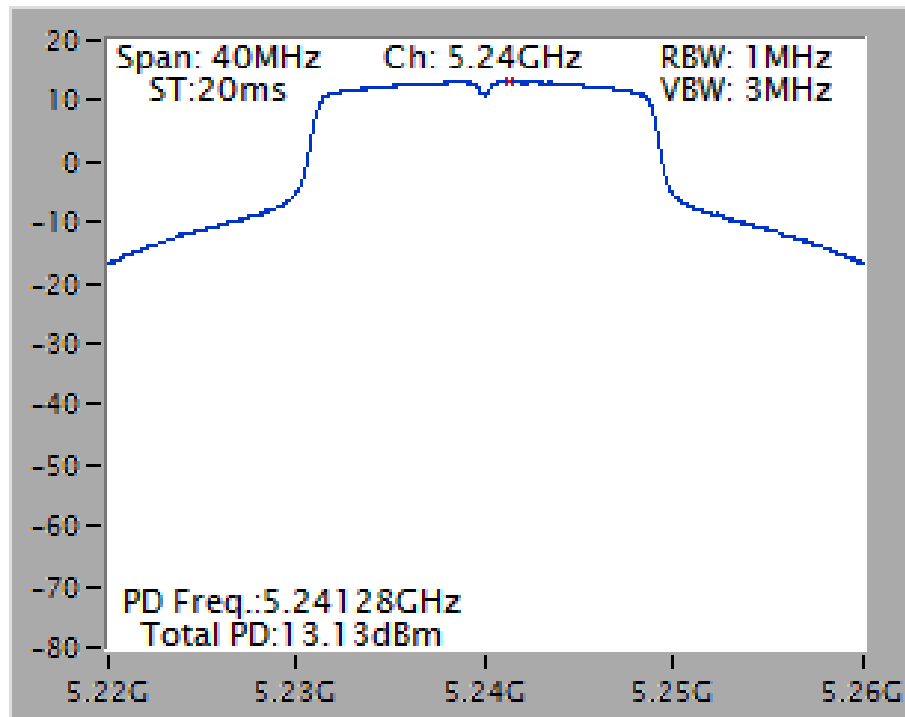
Power Density Plot on Configuration IEEE 802.11n MCS0 5 MHz / Mode 2 / P to P / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



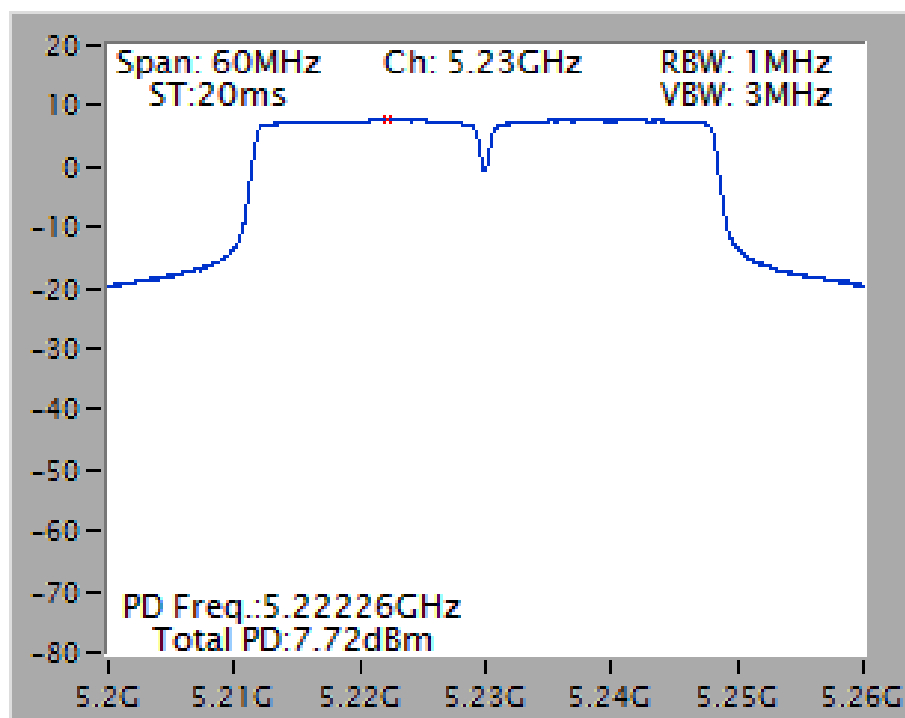
Power Density Plot on Configuration IEEE 802.11n MCS0 10 MHz / Mode 2 / P to P / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



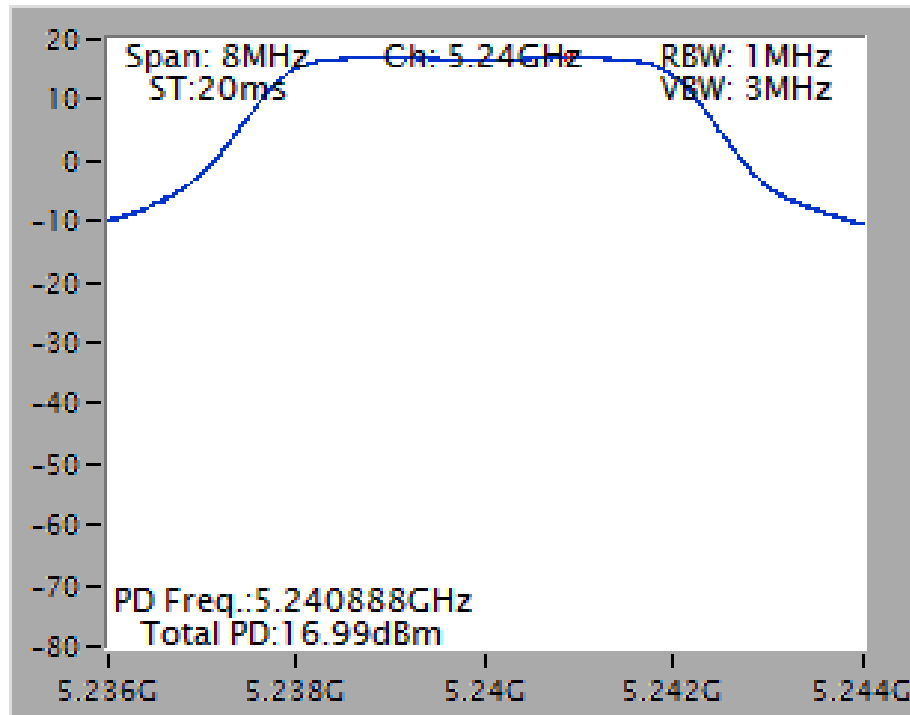
Power Density Plot on Configuration IEEE 802.11n MCS0 20 MHz / Mode 2 / P to P / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



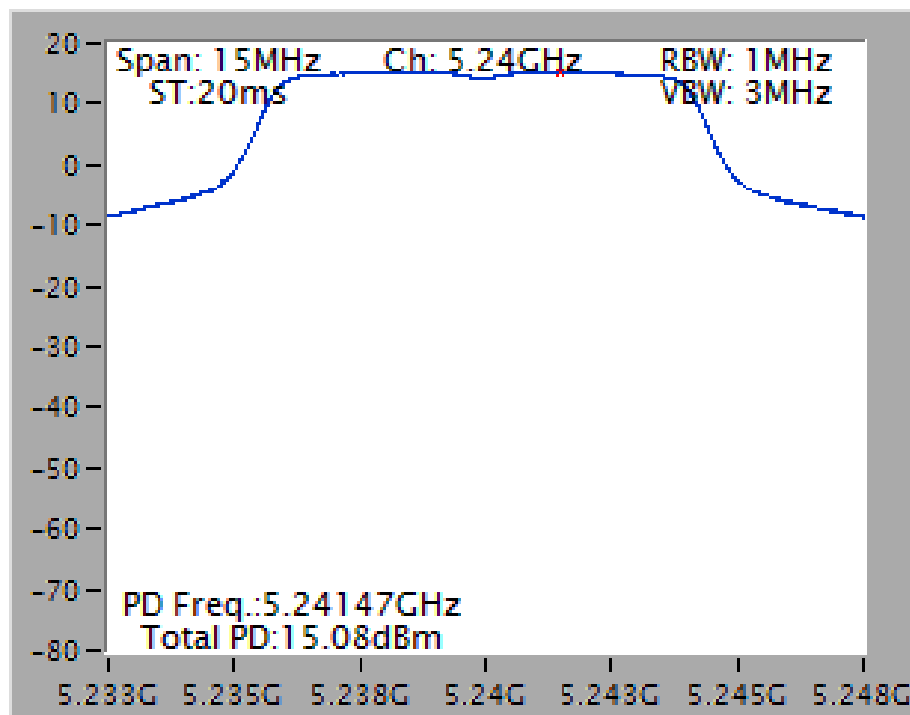
Power Density Plot on Configuration IEEE 802.11n MCS0 40 MHz / Mode 2 / P to P / Chain 1 + Chain 2 + Chain 3 / 5230 MHz



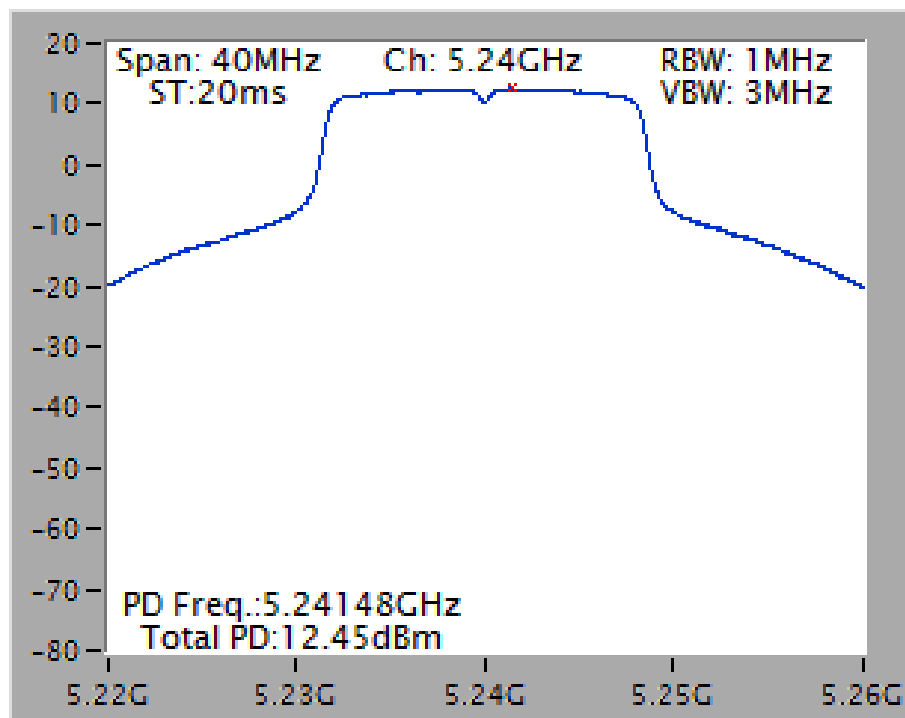
Power Density Plot on Configuration IEEE 802.11a 5 MHz / Mode 2 / P to P / Chain 1 + Chain 2 + Chain 3
/ 5240 MHz



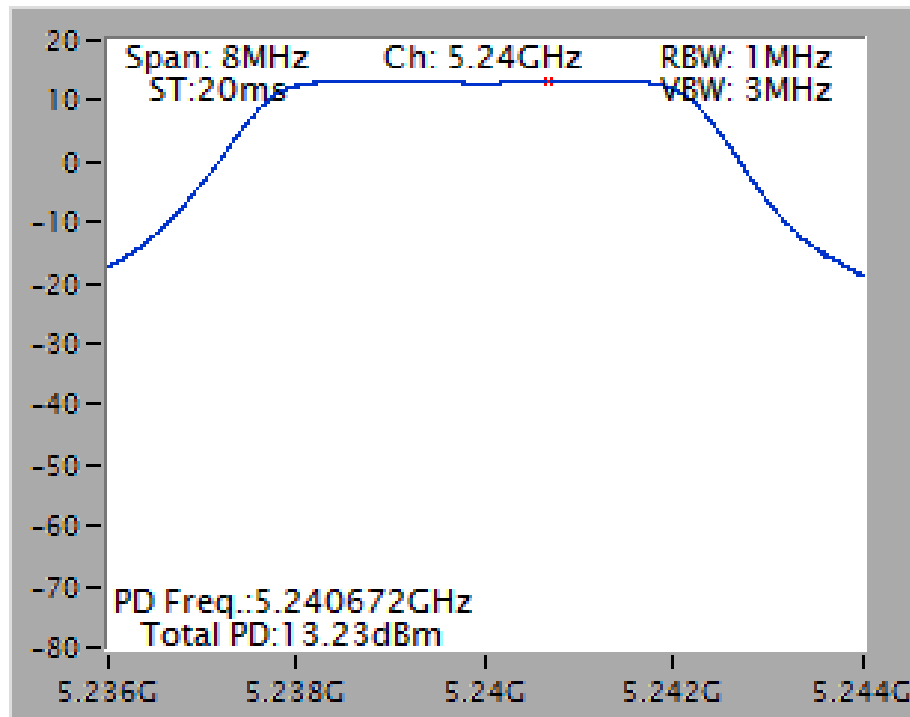
Power Density Plot on Configuration IEEE 802.11a 10 MHz / Mode 2 / P to P / Chain 1 + Chain 2 +
Chain 3 / 5240 MHz



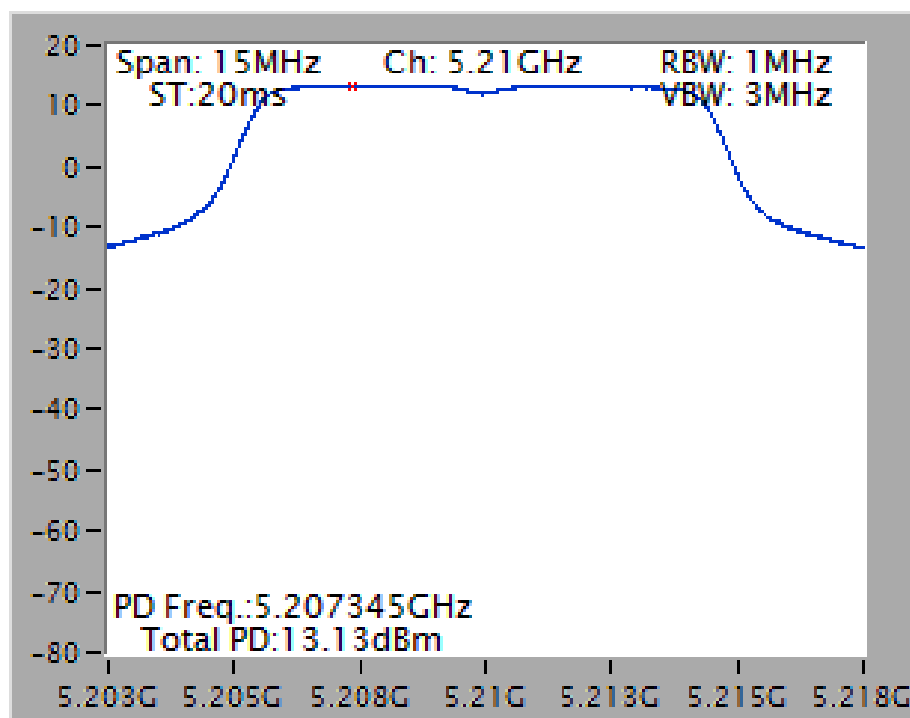
Power Density Plot on Configuration IEEE 802.11a 20 MHz / Mode 2 / P to P / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



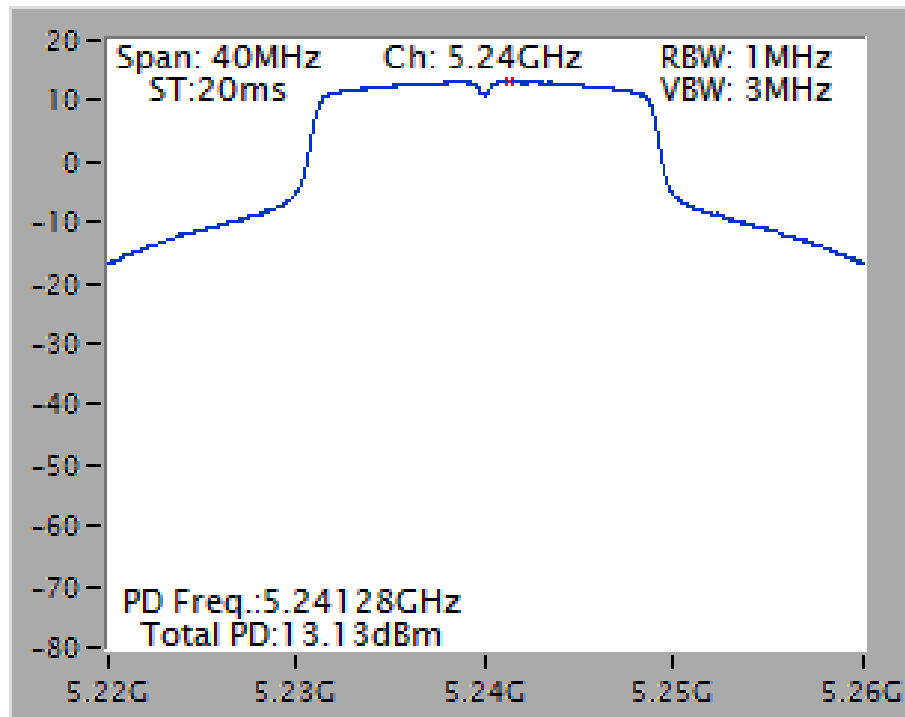
Power Density Plot on Configuration IEEE 802.11n MCS0 5 MHz / Mode 2 / P to M / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



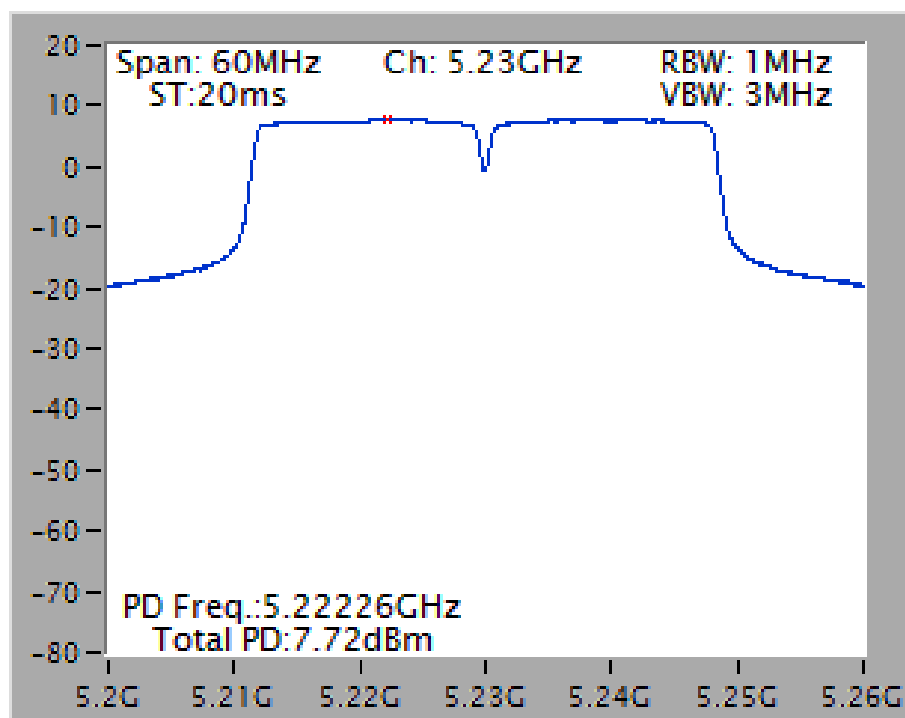
Power Density Plot on Configuration IEEE 802.11n MCS0 10 MHz / Mode 2 / P to M / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



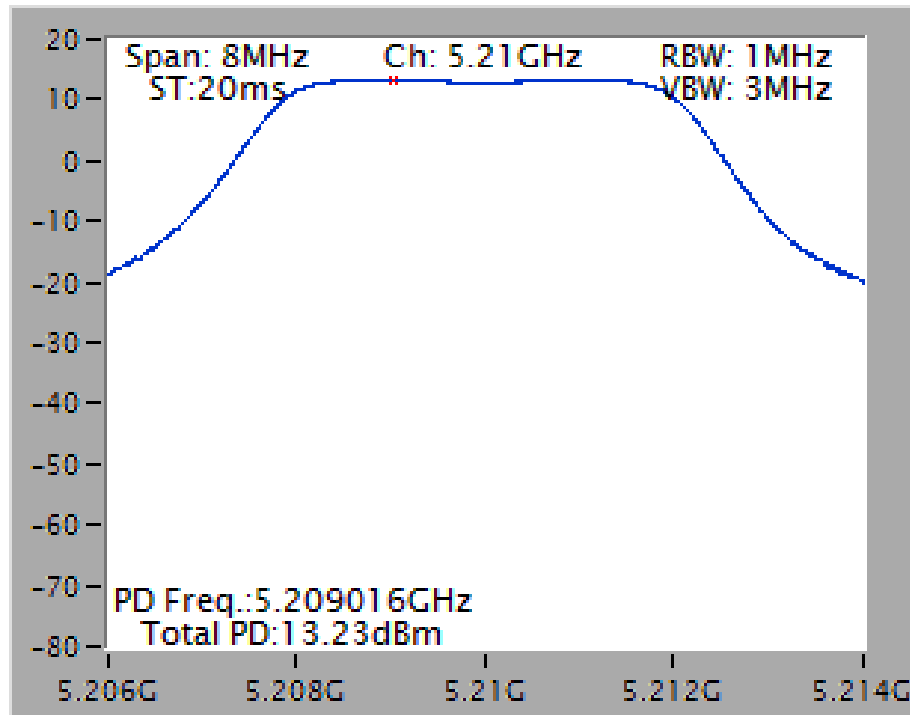
Power Density Plot on Configuration IEEE 802.11n MCS0 20 MHz / Mode 2 / P to M / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



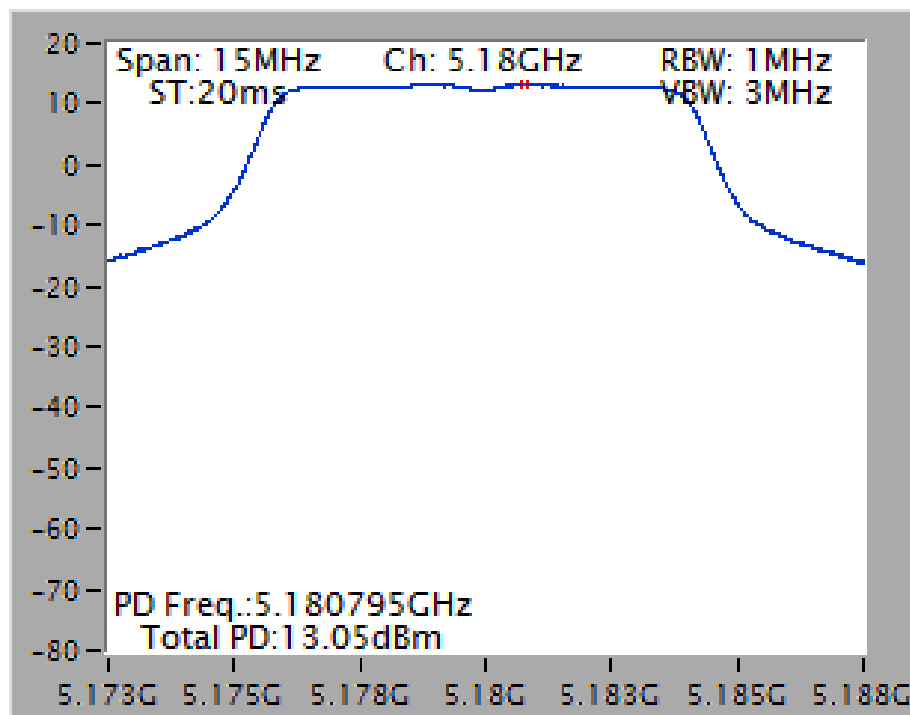
Power Density Plot on Configuration IEEE 802.11n MCS0 40 MHz / Mode 2 / P to M / Chain 1 + Chain 2 + Chain 3 / 5230 MHz



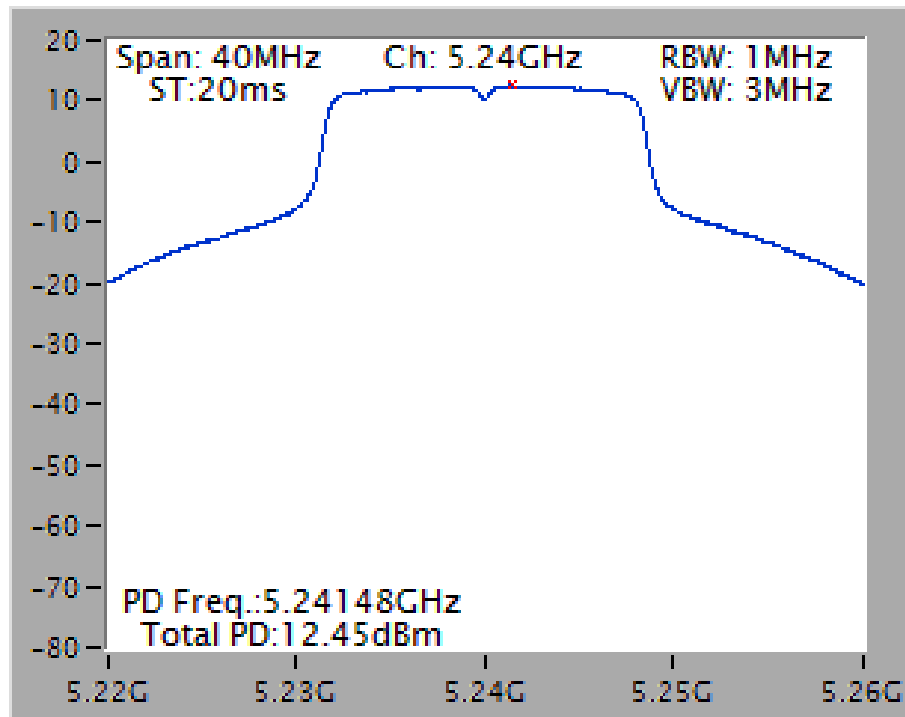
Power Density Plot on Configuration IEEE 802.11a 5 MHz / Mode 2 / P to M / Chain 1 + Chain 2 + Chain 3
/ 5210 MHz



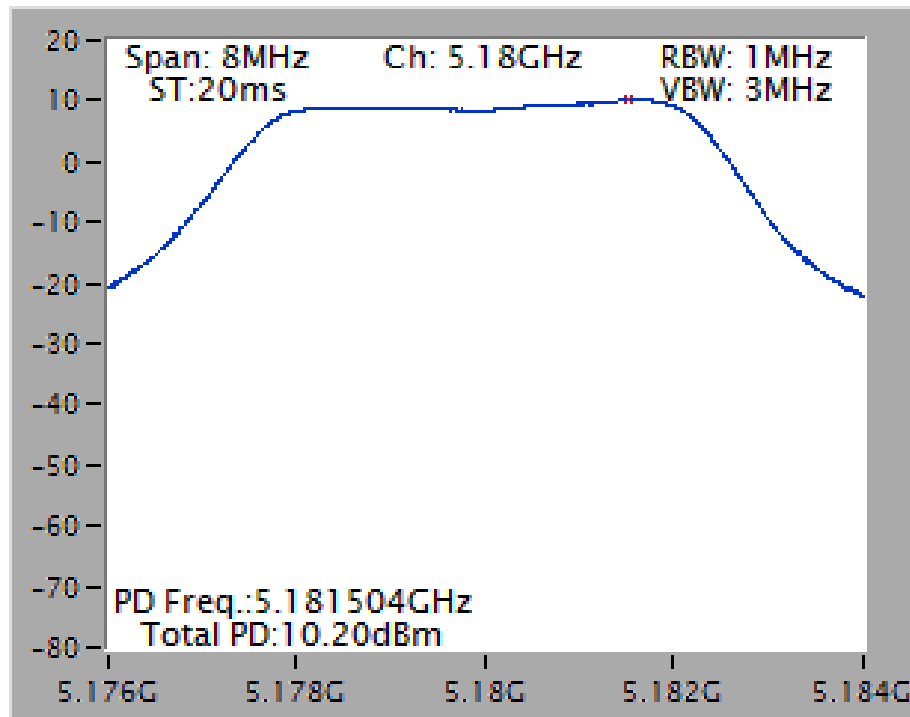
Power Density Plot on Configuration IEEE 802.11a 10 MHz / Mode 2 / P to M / Chain 1 + Chain 2 +
Chain 3 / 5180 MHz



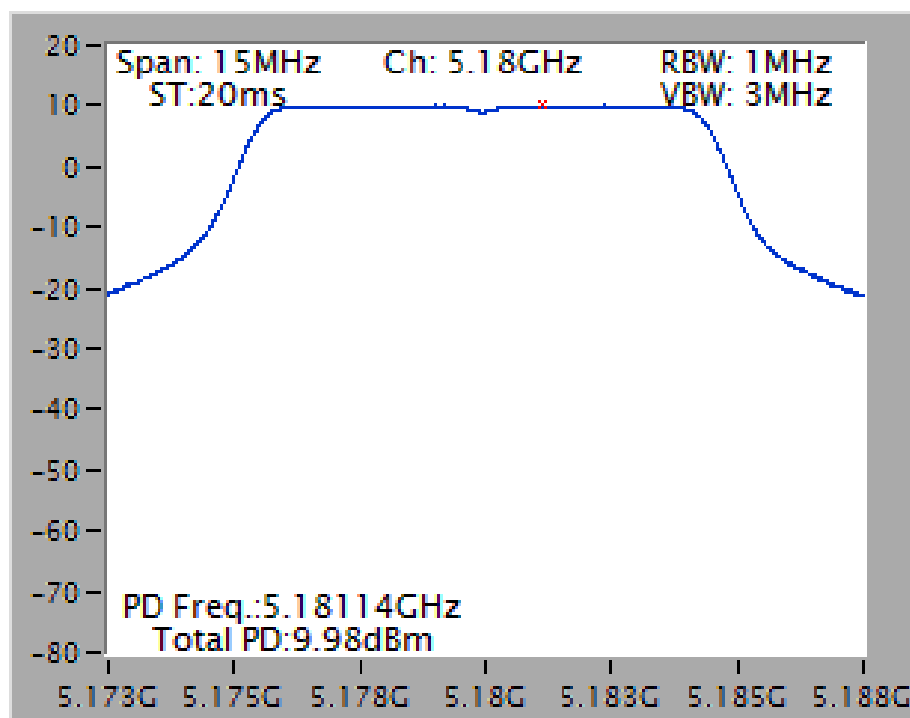
Power Density Plot on Configuration IEEE 802.11a 20 MHz / Mode 2 / P to M / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



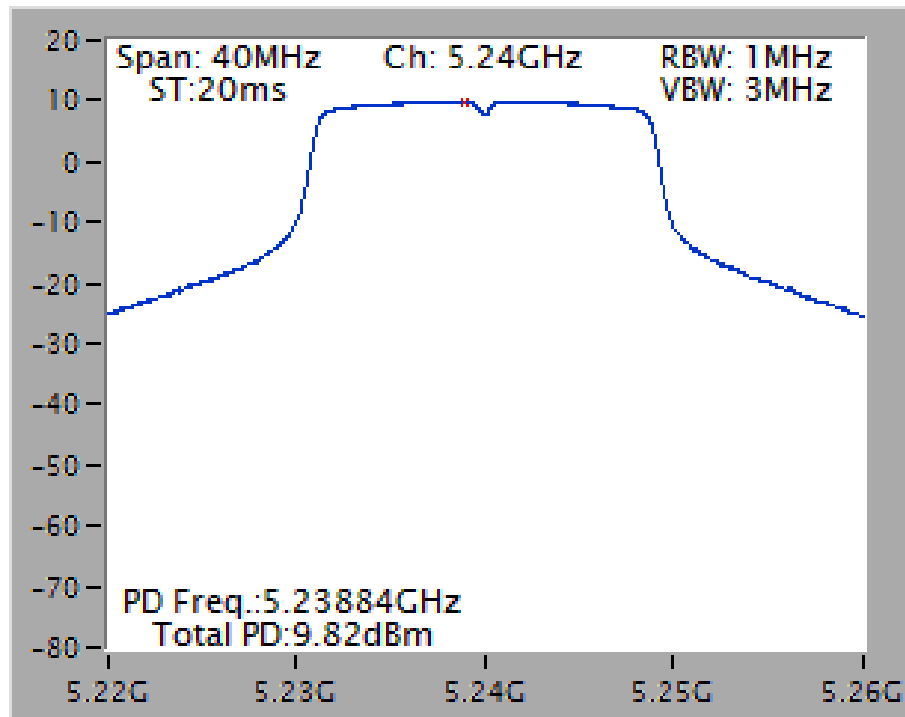
Power Density Plot on Configuration IEEE 802.11n MCS0 5 MHz / Mode 3 / P to M / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



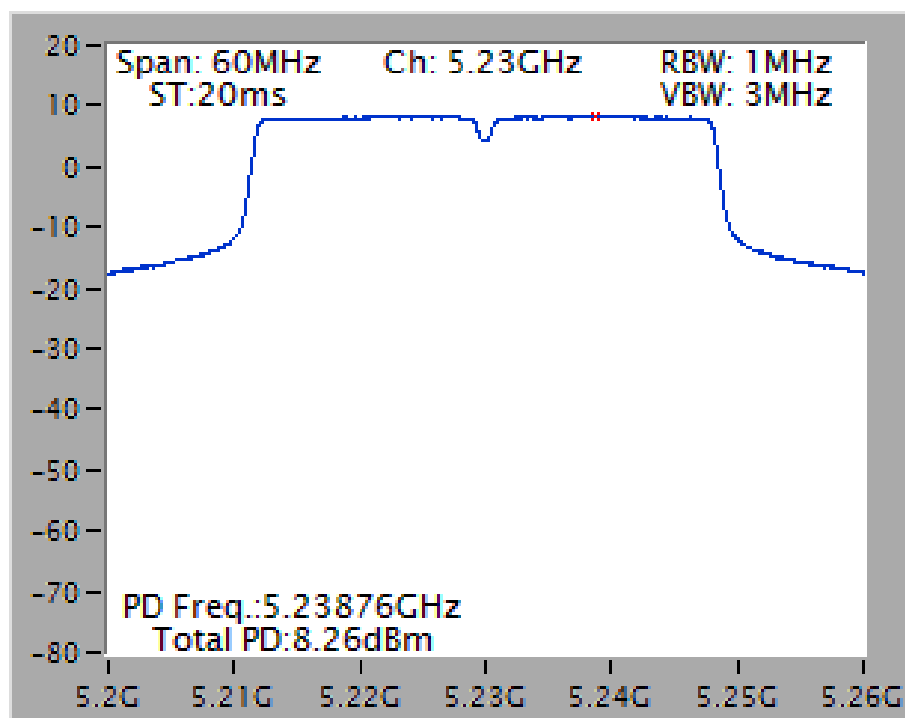
Power Density Plot on Configuration IEEE 802.11n MCS0 10 MHz / Mode 3 / P to M / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



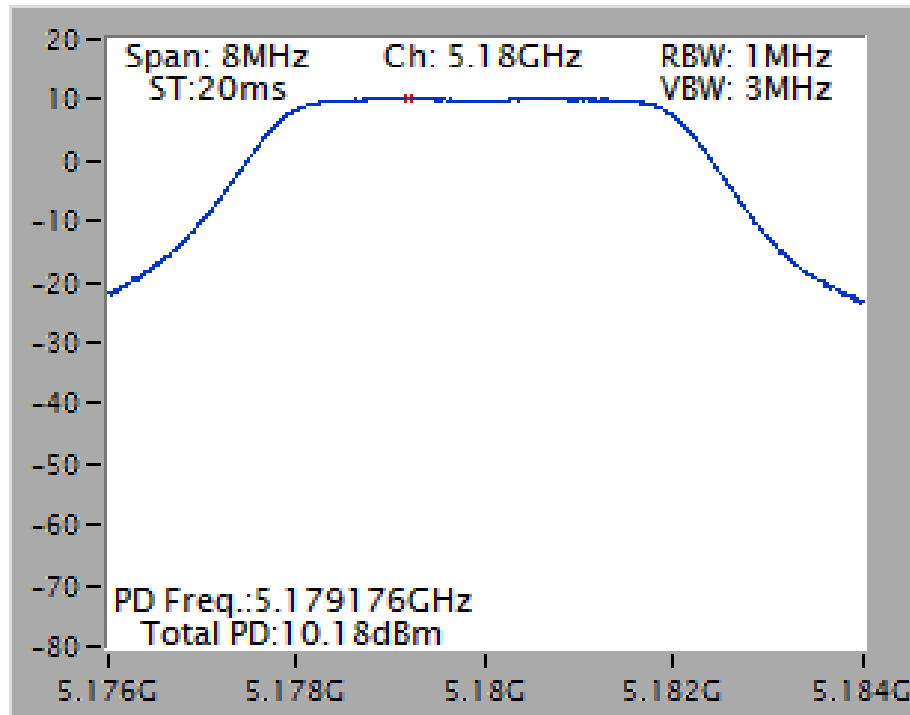
Power Density Plot on Configuration IEEE 802.11n MCS0 20 MHz / Mode 3 / P to M / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



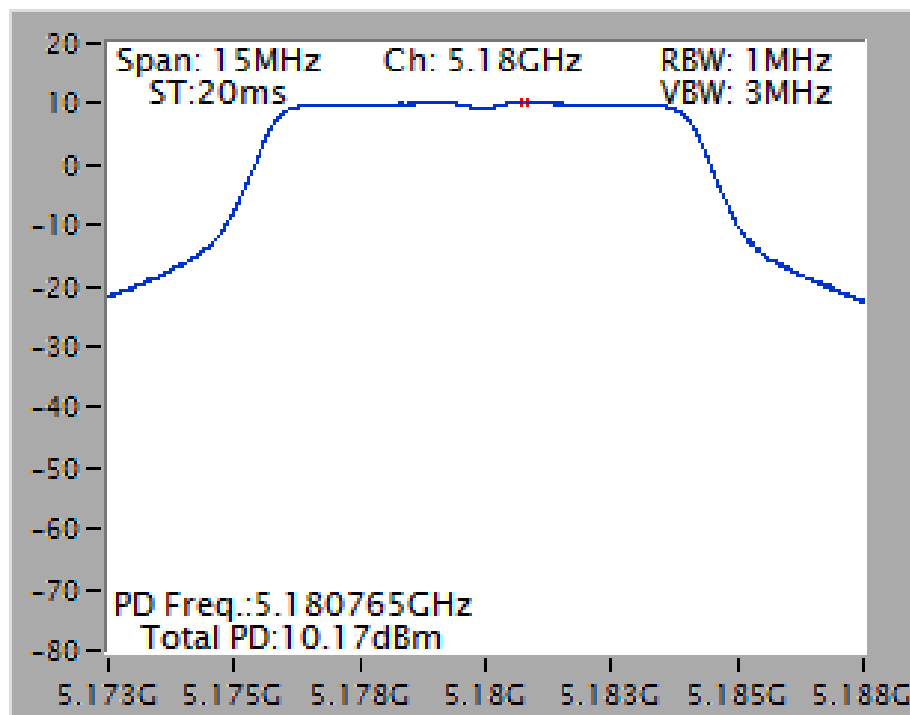
Power Density Plot on Configuration IEEE 802.11n MCS0 40 MHz / Mode 3 / P to M / Chain 1 + Chain 2 + Chain 3 / 5230 MHz



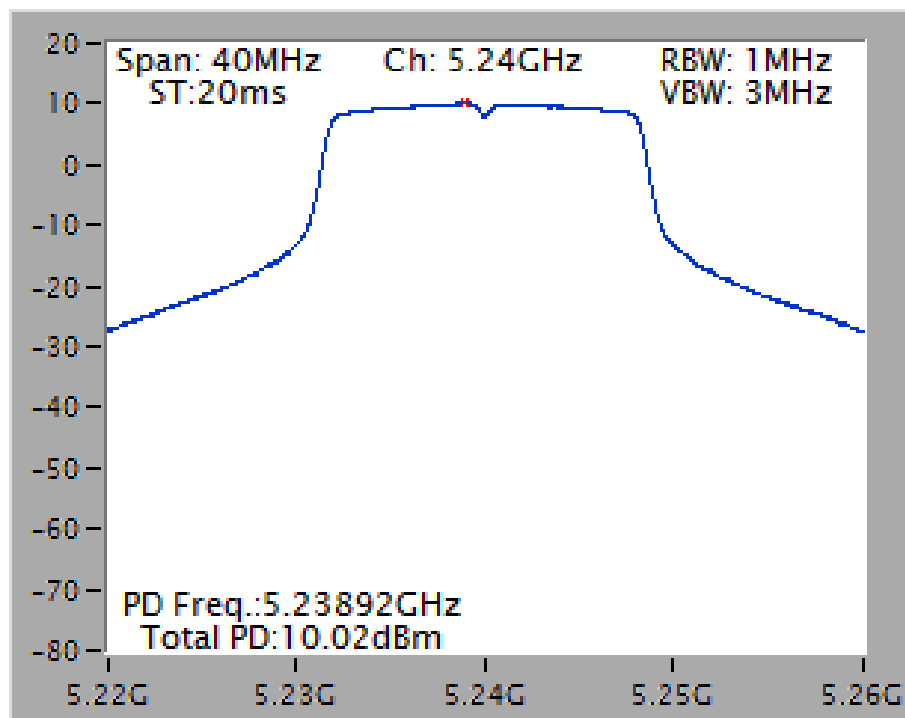
Power Density Plot on Configuration IEEE 802.11a 5 MHz / Mode 3 / P to M / Chain 1 + Chain 2 + Chain 3
/ 5180 MHz



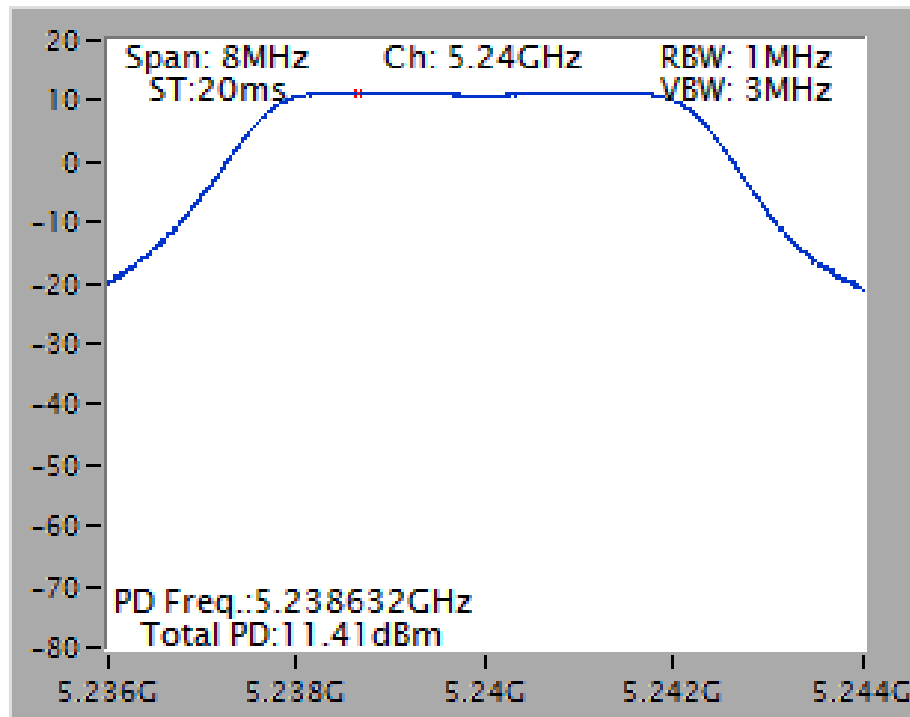
Power Density Plot on Configuration IEEE 802.11a 10 MHz / Mode 3 / P to M / Chain 1 + Chain 2 +
Chain 3 / 5180 MHz



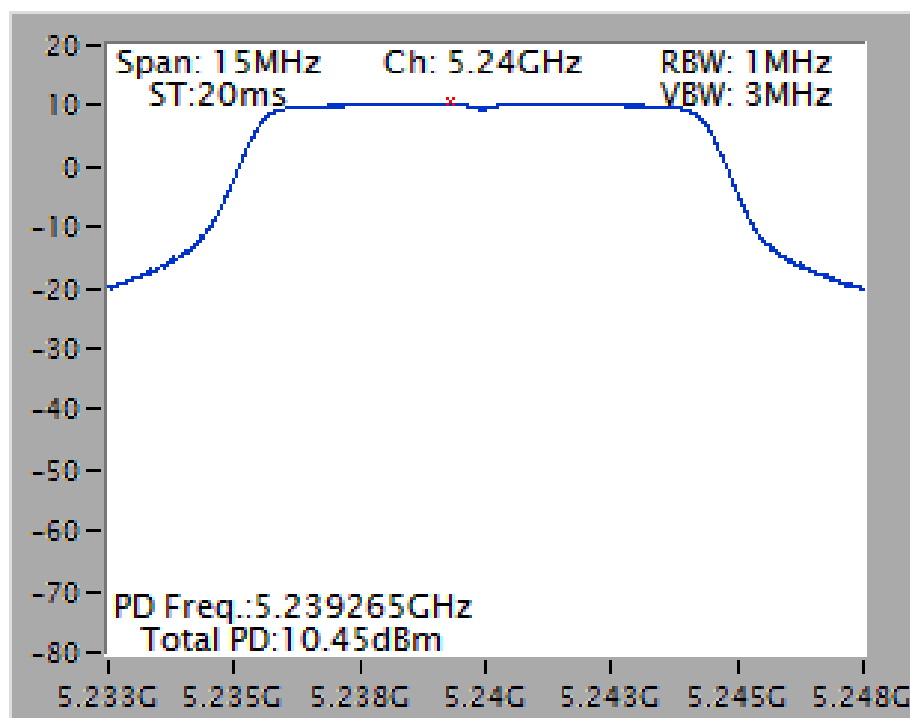
Power Density Plot on Configuration IEEE 802.11a 20 MHz / Mode 3 / P to M / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



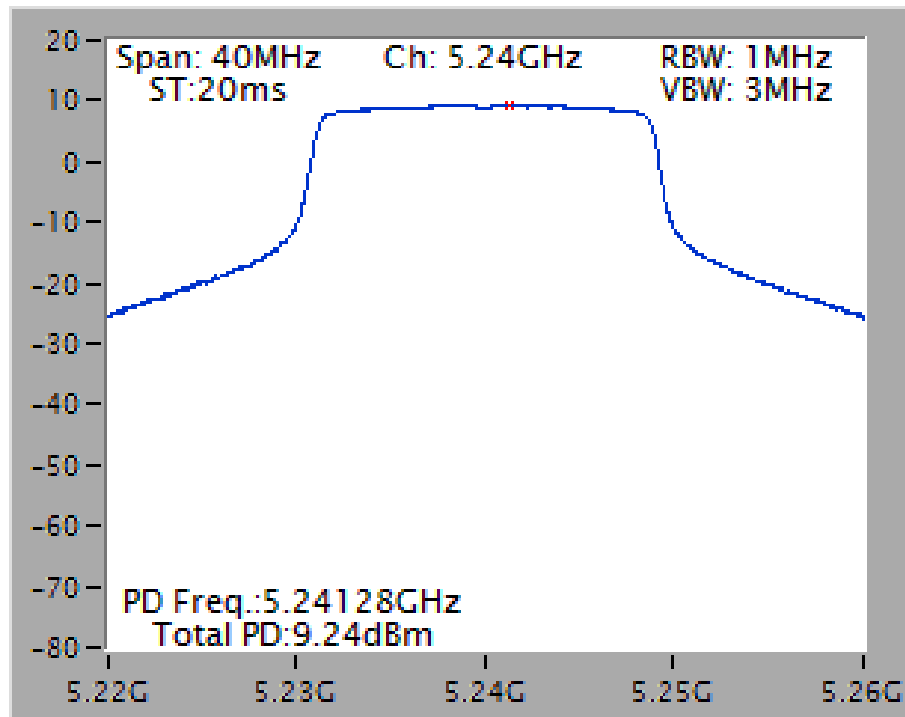
Power Density Plot on Configuration IEEE 802.11n MCS0 5 MHz / Mode 4 / P to P / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



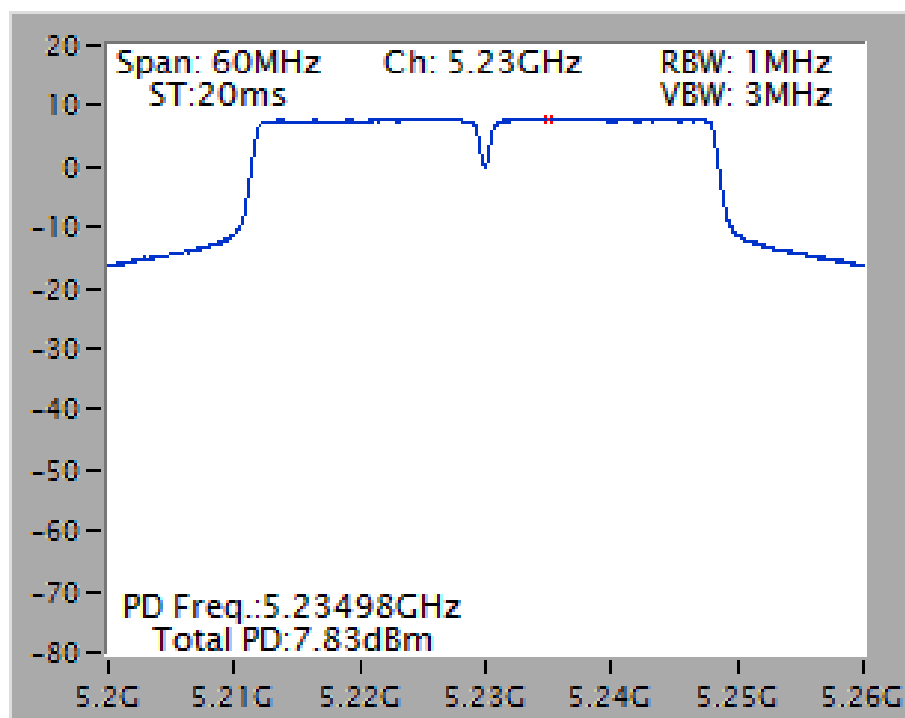
Power Density Plot on Configuration IEEE 802.11n MCS0 10 MHz / Mode 4 / P to P / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



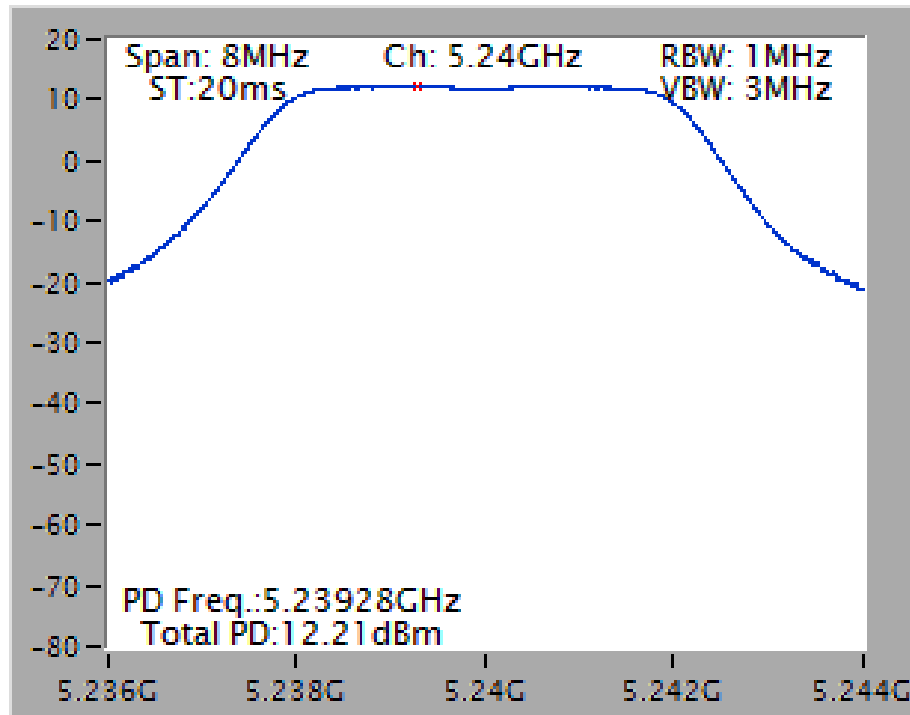
Power Density Plot on Configuration IEEE 802.11n MCS0 20 MHz / Mode 4 / P to P / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



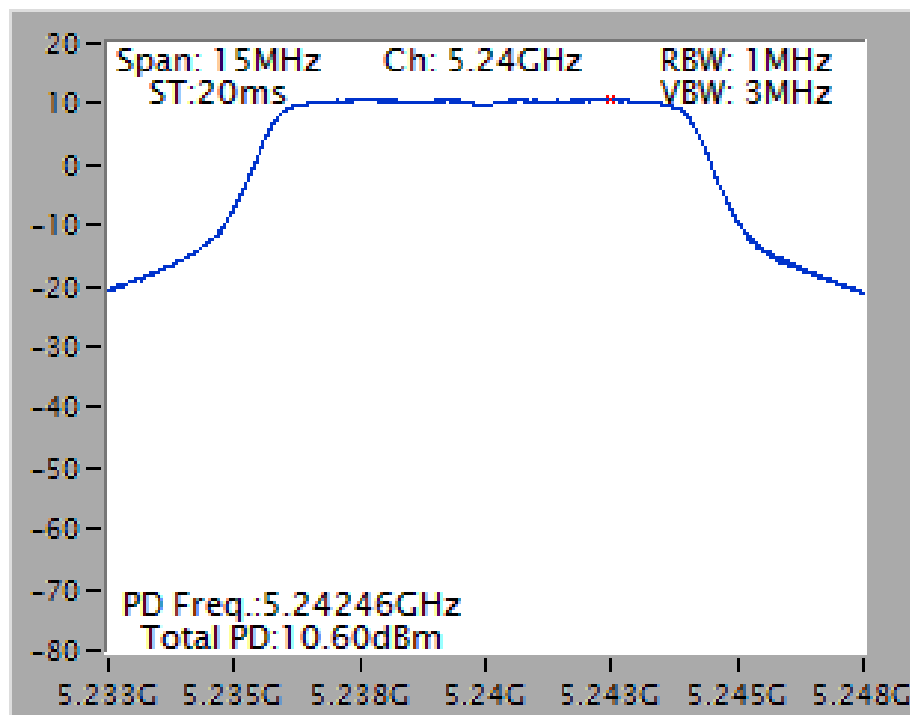
Power Density Plot on Configuration IEEE 802.11n MCS0 40 MHz / Mode 4 / P to P / Chain 1 + Chain 2 + Chain 3 / 5230 MHz



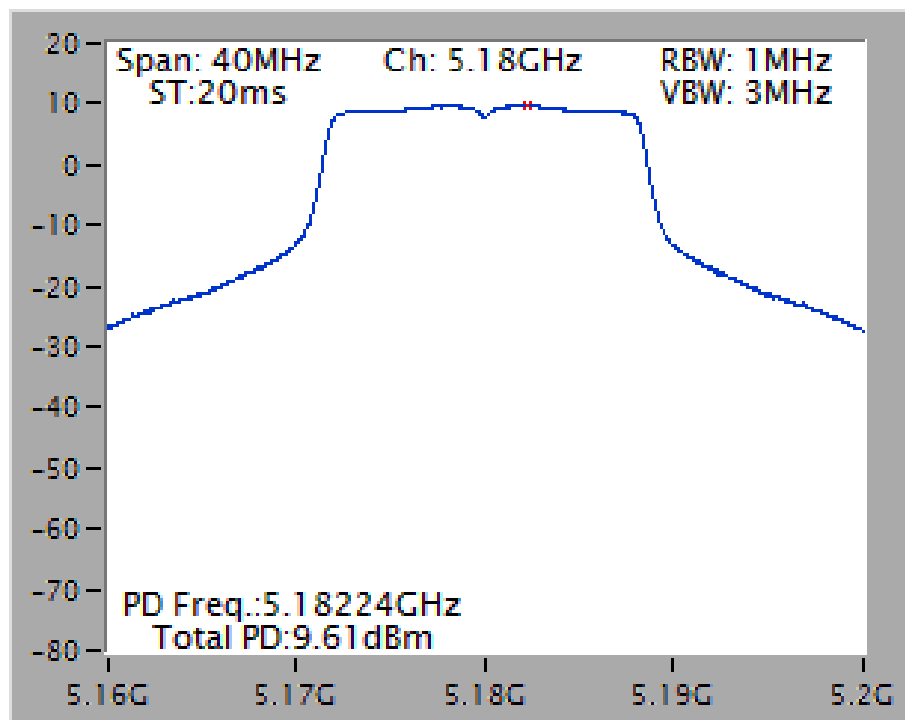
Power Density Plot on Configuration IEEE 802.11a 5 MHz / Mode 4 / P to P / Chain 1 + Chain 2 + Chain 3
/ 5240 MHz



Power Density Plot on Configuration IEEE 802.11a 10 MHz / Mode 4 / P to P / Chain 1 + Chain 2 +
Chain 3 / 5240 MHz



Power Density Plot on Configuration IEEE 802.11a 20 MHz / Mode 4 / P to P / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



4.4. Radiated Emissions Measurement

4.4.1. Limit

For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

In addition, In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(kHz)	300
0.490~1.705	24000/F(kHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

4.4.2. Measuring Instruments and Setting

Please refer to section 5 of equipments list in this report. The following table is the setting of spectrum analyzer and receiver.

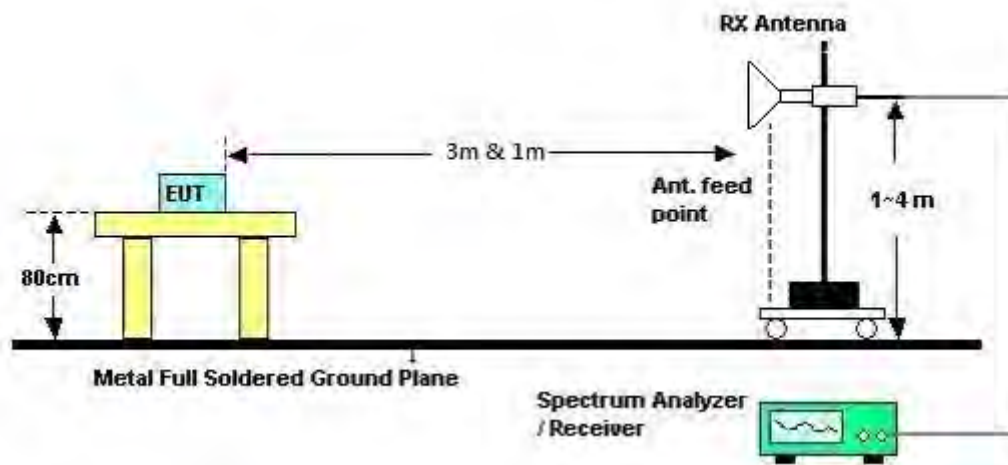
Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	40 GHz
RBW / VBW (Emission in restricted band)	1MHz / 3MHz for Peak, Please refer to section 3.11 for Average
RBW / VBW (Emission in non-restricted band)	1MHz / 3MHz for peak

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RBW 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RBW 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RBW 120kHz for QP

4.4.3. Test Procedures

1. Configure the EUT according to ANSI C63.10. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer.
7. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
8. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
9. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High – Low scan is not required in this case.

4.4.4. Test Setup Layout



4.4.5. Test Deviation

There is no deviation with the original standard.

4.4.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.4.7. Results for Radiated Emissions (1GHz~40GHz)

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 5 MHz CH 36 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 14, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg
				dB	dBuV	dB	dB/m	dB			Pol/Phase
1	15535.70	58.38	74.00	-15.62	48.97	6.13	38.45	35.17	Peak	100	214 HORIZONTAL
2	15540.56	45.59	54.00	-8.41	36.18	6.13	38.45	35.17	Average	100	214 HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg
				dB	dBuV	dB	dB/m	dB			Pol/Phase
1	15540.26	50.44	54.00	-3.56	41.03	6.13	38.45	35.17	Average	156	272 VERTICAL
2	15540.60	63.02	74.00	-10.98	53.61	6.13	38.45	35.17	Peak	156	272 VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 5 MHz CH 42 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 14, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15631.24	60.09	74.00	-13.91	50.83	6.14	38.31	35.19	Peak	100	233	HORIZONTAL
2	15631.60	46.21	54.00	-7.79	36.95	6.14	38.31	35.19	Average	100	233	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15631.06	49.95	54.00	-4.05	40.69	6.14	38.31	35.19	Average	100	251	VERTICAL
2	15631.32	63.16	74.00	-10.84	53.90	6.14	38.31	35.19	Peak	100	251	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 5 MHz CH 48 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 14, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15631.24	60.09	74.00	-13.91	50.83	6.14	38.31	35.19	Peak	100	233	HORIZONTAL
2	15631.60	46.21	54.00	-7.79	36.95	6.14	38.31	35.19	Average	100	233	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15721.90	49.58	54.00	-4.42	40.46	6.14	38.19	35.21	Average	100	254	VERTICAL
2	15722.00	63.82	74.00	-10.18	54.70	6.14	38.19	35.21	Peak	100	254	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 10 MHz CH 36 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 14, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15536.86	72.42	74.00	-1.58	63.01	6.13	38.45	35.17	159	125	HORIZONTAL
2	15537.56	50.66	54.00	-3.34	41.25	6.13	38.45	35.17	159	125	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15536.94	73.44	74.00	-0.56	64.03	6.13	38.45	35.17	133	125	VERTICAL
2	15538.18	52.24	54.00	-1.76	42.83	6.13	38.45	35.17	133	125	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 10 MHz CH 42 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 14, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15629.82	49.85	54.00	-4.15	40.59	6.14	38.31	35.19 Average	157	58	HORIZONTAL
2	15630.18	71.66	74.00	-2.34	62.40	6.14	38.31	35.19 Peak	157	58	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15632.04	73.41	74.00	-0.59	64.15	6.14	38.31	35.19 Peak	133	125	VERTICAL
2	15632.96	51.25	54.00	-2.75	41.99	6.14	38.31	35.19 Average	133	125	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 10 MHz CH 48 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 14, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15718.32	53.45	54.00	-0.55	44.33	6.14	38.19	35.21	Average	150	128	HORIZONTAL
2	15718.50	73.08	74.00	-0.92	63.96	6.14	38.19	35.21	Peak	150	128	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15717.84	53.00	54.00	-1.00	43.88	6.14	38.19	35.21	Average	135	125	VERTICAL
2	15719.30	71.73	74.00	-2.27	62.61	6.14	38.19	35.21	Peak	135	125	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 20 MHz CH 36 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 14, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg
1	15535.68	46.47	54.00	-7.53	37.06	6.13	38.45	35.17	Average	140	126 HORIZONTAL
2	15538.96	65.69	74.00	-8.31	56.28	6.13	38.45	35.17	Peak	140	126 HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg
1	15542.76	43.03	54.00	-10.97	33.62	6.13	38.45	35.17	Average	100	276 VERTICAL
2	15543.84	56.35	74.00	-17.65	46.96	6.13	38.43	35.17	Peak	100	276 VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 20 MHz CH 40 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 14, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	15595.44	50.45	54.00	-3.55	41.14	6.13	38.36	35.18	Average	133	124	HORIZONTAL
2	15596.44	67.89	74.00	-6.11	58.58	6.13	38.36	35.18	Peak	133	124	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor		cm	deg	
1	15597.96	53.52	54.00	-0.48	44.21	6.13	38.36	35.18	Average	131	125	VERTICAL
2	15599.76	71.59	74.00	-2.41	62.29	6.13	38.36	35.19	Peak	131	125	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 20 MHz CH 48 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 14, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15718.00	50.76	54.00	-3.24	41.64	6.14	38.19	35.21	Average	131	126	HORIZONTAL
2	15718.08	67.02	74.00	-6.98	57.90	6.14	38.19	35.21	Peak	131	126	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15715.88	53.21	54.00	-0.79	44.09	6.14	38.19	35.21	Average	129	124	VERTICAL
2	15716.44	69.67	74.00	-4.33	60.55	6.14	38.19	35.21	Peak	129	124	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 40 MHz CH 38 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 14, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15561.44	39.28	54.00	-14.72	29.92	6.13	38.40	35.17	Average	102	293	HORIZONTAL
2	15573.80	53.90	74.00	-20.10	44.55	6.13	38.40	35.18	Peak	102	293	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15568.16	40.57	54.00	-13.43	31.21	6.13	38.40	35.17	Average	102	243	VERTICAL
2	15573.80	53.90	74.00	-20.10	44.55	6.13	38.40	35.18	Peak	102	243	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 40 MHz CH 46 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 14, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15688.28	49.48	54.00	-4.52	40.32	6.14	38.23	35.21	Average	100	106	HORIZONTAL
2	15693.56	55.72	74.00	-18.28	46.56	6.14	38.23	35.21	Peak	100	106	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15692.64	66.52	74.00	-7.48	57.36	6.14	38.23	35.21	Peak	135	124	VERTICAL
2	15693.48	51.79	54.00	-2.21	42.63	6.14	38.23	35.21	Average	135	124	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 5 MHz CH 36 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 14, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15538.44	48.93	54.00	-5.07	39.52	6.13	38.45	35.17	Average	100	142	HORIZONTAL
2	15541.58	66.92	74.00	-7.08	57.51	6.13	38.45	35.17	Peak	100	142	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15538.67	47.08	54.00	-6.92	37.67	6.13	38.45	35.17	Average	137	126	VERTICAL
2	15541.09	73.20	74.00	-0.80	63.79	6.13	38.45	35.17	Peak	137	126	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 5 MHz CH 42 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 14, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15628.95	44.31	54.00	-9.69	35.05	6.14	38.31	35.19	Average	100	234	HORIZONTAL
2	15629.03	62.12	74.00	-11.88	52.86	6.14	38.31	35.19	Peak	100	234	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15628.11	73.73	74.00	-0.27	64.45	6.14	38.33	35.19	Peak	145	130	VERTICAL
2	15630.35	48.89	54.00	-5.11	39.63	6.14	38.31	35.19	Average	145	130	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 5 MHz CH 48 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 14, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg
			dBuV/m	dB	dBuV	dB	dB/m	dB			Pol/Phase
1	15719.48	42.09	54.00	-11.91	32.97	6.14	38.19	35.21	Average	100	235 HORIZONTAL
2	15722.07	59.26	74.00	-14.74	50.14	6.14	38.19	35.21	Peak	100	235 HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg
			dBuV/m	dB	dBuV	dB	dB/m	dB			Pol/Phase
1	15718.16	73.74	74.00	-0.26	64.62	6.14	38.19	35.21	Peak	136	126 VERTICAL
2	15720.39	46.15	54.00	-7.85	37.03	6.14	38.19	35.21	Average	136	126 VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 10 MHz CH 36 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 14, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15540.60	51.36	54.00	-2.64	41.95	6.13	38.45	35.17	Average	157	59	HORIZONTAL
2	15544.66	73.82	74.00	-0.18	64.43	6.13	38.43	35.17	Peak	157	59	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15535.86	73.80	74.00	-0.20	64.39	6.13	38.45	35.17	Peak	132	125	VERTICAL
2	15541.24	52.27	54.00	-1.73	42.86	6.13	38.45	35.17	Average	132	125	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 10 MHz CH 42 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 14, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15630.30	50.34	54.00	-3.66	41.08	6.14	38.31	35.19	Average	142	128	HORIZONTAL
2	15631.06	70.07	74.00	-3.93	60.81	6.14	38.31	35.19	Peak	142	128	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15627.26	73.50	74.00	-0.50	64.22	6.14	38.33	35.19	Peak	119	125	VERTICAL
2	15630.52	52.76	54.00	-1.24	43.50	6.14	38.31	35.19	Average	119	125	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 10 MHz CH 48 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 14, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15716.48	70.99	74.00	-3.01	61.87	6.14	38.19	35.21	Peak	155	127	HORIZONTAL
2	15721.26	50.31	54.00	-3.69	41.19	6.14	38.19	35.21	Average	155	127	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15717.26	73.16	74.00	-0.84	64.04	6.14	38.19	35.21	Peak	136	125	VERTICAL
2	15721.68	52.10	54.00	-1.90	42.98	6.14	38.19	35.21	Average	136	125	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 20 MHz CH 36 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 14, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss Factor	Factor	Remark	cm	deg	Pol/Phase
			dBuV/m	dB	dBuV	dB	dB/m	dB			
1	15530.40	63.54	74.00	-10.46	54.13	6.13	38.45	35.17	Peak	146	55 HORIZONTAL
2	15530.92	47.45	54.00	-6.55	38.04	6.13	38.45	35.17	Average	146	55 HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss Factor	Factor	Remark	cm	deg	Pol/Phase
			dBuV/m	dB	dBuV	dB	dB/m	dB			
1	15535.08	49.03	54.00	-4.97	39.62	6.13	38.45	35.17	Average	134	123 VERTICAL
2	15537.52	67.19	74.00	-6.81	57.78	6.13	38.45	35.17	Peak	134	123 VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 20 MHz CH 40 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 14, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15597.28	67.10	74.00	-6.90	57.79	6.13	38.36	35.18	Peak	158	56	HORIZONTAL
2	15600.56	52.02	54.00	-1.98	42.72	6.13	38.36	35.19	Average	158	56	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15590.92	68.31	74.00	-5.69	58.98	6.13	38.38	35.18	Peak	143	127	VERTICAL
2	15603.56	53.90	54.00	-0.10	44.60	6.13	38.36	35.19	Average	143	127	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 20 MHz CH 48 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 14, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15715.52	52.76	54.00	-1.24	43.64	6.14	38.19	35.21	Average	156	56	HORIZONTAL
2	15725.96	69.13	74.00	-4.87	60.01	6.14	38.19	35.21	Peak	156	56	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15717.72	68.91	74.00	-5.09	59.79	6.14	38.19	35.21	Peak	135	125	VERTICAL
2	15718.04	53.45	54.00	-0.55	44.33	6.14	38.19	35.21	Average	135	125	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 5 MHz CH 36 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 12, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15538.22	65.31	74.00	-8.69	53.51	7.85	38.67	34.72	HORIZONTAL	139	204	Peak
2	15540.54	50.03	54.00	-3.97	38.23	7.85	38.67	34.72	HORIZONTAL	139	204	Average

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15539.29	68.81	74.00	-5.19	57.01	7.85	38.67	34.72	VERTICAL	158	214	Peak
2	15541.44	53.23	54.00	-0.77	41.43	7.85	38.67	34.72	VERTICAL	158	214	Average

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 5 MHz CH 42 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 12, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15628.01	62.36	74.00	-11.64	50.69	7.88	38.60	34.81	HORIZONTAL	135	203	Peak
2	15628.69	48.94	54.00	-5.06	37.27	7.89	38.59	34.81	HORIZONTAL	135	203	Average

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15627.93	67.91	74.00	-6.09	56.24	7.88	38.60	34.81	VERTICAL	153	173	Peak
2	15630.75	53.88	54.00	-0.12	42.21	7.89	38.59	34.81	VERTICAL	153	173	Average

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 5 MHz CH 48 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 12, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15720.18	48.64	54.00	-5.36	37.08	7.92	38.52	34.88	HORIZONTAL	138	211	Average
2	15720.27	61.86	74.00	-12.14	50.30	7.92	38.52	34.88	HORIZONTAL	138	211	Peak

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15720.56	67.40	74.00	-6.60	55.84	7.92	38.52	34.88	VERTICAL	152	202	Peak
2	15720.58	53.78	54.00	-0.22	42.22	7.92	38.52	34.88	VERTICAL	152	202	Average

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 10 MHz CH 36 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 12, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15539.71	63.15	74.00	-10.85	51.35	7.85	38.67	34.72	HORIZONTAL	147	4	Peak
2	15540.74	47.70	54.00	-6.30	35.90	7.85	38.67	34.72	HORIZONTAL	147	4	Average

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15534.74	67.64	74.00	-6.36	55.84	7.85	38.67	34.72	VERTICAL	151	173	Peak
2	15539.33	53.36	54.00	-0.64	41.56	7.85	38.67	34.72	VERTICAL	151	173	Average

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 10 MHz CH 42 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 12, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Pol/Phase	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15630.35	47.22	54.00	-6.78	35.55	7.89	38.59	34.81	HORIZONTAL	137	203 Average
2	15630.83	60.29	74.00	-13.71	48.62	7.89	38.59	34.81	HORIZONTAL	137	203 Peak

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Pol/Phase	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15628.53	66.89	74.00	-7.11	55.22	7.89	38.59	34.81	VERTICAL	154	174 Peak
2	15629.36	53.24	54.00	-0.76	41.57	7.89	38.59	34.81	VERTICAL	154	174 Average

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 10 MHz CH 48 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 12, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15718.75	46.81	54.00	-7.19	35.25	7.92	38.52	34.88	HORIZONTAL	100	296	Average
2	15723.72	59.95	74.00	-14.05	48.39	7.92	38.52	34.88	HORIZONTAL	100	296	Peak

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15718.85	66.86	74.00	-7.14	55.30	7.92	38.52	34.88	VERTICAL	154	172	Peak
2	15718.85	53.21	54.00	-0.79	41.65	7.92	38.52	34.88	VERTICAL	154	172	Average

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 20 MHz CH 36 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 10, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15539.51	54.72	74.00	-19.28	42.92	7.85	38.67	34.72	HORIZONTAL	125	206	Peak
2	15539.87	42.17	54.00	-11.83	30.37	7.85	38.67	34.72	HORIZONTAL	125	206	Average

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15540.15	44.92	54.00	-9.08	33.12	7.85	38.67	34.72	VERTICAL	119	250	Average
2	15540.22	57.87	74.00	-16.13	46.07	7.85	38.67	34.72	VERTICAL	119	250	Peak

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 20 MHz CH 40 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 10, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15601.60	63.85	74.00	-10.15	52.14	7.88	38.62	34.79	HORIZONTAL	134	139	Peak
2	15602.64	50.78	54.00	-3.22	39.07	7.88	38.62	34.79	HORIZONTAL	0	139	Average

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15596.23	53.83	54.00	-0.17	42.10	7.88	38.62	34.77	VERTICAL	140	209	Average
2	15596.88	68.31	74.00	-5.69	56.58	7.88	38.62	34.77	VERTICAL	140	209	Peak

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 20 MHz CH 48 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 10, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15720.80	51.93	54.00	-2.07	40.37	7.92	38.52	34.88	HORIZONTAL	140	200	Average
2	15721.12	65.26	74.00	-8.74	53.70	7.92	38.52	34.88	HORIZONTAL	140	200	Peak

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15720.24	67.01	74.00	-6.99	55.45	7.92	38.52	34.88	VERTICAL	145	206	Peak
2	15720.32	53.15	54.00	-0.85	41.59	7.92	38.52	34.88	VERTICAL	145	206	Average

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 40 MHz CH 38 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 10, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15569.67	41.74	54.00	-12.26	29.98	7.86	38.64	34.74	HORIZONTAL	100	256	Average
2	15570.05	55.49	74.00	-18.51	43.73	7.86	38.64	34.74	HORIZONTAL	100	256	Peak

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15569.94	54.90	74.00	-19.10	43.14	7.86	38.64	34.74	VERTICAL	117	44	Peak
2	15570.00	42.08	54.00	-11.92	30.32	7.86	38.64	34.74	VERTICAL	117	42	Average

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 40 MHz CH 46 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 10, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15680.87	61.08	74.00	-12.92	49.48	7.90	38.55	34.85	HORIZONTAL	144	201	Peak
2	15691.84	46.38	54.00	-7.62	34.78	7.90	38.55	34.85	HORIZONTAL	144	201	Average

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15669.81	62.07	74.00	-11.93	50.44	7.90	38.56	34.83	VERTICAL	150	206	Peak
2	15690.88	48.04	54.00	-5.96	36.44	7.90	38.55	34.85	VERTICAL	150	206	Average

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 5 MHz CH 36 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 12, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15540.00	48.68	54.00	-5.32	36.88	7.85	38.67	34.72	HORIZONTAL	134	203	Average
2	15540.19	62.39	74.00	-11.61	50.59	7.85	38.67	34.72	HORIZONTAL	134	203	Peak

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15539.42	53.57	54.00	-0.43	41.77	7.85	38.67	34.72	VERTICAL	136	212	Average
2	15543.13	68.61	74.00	-5.39	56.81	7.85	38.67	34.72	VERTICAL	136	212	Peak

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 5 MHz CH 42 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 12, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Pol/Phase	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15630.03	48.85	54.00	-5.15	37.18	7.89	38.59	34.81	HORIZONTAL	152	172	Average
2	15630.29	62.06	74.00	-11.94	50.39	7.89	38.59	34.81	HORIZONTAL	152	172	Peak

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Pol/Phase	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15630.21	53.12	54.00	-0.88	41.45	7.89	38.59	34.81	VERTICAL	155	172	Average
2	15631.24	67.36	74.00	-6.64	55.69	7.89	38.59	34.81	VERTICAL	155	172	Peak

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 5 MHz CH 48 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 12, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Pol/Phase	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15719.55	49.91	54.00	-4.09	38.35	7.92	38.52	34.88	HORIZONTAL	105	296	Average
2	15720.67	62.96	74.00	-11.04	51.40	7.92	38.52	34.88	HORIZONTAL	105	296	Peak

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Pol/Phase	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15720.48	53.66	54.00	-0.34	42.10	7.92	38.52	34.88	VERTICAL	146	293	Average
2	15720.80	64.65	74.00	-9.35	53.09	7.92	38.52	34.88	VERTICAL	146	293	Peak

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 10 MHz CH 36 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 12, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15540.93	61.26	74.00	-12.74	49.46	7.85	38.67	34.72	HORIZONTAL	100	352	Peak
2	15541.22	46.69	54.00	-7.31	34.89	7.85	38.67	34.72	HORIZONTAL	100	352	Average

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15539.55	53.36	54.00	-0.64	41.56	7.85	38.67	34.72	VERTICAL	155	174	Average
2	15542.18	69.01	74.00	-4.99	57.21	7.85	38.67	34.72	VERTICAL	155	174	Peak

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 10 MHz CH 42 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 12, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15626.28	60.04	74.00	-13.96	48.37	7.88	38.60	34.81	HORIZONTAL	135	204	Peak
2	15630.99	47.29	54.00	-6.71	35.62	7.89	38.59	34.81	HORIZONTAL	135	204	Average

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15630.54	53.19	54.00	-0.81	41.52	7.89	38.59	34.81	VERTICAL	154	170	Average
2	15635.77	65.41	74.00	-8.59	53.74	7.89	38.59	34.81	VERTICAL	154	170	Peak

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 10 MHz CH 48 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 12, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15721.35	59.87	74.00	-14.13	48.31	7.92	38.52	34.88	HORIZONTAL	109	296	Peak
2	15721.83	46.78	54.00	-7.22	35.22	7.92	38.52	34.88	HORIZONTAL	109	296	Average

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15716.83	64.71	74.00	-9.29	53.15	7.92	38.52	34.88	VERTICAL	136	148	Peak
2	15721.89	53.55	54.00	-0.45	41.99	7.92	38.52	34.88	VERTICAL	136	148	Average

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 20 MHz CH 36 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 10, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15539.59	42.80	54.00	-11.20	31.00	7.85	38.67	34.72	HORIZONTAL	104	122	Average
2	15539.71	54.16	74.00	-19.84	42.36	7.85	38.67	34.72	HORIZONTAL	101	122	Peak

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg	
1	15539.51	56.71	74.00	-17.29	44.91	7.85	38.67	34.72	VERTICAL	118	238	Peak
2	15539.86	44.94	54.00	-9.06	33.14	7.85	38.67	34.72	VERTICAL	118	239	Average

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 20 MHz CH 40 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 10, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Pol/Phase	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15596.07	51.47	54.00	-2.53	39.74	7.88	38.62	34.77	HORIZONTAL	139	200	Average
2	15606.73	67.78	74.00	-6.22	56.07	7.88	38.62	34.79	HORIZONTAL	139	200	Peak

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Pol/Phase	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15601.68	53.92	54.00	-0.08	42.21	7.88	38.62	34.79	VERTICAL	149	207	Average
2	15602.96	70.69	74.00	-3.31	58.98	7.88	38.62	34.79	VERTICAL	149	207	Peak

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 20 MHz CH 48 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 10, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Pol/Phase	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15718.16	51.03	54.00	-2.97	39.47	7.92	38.52	34.88	HORIZONTAL	0	210	Average
2	15727.69	65.89	74.00	-8.11	54.35	7.92	38.52	34.90	HORIZONTAL	137	210	Peak

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Pol/Phase	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15717.60	68.90	74.00	-5.10	57.34	7.92	38.52	34.88	VERTICAL	147	204	Peak
2	15718.16	53.83	54.00	-0.17	42.27	7.92	38.52	34.88	VERTICAL	147	204	Average

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 5 MHz CH 36 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 22, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15538.94	43.22	54.00	-10.78	33.81	6.13	38.45	35.17	Average	100	205	HORIZONTAL
2	15540.74	58.36	74.00	-15.64	48.95	6.13	38.45	35.17	Peak	100	205	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15539.50	46.64	54.00	-7.36	37.23	6.13	38.45	35.17	Average	116	229	VERTICAL
2	15539.56	59.87	74.00	-14.13	50.46	6.13	38.45	35.17	Peak	116	229	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 5 MHz CH 42 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 22, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15629.92	71.85	74.00	-2.15	62.59	6.14	38.31	35.19 Peak	122	281	HORIZONTAL
2	15630.16	53.16	54.00	-0.84	43.90	6.14	38.31	35.19 Average	122	281	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15628.16	71.17	74.00	-2.83	61.89	6.14	38.33	35.19 Peak	103	225	VERTICAL
2	15629.80	53.07	54.00	-0.93	43.81	6.14	38.31	35.19 Average	103	225	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 5 MHz CH 48 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 22, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15720.60	52.90	54.00	-1.10	43.78	6.14	38.19	35.21	Average	108	243	HORIZONTAL
2	15722.32	72.87	74.00	-1.13	63.75	6.14	38.19	35.21	Peak	108	243	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15719.32	52.70	54.00	-1.30	43.58	6.14	38.19	35.21	Average	100	208	VERTICAL
2	15724.00	71.43	74.00	-2.57	62.31	6.14	38.19	35.21	Peak	100	208	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 10 MHz CH 36 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 22, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15539.28	42.51	54.00	-11.49	33.10	6.13	38.45	35.17	Average	127	218	HORIZONTAL
2	15541.20	54.68	74.00	-19.32	45.27	6.13	38.45	35.17	Peak	127	218	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15532.64	57.68	74.00	-16.32	48.27	6.13	38.45	35.17	Peak	100	252	VERTICAL
2	15541.88	43.98	54.00	-10.02	34.57	6.13	38.45	35.17	Average	100	252	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 10 MHz CH 42 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 22, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15562.48	53.36	74.00	-20.64	44.00	6.13	38.40	35.17	Peak	124	88	HORIZONTAL
2	15566.48	39.80	54.00	-14.20	30.44	6.13	38.40	35.17	Average	124	88	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15565.44	40.34	54.00	-13.66	30.98	6.13	38.40	35.17	Average	143	260	VERTICAL
2	15566.48	52.99	74.00	-21.01	43.63	6.13	38.40	35.17	Peak	143	260	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 10 MHz CH 48 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 22, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15596.96	52.94	74.00	-21.06	43.63	6.13	38.36	35.18	137	208	HORIZONTAL
2	15598.28	39.96	54.00	-14.04	30.65	6.13	38.36	35.18	137	208	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15590.84	39.93	54.00	-14.07	30.60	6.13	38.38	35.18	144	174	VERTICAL
2	15605.04	52.77	74.00	-21.23	43.47	6.13	38.36	35.19	144	174	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 20 MHz CH 36 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 18, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg
						dB	dB/m	dB			Pol/Phase
1	15539.73	56.07	74.00	-17.93	42.77	10.77	38.12	35.59	Peak	141	288 HORIZONTAL
2	15540.30	43.59	54.00	-10.41	30.29	10.77	38.12	35.59	Average	141	288 HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg
						dB	dB/m	dB			Pol/Phase
1	15539.74	43.98	54.00	-10.02	30.68	10.77	38.12	35.59	Average	114	321 VERTICAL
2	15540.07	57.31	74.00	-16.69	44.01	10.77	38.12	35.59	Peak	114	321 VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 20 MHz CH 40 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 18, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15599.28	67.96	74.00	-6.04	54.72	10.78	38.04	35.58	Peak	178	146 HORIZONTAL
2	15599.68	52.73	54.00	-1.27	39.49	10.78	38.04	35.58	Average	178	146 HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15597.68	68.77	74.00	-5.23	55.53	10.78	38.04	35.58	Peak	175	152 VERTICAL
2	15597.76	53.17	54.00	-0.83	39.93	10.78	38.04	35.58	Average	8960	152 VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 20 MHz CH 48 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 18, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15724.73	52.31	54.00	-1.69	39.23	10.79	37.85	35.56	Average	165	152	HORIZONTAL
2	15726.49	66.26	74.00	-7.74	53.20	10.79	37.83	35.56	Peak	165	152	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15724.81	53.65	54.00	-0.35	40.57	10.79	37.85	35.56	Average	131	237	VERTICAL
2	15728.09	67.97	74.00	-6.03	54.91	10.79	37.83	35.56	Peak	131	237	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 40 MHz CH 38 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 22, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15689.12	38.43	54.00	-15.57	29.27	6.14	38.23	35.21	Average	144	234	HORIZONTAL
2	15693.44	52.33	74.00	-21.67	43.17	6.14	38.23	35.21	Peak	144	234	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15571.12	39.15	54.00	-14.85	29.79	6.13	38.40	35.17	Average	146	202	VERTICAL
2	15576.20	53.70	74.00	-20.30	44.35	6.13	38.40	35.18	Peak	146	202	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 40 MHz CH 46 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 22, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15696.92	40.50	54.00	-13.50	31.36	6.14	38.21	35.21	Average	100	263	HORIZONTAL
2	15697.00	53.62	74.00	-20.38	44.48	6.14	38.21	35.21	Peak	100	263	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15688.08	42.04	54.00	-11.96	32.88	6.14	38.23	35.21	Average	168	220	VERTICAL
2	15699.84	57.11	74.00	-16.89	47.97	6.14	38.21	35.21	Peak	168	220	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 5 MHz CH 36 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 22, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15539.42	43.60	54.00	-10.40	34.19	6.13	38.45	35.17	Average	100	135	HORIZONTAL
2	15541.02	57.76	74.00	-16.24	48.35	6.13	38.45	35.17	Peak	100	135	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15537.34	58.05	74.00	-15.95	48.64	6.13	38.45	35.17	Peak	100	245	VERTICAL
2	15539.94	45.28	54.00	-8.72	35.87	6.13	38.45	35.17	Average	100	245	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 5 MHz CH 42 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 22, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15630.40	52.70	54.00	-1.30	43.44	6.14	38.31	35.19	Average	123	245	HORIZONTAL
2	15633.28	72.16	74.00	-1.84	62.90	6.14	38.31	35.19	Peak	123	245	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15630.24	73.66	74.00	-0.34	64.40	6.14	38.31	35.19	Peak	101	58	VERTICAL
2	15630.28	53.68	54.00	-0.32	44.42	6.14	38.31	35.19	Average	101	58	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 5 MHz CH 48 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 22, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15720.12	53.70	54.00	-0.30	44.58	6.14	38.19	35.21	Average	100	243	HORIZONTAL
2	15720.40	73.44	74.00	-0.56	64.32	6.14	38.19	35.21	Peak	100	243	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15720.64	53.32	54.00	-0.68	44.20	6.14	38.19	35.21	Average	101	203	VERTICAL
2	15720.68	72.00	74.00	-2.00	62.88	6.14	38.19	35.21	Peak	101	203	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 10 MHz CH 36 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 22, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15540.00	42.42	54.00	-11.58	33.01	6.13	38.45	35.17	Average	101	217	HORIZONTAL
2	15545.76	56.90	74.00	-17.10	47.51	6.13	38.43	35.17	Peak	101	217	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15540.12	45.44	54.00	-8.56	36.03	6.13	38.45	35.17	Average	101	179	VERTICAL
2	15545.36	55.36	74.00	-18.64	45.97	6.13	38.43	35.17	Peak	101	179	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 10 MHz CH 42 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 22, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg
1	15570.44	52.94	74.00	-21.06	43.58	6.13	38.40	35.17	Peak	124	90 HORIZONTAL
2	15573.48	39.83	54.00	-14.17	30.48	6.13	38.40	35.18	Average	124	90 HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg
1	15561.00	38.97	54.00	-15.03	29.61	6.13	38.40	35.17	Average	100	265 VERTICAL
2	15573.48	53.48	74.00	-20.52	44.13	6.13	38.40	35.18	Peak	100	265 VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 10 MHz CH 48 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 22, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15592.72	39.93	54.00	-14.07	30.60	6.13	38.38	35.18	Average	100	298	HORIZONTAL
2	15605.28	53.08	74.00	-20.92	43.78	6.13	38.36	35.19	Peak	100	298	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15598.40	39.97	54.00	-14.03	30.66	6.13	38.36	35.18	Average	138	263	VERTICAL
2	15602.92	53.44	74.00	-20.56	44.14	6.13	38.36	35.19	Peak	138	263	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 20 MHz CH 36 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 18, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15540.18	42.93	54.00	-11.07	29.63	10.77	38.12	35.59	Average	120	209	HORIZONTAL
2	15540.40	56.57	74.00	-17.43	43.27	10.77	38.12	35.59	Peak	120	209	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15539.96	43.29	54.00	-10.71	29.99	10.77	38.12	35.59	Average	110	192	VERTICAL
2	15540.31	56.79	74.00	-17.21	43.49	10.77	38.12	35.59	Peak	110	192	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 20 MHz CH 40 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 18, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15597.76	53.80	54.00	-0.20	40.56	10.78	38.04	35.58	Average	108	153	HORIZONTAL
2	15598.80	68.85	74.00	-5.15	55.61	10.78	38.04	35.58	Peak	108	153	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15596.96	68.30	74.00	-5.70	55.06	10.78	38.04	35.58	Peak	153	258	VERTICAL
2	15603.29	52.54	54.00	-1.46	39.30	10.78	38.04	35.58	Average	153	258	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 20 MHz CH 48 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 18, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15720.88	52.77	54.00	-1.23	39.69	10.79	37.85	35.56	Average	145	250	HORIZONTAL
2	15721.52	65.41	74.00	-8.59	52.33	10.79	37.85	35.56	Peak	145	250	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15718.32	53.66	54.00	-0.34	40.58	10.79	37.85	35.56	Average	125	236	VERTICAL
2	15728.01	66.11	74.00	-7.89	53.05	10.79	37.83	35.56	Peak	125	236	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 5 MHz CH 36 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 25, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss Factor	Factor	Remark	cm	deg	Pol/Phase
1	15536.58	73.63	74.00	-0.37	64.22	6.13	38.45	35.17 Peak	129	122	HORIZONTAL
2	15538.70	45.84	54.00	-8.16	36.43	6.13	38.45	35.17 Average	129	122	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss Factor	Factor	Remark	cm	deg	Pol/Phase
1	15537.04	63.80	74.00	-10.20	54.39	6.13	38.45	35.17 Peak	100	203	VERTICAL
2	15541.52	44.62	54.00	-9.38	35.21	6.13	38.45	35.17 Average	100	203	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 5 MHz CH 42 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 25, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15629.36	46.20	54.00	-7.80	36.94	6.14	38.31	35.19 Average	133	122	HORIZONTAL
2	15633.14	72.31	74.00	-1.69	63.05	6.14	38.31	35.19 Peak	133	122	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15629.02	62.46	74.00	-11.54	53.20	6.14	38.31	35.19 Peak	100	205	VERTICAL
2	15630.56	43.92	54.00	-10.08	34.66	6.14	38.31	35.19 Average	100	205	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 5 MHz CH 48 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 25, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15719.42	73.88	74.00	-0.12	64.76	6.14	38.19	35.21	Peak	159	120 HORIZONTAL
2	15720.32	50.53	54.00	-3.47	41.41	6.14	38.19	35.21	Average	159	120 HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15716.34	68.62	74.00	-5.38	59.50	6.14	38.19	35.21	Peak	100	121 VERTICAL
2	15720.74	47.93	54.00	-6.07	38.81	6.14	38.19	35.21	Average	100	121 VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 10 MHz CH 36 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 24, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15536.72	73.88	74.00	-0.12	64.47	6.13	38.45	35.17	Peak	131	123 HORIZONTAL
2	15538.40	53.93	54.00	-0.07	44.52	6.13	38.45	35.17	Average	131	123 HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15538.68	52.33	54.00	-1.67	42.92	6.13	38.45	35.17	Average	100	200 VERTICAL
2	15539.28	70.48	74.00	-3.52	61.07	6.13	38.45	35.17	Peak	100	200 VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 10 MHz CH 42 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 24, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15629.76	52.70	54.00	-1.30	43.44	6.14	38.31	35.19	Average	110	127	HORIZONTAL
2	15632.28	73.20	74.00	-0.80	63.94	6.14	38.31	35.19	Peak	110	127	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15627.16	66.71	74.00	-7.29	57.43	6.14	38.33	35.19	Peak	100	202	VERTICAL
2	15629.04	49.44	54.00	-4.56	40.18	6.14	38.31	35.19	Average	100	202	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 10 MHz CH 48 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 25, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15720.04	53.31	54.00	-0.69	44.19	6.14	38.19	35.21	Average	158	118 HORIZONTAL
2	15722.60	71.68	74.00	-2.32	62.56	6.14	38.19	35.21	Peak	158	118 HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15720.96	50.74	54.00	-3.26	41.62	6.14	38.19	35.21	Average	100	122 VERTICAL
2	15721.88	68.50	74.00	-5.50	59.38	6.14	38.19	35.21	Peak	100	122 VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 20 MHz CH 36 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 24, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15537.54	53.33	54.00	-0.67	43.92	6.13	38.45	35.17	Average	155	125	HORIZONTAL
2	15537.58	70.53	74.00	-3.47	61.12	6.13	38.45	35.17	Peak	155	125	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15538.45	53.17	54.00	-0.83	43.76	6.13	38.45	35.17	Average	151	127	VERTICAL
2	15540.00	69.33	74.00	-4.67	59.92	6.13	38.45	35.17	Peak	151	127	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 20 MHz CH 40 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 24, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15601.81	53.50	54.00	-0.50	44.20	6.13	38.36	35.19 Average	135	125	HORIZONTAL
2	15601.81	67.47	74.00	-6.53	58.17	6.13	38.36	35.19 Peak	135	125	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	15602.28	68.67	74.00	-5.33	59.37	6.13	38.36	35.19 Peak	100	201	VERTICAL
2	15602.47	53.55	54.00	-0.45	44.25	6.13	38.36	35.19 Average	100	201	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 20 MHz CH 48 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 24, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15719.96	53.16	54.00	-0.84	44.04	6.14	38.19	35.21	Average	154	125	HORIZONTAL
2	15720.71	69.34	74.00	-4.66	60.22	6.14	38.19	35.21	Peak	154	125	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15718.82	70.23	74.00	-3.77	61.11	6.14	38.19	35.21	Peak	117	137	VERTICAL
2	15719.46	52.92	54.00	-1.08	43.80	6.14	38.19	35.21	Average	117	137	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 40 MHz CH 38 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 24, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15541.20	40.62	54.00	-13.38	31.21	6.13	38.45	35.17	Average	102	325	HORIZONTAL
2	15573.72	52.93	74.00	-21.07	43.58	6.13	38.40	35.18	Peak	102	325	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15566.40	53.71	74.00	-20.29	44.35	6.13	38.40	35.17	Peak	133	238	VERTICAL
2	15590.28	39.18	54.00	-14.82	29.85	6.13	38.38	35.18	Average	133	238	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 40 MHz CH 46 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 24, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg
1	15684.12	53.84	54.00	-0.16	44.68	6.14	38.23	35.21	Average	159	128
2	15701.04	67.55	74.00	-6.45	58.41	6.14	38.21	35.21	Peak	159	128

Vertical

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg
1	15680.28	65.41	74.00	-8.59	56.25	6.14	38.23	35.21	Peak	101	152
2	15687.72	52.23	54.00	-1.77	43.07	6.14	38.23	35.21	Average	101	152

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 5 MHz CH 36 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 25, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15537.68	72.22	74.00	-1.78	62.81	6.13	38.45	35.17	Peak	111	123	HORIZONTAL
2	15539.92	45.41	54.00	-8.59	36.00	6.13	38.45	35.17	Average	111	123	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15539.74	45.85	54.00	-8.15	36.44	6.13	38.45	35.17	Average	100	203	VERTICAL
2	15541.66	67.16	74.00	-6.84	57.75	6.13	38.45	35.17	Peak	100	203	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 5 MHz CH 42 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 25, 2014		

Horizontal

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15630.46	47.31	54.00	-6.69	38.05	6.14	38.31	35.19	Average	139	123	HORIZONTAL
2	15630.74	72.66	74.00	-1.34	63.40	6.14	38.31	35.19	Peak	139	123	HORIZONTAL

Vertical

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Remark	cm	deg	Pol/Phase
1	15628.58	45.37	54.00	-8.63	36.11	6.14	38.31	35.19	Average	100	205	VERTICAL
2	15631.02	64.09	74.00	-9.91	54.83	6.14	38.31	35.19	Peak	100	205	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 5 MHz CH 48 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 25, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15719.42	73.88	74.00	-0.12	64.76	6.14	38.19	35.21	Peak	159	120	HORIZONTAL
2	15720.32	50.53	54.00	-3.47	41.41	6.14	38.19	35.21	Average	159	120	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15716.34	68.62	74.00	-5.38	59.50	6.14	38.19	35.21	Peak	100	121	VERTICAL
2	15720.74	47.93	54.00	-6.07	38.81	6.14	38.19	35.21	Average	100	121	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 10 MHz CH 36 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 25, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15537.92	73.34	74.00	-0.66	63.93	6.13	38.45	35.17	Peak	139	121	HORIZONTAL
2	15538.64	53.75	54.00	-0.25	44.34	6.13	38.45	35.17	Average	139	121	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15537.40	48.58	54.00	-5.42	39.17	6.13	38.45	35.17	Average	100	203	VERTICAL
2	15541.80	66.00	74.00	-8.00	56.59	6.13	38.45	35.17	Peak	100	203	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 10 MHz CH 42 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 25, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15628.92	52.98	54.00	-1.02	43.72	6.14	38.31	35.19	Average	130	122	HORIZONTAL
2	15633.68	73.28	74.00	-0.72	64.02	6.14	38.31	35.19	Peak	130	122	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15629.56	65.08	74.00	-8.92	55.82	6.14	38.31	35.19	Peak	103	202	VERTICAL
2	15629.80	49.24	54.00	-4.76	39.98	6.14	38.31	35.19	Average	103	202	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 10 MHz CH 48 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 25, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15717.44	72.71	74.00	-1.29	63.59	6.14	38.19	35.21	Peak	135	119	HORIZONTAL
2	15718.12	53.94	54.00	-0.06	44.82	6.14	38.19	35.21	Average	135	119	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15719.20	72.08	74.00	-1.92	62.96	6.14	38.19	35.21	Peak	145	130	VERTICAL
2	15719.92	53.42	54.00	-0.58	44.30	6.14	38.19	35.21	Average	145	130	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 20 MHz CH 36 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 24, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg
1	15538.68	51.45	54.00	-2.55	42.04	6.13	38.45	35.17	Average	107	117 HORIZONTAL
2	15542.72	67.97	74.00	-6.03	58.56	6.13	38.45	35.17	Peak	107	117 HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg
1	15537.00	52.92	54.00	-1.08	43.51	6.13	38.45	35.17	Average	131	119 VERTICAL
2	15537.56	70.18	74.00	-3.82	60.77	6.13	38.45	35.17	Peak	131	119 VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 20 MHz CH 40 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 24, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	10401.36	52.84	74.00	-21.16	44.25	4.98	38.98	35.37	Peak	101	0	HORIZONTAL
2	10401.84	38.68	54.00	-15.32	30.09	4.98	38.98	35.37	Average	101	0	HORIZONTAL
3	15601.04	69.24	74.00	-4.76	59.94	6.13	38.36	35.19	Peak	125	124	HORIZONTAL
4	15602.32	53.70	54.00	-0.30	44.40	6.13	38.36	35.19	Average	125	124	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	10396.16	46.35	54.00	-7.65	37.78	4.98	38.98	35.39	Average	187	190	VERTICAL
2	10396.32	60.85	74.00	-13.15	52.28	4.98	38.98	35.39	Peak	187	190	VERTICAL
3	15599.40	50.68	54.00	-3.32	41.38	6.13	38.36	35.19	Average	122	142	VERTICAL
4	15601.00	70.37	74.00	-3.63	61.07	6.13	38.36	35.19	Peak	122	142	VERTICAL

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 20 MHz CH 48 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 24, 2014		

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15721.00	68.86	74.00	-5.14	59.74	6.14	38.19	35.21	Peak	107	117	HORIZONTAL
2	15721.68	53.39	54.00	-0.61	44.27	6.14	38.19	35.21	Average	107	117	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	15720.20	50.52	54.00	-3.48	41.40	6.14	38.19	35.21	Average	100	138	VERTICAL
2	15720.44	65.91	74.00	-8.09	56.79	6.14	38.19	35.21	Peak	100	138	VERTICAL

Note:

The amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

4.5. Band Edge Emissions Measurement

4.5.1. Limit

For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

In addition, In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(kHz)	300
0.490~1.705	24000/F(kHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

4.5.2. Measuring Instruments and Setting

Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	100 MHz
RBW / VBW (Emission in restricted band)	1 MHz / 3 MHz for Peak, Please refer to section 3.11 for Average
RBW / VBW (Emission in non-restricted band)	1 MHz / 3 MHz for Peak

4.5.3. Test Procedures

The test procedure is the same as section 4.4.3, only the frequency range investigated is limited to 100MHz around bandedges.

4.5.4. Test Setup Layout

This test setup layout is the same as that shown in section 4.4.4.

4.5.5. Test Deviation

There is no deviation with the original standard.

4.5.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.5.7. Test Result of Band Edge and Fundamental Emissions

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 5 MHz CH 36, 42, 48 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 16, 2014		

Channel 36

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg
			dBuV/m	dB	dBuV	dB	dB/m	dB			Pol/Phase
1	5150.00	43.90	54.00	-10.10	41.27	3.43	34.11	34.91	Average	117	341 VERTICAL
2	5150.00	54.74	74.00	-19.26	52.11	3.43	34.11	34.91	Peak	117	341 VERTICAL
3	5178.60	119.57			116.88	3.44	34.16	34.91	Peak	117	341 VERTICAL
4	5181.20	108.63			105.94	3.44	34.16	34.91	Average	117	341 VERTICAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 42

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg
			dBuV/m	dB	dBuV	dB	dB/m	dB			Pol/Phase
1	5149.60	44.03	54.00	-9.97	41.40	3.43	34.11	34.91	Average	114	341 VERTICAL
2	5150.00	54.21	74.00	-19.79	51.58	3.43	34.11	34.91	Peak	114	341 VERTICAL
3	5211.20	109.57			106.83	3.45	34.20	34.91	Average	114	341 VERTICAL
4	5211.20	119.69			116.95	3.45	34.20	34.91	Peak	114	341 VERTICAL

Item 3, 4 are the fundamental frequency at 5210 MHz.

Channel 48

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg
			dBuV/m	dB	dBuV	dB	dB/m	dB			Pol/Phase
1	5150.00	43.74	54.00	-10.26	41.11	3.43	34.11	34.91	Average	113	341 VERTICAL
2	5150.00	54.97	74.00	-19.03	52.34	3.43	34.11	34.91	Peak	113	341 VERTICAL
3	5239.40	110.45			107.67	3.46	34.23	34.91	Average	113	341 VERTICAL
4	5240.00	120.68			117.90	3.46	34.23	34.91	Peak	113	341 VERTICAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 10 MHz CH 36, 42, 48 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 16, 2014		

Channel 36

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5149.60	63.93	74.00	-10.07	61.30	3.43	34.11	34.91	Peak	121	14	HORIZONTAL
2	5150.00	45.30	54.00	-8.70	42.67	3.43	34.11	34.91	Average	121	14	HORIZONTAL
3	5179.00	103.76			101.07	3.44	34.16	34.91	Average	121	14	HORIZONTAL
4	5179.20	114.60			111.91	3.44	34.16	34.91	Peak	121	14	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 42

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5150.00	43.32	54.00	-10.68	40.69	3.43	34.11	34.91	Average	120	13	HORIZONTAL
2	5150.00	53.60	74.00	-20.40	50.97	3.43	34.11	34.91	Peak	120	13	HORIZONTAL
3	5209.20	103.45			100.71	3.45	34.20	34.91	Average	120	13	HORIZONTAL
4	5211.60	113.95			111.21	3.45	34.20	34.91	Peak	120	13	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5210 MHz.

Channel 48

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5150.00	43.22	54.00	-10.78	40.59	3.43	34.11	34.91	Average	120	342	VERTICAL
2	5150.00	55.10	74.00	-18.90	52.47	3.43	34.11	34.91	Peak	120	342	VERTICAL
3	5237.60	116.48			113.70	3.46	34.23	34.91	Peak	120	342	VERTICAL
4	5238.80	105.43			102.65	3.46	34.23	34.91	Average	120	342	VERTICAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 20 MHz CH 36, 40, 48 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 16, 2014		

Channel 36

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase	
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5147.20	69.61	74.00	-4.39	66.98	3.43	34.11	34.91	Peak	109	343	VERTICAL
2	5150.00	53.57	54.00	-0.43	50.94	3.43	34.11	34.91	Average	109	343	VERTICAL
3	5176.80	109.96			107.27	3.44	34.16	34.91	Peak	109	343	VERTICAL
4	5178.80	99.92			97.23	3.44	34.16	34.91	Average	109	343	VERTICAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 40

	Freq	Level	Limit Line	Over Limit	Read Level	CableLoss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5149.60	68.56	74.00	-5.44	65.93	3.43	34.11	34.91	Peak	108	342	VERTICAL
2	5150.00	51.01	54.00	-2.99	48.38	3.43	34.11	34.91	Average	108	342	VERTICAL
3	5204.40	101.20			98.48	3.45	34.18	34.91	Average	108	342	VERTICAL
4	5205.60	111.51			108.79	3.45	34.18	34.91	Peak	108	342	VERTICAL

Item 3, 4 are the fundamental frequency at 5200 MHz.

Channel 48

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5148.80	59.86	74.00	-14.14	57.23	3.43	34.11	34.91	Peak	105	343	VERTICAL
2	5150.00	46.92	54.00	-7.08	44.29	3.43	34.11	34.91	Average	105	343	VERTICAL
3	5241.20	102.86			100.08	3.46	34.23	34.91	Average	105	343	VERTICAL
4	5241.80	113.75			110.95	3.46	34.25	34.91	Peak	105	343	VERTICAL
5	5350.00	47.90	54.00	-6.10	44.93	3.49	34.39	34.91	Average	105	343	VERTICAL
6	5353.00	61.05	74.00	-12.95	58.08	3.49	34.39	34.91	Peak	105	343	VERTICAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 40 MHz CH 38, 46 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 16, 2014		

Channel 38

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5148.40	68.53	74.00	-5.47	65.90	3.43	34.11	34.91	Peak	104	342	VERTICAL
2	5150.00	52.31	54.00	-1.69	49.68	3.43	34.11	34.91	Average	104	342	VERTICAL
3	5176.00	91.02			88.33	3.44	34.16	34.91	Average	104	342	VERTICAL
4	5176.80	102.70			100.01	3.44	34.16	34.91	Peak	104	342	VERTICAL

Item 3, 4 are the fundamental frequency at 5190 MHz.

Channel 46

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5150.00	52.07	54.00	-1.93	49.44	3.43	34.11	34.91	Average	108	343	VERTICAL
2	5150.00	67.19	74.00	-6.81	64.56	3.43	34.11	34.91	Peak	108	343	VERTICAL
3	5227.00	98.05			95.27	3.46	34.23	34.91	Average	108	343	VERTICAL
4	5233.00	108.69			105.91	3.46	34.23	34.91	Peak	108	343	VERTICAL
5	5350.00	48.36	54.00	-5.64	45.39	3.49	34.39	34.91	Average	108	343	VERTICAL
6	5352.40	61.20	74.00	-12.80	58.23	3.49	34.39	34.91	Peak	108	343	VERTICAL

Item 3, 4 are the fundamental frequency at 5230 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 5 MHz CH 36, 42, 48 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 16, 2014		

Channel 36

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamplifier Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5150.00	43.12	54.00	-10.88	40.49	3.43	34.11	34.91	Average	125	16 HORIZONTAL
2	5150.00	55.28	74.00	-18.72	52.65	3.43	34.11	34.91	Peak	125	16 HORIZONTAL
3	5180.60	103.78			101.09	3.44	34.16	34.91	Average	125	16 HORIZONTAL
4	5180.80	115.58			112.89	3.44	34.16	34.91	Peak	125	16 HORIZONTAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 42

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamplifier Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5150.00	42.93	54.00	-11.07	40.30	3.43	34.11	34.91	Average	121	15 HORIZONTAL
2	5150.00	54.11	74.00	-19.89	51.48	3.43	34.11	34.91	Peak	121	15 HORIZONTAL
3	5210.80	105.33			102.59	3.45	34.20	34.91	Average	121	15 HORIZONTAL
4	5210.80	114.59			111.85	3.45	34.20	34.91	Peak	121	15 HORIZONTAL

Item 3, 4 are the fundamental frequency at 5210 MHz.

Channel 48

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamplifier Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5150.00	42.98	54.00	-11.02	40.35	3.43	34.11	34.91	Average	124	15 HORIZONTAL
2	5150.00	53.79	74.00	-20.21	51.16	3.43	34.11	34.91	Peak	124	15 HORIZONTAL
3	5238.80	116.35			113.57	3.46	34.23	34.91	Peak	124	15 HORIZONTAL
4	5240.60	105.44			102.66	3.46	34.23	34.91	Average	124	15 HORIZONTAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 10 MHz CH 36, 42, 48 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 16, 2014		

Channel 36

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamplifier Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5150.00	43.95	54.00	-10.05	41.32	3.43	34.11	34.91	118	342	VERTICAL
2	5150.00	56.24	74.00	-17.76	53.61	3.43	34.11	34.91	118	342	VERTICAL
3	5179.20	114.43			111.74	3.44	34.16	34.91	118	342	VERTICAL
4	5179.40	102.98			100.29	3.44	34.16	34.91	118	342	VERTICAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 42

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamplifier Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5150.00	43.38	54.00	-10.62	40.75	3.43	34.11	34.91	120	339	VERTICAL
2	5150.00	53.55	74.00	-20.45	50.92	3.43	34.11	34.91	120	339	VERTICAL
3	5206.40	115.91			113.19	3.45	34.18	34.91	120	339	VERTICAL
4	5211.20	105.12			102.38	3.45	34.20	34.91	120	339	VERTICAL

Item 3, 4 are the fundamental frequency at 5210 MHz.

Channel 48

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamplifier Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5150.00	43.24	54.00	-10.76	40.61	3.43	34.11	34.91	121	342	VERTICAL
2	5150.00	53.29	74.00	-20.71	50.66	3.43	34.11	34.91	121	342	VERTICAL
3	5236.40	115.69			112.91	3.46	34.23	34.91	121	342	VERTICAL
4	5242.40	104.35			101.55	3.46	34.25	34.91	121	342	VERTICAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 20 MHz CH 36, 40, 48 / Mode 1 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 07, 2014		

Channel 36

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark		Pol/Phase
			dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg
1	5149.40	70.56	74.00	-3.44	67.93	3.43	34.11	34.91	Peak	105	342 VERTICAL
2	5150.00	53.51	54.00	-0.49	50.88	3.43	34.11	34.91	Average	105	342 VERTICAL
3	5178.80	110.35			107.66	3.44	34.16	34.91	Peak	105	342 VERTICAL
4	5179.00	100.11			97.42	3.44	34.16	34.91	Average	105	342 VERTICAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 40

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark		Pol/Phase
			dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg
1	5148.80	68.87	74.00	-5.13	66.24	3.43	34.11	34.91	Peak	113	343 VERTICAL
2	5150.00	53.01	54.00	-0.99	50.38	3.43	34.11	34.91	Average	113	343 VERTICAL
3	5198.80	102.68			99.96	3.45	34.18	34.91	Average	113	343 VERTICAL
4	5199.20	113.46			110.74	3.45	34.18	34.91	Peak	113	343 VERTICAL

Item 3, 4 are the fundamental frequency at 5200 MHz.

Channel 48

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark		Pol/Phase
			dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg
1	5143.40	62.72	74.00	-11.28	60.09	3.43	34.11	34.91	Peak	107	343 VERTICAL
2	5150.00	46.95	54.00	-7.05	44.32	3.43	34.11	34.91	Average	107	343 VERTICAL
3	5233.40	103.31			100.53	3.46	34.23	34.91	Average	107	343 VERTICAL
4	5234.00	114.22			111.44	3.46	34.23	34.91	Peak	107	343 VERTICAL
5	5350.00	47.95	54.00	-6.05	44.98	3.49	34.39	34.91	Average	107	343 VERTICAL
6	5351.20	60.02	74.00	-13.98	57.05	3.49	34.39	34.91	Peak	107	343 VERTICAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 5 MHz CH 36, 42, 48 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 12, 2014		

Channel 36

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg
1	5139.74	46.13	54.00	-7.87	43.18	4.34	33.14	34.53	HORIZONTAL	153	349 Average
2	5147.28	57.80	74.00	-16.20	54.85	4.34	33.14	34.53	HORIZONTAL	153	349 Peak
3	5179.68	123.31			120.29	4.36	33.19	34.53	HORIZONTAL	153	349 Peak
4	5181.12	112.09			109.07	4.36	33.19	34.53	HORIZONTAL	153	349 Average

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 42

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg
1	5146.47	45.18	54.00	-8.82	42.23	4.34	33.14	34.53	VERTICAL	107	1 Average
2	5146.80	56.50	74.00	-17.50	53.55	4.34	33.14	34.53	VERTICAL	107	1 Peak
3	5210.64	113.43			110.33	4.38	33.25	34.53	VERTICAL	107	1 Average
4	5210.96	124.44			121.34	4.38	33.25	34.53	VERTICAL	107	1 Peak

Item 3, 4 are the fundamental frequency at 5210 MHz.

Channel 48

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg
1	5106.25	44.96	54.00	-9.04	42.08	4.32	33.09	34.53	VERTICAL	100	355 Average
2	5143.27	57.19	74.00	-16.81	54.24	4.34	33.14	34.53	VERTICAL	100	355 Peak
3	5241.44	124.98			121.85	4.39	33.27	34.53	VERTICAL	100	355 Peak
4	5241.44	113.68			110.55	4.39	33.27	34.53	VERTICAL	100	355 Average
5	5350.00	44.25	54.00	-9.75	40.85	4.47	33.46	34.53	VERTICAL	100	355 Average
6	5353.85	58.25	74.00	-15.75	54.85	4.47	33.46	34.53	VERTICAL	100	355 Peak

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 10 MHz CH 36, 42, 48 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 12, 2014		

Channel 36

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg
1	5149.20	72.50	74.00	-1.50	69.55	4.34	33.14	34.53	HORIZONTAL	163	349 Peak
2	5150.00	50.66	54.00	-3.34	47.71	4.34	33.14	34.53	HORIZONTAL	163	349 Average
3	5179.04	109.70			106.68	4.36	33.19	34.53	HORIZONTAL	163	349 Average
4	5180.80	121.02			118.00	4.36	33.19	34.53	HORIZONTAL	163	349 Peak

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 42

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg
1	5132.05	57.24	74.00	-16.76	54.33	4.33	33.11	34.53	VERTICAL	100	358 Peak
2	5133.65	46.10	54.00	-7.90	43.19	4.33	33.11	34.53	VERTICAL	100	358 Average
3	5212.56	121.90			118.80	4.38	33.25	34.53	VERTICAL	100	358 Peak
4	5213.53	111.12			108.02	4.38	33.25	34.53	VERTICAL	100	358 Average

Item 3, 4 are the fundamental frequency at 5210 MHz.

Channel 48

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg
1	5134.62	57.42	74.00	-16.58	54.51	4.33	33.11	34.53	HORIZONTAL	159	350 Peak
2	5134.62	44.58	54.00	-9.42	41.67	4.33	33.11	34.53	HORIZONTAL	159	350 Average
3	5239.04	110.48			107.35	4.39	33.27	34.53	HORIZONTAL	159	350 Average
4	5241.92	121.23			118.06	4.40	33.30	34.53	HORIZONTAL	159	350 Peak
5	5350.00	44.75	54.00	-9.25	41.35	4.47	33.46	34.53	HORIZONTAL	159	350 Average
6	5354.81	57.29	74.00	-16.71	53.89	4.47	33.46	34.53	HORIZONTAL	159	350 Peak

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 20 MHz CH 36, 40, 48 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 10, 2014		

Channel 36

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Pol/Phase	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5150.00	73.39	74.00	-0.61	70.44	4.34	33.14	34.53	HORIZONTAL	160	347	Peak
2	5150.00	51.93	54.00	-2.07	48.98	4.34	33.14	34.53	HORIZONTAL	160	347	Average
3	5182.24	114.53			111.51	4.36	33.19	34.53	HORIZONTAL	160	347	Peak
4	5183.21	102.60			99.58	4.36	33.19	34.53	HORIZONTAL	160	347	Average

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 40

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Pol/Phase	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5147.44	73.22	74.00	-0.78	70.27	4.34	33.14	34.53	HORIZONTAL	157	349	Peak
2	5150.00	52.89	54.00	-1.11	49.94	4.34	33.14	34.53	HORIZONTAL	157	349	Average
3	5198.08	119.52			116.46	4.37	33.22	34.53	HORIZONTAL	157	349	Peak
4	5202.89	109.04			105.98	4.37	33.22	34.53	HORIZONTAL	157	349	Average

Item 3, 4 are the fundamental frequency at 5200 MHz.

Channel 48

	Freq	Level	Limit	Over	Read	Cable	Antenna	Preamp	Pol/Phase	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5146.64	46.58	54.00	-7.42	43.63	4.34	33.14	34.53	HORIZONTAL	157	349	Average
2	5150.00	60.44	74.00	-13.56	57.49	4.34	33.14	34.53	HORIZONTAL	157	349	Peak
3	5241.44	108.34			105.21	4.39	33.27	34.53	HORIZONTAL	157	349	Average
4	5243.85	119.46			116.29	4.40	33.30	34.53	HORIZONTAL	157	349	Peak
5	5350.00	57.61	74.00	-16.39	54.21	4.47	33.46	34.53	HORIZONTAL	157	349	Peak
6	5350.00	46.49	54.00	-7.51	43.09	4.47	33.46	34.53	HORIZONTAL	157	349	Average

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 40 MHz CH 38, 46 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 10, 2014		

Channel 38

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg
1	5150.00	66.16	74.00	-7.84	63.21	4.34	33.14	34.53	HORIZONTAL	154	347 Peak
2	5150.00	53.95	54.00	-0.05	51.00	4.34	33.14	34.53	HORIZONTAL	154	347 Average
3	5184.23	105.37			102.35	4.36	33.19	34.53	HORIZONTAL	154	347 Peak
4	5204.74	94.28			91.22	4.37	33.22	34.53	HORIZONTAL	154	347 Average

Item 3, 4 are the fundamental frequency at 5190 MHz.

Channel 46

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg
1	5150.00	67.60	74.00	-6.40	64.65	4.34	33.14	34.53	HORIZONTAL	161	347 Peak
2	5150.00	53.10	54.00	-0.90	50.15	4.34	33.14	34.53	HORIZONTAL	161	347 Average
3	5235.77	104.49			101.36	4.39	33.27	34.53	HORIZONTAL	161	347 Average
4	5239.30	114.35			111.22	4.39	33.27	34.53	HORIZONTAL	161	347 Peak

Item 3, 4 are the fundamental frequency at 5230 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 5 MHz CH 36, 42, 48 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 12, 2014		

Channel 36

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg
1	5139.90	44.99	54.00	-9.01	42.04	4.34	33.14	34.53	HORIZONTAL	108	350 Average
2	5148.56	56.82	74.00	-17.18	53.87	4.34	33.14	34.53	HORIZONTAL	108	350 Peak
3	5178.88	123.67			120.65	4.36	33.19	34.53	HORIZONTAL	108	350 Peak
4	5178.88	112.81			109.79	4.36	33.19	34.53	HORIZONTAL	108	350 Average

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 42

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg
1	5146.47	56.42	74.00	-17.58	53.47	4.34	33.14	34.53	HORIZONTAL	116	351 Peak
2	5146.47	44.92	54.00	-9.08	41.97	4.34	33.14	34.53	HORIZONTAL	116	351 Average
3	5210.64	113.24			110.14	4.38	33.25	34.53	HORIZONTAL	116	351 Average
4	5210.96	123.41			120.31	4.38	33.25	34.53	HORIZONTAL	116	351 Peak

Item 3, 4 are the fundamental frequency at 5210 MHz.

Channel 48

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg
1	5147.60	57.32	74.00	-16.68	54.37	4.34	33.14	34.53	VERTICAL	100	356 Peak
2	5148.08	44.56	54.00	-9.44	41.61	4.34	33.14	34.53	VERTICAL	100	356 Average
3	5239.04	124.90			121.77	4.39	33.27	34.53	VERTICAL	100	356 Peak
4	5239.04	113.93			110.80	4.39	33.27	34.53	VERTICAL	100	356 Average
5	5350.00	56.90	74.00	-17.10	53.50	4.47	33.46	34.53	VERTICAL	100	356 Peak
6	5350.00	44.30	54.00	-9.70	40.90	4.47	33.46	34.53	VERTICAL	100	356 Average

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 10 MHz CH 36, 42, 48 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 12, 2014		

Channel 36

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg
1	5149.84	71.92	74.00	-2.08	68.97	4.34	33.14	34.53	HORIZONTAL	123	351 Peak
2	5150.00	49.39	54.00	-4.61	46.44	4.34	33.14	34.53	HORIZONTAL	123	351 Average
3	5178.40	122.75			119.73	4.36	33.19	34.53	HORIZONTAL	123	351 Peak
4	5178.88	111.32			108.30	4.36	33.19	34.53	HORIZONTAL	123	351 Average

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 42

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg
1	5146.47	45.64	54.00	-8.36	42.69	4.34	33.14	34.53	HORIZONTAL	135	350 Average
2	5149.04	58.32	74.00	-15.68	55.37	4.34	33.14	34.53	HORIZONTAL	135	350 Peak
3	5210.64	110.93			107.83	4.38	33.25	34.53	HORIZONTAL	135	350 Average
4	5211.28	122.26			119.16	4.38	33.25	34.53	HORIZONTAL	135	350 Peak

Item 3, 4 are the fundamental frequency at 5210 MHz.

Channel 48

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg
1	5106.25	45.05	54.00	-8.95	42.17	4.32	33.09	34.53	VERTICAL	100	354 Average
2	5126.44	57.99	74.00	-16.01	55.08	4.33	33.11	34.53	VERTICAL	100	354 Peak
3	5241.92	111.36			108.19	4.40	33.30	34.53	VERTICAL	100	354 Average
4	5242.40	122.21			119.04	4.40	33.30	34.53	VERTICAL	100	354 Peak
5	5350.00	56.92	74.00	-17.08	53.52	4.47	33.46	34.53	VERTICAL	100	354 Peak
6	5350.00	44.27	54.00	-9.73	40.87	4.47	33.46	34.53	VERTICAL	100	354 Average

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 20 MHz CH 36, 40, 48 / Mode 2 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 10, 2014		

Channel 36

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg
1	5149.04	73.32	74.00	-0.68	70.37	4.34	33.14	34.53	HORIZONTAL	152	348 Peak
2	5150.00	51.19	54.00	-2.81	48.24	4.34	33.14	34.53	HORIZONTAL	152	348 Average
3	5182.89	103.04			100.02	4.36	33.19	34.53	HORIZONTAL	152	348 Average
4	5184.81	114.65			111.63	4.36	33.19	34.53	HORIZONTAL	152	348 Peak

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 40

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg
1	5142.31	73.16	74.00	-0.84	70.21	4.34	33.14	34.53	HORIZONTAL	154	13 Peak
2	5150.00	51.99	54.00	-2.01	49.04	4.34	33.14	34.53	HORIZONTAL	154	13 Average
3	5202.89	120.45			117.39	4.37	33.22	34.53	HORIZONTAL	154	13 Peak
4	5203.21	109.45			106.39	4.37	33.22	34.53	HORIZONTAL	154	13 Average

Item 3, 4 are the fundamental frequency at 5200 MHz.

Channel 48

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	Remark
	MHz	dBuV/m	dBuV/m	dB	dBuV	Loss	Factor	Factor	Pol/Phase	cm	deg
1	5144.23	59.06	74.00	-14.94	56.11	4.34	33.14	34.53	HORIZONTAL	158	348 Peak
2	5150.00	46.56	54.00	-7.44	43.61	4.34	33.14	34.53	HORIZONTAL	158	348 Average
3	5241.92	108.97			105.80	4.40	33.30	34.53	HORIZONTAL	158	348 Average
4	5243.85	120.34			117.17	4.40	33.30	34.53	HORIZONTAL	158	348 Peak
5	5350.00	57.38	74.00	-16.62	53.98	4.47	33.46	34.53	HORIZONTAL	158	348 Peak
6	5350.00	46.54	54.00	-7.46	43.14	4.47	33.46	34.53	HORIZONTAL	158	348 Average

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 5 MHz CH 36, 42, 48 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 22, 2014		

Channel 36

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5150.00	46.72	54.00	-7.28	44.09	3.43	34.11	34.91	Average	193	317	VERTICAL
2	5150.00	58.99	74.00	-15.01	56.36	3.43	34.11	34.91	Peak	193	317	VERTICAL
3	5179.80	117.11			114.42	3.44	34.16	34.91	Average	193	317	VERTICAL
4	5180.00	128.61			125.92	3.44	34.16	34.91	Peak	193	317	VERTICAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 42

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5150.00	46.31	54.00	-7.69	43.68	3.43	34.11	34.91	Average	132	218	VERTICAL
2	5150.00	58.77	74.00	-15.23	56.14	3.43	34.11	34.91	Peak	132	218	VERTICAL
3	5211.20	114.80			112.06	3.45	34.20	34.91	Average	132	218	VERTICAL
4	5211.20	125.20			122.46	3.45	34.20	34.91	Peak	132	218	VERTICAL

Item 3, 4 are the fundamental frequency at 5210 MHz.

Channel 48

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5150.00	46.48	54.00	-7.52	43.85	3.43	34.11	34.91	Average	140	244	VERTICAL
2	5150.00	57.78	74.00	-16.22	55.15	3.43	34.11	34.91	Peak	140	244	VERTICAL
3	5240.60	114.75			111.97	3.46	34.23	34.91	Average	140	244	VERTICAL
4	5240.60	125.67			122.89	3.46	34.23	34.91	Peak	140	244	VERTICAL
5	5350.00	47.80	54.00	-6.20	44.83	3.49	34.39	34.91	Average	140	244	VERTICAL
6	5350.00	59.28	74.00	-14.72	56.31	3.49	34.39	34.91	Peak	140	244	VERTICAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 10 MHz CH 36, 42, 48 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 22, 2014		

Channel 36

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5150.00	48.64	54.00	-5.36	46.01	3.43	34.11	34.91	Average	195	317	VERTICAL
2	5150.00	70.69	74.00	-3.31	68.06	3.43	34.11	34.91	Peak	195	317	VERTICAL
3	5180.40	119.42			116.73	3.44	34.16	34.91	Peak	195	317	VERTICAL
4	5180.60	112.91			110.22	3.44	34.16	34.91	Average	195	317	VERTICAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 42

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5150.00	45.55	54.00	-8.45	42.92	3.43	34.11	34.91	Average	154	210	VERTICAL
2	5150.00	57.68	74.00	-16.32	55.05	3.43	34.11	34.91	Peak	154	210	VERTICAL
3	5211.20	112.03			109.29	3.45	34.20	34.91	Average	154	210	VERTICAL
4	5211.20	119.36			116.62	3.45	34.20	34.91	Peak	154	210	VERTICAL

Item 3, 4 are the fundamental frequency at 5210 MHz.

Channel 48

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5150.00	46.09	54.00	-7.91	43.46	3.43	34.11	34.91	Average	140	233	VERTICAL
2	5150.00	58.27	74.00	-15.73	55.64	3.43	34.11	34.91	Peak	140	233	VERTICAL
3	5240.60	113.39			110.61	3.46	34.23	34.91	Average	140	233	VERTICAL
4	5241.20	124.66			121.88	3.46	34.23	34.91	Peak	140	233	VERTICAL
5	5350.00	47.54	54.00	-6.46	44.57	3.49	34.39	34.91	Average	140	233	VERTICAL
6	5350.00	59.15	74.00	-14.85	56.18	3.49	34.39	34.91	Peak	140	233	VERTICAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 20 MHz CH 36, 40, 48 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 18, 2014		

Channel 36

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5148.88	71.22	74.00	-2.78	66.28	6.13	34.01	35.20	Peak	202	118	VERTICAL
2	5149.68	53.52	54.00	-0.48	48.58	6.13	34.01	35.20	Average	202	118	VERTICAL
3	5184.33	107.53			102.50	6.15	34.08	35.20	Average	202	118	VERTICAL
4	5185.61	117.50			112.47	6.15	34.08	35.20	Peak	202	118	VERTICAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 40

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5141.99	70.74	74.00	-3.26	65.83	6.13	33.98	35.20	Peak	202	122	VERTICAL
2	5145.83	49.07	54.00	-4.93	44.13	6.13	34.01	35.20	Average	202	122	VERTICAL
3	5201.60	121.43			116.36	6.16	34.11	35.20	Peak	202	122	VERTICAL
4	5202.56	111.04			105.97	6.16	34.11	35.20	Average	202	122	VERTICAL

Item 3, 4 are the fundamental frequency at 5200 MHz.

Channel 48

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5144.71	57.51	74.00	-16.49	52.57	6.13	34.01	35.20	Peak	206	119	VERTICAL
2	5150.00	45.26	54.00	-8.74	40.32	6.13	34.01	35.20	Average	206	119	VERTICAL
3	5238.08	121.14			115.98	6.18	34.18	35.20	Peak	206	119	VERTICAL
4	5238.56	111.26			106.10	6.18	34.18	35.20	Average	206	119	VERTICAL
5	5350.00	45.14	54.00	-8.86	39.66	6.26	34.42	35.20	Average	206	119	VERTICAL
6	5350.48	57.76	74.00	-16.24	52.28	6.26	34.42	35.20	Peak	206	119	VERTICAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 40 MHz CH 38, 46 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 22, 2014		

Channel 38

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5149.40	67.10	74.00	-6.90	64.47	3.43	34.11	34.91	172	261	VERTICAL
2	5150.00	53.21	54.00	-0.79	50.58	3.43	34.11	34.91	172	261	VERTICAL
3	5207.40	96.05			93.33	3.45	34.18	34.91	172	261	VERTICAL
4	5207.40	106.37			103.65	3.45	34.18	34.91	172	261	VERTICAL

Item 3, 4 are the fundamental frequency at 5190 MHz.

Channel 46

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5149.40	68.67	74.00	-5.33	66.04	3.43	34.11	34.91	182	306	VERTICAL
2	5150.00	52.33	54.00	-1.67	49.70	3.43	34.11	34.91	182	306	VERTICAL
3	5231.20	105.59			102.81	3.46	34.23	34.91	182	306	VERTICAL
4	5231.20	116.86			114.08	3.46	34.23	34.91	182	306	VERTICAL

Item 3, 4 are the fundamental frequency at 5230 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 5 MHz CH 36, 42, 48 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 22, 2014		

Channel 36

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamplifier Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5149.40	58.94	74.00	-15.06	56.31	3.43	34.11	34.91	199	316	VERTICAL
2	5150.00	46.45	54.00	-7.55	43.82	3.43	34.11	34.91	199	316	VERTICAL
3	5178.20	124.79			122.10	3.44	34.16	34.91	199	316	VERTICAL
4	5180.60	113.76			111.07	3.44	34.16	34.91	199	316	VERTICAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 42

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamplifier Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5150.00	45.97	54.00	-8.03	43.34	3.43	34.11	34.91	158	232	VERTICAL
2	5150.00	58.53	74.00	-15.47	55.90	3.43	34.11	34.91	158	232	VERTICAL
3	5210.00	123.35			120.61	3.45	34.20	34.91	158	232	VERTICAL
4	5210.40	112.73			109.99	3.45	34.20	34.91	158	232	VERTICAL

Item 3, 4 are the fundamental frequency at 5210 MHz.

Channel 48

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamplifier Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5149.40	58.70	74.00	-15.30	56.07	3.43	34.11	34.91	200	56	VERTICAL
2	5150.00	46.15	54.00	-7.85	43.52	3.43	34.11	34.91	200	56	VERTICAL
3	5240.60	113.84			111.06	3.46	34.23	34.91	200	56	VERTICAL
4	5240.60	125.86			123.08	3.46	34.23	34.91	200	56	VERTICAL
5	5350.00	47.50	54.00	-6.50	44.53	3.49	34.39	34.91	200	56	VERTICAL
6	5350.00	59.50	74.00	-14.50	56.53	3.49	34.39	34.91	200	56	VERTICAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 10 MHz CH 36, 42, 48 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 22, 2014		

Channel 36

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamplifier Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5149.60	64.15	74.00	-9.85	61.52	3.43	34.11	34.91	Peak	199	316 VERTICAL
2	5150.00	47.53	54.00	-6.47	44.90	3.43	34.11	34.91	Average	199	316 VERTICAL
3	5176.60	111.60			108.91	3.44	34.16	34.91	Average	199	316 VERTICAL
4	5181.80	123.02			120.33	3.44	34.16	34.91	Peak	199	316 VERTICAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 42

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamplifier Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5150.00	46.70	54.00	-7.30	44.07	3.43	34.11	34.91	Average	191	314 VERTICAL
2	5150.00	58.24	74.00	-15.76	55.61	3.43	34.11	34.91	Peak	191	314 VERTICAL
3	5208.40	125.69			122.95	3.45	34.20	34.91	Peak	191	314 VERTICAL
4	5208.80	114.19			111.45	3.45	34.20	34.91	Average	191	314 VERTICAL

Item 3, 4 are the fundamental frequency at 5210 MHz.

Channel 48

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamplifier Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5150.00	46.30	54.00	-7.70	43.67	3.43	34.11	34.91	Average	210	54 VERTICAL
2	5150.00	59.24	74.00	-14.76	56.61	3.43	34.11	34.91	Peak	210	54 VERTICAL
3	5238.80	113.79			111.01	3.46	34.23	34.91	Average	210	54 VERTICAL
4	5238.80	124.91			122.13	3.46	34.23	34.91	Peak	210	54 VERTICAL
5	5350.00	47.64	54.00	-6.36	44.67	3.49	34.39	34.91	Average	210	54 VERTICAL
6	5351.20	59.89	74.00	-14.11	56.92	3.49	34.39	34.91	Peak	210	54 VERTICAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 20 MHz CH 36, 40, 48 / Mode 3 / Chain 1 + Chain 2 + Chain 3
Test Date	Jul. 18, 2014		

Channel 36

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5149.84	71.37	74.00	-2.63	66.43	6.13	34.01	35.20 Peak	188	309	VERTICAL
2	5150.00	53.11	54.00	-0.89	48.17	6.13	34.01	35.20 Average	188	309	VERTICAL
3	5181.60	107.70			102.67	6.15	34.08	35.20 Average	188	309	VERTICAL
4	5181.60	117.85			112.82	6.15	34.08	35.20 Peak	188	309	VERTICAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 40

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5143.91	64.50	74.00	-9.50	59.56	6.13	34.01	35.20 Peak	204	127	VERTICAL
2	5150.00	47.97	54.00	-6.03	43.03	6.13	34.01	35.20 Average	204	127	VERTICAL
3	5200.64	121.53			116.46	6.16	34.11	35.20 Peak	204	127	VERTICAL
4	5200.96	111.11			106.04	6.16	34.11	35.20 Average	204	127	VERTICAL

Item 3, 4 are the fundamental frequency at 5200 MHz.

Channel 48

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5143.27	56.86	74.00	-17.14	51.95	6.13	33.98	35.20 Peak	199	139	VERTICAL
2	5150.00	44.89	54.00	-9.11	39.95	6.13	34.01	35.20 Average	199	139	VERTICAL
3	5238.56	110.69			105.53	6.18	34.18	35.20 Average	199	139	VERTICAL
4	5238.56	120.73			115.57	6.18	34.18	35.20 Peak	199	139	VERTICAL
5	5350.00	44.71	54.00	-9.29	39.23	6.26	34.42	35.20 Average	199	139	VERTICAL
6	5356.25	57.52	74.00	-16.48	52.04	6.26	34.42	35.20 Peak	199	139	VERTICAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 5 MHz CH 36, 42, 48 / Mode 1 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 25, 2014		

Channel 36

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg
			dBuV/m	dB	dBuV	dB	dB/m	dB			Pol/Phase
1	5150.00	44.82	54.00	-9.18	42.19	3.43	34.11	34.91	Average	122	10 HORIZONTAL
2	5150.00	55.71	74.00	-18.29	53.08	3.43	34.11	34.91	Peak	122	10 HORIZONTAL
3	5180.20	105.79			103.10	3.44	34.16	34.91	Average	122	10 HORIZONTAL
4	5180.40	117.15			114.46	3.44	34.16	34.91	Peak	122	10 HORIZONTAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 42

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg
			dBuV/m	dB	dBuV	dB	dB/m	dB			Pol/Phase
1	5150.00	44.94	54.00	-9.06	42.31	3.43	34.11	34.91	Average	129	9 VERTICAL
2	5150.00	56.70	74.00	-17.30	54.07	3.43	34.11	34.91	Peak	129	9 VERTICAL
3	5208.80	106.39			103.65	3.45	34.20	34.91	Average	129	9 VERTICAL
4	5208.80	116.27			113.53	3.45	34.20	34.91	Peak	129	9 VERTICAL

Item 3, 4 are the fundamental frequency at 5210 MHz.

Channel 48

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg
			dBuV/m	dB	dBuV	dB	dB/m	dB			Pol/Phase
1	5150.00	44.79	54.00	-9.21	42.16	3.43	34.11	34.91	Average	123	9 VERTICAL
2	5150.00	57.83	74.00	-16.17	55.20	3.43	34.11	34.91	Peak	123	9 VERTICAL
3	5239.20	118.80			116.02	3.46	34.23	34.91	Peak	123	9 VERTICAL
4	5241.20	108.04			105.26	3.46	34.23	34.91	Average	123	9 VERTICAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 10 MHz CH 36, 42, 48 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 25, 2014		

Channel 36

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg
1	5150.00	46.14	54.00	-7.86	43.51	3.43	34.11	34.91	Average	122	8 HORIZONTAL
2	5150.00	57.87	74.00	-16.13	55.24	3.43	34.11	34.91	Peak	122	8 HORIZONTAL
3	5180.40	106.33			103.64	3.44	34.16	34.91	Average	122	8 HORIZONTAL
4	5180.80	116.53			113.84	3.44	34.16	34.91	Peak	122	8 HORIZONTAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 42

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg
1	5150.00	45.46	54.00	-8.54	42.83	3.43	34.11	34.91	Average	124	9 HORIZONTAL
2	5150.00	56.48	74.00	-17.52	53.85	3.43	34.11	34.91	Peak	124	9 HORIZONTAL
3	5207.60	117.87			115.13	3.45	34.20	34.91	Peak	124	9 HORIZONTAL
4	5212.80	107.68			104.94	3.45	34.20	34.91	Average	124	9 HORIZONTAL

Item 3, 4 are the fundamental frequency at 5210 MHz.

Channel 48

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg
1	5143.20	58.84	74.00	-15.16	56.21	3.43	34.11	34.91	Peak	127	8 VERTICAL
2	5150.00	45.56	54.00	-8.44	42.93	3.43	34.11	34.91	Average	127	8 VERTICAL
3	5242.40	108.61			105.81	3.46	34.25	34.91	Average	127	8 VERTICAL
4	5242.80	118.59			115.79	3.46	34.25	34.91	Peak	127	8 VERTICAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 20 MHz CH 36, 40, 48 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 24, 2014		

Channel 36

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5146.80	53.08	54.00	-0.92	50.45	3.43	34.11	34.91	Average	123	357	VERTICAL
2	5147.20	70.69	74.00	-3.31	68.06	3.43	34.11	34.91	Peak	123	357	VERTICAL
3	5184.80	104.15			101.46	3.44	34.16	34.91	Average	123	357	VERTICAL
4	5185.60	114.39			111.70	3.44	34.16	34.91	Peak	123	357	VERTICAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 40

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5146.00	64.42	74.00	-9.58	61.79	3.43	34.11	34.91	Peak	127	358	VERTICAL
2	5146.40	46.06	54.00	-7.94	43.43	3.43	34.11	34.91	Average	127	358	VERTICAL
3	5204.40	116.45			113.73	3.45	34.18	34.91	Peak	127	358	VERTICAL
4	5204.80	106.24			103.52	3.45	34.18	34.91	Average	127	358	VERTICAL

Item 3, 4 are the fundamental frequency at 5200 MHz.

Channel 48

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	5150.00	43.95	54.00	-10.05	41.32	3.43	34.11	34.91	Average	131	352	HORIZONTAL
2	5150.00	57.73	74.00	-16.27	55.10	3.43	34.11	34.91	Peak	131	352	HORIZONTAL
3	5244.80	98.37			95.57	3.46	34.25	34.91	Average	131	352	HORIZONTAL
4	5245.40	109.02			106.22	3.46	34.25	34.91	Peak	131	352	HORIZONTAL
5	5350.00	45.71	54.00	-8.29	42.74	3.49	34.39	34.91	Average	131	352	HORIZONTAL
6	5350.00	57.99	74.00	-16.01	55.02	3.49	34.39	34.91	Peak	131	352	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11n MCS0 40 MHz CH 38, 46 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 24, 2014		

Channel 38

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg
			dBuV/m	dB	dBuV	dB	dB/m	dB			Pol/Phase
1	5145.60	52.45	54.00	-1.55	49.82	3.43	34.11	34.91	Average	129	9 VERTICAL
2	5149.20	71.41	74.00	-2.59	68.78	3.43	34.11	34.91	Peak	129	9 VERTICAL
3	5195.60	95.91			93.19	3.45	34.18	34.91	Average	129	9 VERTICAL
4	5205.20	107.53			104.81	3.45	34.18	34.91	Peak	129	9 VERTICAL

Item 3, 4 are the fundamental frequency at 5190 MHz.

Channel 46

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg
			dBuV/m	dB	dBuV	dB	dB/m	dB			Pol/Phase
1	5145.20	47.34	54.00	-6.66	44.71	3.43	34.11	34.91	Average	128	3 HORIZONTAL
2	5148.20	63.01	74.00	-10.99	60.38	3.43	34.11	34.91	Peak	128	3 HORIZONTAL
3	5225.20	96.41			93.63	3.46	34.23	34.91	Average	128	3 HORIZONTAL
4	5226.40	107.23			104.45	3.46	34.23	34.91	Peak	128	3 HORIZONTAL

Item 3, 4 are the fundamental frequency at 5230 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 5 MHz CH 36, 42, 48 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 25, 2014		

Channel 36

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5150.00	45.51	54.00	-8.49	42.88	3.43	34.11	34.91	121	9	HORIZONTAL
2	5150.00	55.95	74.00	-18.05	53.32	3.43	34.11	34.91	121	9	HORIZONTAL
3	5179.40	106.15			103.46	3.44	34.16	34.91	121	9	HORIZONTAL
4	5179.40	118.05			115.36	3.44	34.16	34.91	121	9	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 42

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5150.00	44.84	54.00	-9.16	42.21	3.43	34.11	34.91	129	8	VERTICAL
2	5150.00	56.70	74.00	-17.30	54.07	3.43	34.11	34.91	129	8	VERTICAL
3	5210.40	106.84			104.10	3.45	34.20	34.91	129	8	VERTICAL
4	5210.40	118.08			115.34	3.45	34.20	34.91	129	8	VERTICAL

Item 3, 4 are the fundamental frequency at 5210 MHz.

Channel 48

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5150.00	44.89	54.00	-9.11	42.26	3.43	34.11	34.91	127	9	VERTICAL
2	5150.00	55.35	74.00	-18.65	52.72	3.43	34.11	34.91	127	9	VERTICAL
3	5241.20	108.62			105.84	3.46	34.23	34.91	127	9	VERTICAL
4	5241.20	118.90			116.12	3.46	34.23	34.91	127	9	VERTICAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 10 MHz CH 36, 42, 48 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 25, 2014		

Channel 36

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5147.80	58.64	74.00	-15.36	56.01	3.43	34.11	34.91	120	9	HORIZONTAL
2	5150.00	45.64	54.00	-8.36	43.01	3.43	34.11	34.91	120	9	HORIZONTAL
3	5177.60	106.42			103.73	3.44	34.16	34.91	120	9	HORIZONTAL
4	5182.60	116.78			114.09	3.44	34.16	34.91	120	9	HORIZONTAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 42

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5149.60	56.57	74.00	-17.43	53.94	3.43	34.11	34.91	126	9	VERTICAL
2	5150.00	45.59	54.00	-8.41	42.96	3.43	34.11	34.91	126	9	VERTICAL
3	5212.40	107.43			104.69	3.45	34.20	34.91	126	9	VERTICAL
4	5212.40	117.60			114.86	3.45	34.20	34.91	126	9	VERTICAL

Item 3, 4 are the fundamental frequency at 5210 MHz.

Channel 48

	Freq	Level	Limit Line	Over Limit	Read Level	CableAntenna Loss Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg	
1	5150.00	45.47	54.00	-8.53	42.84	3.43	34.11	34.91	123	8	VERTICAL
2	5150.00	55.06	74.00	-18.94	52.43	3.43	34.11	34.91	123	8	VERTICAL
3	5237.20	118.41			115.63	3.46	34.23	34.91	123	8	VERTICAL
4	5237.60	108.04			105.26	3.46	34.23	34.91	123	8	VERTICAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Temperature	26°C	Humidity	68%
Test Engineer	Serway Li	Configurations	IEEE 802.11a 20 MHz CH 36, 40, 48 / Mode 4 / Chain 1 + Chain 3
Test Date	Jul. 24, 2014		

Channel 36

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg
			dBuV/m	dB	dBuV	dB	dB/m	dB			Pol/Phase
1	5147.60	71.96	74.00	-2.04	69.33	3.43	34.11	34.91	Peak	127	358 VERTICAL
2	5148.00	53.35	54.00	-0.65	50.72	3.43	34.11	34.91	Average	127	358 VERTICAL
3	5182.60	104.51			101.82	3.44	34.16	34.91	Average	127	358 VERTICAL
4	5182.60	115.00			112.31	3.44	34.16	34.91	Peak	127	358 VERTICAL

Item 3, 4 are the fundamental frequency at 5180 MHz.

Channel 40

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg
			dBuV/m	dB	dBuV	dB	dB/m	dB			Pol/Phase
1	5149.60	58.06	74.00	-15.94	55.43	3.43	34.11	34.91	Peak	125	357 VERTICAL
2	5150.00	44.96	54.00	-9.04	42.33	3.43	34.11	34.91	Average	125	357 VERTICAL
3	5202.40	105.30			102.58	3.45	34.18	34.91	Average	125	357 VERTICAL
4	5202.40	115.42			112.70	3.45	34.18	34.91	Peak	125	357 VERTICAL

Item 3, 4 are the fundamental frequency at 5200 MHz.

Channel 48

	Freq	Level	Limit	Over	Read	CableAntenna	Preamp		A/Pos	T/Pos	
	MHz	dBuV/m	Line	Limit	Level	Loss	Factor	Factor	Remark	cm	deg
			dBuV/m	dB	dBuV	dB	dB/m	dB			Pol/Phase
1	5150.00	43.97	54.00	-10.03	41.34	3.43	34.11	34.91	Average	137	359 HORIZONTAL
2	5150.00	56.86	74.00	-17.14	54.23	3.43	34.11	34.91	Peak	137	359 HORIZONTAL
3	5237.60	103.04			100.26	3.46	34.23	34.91	Average	137	359 HORIZONTAL
4	5237.60	113.26			110.48	3.46	34.23	34.91	Peak	137	359 HORIZONTAL
5	5350.00	45.67	54.00	-8.33	42.70	3.49	34.39	34.91	Average	137	359 HORIZONTAL
6	5351.20	58.71	74.00	-15.29	55.74	3.49	34.39	34.91	Peak	137	359 HORIZONTAL

Item 3, 4 are the fundamental frequency at 5240 MHz.

Note:

Emission level (dBuV/m) = 20 log Emission level (uV/m)

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

4.6. Antenna Requirements

4.6.1. Limit

Except for special regulations, the Low-power Radio-frequency Devices must not be equipped with any jacket for installing an antenna with extension cable. 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 the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

4.6.2. Antenna Connector Construction

Please refer to section 3.3 in this test report; antenna connector complied with the requirements.

5. LIST OF MEASURING EQUIPMENTS

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
Signal analyzer	R&S	FSV40	100979	9kHz~40GHz	Nov. 29, 2013	Conducted (TH01-CB)
Temp. and Humidity Chamber	Ten Billion	TTH-D3SP	TBN-931011	-30~100 degree	Jun. 03, 2014	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-7	-	1 GHz – 26.5 GHz	Nov. 17, 2013	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-8	-	1 GHz – 26.5 GHz	Nov. 17, 2013	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-9	-	1 GHz – 26.5 GHz	Nov. 17, 2013	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-10	-	1 GHz – 26.5 GHz	Nov. 17, 2013	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-11	-	1 GHz – 26.5 GHz	Nov. 17, 2013	Conducted (TH01-CB)
Power Sensor	Anritsu	MA2411B	0917223	300MHz~40GHz	Sep. 18, 2013	Conducted (TH01-CB)
Power Meter	Anritsu	ML2495A	1035008	300MHz~40GHz	Sep. 18, 2013	Conducted (TH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz~18GHz	Nov. 01, 2013	Radiation (03CH01-CB)
Horn Antenna	SCHWARZBEAK	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Dec. 17, 2013	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Dec. 16, 2013	Radiation (03CH01-CB)
Pre-Amplifier	WM	TF-130N-R1	923365	26GHz ~ 40GHz	Oct. 23, 2013	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSP40	100019	9kHz~40GHz	Dec. 02, 2013	Radiation (03CH01-CB)
EMI Test Receiver	Agilent	N9038A	MY52260123	9kHz ~ 8GHz	Dec. 12, 2013	Radiation (03CH01-CB)
Turn Table	INN CO	CO 2000	N/A	0 ~ 360 degree	N.C.R.	Radiation (03CH01-CB)
Antenna Mast	INN CO	CO2000	N/A	1 m - 4 m	N.C.R.	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-1	N/A	1 GHz – 26.5 GHz	Nov. 17, 2013	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-2	N/A	1 GHz – 26.5 GHz	Nov. 17, 2013	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-3	N/A	1 GHz - 40 GHz	Nov. 17, 2013	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-4	N/A	1 GHz - 40 GHz	Nov. 17, 2013	Radiation (03CH01-CB)

Note: Calibration Interval of instruments listed above is one year.

“*” Calibration Interval of instruments listed above is two years.

N.C.R. means Non-Calibration required.

6. MEASUREMENT UNCERTAINTY

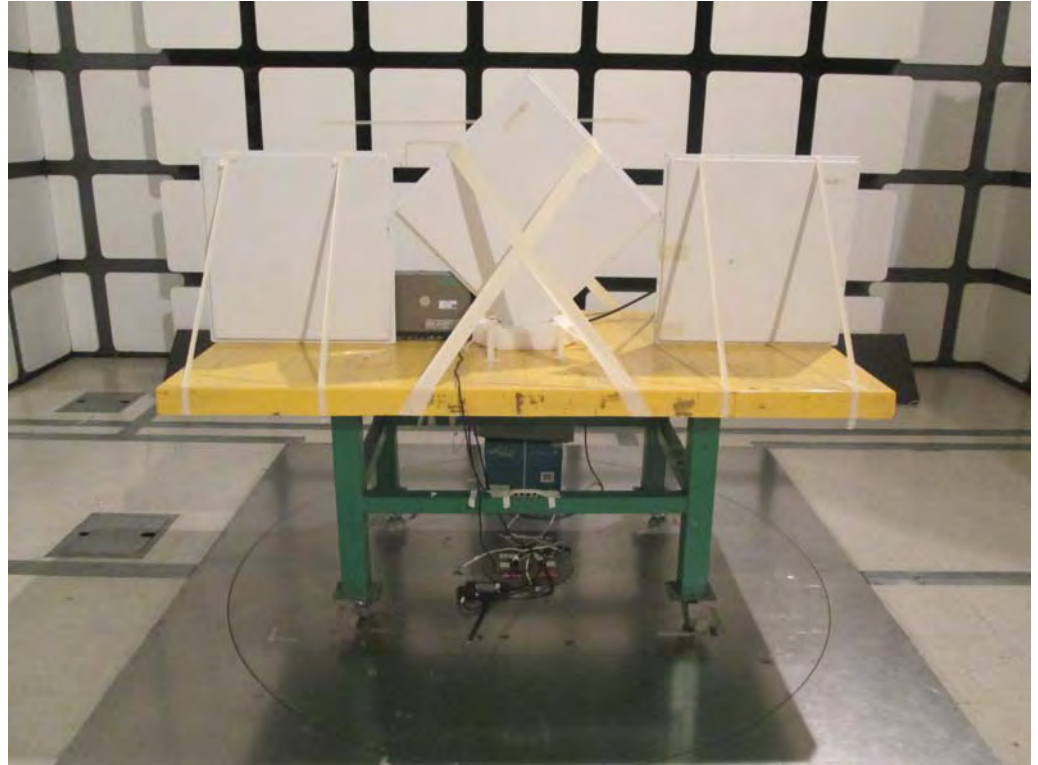
Test Items	Uncertainty	Remark
Radiated Emission (1GHz ~ 18GHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.7 dB	Confidence levels of 95%

Appendix A. Test Photos

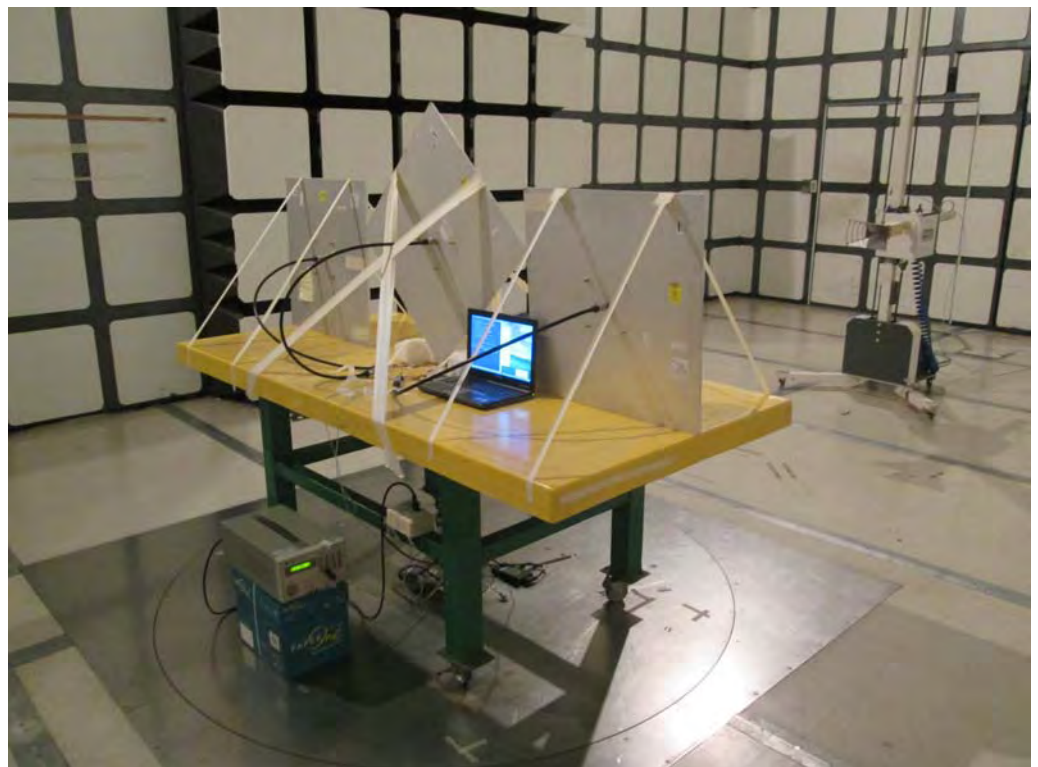
1. Photographs of Test Configuration

Test Mode: Mode 1

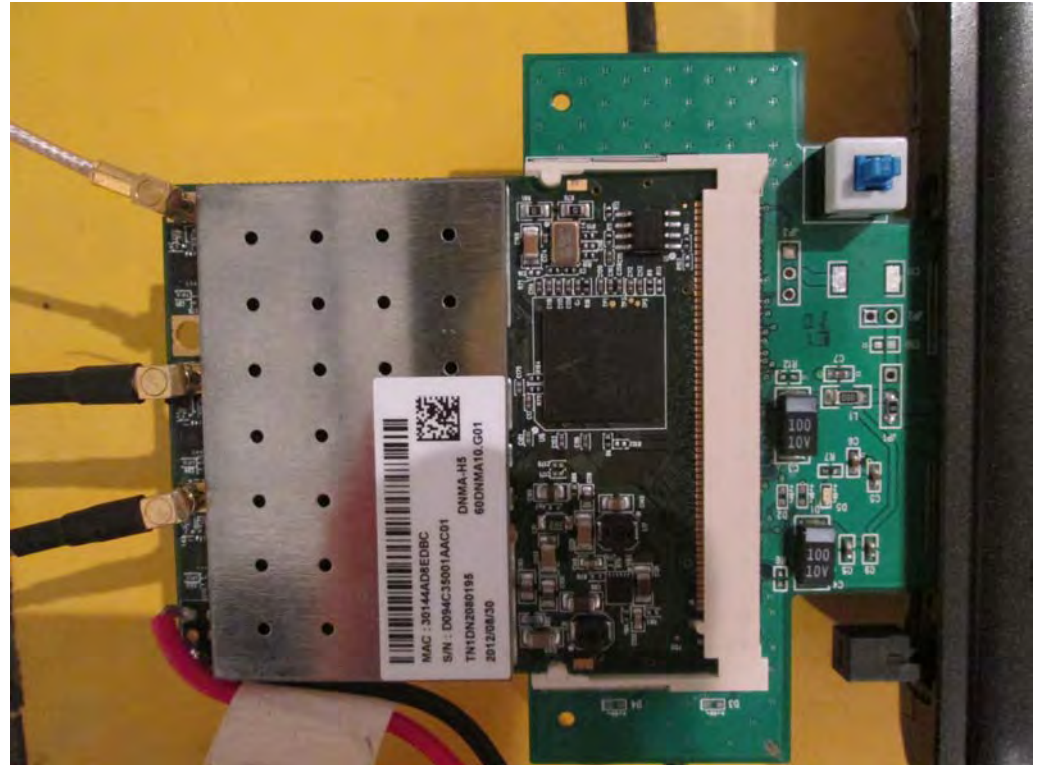
FRONT VIEW



REAR VIEW

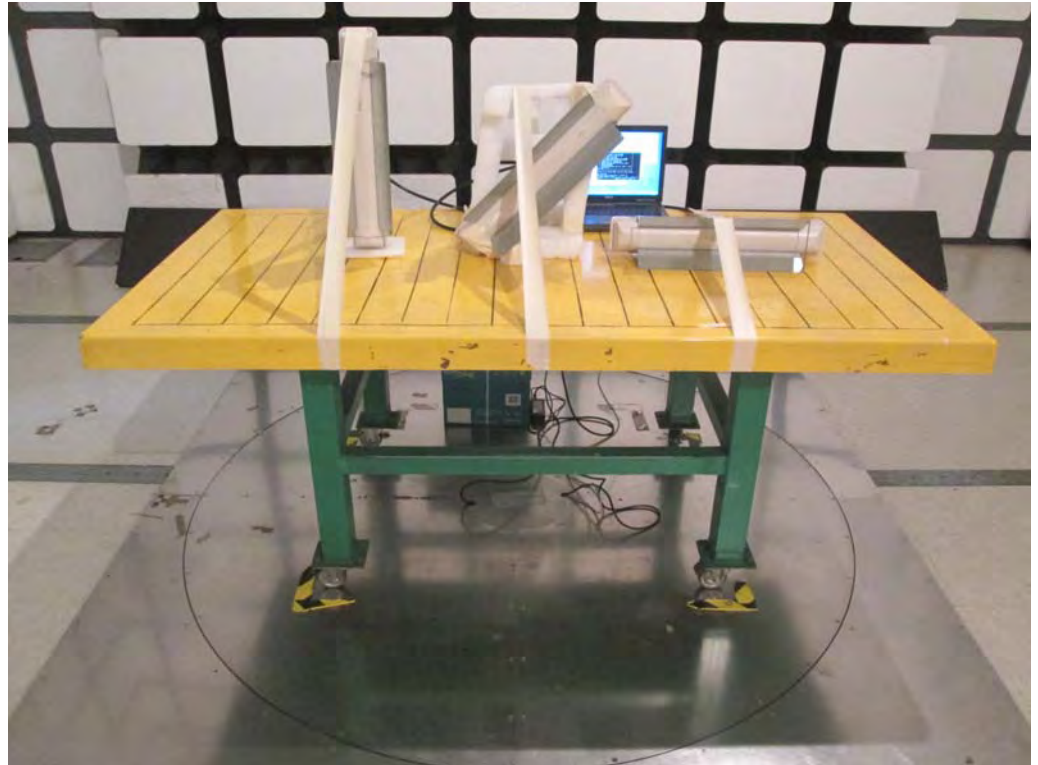


CLOSE-UP VIEW

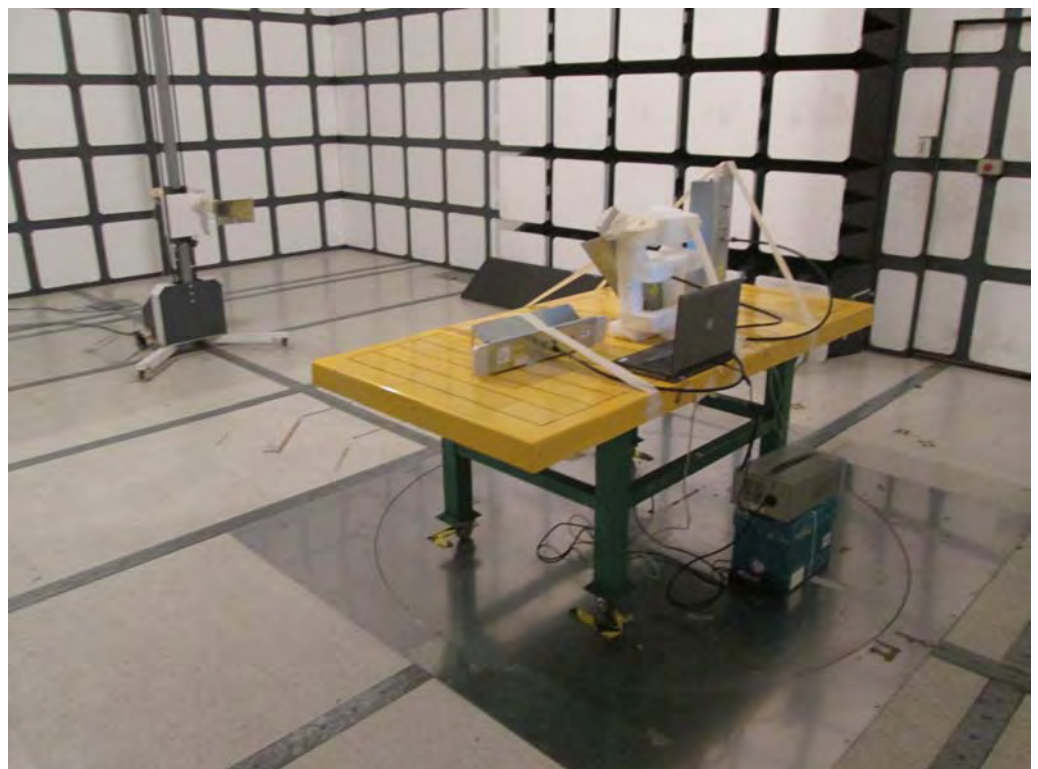


Test Mode: Mode 2

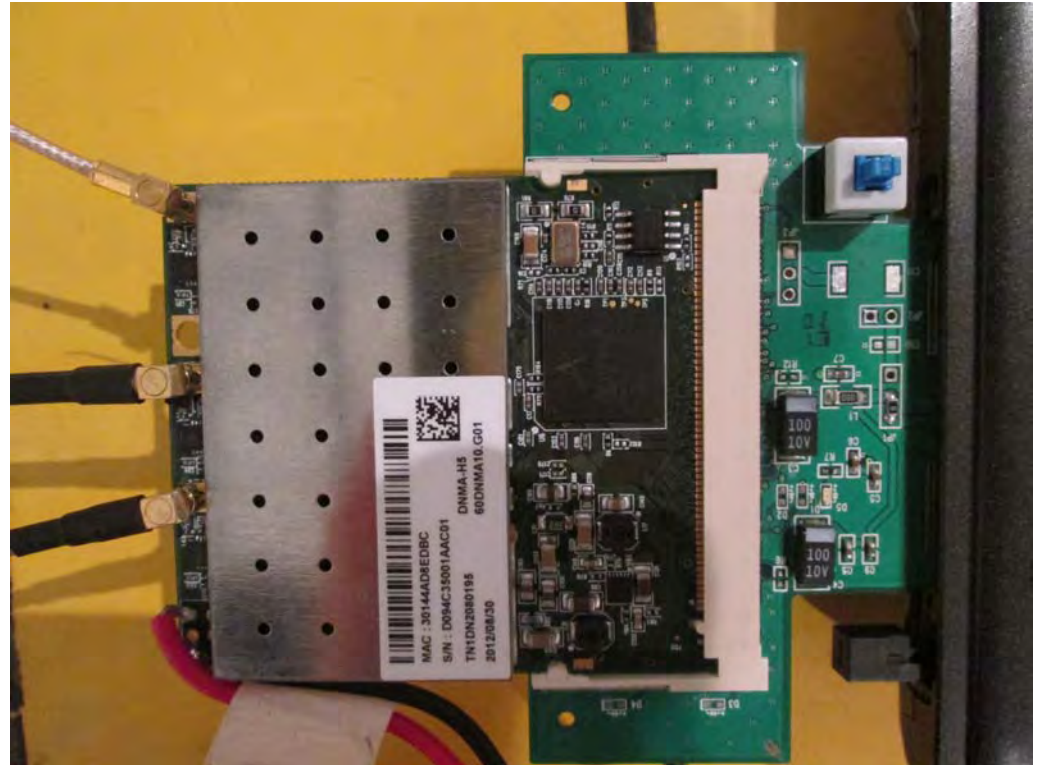
FRONT VIEW



REAR VIEW

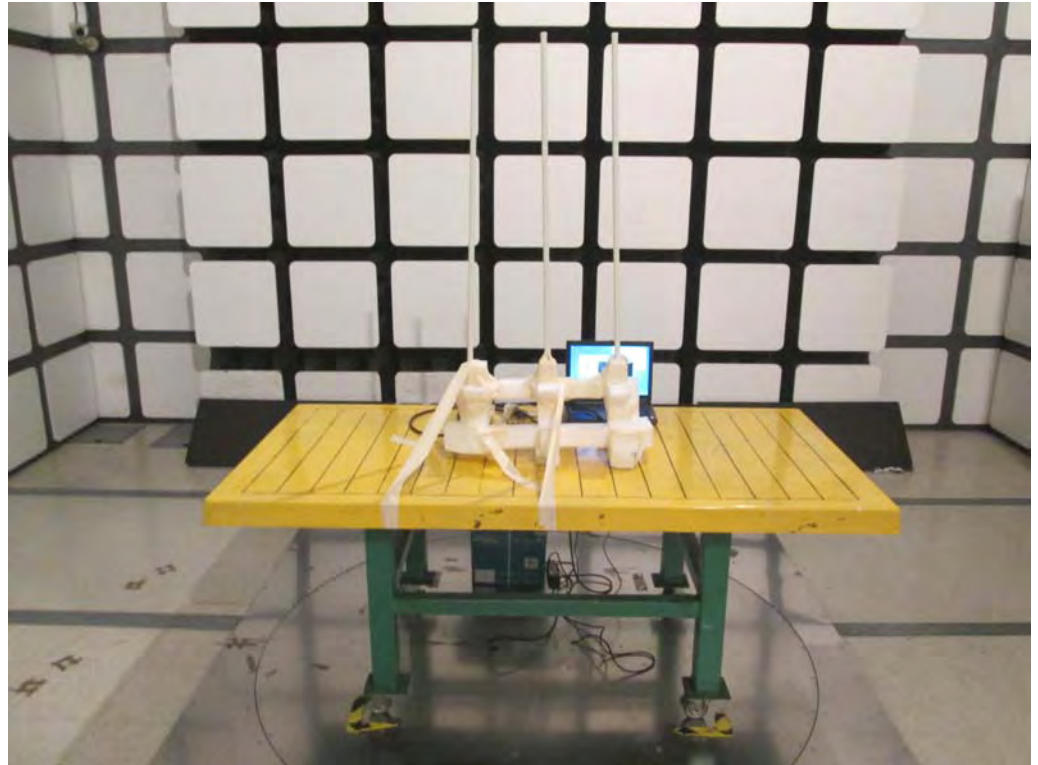


CLOSE-UP VIEW



Test Mode: Mode 3

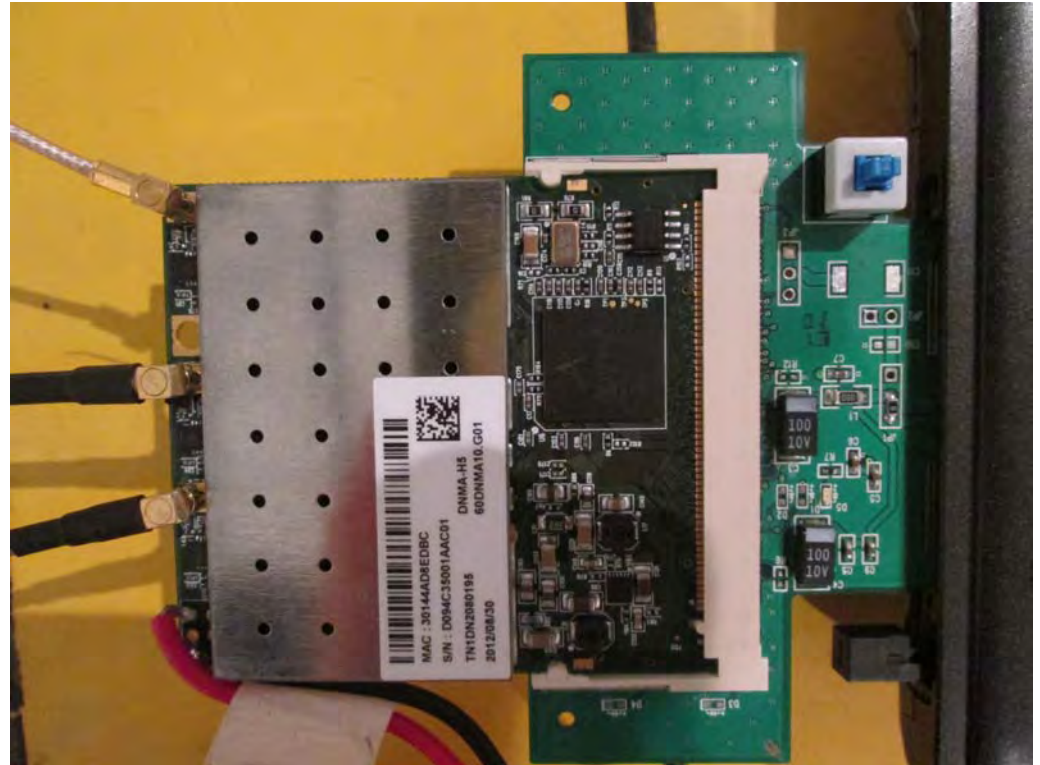
FRONT VIEW



REAR VIEW

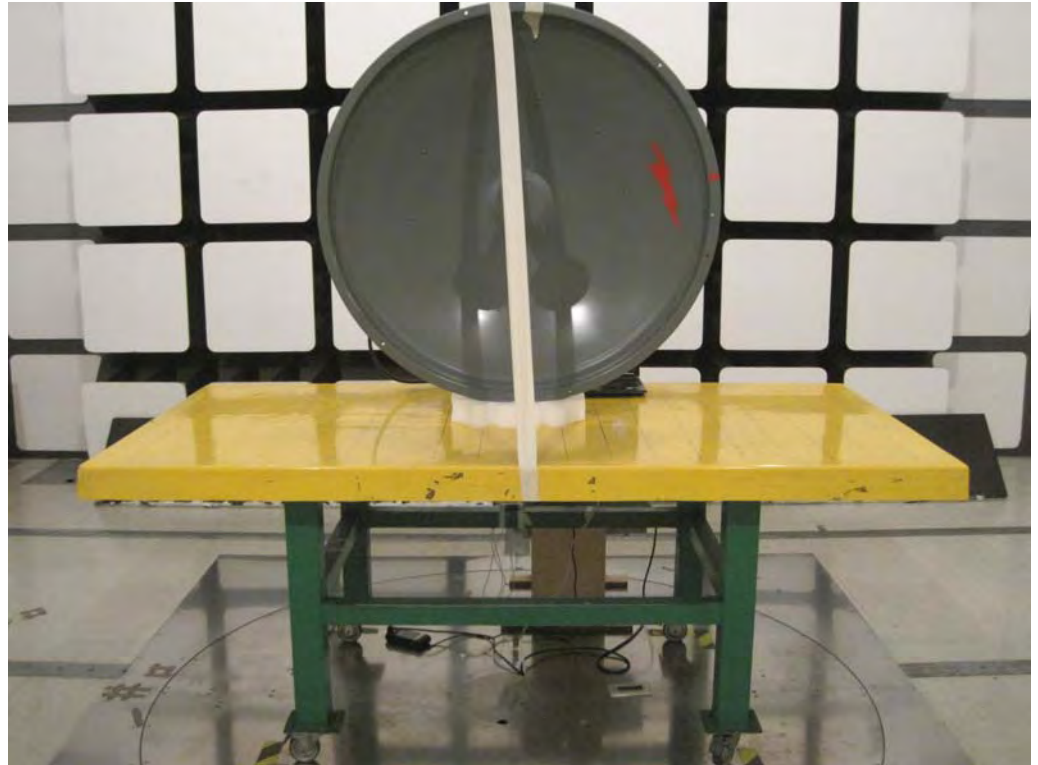


CLOSE-UP VIEW

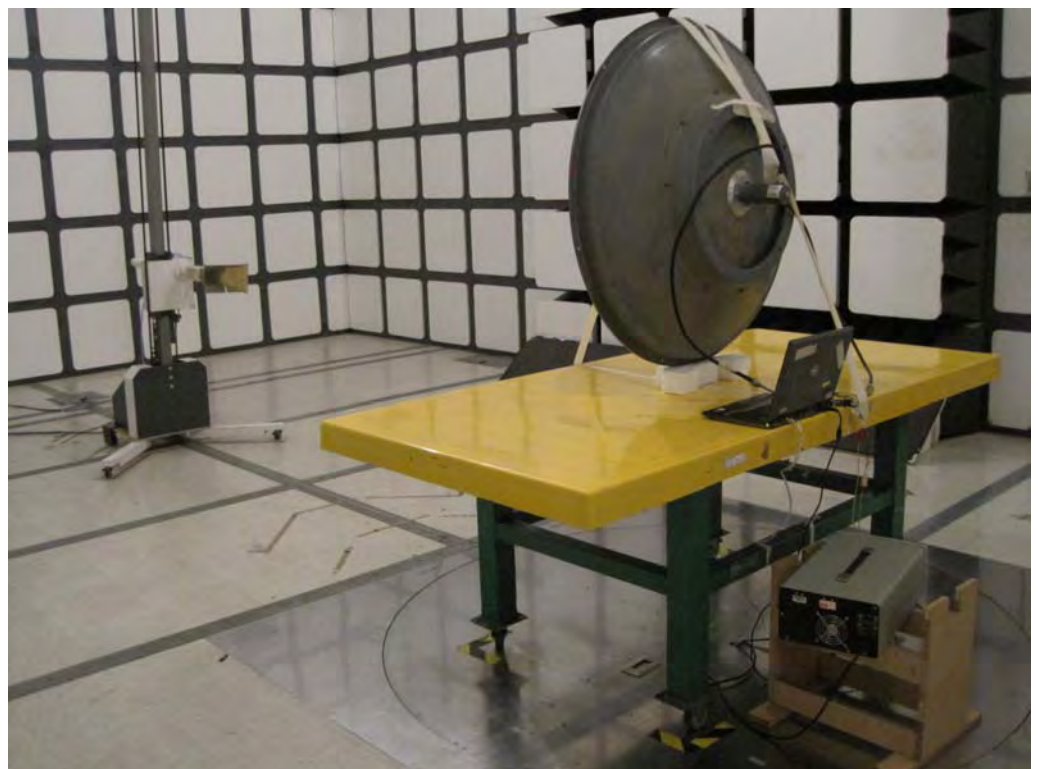


Test Mode: Mode 4

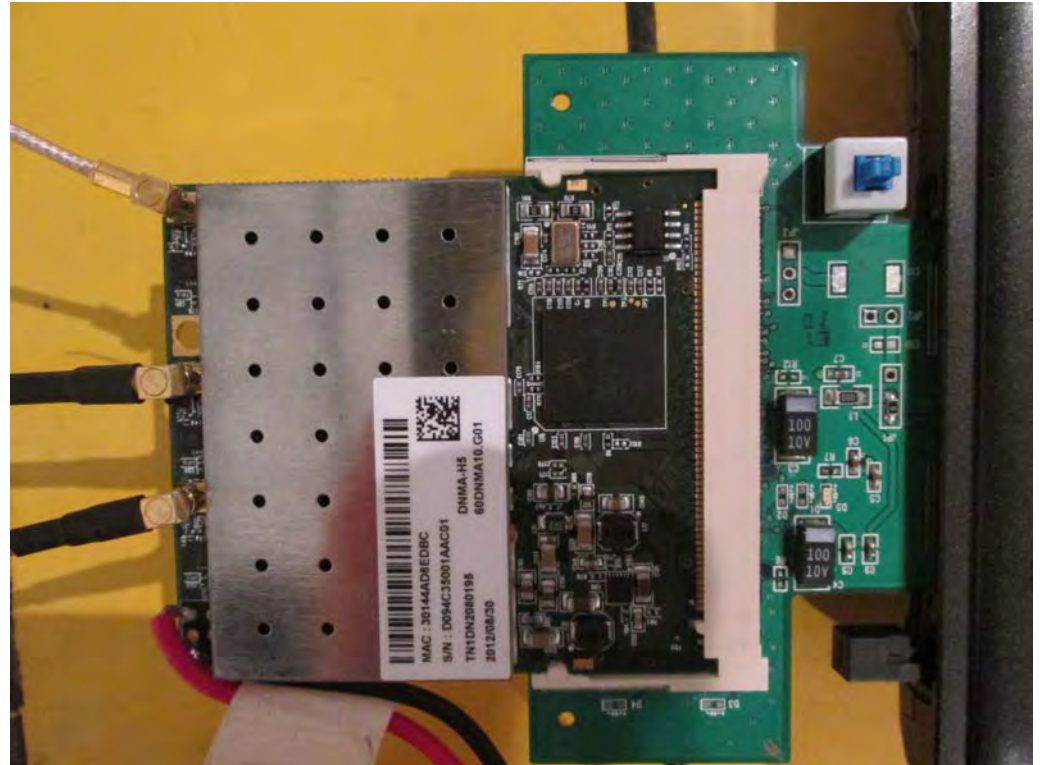
FRONT VIEW



REAR VIEW



CLOSE-UP VIEW



Appendix B. Maximum Permissible Exposure

1. Maximum Permissible Exposure

1.1. Applicable Standard

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device.

(A) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

Note: f = frequency in MHz ; *Plane-wave equivalent power density

1.2. MPE Calculation Method

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d} \quad \text{Power Density: } Pd \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

E = Electric field (V/m)

P = Average RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$

From the EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained.

1.3. Calculated Result and Limit

Exposure Environment: General Population / Uncontrolled Exposure

For 5GHz Band 1:

Antenna Type : Panel Antenna (Ant. 1 / P to P)

Conducted Power for IEEE 802.11n MCS0 20 MHz : 26.13 dBm

Distance (m)	Antenna Gain (dBi)	Antenna Gain (numeric)	The maximum combined Average Output Power		Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
			(dBm)	(mW)			
0.2	8.00	6.3096	26.1318	410.3724	0.515381	1	Complies

Antenna Type : Panel Antenna (Ant. 1 / P to M)

Conducted Power for IEEE 802.11n MCS0 20 MHz : 26.13 dBm

Distance (m)	Antenna Gain (dBi)	Antenna Gain (numeric)	The maximum combined Average Output Power		Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
			(dBm)	(mW)			
0.2	8.00	6.3096	26.1318	410.3724	0.515381	1	Complies

Antenna Type : Sector Antenna (Ant. 2 / P to P)

Conducted Power for IEEE 802.11n MCS0 20 MHz : 26.13 dBm

Distance (m)	Antenna Gain (dBi)	Antenna Gain (numeric)	The maximum combined Average Output Power		Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
			(dBm)	(mW)			
0.2	8.00	6.3096	26.1318	410.3724	0.515381	1	Complies

Antenna Type : Sector Antenna (Ant. 2 / P to M)

Conducted Power for IEEE 802.11n MCS0 20 MHz : 26.13 dBm

Distance (m)	Antenna Gain (dBi)	Antenna Gain (numeric)	The maximum combined Average Output Power		Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
			(dBm)	(mW)			
0.2	8.00	6.3096	26.1318	410.3724	0.515381	1	Complies

Antenna Type : Omni Antenna (Ant. 3 / P to M)

Conducted Power for IEEE 802.11n MCS0 40 MHz : 24.89 dBm

Distance (m)	Antenna Gain (dBi)	Antenna Gain (numeric)	The maximum combined Average Output Power		Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
			(dBm)	(mW)			
0.2	8.00	6.3096	24.8900	308.3185	0.387213	1	Complies

Antenna Type : Dish Antenna (Ant. 4 / P to P)

Conducted Power for IEEE 802.11n MCS0 40 MHz : 23.88 dBm

Distance (m)	Antenna Gain (dBi)	Antenna Gain (numeric)	The maximum combined Average Output Power		Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
			(dBm)	(mW)			
0.2	12.00	15.8489	23.8755	244.0920	0.770023	1	Complies

Appendix C. Maximum e.i.r.p. at any elevation angle above 30 degrees

1. Maximum e.i.r.p. at any elevation angle above 30 degrees

Antenna Type : Panel Antenna (Ant. 1)

Mode	Bandwidth (MHz)	Frequency (MHz)	Setting	Maximum Conducted Output Power (dBm)	Attenuator (dB)	Cable loss (dB)	Elevation angle above 30° Max gain (dBi)	Elevation angle above 30° Max EIRP (dBm)	Limit (dBm)	Complies
Configuration IEEE 802.11a	5	5180	15.5	22.11	20.00	2.00	4.046	4.16	21	Pass
		5210	15.5	22.02	20.00	2.00	4.046	4.06	21	Pass
		5240	15	21.57	20.00	2.00	4.046	3.62	21	Pass
Configuration IEEE 802.11n	5	5180	15.5	21.98	20.00	2.00	4.046	4.02	21	Pass
		5210	15.5	21.91	20.00	2.00	4.046	3.95	21	Pass
		5240	15.5	22.31	20.00	2.00	4.046	4.35	21	Pass
Configuration IEEE 802.11a	10	5180	17	22.97	20.00	2.00	4.046	5.02	21	Pass
		5210	18.5	24.52	20.00	2.00	4.046	6.56	21	Pass
		5240	18	24.19	20.00	2.00	4.046	6.23	21	Pass
Configuration IEEE 802.11n	10	5180	17.5	23.44	20.00	2.00	4.046	5.48	21	Pass
		5210	18	23.73	20.00	2.00	4.046	5.77	21	Pass
		5240	18	24.12	20.00	2.00	4.046	6.17	21	Pass
Configuration IEEE 802.11a	20	5180	17.5	23.17	20.00	2.00	4.046	5.21	21	Pass
		5200	19	24.69	20.00	2.00	4.046	6.74	21	Pass
		5240	20	26.04	20.00	2.00	4.046	8.09	21	Pass
Configuration IEEE 802.11n	20	5180	16.5	22.36	20.00	2.00	4.046	4.41	21	Pass
		5200	19	24.77	20.00	2.00	4.046	6.81	21	Pass
		5240	20	26.13	20.00	2.00	4.046	8.18	21	Pass
Configuration IEEE 802.11n	40	5190	13.5	17.46	20.00	2.00	4.046	-0.49	21	Pass
		5230	19	25.05	20.00	2.00	4.046	7.10	21	Pass

Antenna Type : Sector Antenna (Ant. 2)

Mode	Bandwidth (MHz)	Frequency (MHz)	Setting	Maximum Conducted Output Power (dBm)	Attenuator (dB)	Cable loss (dB)	Elevation angle above 30° Max gain (dBi)	Elevation angle above 30° Max EIRP (dBm)	Limit (dBm)	Complies
Configuration IEEE 802.11a	5	5180	15.5	22.11	10.00	2.00	-1.589	8.52	21	Pass
		5210	15.5	22.02	10.00	2.00	-1.589	8.43	21	Pass
		5240	15	21.57	10.00	2.00	-1.589	7.98	21	Pass
Configuration IEEE 802.11n	5	5180	15.5	21.98	10.00	2.00	-1.589	8.39	21	Pass
		5210	15.5	21.91	10.00	2.00	-1.589	8.32	21	Pass
		5240	15.5	22.31	10.00	2.00	-1.589	8.72	21	Pass
Configuration IEEE 802.11a	10	5180	18.5	24.39	10.00	2.00	-1.589	10.80	21	Pass
		5210	18.5	24.52	10.00	2.00	-1.589	10.93	21	Pass
		5240	18	24.19	10.00	2.00	-1.589	10.60	21	Pass
Configuration IEEE 802.11n	10	5180	19	24.80	10.00	2.00	-1.589	11.22	21	Pass
		5210	19	24.99	10.00	2.00	-1.589	11.40	21	Pass
		5240	18	24.12	10.00	2.00	-1.589	10.54	21	Pass
Configuration IEEE 802.11a	20	5180	14.5	19.13	10.00	2.00	-1.589	5.54	21	Pass
		5200	19.5	25.41	10.00	2.00	-1.589	11.82	21	Pass
		5240	19.5	25.79	10.00	2.00	-1.589	12.20	21	Pass
Configuration IEEE 802.11n	20	5180	14.5	19.11	10.00	2.00	-1.589	5.52	21	Pass
		5200	20	26.01	10.00	2.00	-1.589	12.42	21	Pass
		5240	20	26.13	10.00	2.00	-1.589	12.54	21	Pass
Configuration IEEE 802.11n	40	5190	7.5	14.05	10.00	2.00	-1.589	0.46	21	Pass
		5230	18	24.01	10.00	2.00	-1.589	10.42	21	Pass

Antenna Type : Omni Antenna (Ant. 3)

Mode	Bandwidth (MHz)	Frequency (MHz)	Setting	Maximum Conducted Output Power (dBm)	Attenuator (dB)	Cable loss (dB)	Elevation angle above 30° Max gain (dBi)	Elevation angle above 30° Max EIRP (dBm)	Limit (dBm)	Complies
Configuration IEEE 802.11a	5	5180	14	19.21	0.00	2.00	-2.725	14.48	21	Pass
		5210	13.5	18.25	0.00	2.00	-2.725	13.53	21	Pass
		5240	13.5	18.29	0.00	2.00	-2.725	13.57	21	Pass
Configuration IEEE 802.11n	5	5180	14	19.10	0.00	2.00	-2.725	14.38	21	Pass
		5210	14	19.02	0.00	2.00	-2.725	14.29	21	Pass
		5240	14	19.24	0.00	2.00	-2.725	14.52	21	Pass
Configuration IEEE 802.11a	10	5180	15.5	21.70	0.00	2.00	-2.725	16.97	21	Pass
		5210	15.5	21.65	0.00	2.00	-2.725	16.93	21	Pass
		5240	15	21.43	0.00	2.00	-2.725	16.70	21	Pass
Configuration IEEE 802.11n	10	5180	15.5	21.60	0.00	2.00	-2.725	16.87	21	Pass
		5210	15.5	21.78	0.00	2.00	-2.725	17.06	21	Pass
		5240	15	21.31	0.00	2.00	-2.725	16.59	21	Pass
Configuration IEEE 802.11a	20	5180	16	22.11	0.00	2.00	-2.725	17.39	21	Pass
		5200	18	23.21	0.00	2.00	-2.725	18.49	21	Pass
		5240	17.5	23.13	0.00	2.00	-2.725	18.40	21	Pass
Configuration IEEE 802.11n	20	5180	15.5	21.66	0.00	2.00	-2.725	16.94	21	Pass
		5200	18	23.16	0.00	2.00	-2.725	18.43	21	Pass
		5240	18	23.42	0.00	2.00	-2.725	18.70	21	Pass
Configuration IEEE 802.11n	40	5190	7.5	14.05	0.00	2.00	-2.725	9.32	21	Pass
		5230	18.5	24.89	0.00	2.00	-2.725	20.17	21	Pass