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FCC RADIO TEST REPORT

Applicant's company	**Hewlett-Packard Company**
Applicant Address	3000 Hanover Street Palo Alto, California 94304 U.S.A.
FCC ID	**B94MRLBB1301**
Manufacturer's company	**Joy Technology (ShenZhen) Corporation**
Manufacturer Address	Building A,B,C,D, HengKeng Ind., Shangpai, Shangwu,Aiqun Rd., Shiyan Town,Shenzhen 518135 China

Product Name	802.11ac WLAN Radio Module
Brand Name	HP
Model No.	MRLBB-1301
Test Rule Part(s)	47 CFR FCC Part 15 Subpart E § 15.407
Test Freq. Range	5150 ~ 5350MHz / 5470 ~ 5725MHz
Received Date	Jun. 28, 2013
Final Test Date	Aug. 22, 2013
Submission Type	Original Equipment
Operating Mode	Client (without radar detection function)

Statement

Test result included is for the IEEE 802.11n and IEEE 802.11a/ac (5150 ~ 5350MHz / 5470 ~ 5725MHz) 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, KDB 789033 D01 v01r03, KDB 662911 D01 v02, KDB644545 D01v01r01 and KDB644545 D02v01**

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

Testing Laboratory
1190

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History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR321924-02AB	Rev. 01	Initial issue of report	Sep. 27, 2013

Certificate No.: CB10208133

1. CERTIFICATE OF COMPLIANCE

Product Name	:	802.11ac WLAN Radio Module
Brand Name	:	HP
Model No.	:	MRLBB-1301
Applicant	:	Hewlett-Packard Company
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. 28, 2013 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	15.207	AC Power Line Conducted Emissions	Complies	12.33 dB
4.2	15.407(a)	26dB Spectrum Bandwidth and 99% Occupied Bandwidth	Complies	-
4.3	15.407(a)	Maximum Conducted Output Power	Complies	0.01 dB
4.4	15.407(a)	Power Spectral Density	Complies	0.01 dB
4.5	15.407(a)	Peak Excursion	Complies	1.69 dB
4.6	15.407(b)	Radiated Emissions	Complies	0.19 dB
4.7	15.407(b)	Band Edge Emissions	Complies	0.01 dB
4.8	15.407(g)	Frequency Stability	Complies	-
4.9	15.203	Antenna Requirements	Complies	-

3. GENERAL INFORMATION

3.1. Product Details

IEEE 802.11n / ac

Items	Description
Product Type	WLAN (3TX, 3RX)
Radio Type	Intentional Transceiver
Power Type	From power adapter
Modulation	see the below table for IEEE 802.11n/ac
Data Modulation	For 802.11n: OFDM (BPSK / QPSK / 16QAM / 64QAM) For 802.11ac: OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)
Data Rate (Mbps)	see the below table for IEEE 802.11n/ac
Frequency Range	5150 ~ 5350MHz / 5470 ~ 5725MHz
Channel Number	17 for 20MHz bandwidth ; 8 for 40MHz bandwidth 4 for 80MHz bandwidth
Channel Band Width (99%)	Band 1: Mode 1 (Ant.1 Dipole antenna / 1dBi) 802.11ac MCS0/Nss1 (20MHz): 17.76 MHz ; 802.11ac MCS0/Nss3 (20MHz): 18.08 MHz ; 802.11ac MCS0/Nss1 (40MHz): 36.48 MHz ; 802.11ac MCS0/Nss3 (40MHz): 36.48 MHz ; 802.11ac MCS0/Nss1 (80MHz): 75.52 MHz ; 802.11ac MCS0/Nss3 (80MHz): 76.80 MHz Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi) 802.11ac MCS0/Nss1 (20MHz): 17.60 MHz ; 802.11ac MCS0/Nss3 (20MHz): 18.08 MHz ; 802.11ac MCS0/Nss1 (40MHz): 36.48 MHz ; 802.11ac MCS0/Nss3 (40MHz): 36.48 MHz ; 802.11ac MCS0/Nss1 (80MHz): 76.16 MHz ; 802.11ac MCS0/Nss3 (80MHz): 76.16 MHz Mode 3 (Ant.4 Panel antenna / 9.2dBi) 802.11ac MCS0/Nss1 (20MHz): 17.60 MHz ; 802.11ac MCS0/Nss3 (20MHz): 17.92 MHz ; 802.11ac MCS0/Nss1 (40MHz): 36.16 MHz ; 802.11ac MCS0/Nss3 (40MHz): 36.48 MHz ; 802.11ac MCS0/Nss1 (80MHz): 76.16 MHz ; 802.11ac MCS0/Nss3 (80MHz): 76.80 MHz

	Mode 4 (Ant.5 PCB antenna / 5.74dBi) 802.11ac MCS0/Nss1 (20MHz): 17.60 MHz ; 802.11ac MCS0/Nss3 (20MHz): 18.08 MHz ; 802.11ac MCS0/Nss1 (40MHz): 36.48 MHz ; 802.11ac MCS0/Nss3 (40MHz): 36.48 MHz ; 802.11ac MCS0/Nss1 (80MHz): 75.52 MHz ; 802.11ac MCS0/Nss3 (80MHz): 76.16 MHz Band 2: Mode 1 (Ant.1 Dipole antenna / 1dBi) 802.11ac MCS0/Nss1 (20MHz): 20.32 MHz ; 802.11ac MCS0/Nss3 (20MHz): 18.40 MHz ; 802.11ac MCS0/Nss1 (40MHz): 36.80 MHz ; 802.11ac MCS0/Nss3 (40MHz): 37.44 MHz ; 802.11ac MCS0/Nss1 (80MHz): 76.16 MHz ; 802.11ac MCS0/Nss3 (80MHz): 76.80 MHz Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi) 802.11ac MCS0/Nss1 (20MHz): 17.60 MHz ; 802.11ac MCS0/Nss3 (20MHz): 18.40 MHz ; 802.11ac MCS0/Nss1 (40MHz): 36.48 MHz ; 802.11ac MCS0/Nss3 (40MHz): 36.48 MHz ; 802.11ac MCS0/Nss1 (80MHz): 75.52 MHz ; 802.11ac MCS0/Nss3 (80MHz): 76.16 MHz Mode 3 (Ant.4 Panel antenna / 9.2dBi) 802.11ac MCS0/Nss1 (20MHz): 17.60 MHz ; 802.11ac MCS0/Nss3 (20MHz): 18.08 MHz ; 802.11ac MCS0/Nss1 (40MHz): 36.48 MHz ; 802.11ac MCS0/Nss3 (40MHz): 36.48 MHz ; 802.11ac MCS0/Nss1 (80MHz): 76.16 MHz ; 802.11ac MCS0/Nss3 (80MHz): 76.80 MHz Mode 4 (Ant.5 PCB antenna / 5.74dBi) 802.11ac MCS0/Nss1 (20MHz): 17.60 MHz ; 802.11ac MCS0/Nss3 (20MHz): 18.40 MHz ; 802.11ac MCS0/Nss1 (40MHz): 36.48 MHz ; 802.11ac MCS0/Nss3 (40MHz): 38.40 MHz ; 802.11ac MCS0/Nss1 (80MHz): 76.16 MHz ; 802.11ac MCS0/Nss3 (80MHz): 76.80 MHz

	Band 3: Mode 1 (Ant.1 Dipole antenna / 1dBi) 802.11ac MCS0/Nss1 (20MHz): 19.68 MHz ; 802.11ac MCS0/Nss3 (20MHz): 18.72 MHz ; 802.11ac MCS0/Nss1 (40MHz): 37.76 MHz ; 802.11ac MCS0/Nss3 (40MHz): 37.12 MHz ; 802.11ac MCS0/Nss1 (80MHz): 76.16 MHz ; 802.11ac MCS0/Nss3 (80MHz): 76.80 MHz Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi) 802.11ac MCS0/Nss1 (20MHz): 17.68 MHz ; 802.11ac MCS0/Nss3 (20MHz): 18.40 MHz ; 802.11ac MCS0/Nss1 (40MHz): 36.64 MHz ; 802.11ac MCS0/Nss3 (40MHz): 36.96 MHz ; 802.11ac MCS0/Nss1 (80MHz): 77.44 MHz ; 802.11ac MCS0/Nss3 (80MHz): 77.12 MHz Mode 3 (Ant.4 Panel antenna / 9.2dBi) 802.11ac MCS0/Nss1 (20MHz): 17.60 MHz ; 802.11ac MCS0/Nss3 (20MHz): 18.08 MHz ; 802.11ac MCS0/Nss1 (40MHz): 36.48 MHz ; 802.11ac MCS0/Nss3 (40MHz): 36.48 MHz ; 802.11ac MCS0/Nss1 (80MHz): 76.16 MHz ; 802.11ac MCS0/Nss3 (80MHz): 76.80 MHz Mode 4 (Ant.5 PCB antenna / 5.74dBi) 802.11ac MCS0/Nss1 (20MHz): 17.92 MHz ; 802.11ac MCS0/Nss3 (20MHz): 18.24 MHz ; 802.11ac MCS0/Nss1 (40MHz): 36.96 MHz ; 802.11ac MCS0/Nss3 (40MHz): 37.12 MHz ; 802.11ac MCS0/Nss1 (80MHz): 77.44 MHz ; 802.11ac MCS0/Nss3 (80MHz): 76.80 MHz
Maximum Conducted Output Power	Band 1: Mode 1 (Ant.1 Dipole antenna / 1dBi) 802.11ac MCS0/Nss1 (20MHz): 16.85 dBm ; 802.11ac MCS0/Nss3 (20MHz): 16.97 dBm ; 802.11ac MCS0/Nss1 (40MHz): 16.92 dBm ; 802.11ac MCS0/Nss3 (40MHz): 16.95 dBm ; 802.11ac MCS0/Nss1 (80MHz): 15.98 dBm ; 802.11ac MCS0/Nss3 (80MHz): 16.60 dBm

	Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi) 802.11ac MCS0/Nss1 (20MHz): 11.67 dBm ; 802.11ac MCS0/Nss3 (20MHz): 16.17 dBm ; 802.11ac MCS0/Nss1 (40MHz): 14.60 dBm ; 802.11ac MCS0/Nss3 (40MHz): 16.10 dBm ; 802.11ac MCS0/Nss1 (80MHz): 13.71 dBm ; 802.11ac MCS0/Nss3 (80MHz): 14.88 dBm Mode 3 (Ant.4 Panel antenna / 9.2dBi) 802.11ac MCS0/Nss1 (20MHz): 9.68 dBm ; 802.11ac MCS0/Nss3 (20MHz): 13.78 dBm ; 802.11ac MCS0/Nss1 (40MHz): 12.30 dBm ; 802.11ac MCS0/Nss3 (40MHz): 13.79 dBm ; 802.11ac MCS0/Nss1 (80MHz): 12.89 dBm ; 802.11ac MCS0/Nss3 (80MHz): 13.50 dBm Mode 4 (Ant.5 PCB antenna / 5.74dBi) 802.11ac MCS0/Nss1 (20MHz): 12.20 dBm ; 802.11ac MCS0/Nss3 (20MHz): 16.97 dBm ; 802.11ac MCS0/Nss1 (40MHz): 15.24 dBm ; 802.11ac MCS0/Nss3 (40MHz): 16.95 dBm ; 802.11ac MCS0/Nss1 (80MHz): 16.97 dBm ; 802.11ac MCS0/Nss3 (80MHz): 16.89 dBm Band 2: Mode 1 (Ant.1 Dipole antenna / 1dBi) 802.11ac MCS0/Nss1 (20MHz): 23.81 dBm ; 802.11ac MCS0/Nss3 (20MHz): 23.80 dBm ; 802.11ac MCS0/Nss1 (40MHz): 22.67 dBm ; 802.11ac MCS0/Nss3 (40MHz): 23.65 dBm ; 802.11ac MCS0/Nss1 (80MHz): 16.84 dBm ; 802.11ac MCS0/Nss3 (80MHz): 17.23 dBm Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi) 802.11ac MCS0/Nss1 (20MHz): 18.50 dBm ; 802.11ac MCS0/Nss3 (20MHz): 23.26 dBm ; 802.11ac MCS0/Nss1 (40MHz): 18.58 dBm ; 802.11ac MCS0/Nss3 (40MHz): 21.70 dBm ; 802.11ac MCS0/Nss1 (80MHz): 14.62 dBm ; 802.11ac MCS0/Nss3 (80MHz): 15.60 dBm

	Mode 3 (Ant.4 Panel antenna / 9.2dBi) 802.11ac MCS0/Nss1 (20MHz): 16.77 dBm ; 802.11ac MCS0/Nss3 (20MHz): 20.79 dBm ; 802.11ac MCS0/Nss1 (40MHz): 18.06 dBm ; 802.11ac MCS0/Nss3 (40MHz): 18.83 dBm ; 802.11ac MCS0/Nss1 (80MHz): 13.40 dBm ; 802.11ac MCS0/Nss3 (80MHz): 13.66 dBm Mode 4 (Ant.5 PCB antenna / 5.74dBi) 802.11ac MCS0/Nss1 (20MHz): 19.02 dBm ; 802.11ac MCS0/Nss3 (20MHz): 23.80 dBm ; 802.11ac MCS0/Nss1 (40MHz): 20.29 dBm ; 802.11ac MCS0/Nss3 (40MHz): 23.65 dBm ; 802.11ac MCS0/Nss1 (80MHz): 15.38 dBm ; 802.11ac MCS0/Nss3 (80MHz): 16.55 dBm Band 3: Mode 1 (Ant.1 Dipole antenna / 1dBi) 802.11ac MCS0/Nss1 (20MHz): 23.83 dBm ; 802.11ac MCS0/Nss3 (20MHz): 23.98 dBm ; 802.11ac MCS0/Nss1 (40MHz): 23.84 dBm ; 802.11ac MCS0/Nss3 (40MHz): 23.73 dBm ; 802.11ac MCS0/Nss1 (80MHz): 23.67 dBm ; 802.11ac MCS0/Nss3 (80MHz): 23.89 dBm Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi) 802.11ac MCS0/Nss1 (20MHz): 18.50 dBm ; 802.11ac MCS0/Nss3 (20MHz): 23.29 dBm ; 802.11ac MCS0/Nss1 (40MHz): 21.53 dBm ; 802.11ac MCS0/Nss3 (40MHz): 23.26 dBm ; 802.11ac MCS0/Nss1 (80MHz): 23.28 dBm ; 802.11ac MCS0/Nss3 (80MHz): 23.16 dBm Mode 3 (Ant.4 Panel antenna / 9.2dBi) 802.11ac MCS0/Nss1 (20MHz): 16.77 dBm ; 802.11ac MCS0/Nss3 (20MHz): 20.70 dBm ; 802.11ac MCS0/Nss1 (40MHz): 19.28 dBm ; 802.11ac MCS0/Nss3 (40MHz): 20.74 dBm ; 802.11ac MCS0/Nss1 (80MHz): 20.72 dBm ; 802.11ac MCS0/Nss3 (80MHz): 20.66 dBm

	Mode 4 (Ant.5 PCB antenna / 5.74dBi) 802.11ac MCS0/Nss1 (20MHz): 20.77 dBm ; 802.11ac MCS0/Nss3 (20MHz): 23.91 dBm ; 802.11ac MCS0/Nss1 (40MHz): 23.20 dBm ; 802.11ac MCS0/Nss3 (40MHz): 23.73 dBm ; 802.11ac MCS0/Nss1 (80MHz): 23.67 dBm ; 802.11ac MCS0/Nss3 (80MHz): 23.89 dBm
Carrier Frequencies	Please refer to section 3.4
Antenna	Please refer to section 3.3

IEEE 802.11a

Items	Description
Product Type	WLAN (3TX, 3RX)
Radio Type	Intentional Transceiver
Power Type	From power adapter
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 ~ 5350MHz / 5470 ~ 5725MHz
Channel Number	17
Channel Band Width (99%)	Band 1: Mode 1 (Ant.1 Dipole antenna / 1dBi) 11a: 16.96 MHz Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi) 11a: 16.80 MHz Mode 3 (Ant.4 Panel antenna / 9.2dBi) 11a: 16.64 MHz Mode 4 (Ant.5 PCB antenna / 5.74dBi) 11a: 16.96 MHz Band 2: Mode 1 (Ant.1 Dipole antenna / 1dBi) 11a: 21.44 MHz Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi) 11a: 16.84 MHz Mode 3 (Ant.4 Panel antenna / 9.2dBi) 11a: 16.80 MHz Mode 4 (Ant.5 PCB antenna / 5.74dBi) 11a: 16.96 MHz

	Band 3: Mode 1 (Ant.1 Dipole antenna / 1dBi) 11a: 20.48 MHz Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi) 11a: 16.96 MHz Mode 3 (Ant.4 Panel antenna / 9.2dBi) 11a: 16.96 MHz Mode 4 (Ant.5 PCB antenna / 5.74dBi) 11a: 16.96 MHz
Maximum Conducted Output Power	Band 1: Mode 1 (Ant.1 Dipole antenna / 1dBi) 11a: 16.87 dBm Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi) 11a: 11.43 dBm Mode 3 (Ant.4 Panel antenna / 9.2dBi) 11a: 9.70 dBm Mode 4 (Ant.5 PCB antenna / 5.74dBi) 11a: 12.54 dBm Band 2: Mode 1 (Ant.1 Dipole antenna / 1dBi) 11a: 23.90 dBm Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi) 11a: 18.41 dBm Mode 3 (Ant.4 Panel antenna / 9.2dBi) 11a: 16.80 dBm Mode 4 (Ant.5 PCB antenna / 5.74dBi) 11a: 19.44 dBm Band 3: Mode 1 (Ant.1 Dipole antenna / 1dBi) 11a: 23.96 dBm Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi) 11a: 18.38 dBm Mode 3 (Ant.4 Panel antenna / 9.2dBi) 11a: 16.65 dBm Mode 4 (Ant.5 PCB antenna / 5.74dBi) 11a: 20.80 dBm
Carrier Frequencies	Please refer to section 3.4
Antenna	Please refer to section 3.3

Antenna and Band width

Antenna	Three (TX)		
Band width Mode	20 MHz	40 MHz	80MHz
IEEE 802.11a	V	X	X
IEEE 802.11n	V	V	X
IEEE 802.11ac	V	V	V

IEEE 11n / ac Spec.

Protocol	Number of Transmit Chains (NTX)	Data Rate / MCS
802.11n (HT20)	3	MCS 0-23
802.11n (HT40)	3	MCS 0-23
802.11ac (VHT20)	3	MCS 0-9/Nss1-3
802.11ac (VHT40)	3	MCS 0-9/Nss1-3
802.11ac (VHT80)	3	MCS 0-9/Nss1-3

Note 1: IEEE Std. 802.11n modulation consists of HT20 and HT40 (HT: High Throughput). Then EUT support HT20 and HT40.

Note 2: IEEE Std. 802.11ac modulation consists of VHT20, VHT40, VHT80 and VHT160 (VHT: Very High Throughput). Then EUT support VHT20, VHT40 and VHT80.

Note 3: Modulation modes consist of below configuration:

11a: IEEE 802.11a, HT20/HT40: IEEE 802.11n, VHT20/VHT40/VHT80: IEEE 802.11ac

3.2. Accessories

N/A

3.3. Table for Filed Antenna

Ant	Brand	Model Name	Antenna Type	Connector	Ant Gain (dBi)		Cable Loss (dBm)		True Gain (dBi)	
					2.4G	5G	2.4G	5G	2.4G	5G
1	HP	5188-9334	Dipole Antenna	Reversed-SMA	1.8	2	0.6	1	1.2	1
2	HP	J9719A	Element Antenna	N Type	6	-	0.8	-	5.2	-
3	HP	J9720A	Omnidirectional Antenna	N Type	-	8	-	1.3	-	6.7
4	HP	J9170A	Panel Antenna	N Type	10.9	13.5	3.8	4.3	7.1	9.2
5	HP	5066-3481	PCB Antenna	I-PEX	4.94	5.74	0	0	4.94	5.74

Note: There are five sets of antenna provided to this EUT and all of them can be used as transmitting and receiving antenna

For 2.4GHz function:

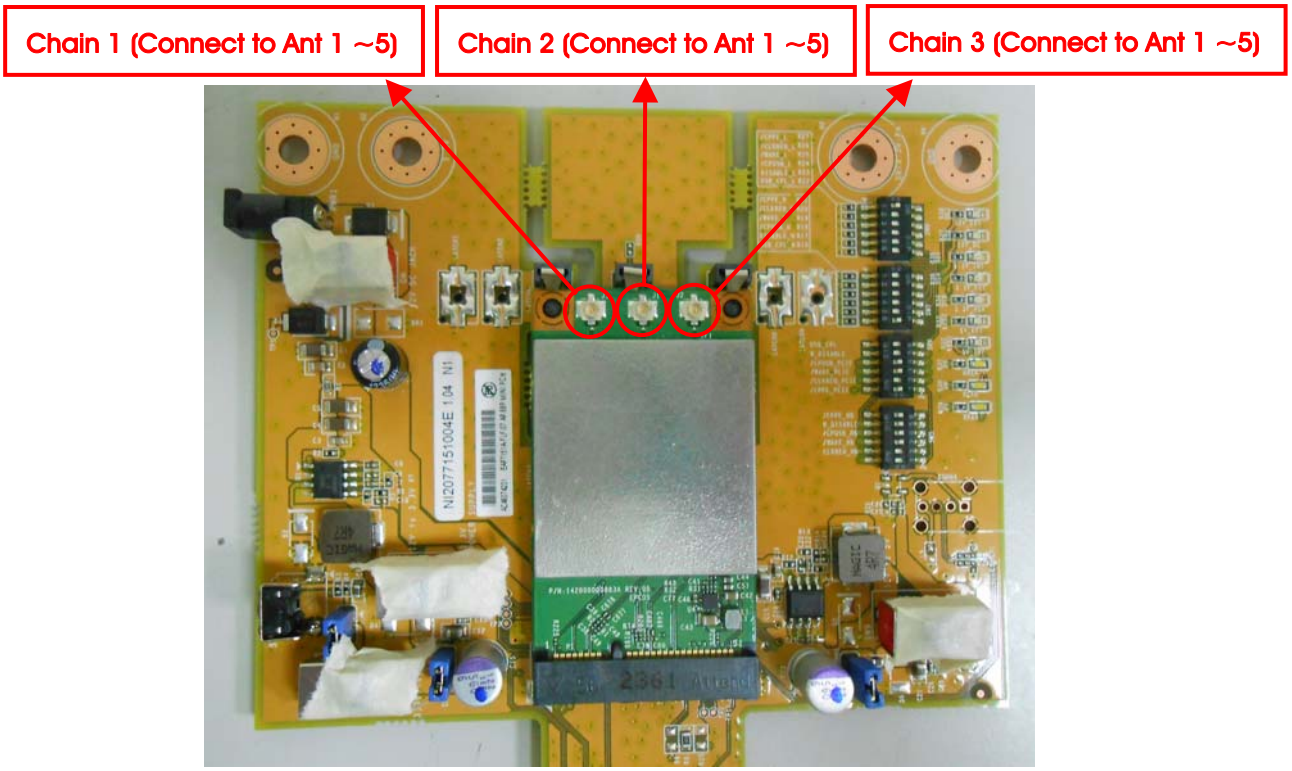
For IEEE 802.11b/g/n mode (3TX/3RX)

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

For 5GHz function:

For IEEE 802.11a/n/ac mode (3TX/3RX)

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



3.4. Table for Carrier Frequencies

There are three bandwidth systems.

For 20MHz bandwidth systems, use Channel 36, 40, 44, 48, 52, 56, 60, 64, 100, 104, 108, 112, 116, 132, 136, 140, 144.

For 40MHz bandwidth systems, use Channel 38, 46, 54, 62, 102, 110, 134, 142.

For 80MHz bandwidth systems, use Channel 42, 58, 106, 138.

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	-	-
5250~5350 MHz Band 2	52	5260 MHz	60	5300 MHz
	54	5270 MHz	62	5310 MHz
	56	5280 MHz	64	5320 MHz
	58	5290 MHz	-	-
5470~5725 MHz Band 3	100	5500 MHz	132	5660 MHz
	102	5510 MHz	134	5670 MHz
	104	5520 MHz	136	5680 MHz
	106	5530 MHz	138	5690 MHz
	108	5540 MHz	140	5700 MHz
	110	5550 MHz	142	5710 MHz
	112	5560 MHz	144	5720 MHz
	116	5580 MHz	-	-

3.5. Table for Product Information

Items	Description	
Communication Mode	☒ IP Based (Load Based)	☐ Frame Based
TPC Function	☒ With TPC	☐ Without TPC
Weather Band (5600~5650MHz)	☐ With 5600~5650MHz	☒ Without 5600~5650MHz
Beamforming Function	☐ With beamforming	☒ Without beamforming

3.6. 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
AC Power Conducted Emission	CTX		-	-	-
Max. Conducted Output Power	11ac 20MHz	Band 1-3	MCS0/Nss1	36/40/48/52/60/64/100/116/140/144	1+2+3
			MCS0/Nss3	36/40/48/52/60/64/100/116/140/144	1+2+3
	11ac 40MHz	Band 1-3	MCS0/Nss1	38/46/54/62/102/110/134/142	1+2+3
			MCS0/Nss3	38/46/54/62/102/110/134/142	1+2+3
	11ac 80MHz	Band 1-3	MCS0/Nss1	42/58/106/138	1+2+3
			MCS0/Nss3	42/58/106/138	1+2+3
	11a/BPSK	Band 1-3	6Mbps	36/40/48/52/60/64/100/116/140/144	1+2+3
Power Spectral Density	11ac 20MHz	Band 1-3	MCS0/Nss1	36/40/48/52/60/64/100/116/140/144	1+2+3
			MCS0/Nss3	36/40/48/52/60/64/100/116/140/144	1+2+3
	11ac 40MHz	Band 1-3	MCS0/Nss1	38/46/54/62/102/110/134/142	1+2+3
			MCS0/Nss3	38/46/54/62/102/110/134/142	1+2+3
	11ac 80MHz	Band 1-3	MCS0/Nss1	42/58/106/138	1+2+3
			MCS0/Nss3	42/58/106/138	1+2+3
	11a/BPSK	Band 1-3	6Mbps	36/40/48/52/60/64/100/116/140/144	1+2+3

26dB Spectrum Bandwidth 99% Occupied Bandwidth Measurement	11ac 20MHz	Band 1-3	MCS0/Nss1	36/40/48/52/60/64/ 100/116/140/144	1+2+3
			MCS0/Nss3	36/40/48/52/60/64/ 100/116/140/144	1+2+3
	11ac 40MHz	Band 1-3	MCS0/Nss1	38/46/54/62/102/ 110/134/142	1+2+3
			MCS0/Nss3	38/46/54/62/102/ 110/134/142	1+2+3
	11ac 80MHz	Band 1-3	MCS0/Nss1	42/58/106/138	1+2+3
			MCS0/Nss3	42/58/106/138	1+2+3
	11a/BPSK	Band 1-3	6Mbps	36/40/48/52/60/64/ 100/116/140/144	1+2+3
Peak Excursion	11ac 20MHz	Band 1-3	MCS0/Nss1	36/40/48/52/60/64/ 100/116/140/144	1+2+3
			MCS0/Nss3	36/40/48/52/60/64/ 100/116/140/144	1+2+3
	11ac 40MHz	Band 1-3	MCS0/Nss1	38/46/54/62/102/ 110/134/142	1+2+3
			MCS0/Nss3	38/46/54/62/102/ 110/134/142	1+2+3
	11ac 80MHz	Band 1-3	MCS0/Nss1	42/58/106/138	1+2+3
			MCS0/Nss3	42/58/106/138	1+2+3
	11a/BPSK	Band 1-3	6Mbps	36/40/48/52/60/64/ 100/116/140/144	1+2+3
Radiated Emission Below 1GHz	CTX		-	-	-
Radiated Emission Above 1GHz	11ac 20MHz	Band 1-3	MCS0/Nss1	36/40/48/52/60/64/ 100/116/140/144	1+2+3
			MCS0/Nss3	36/40/48/52/60/64/ 100/116/140/144	1+2+3
	11ac 40MHz	Band 1-3	MCS0/Nss1	38/46/54/62/102/ 110/134/142	1+2+3
			MCS0/Nss3	38/46/54/62/102/ 110/134/142	1+2+3
	11ac 80MHz	Band 1-3	MCS0/Nss1	42/58/106/138	1+2+3
			MCS0/Nss3	42/58/106/138	1+2+3
	11a/BPSK	Band 1-3	6Mbps	36/40/48/52/60/64/ 100/116/140/144	1+2+3

Band Edge Emission	11ac 20MHz	Band 1-3	MCS0/Nss1	36/40/48/52/60/64/100/116/140/144	1+2+3
			MCS0/Nss3	36/40/48/52/60/64/100/116/140/144	1+2+3
	11ac 40MHz	Band 1-3	MCS0/Nss1	38/46/54/62/102/110/134/142	1+2+3
			MCS0/Nss3	38/46/54/62/102/110/134/142	1+2+3
	11ac 80MHz	Band 1-3	MCS0/Nss1	42/58/106/138	1+2+3
			MCS0/Nss3	42/58/106/138	1+2+3
	11a/BPSK	Band 1-3	6Mbps	36/40/48/52/60/64/100/116/140/144	1+2+3
Frequency Stability	Un-modulation		-	40/60/100	N/A

The following test modes were performed for all tests:

For Conducted Emission test:

Mode 1. EUT + Antenna 1

Mode 2. EUT + Antenna 2

Mode 3. EUT + Antenna 3

Mode 4. EUT + Antenna 4

Mode 5. EUT + Antenna 5

Mode 2 generated the worst test result, so it was recorded in this report.

For Radiated Emission test below 1GHz:

Mode 1. EUT + Antenna 4

For Radiated Emission test above1GHz:

Mode 1. EUT + Antenna 1- Dipole Antenna - 5GHz

Mode 2. EUT + Antenna 3- Omnidirectional Antenna - 5GHz

Mode 3. EUT + Antenna 4- Panel Antenna - 5GHz

Mode 4. EUT + Antenna 5- PCB Antenna - 5GHz

3.7. Table for Testing Locations

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) Please refer section 6 for Test Site Address.

3.8. Table for Supporting Units

For Test Site No: 03CH01-CB

Support Unit	Brand	Model	FCC ID
Notebook	DELL	E6220	D2A62L1989V5
Fixture	ACCTON	AC46074246	N/A

For Test Site No: CO01-CB

Support Unit	Brand	Model	FCC ID
Notebook	DELL	E6430	QDS-BRCM1049LE
Fixture	ACCTON	AC46074246	N/A

For Test Site No: TH01-CB

Support Unit	Brand	Model	FCC ID
Notebook	DELL	M1340	E2K4965AGNM
Fixture	ACCTON	AC46074246	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.

Mode 1 (Ant.1 Dipole antenna / 1dBi)

Power Parameters of IEEE 802.11ac MCS0/Nss1 20MHz

Test Software Version	Manual Tool Version : 2.0.0.8									
Frequency	5180 MHz	5200 MHz	5240 MHz	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz	5720 MHz
MCS0/Nss1 20MHz	46	46	47	75	58	54	54	77	64	76

Power Parameters of IEEE 802.11ac MCS0/Nss3 20MHz

Test Software Version	Manual Tool Version : 2.0.0.8									
Frequency	5180 MHz	5200 MHz	5240 MHz	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz	5720 MHz
MCS0/Nss3 20MHz	48	47	48	76	76	74	80	79	68	76

Power Parameters of IEEE 802.11ac MCS0/Nss1 40MHz

Test Software Version	Manual Tool Version : 2.0.0.8							
Frequency	5190 MHz	5230 MHz	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	5710 MHz
MCS0/Nss1 40MHz	46	46	70	52	46	77	66	78

Power Parameters of IEEE 802.11ac MCS0/Nss3 40MHz

Test Software Version	Manual Tool Version : 2.0.0.8							
Frequency	5190 MHz	5230 MHz	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	5710 MHz
MCS0/Nss3 40MHz	48	48	78	60	56	78	68	78

Power Parameters of IEEE 802.11ac MCS0/Nss1 80MHz

Test Software Version	Manual Tool Version : 2.0.0.8			
Frequency	5210 MHz	5290 MHz	5530 MHz	5690 MHz
MCS0/Nss1 80MHz	44	46	44	80

Power Parameters of IEEE 802.11ac MCS0/Nss3 80MHz

Test Software Version	Manual Tool Version : 2.0.0.8			
Frequency	5210 MHz	5290 MHz	5530 MHz	5690 MHz
MCS0/Nss3 80MHz	50	50	52	80

Power Parameters of IEEE 802.11a

Test Software Version	Manual Tool Version : 2.0.0.8									
Frequency	5180 MHz	5200 MHz	5240 MHz	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz	5720 MHz
802.11a	46	46	47	76	60	60	56	77	70	76

Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)

Power Parameters of IEEE 802.11ac MCS0/Nss1 20MHz

Test Software Version	Manual Tool Version : 2.0.0.8									
Frequency	5180 MHz	5200 MHz	5240 MHz	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz	5720 MHz
MCS0/Nss1 20MHz	25	25	25	52	34	31	34	52	40	53

Power Parameters of IEEE 802.11ac MCS0/Nss3 20MHz

Test Software Version	Manual Tool Version : 2.0.0.8									
Frequency	5180 MHz	5200 MHz	5240 MHz	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz	5720 MHz
MCS0/Nss3 20MHz	44	44	45	74	44	44	50	74	54	71

Power Parameters of IEEE 802.11ac MCS0/Nss1 40MHz

Test Software Version	Manual Tool Version : 2.0.0.8							
Frequency	5190 MHz	5230 MHz	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	5710 MHz
MCS0/Nss1 40MHz	36	36	52	40	38	60	63	66

Power Parameters of IEEE 802.11ac MCS0/Nss3 40MHz

Test Software Version	Manual Tool Version : 2.0.0.8							
Frequency	5190 MHz	5230 MHz	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	5710 MHz
MCS0/Nss3 40MHz	43	44	67	44	43	64	64	74

Power Parameters of IEEE 802.11ac MCS0/Nss1 80MHz

Test Software Version	Manual Tool Version : 2.0.0.8			
Frequency	5210 MHz	5290 MHz	5530 MHz	5690 MHz
MCS0/Nss1 80MHz	34	37	33	79

Power Parameters of IEEE 802.11ac MCS0/Nss3 80MHz

Test Software Version	Manual Tool Version : 2.0.0.8			
Frequency	5210 MHz	5290 MHz	5530 MHz	5690 MHz
MCS0/Nss3 80MHz	41	43	42	78

Power Parameters of IEEE 802.11a

Test Software Version	Manual Tool Version : 2.0.0.8									
Frequency	5180 MHz	5200 MHz	5240 MHz	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz	5720 MHz
802.11a	24	24	25	52	32	28	34	53	48	52

Mode 3 (Ant.4 Panel antenna / 9.2dBi)

Power Parameters of IEEE 802.11ac MCS0/Nss1 20MHz

Test Software Version	Manual Tool Version : 2.0.0.8									
Frequency	5180 MHz	5200 MHz	5240 MHz	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz	5720 MHz
MCS0/Nss1 20MHz	20	20	20	46	34	34	28	47	32	42

Power Parameters of IEEE 802.11ac MCS0/Nss3 20MHz

Test Software Version	Manual Tool Version : 2.0.0.8									
Frequency	5180 MHz	5200 MHz	5240 MHz	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz	5720 MHz
MCS0/Nss3 20MHz	34	34	34	62	42	38	32	63	34	62

Power Parameters of IEEE 802.11ac MCS0/Nss1 40MHz

Test Software Version	Manual Tool Version : 2.0.0.8							
Frequency	5190 MHz	5230 MHz	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	5710 MHz
MCS0/Nss1 40MHz	28	28	50	34	34	44	46	56

Power Parameters of IEEE 802.11ac MCS0/Nss3 40MHz

Test Software Version	Manual Tool Version : 2.0.0.8							
Frequency	5190 MHz	5230 MHz	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	5710 MHz
MCS0/Nss3 40MHz	34	34	54	36	36	54	50	63

Power Parameters of IEEE 802.11ac MCS0/Nss1 80MHz

Test Software Version	Manual Tool Version : 2.0.0.8			
Frequency	5210 MHz	5290 MHz	5530 MHz	5690 MHz
MCS0/Nss1 80MHz	32	32	30	65

Power Parameters of IEEE 802.11ac MCS0/Nss3 80MHz

Test Software Version	Manual Tool Version : 2.0.0.8			
Frequency	5210 MHz	5290 MHz	5530 MHz	5690 MHz
MCS0/Nss3 80MHz	35	34	34	66

Power Parameters of IEEE 802.11a

Test Software Version	Manual Tool Version : 2.0.0.8									
Frequency	5180 MHz	5200 MHz	5240 MHz	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz	5720 MHz
802.11a	20	20	20	46	32	30	24	46	28	41

Mode 4 (Ant.5 PCB antenna / 5.74dBi)

Power Parameters of IEEE 802.11ac MCS0/Nss1 20MHz

Test Software Version	Manual Tool Version : 2.0.0.8									
Frequency	5180 MHz	5200 MHz	5240 MHz	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz	5720 MHz
MCS0/Nss1 20MHz	28	28	28	56	47	45	50	56	58	63

Power Parameters of IEEE 802.11ac MCS0/Nss3 20MHz

Test Software Version	Manual Tool Version : 2.0.0.8									
Frequency	5180 MHz	5200 MHz	5240 MHz	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz	5720 MHz
MCS0/Nss3 20MHz	48	47	48	76	58	61	62	75	62	76

Power Parameters of IEEE 802.11ac MCS0/Nss1 40MHz

Test Software Version	Manual Tool Version : 2.0.0.8							
Frequency	5190 MHz	5230 MHz	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	5710 MHz
MCS0/Nss1 40MHz	40	40	61	46	43	64	65	74

Power Parameters of IEEE 802.11ac MCS0/Nss3 40MHz

Test Software Version	Manual Tool Version : 2.0.0.8							
Frequency	5190 MHz	5230 MHz	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	5710 MHz
MCS0/Nss3 40MHz	48	48	78	52	46	78	70	78

Power Parameters of IEEE 802.11ac MCS0/Nss1 80MHz

Test Software Version	Manual Tool Version : 2.0.0.8			
Frequency	5210 MHz	5290 MHz	5530 MHz	5690 MHz
MCS0/Nss1 80MHz	49	42	40	80

Power Parameters of IEEE 802.11ac MCS0/Nss3 80MHz

Test Software Version	Manual Tool Version : 2.0.0.8			
Frequency	5210 MHz	5290 MHz	5530 MHz	5690 MHz
MCS0/Nss3 80MHz	50	48	46	80

Power Parameters of IEEE 802.11a

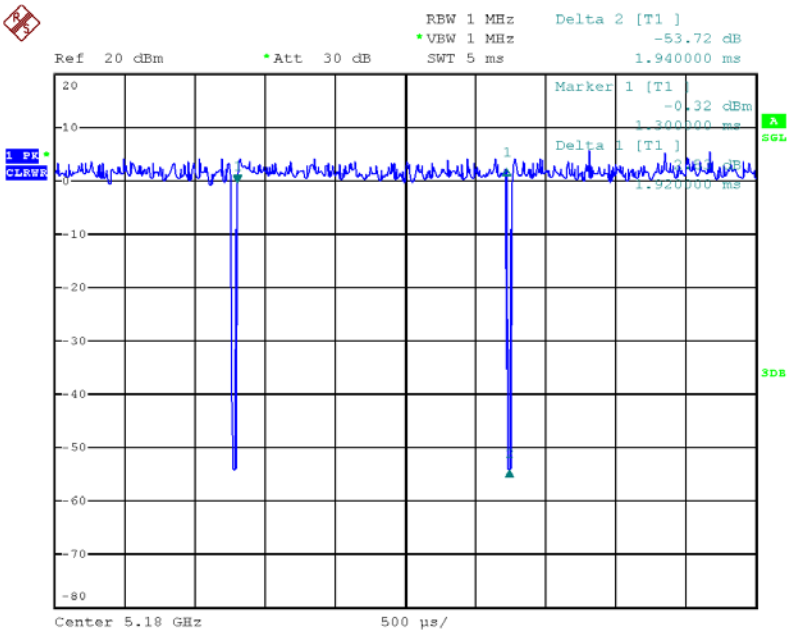
Test Software Version	Manual Tool Version : 2.0.0.8									
Frequency	5180 MHz	5200 MHz	5240 MHz	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz	5720 MHz
802.11a	28	28	28	56	53	51	52	56	56	62

3.10. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

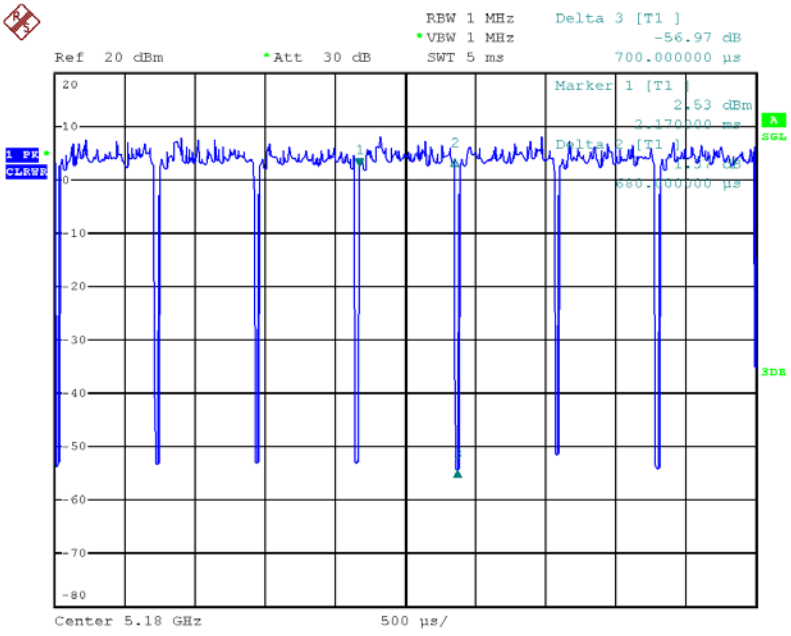
3.11. Duty Cycle

IEEE 802.11ac MCS0/Nss1 20MHz



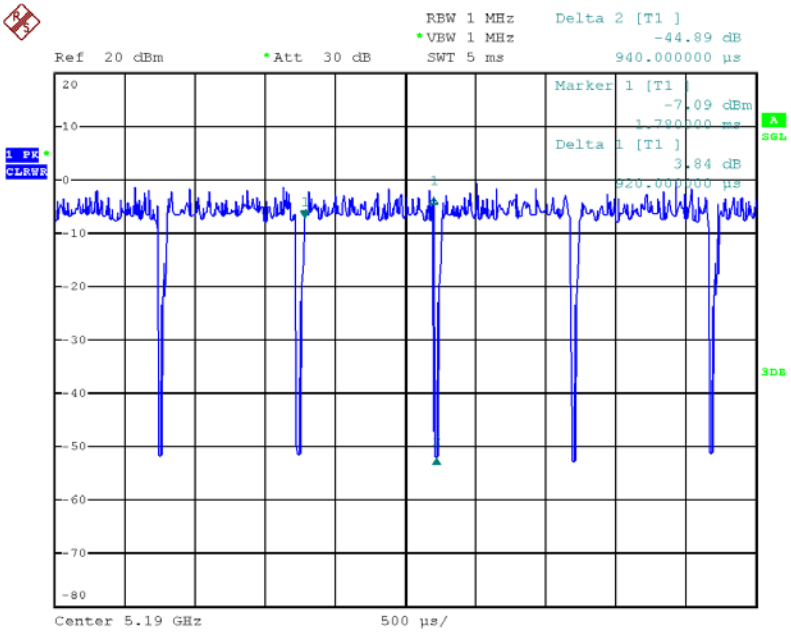
Date: 24.JUL.2013 11:36:52

IEEE 802.11ac MCS0/Nss3 20MHz



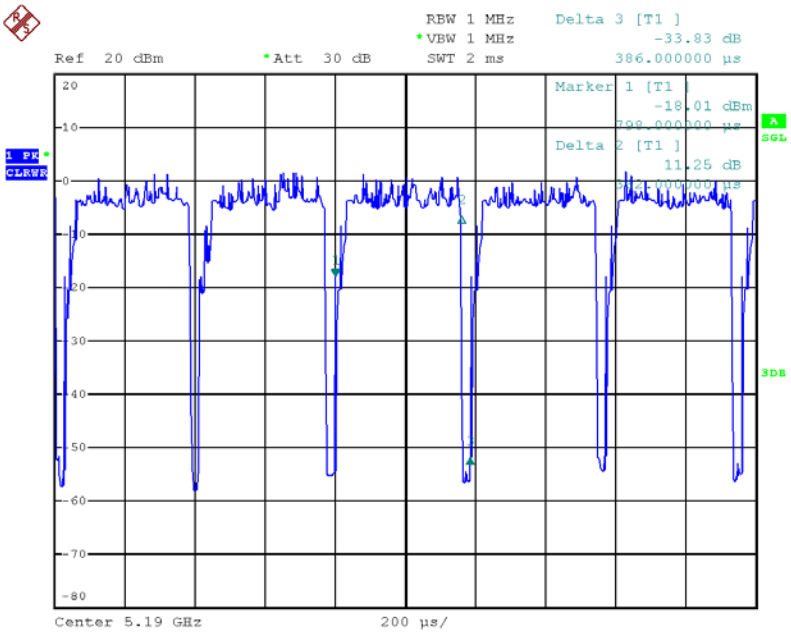
Date: 18.JUL.2013 06:21:51

IEEE 802.11ac MCS0/Nss1 40MHz



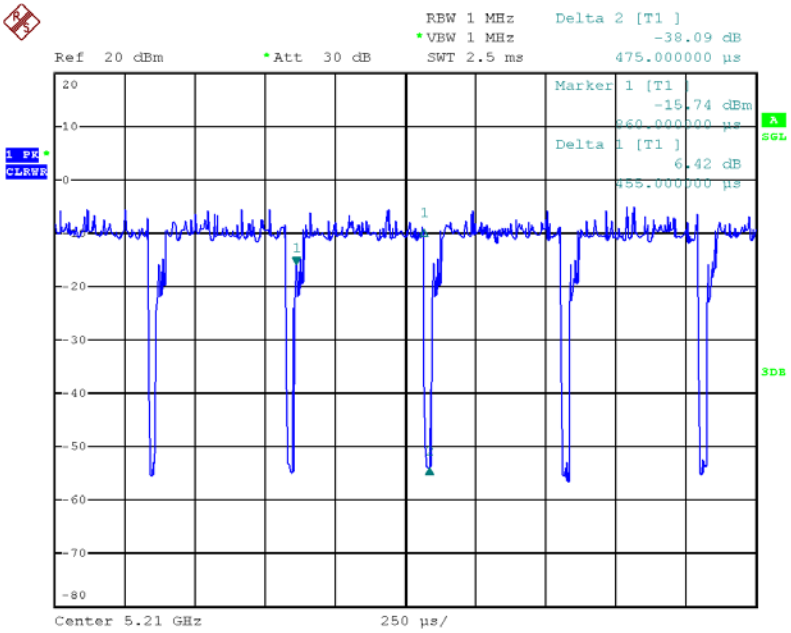
Date: 24.JUL.2013 11:39:35

IEEE 802.11ac MCS0/Nss3 40MHz



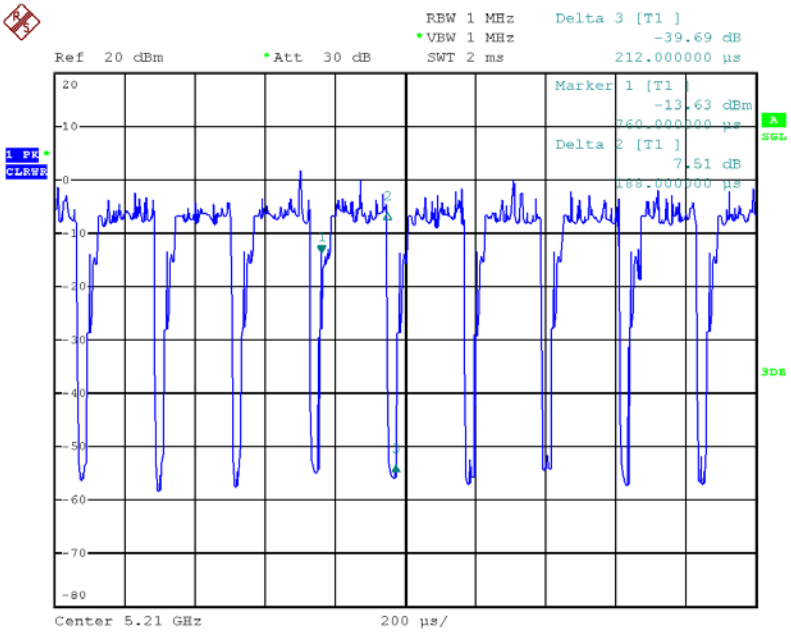
Date: 18.JUL.2013 06:23:08

IEEE 802.11ac MCS0/Nss1 80MHz



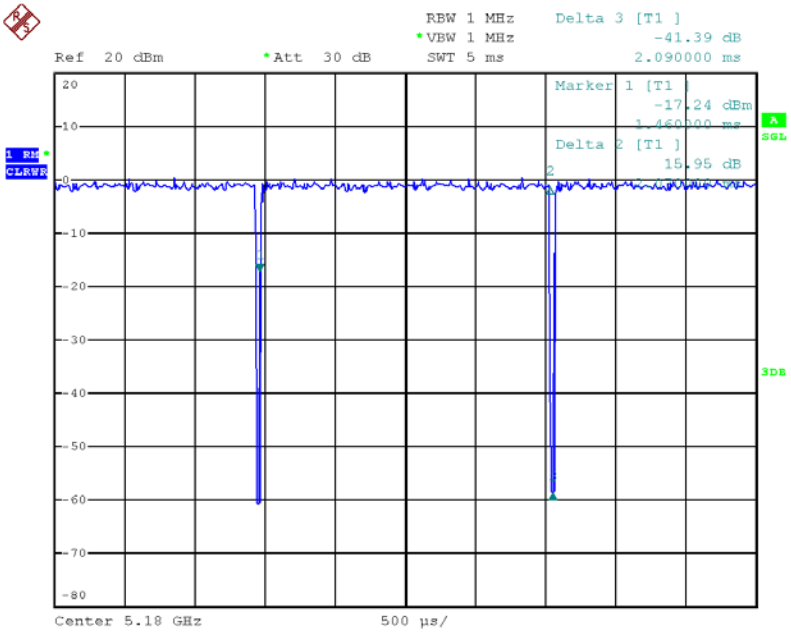
Date: 24.JUL.2013 11:42:21

IEEE 802.11ac MCS0/Nss3 80MHz



Date: 18.JUL.2013 06:24:10

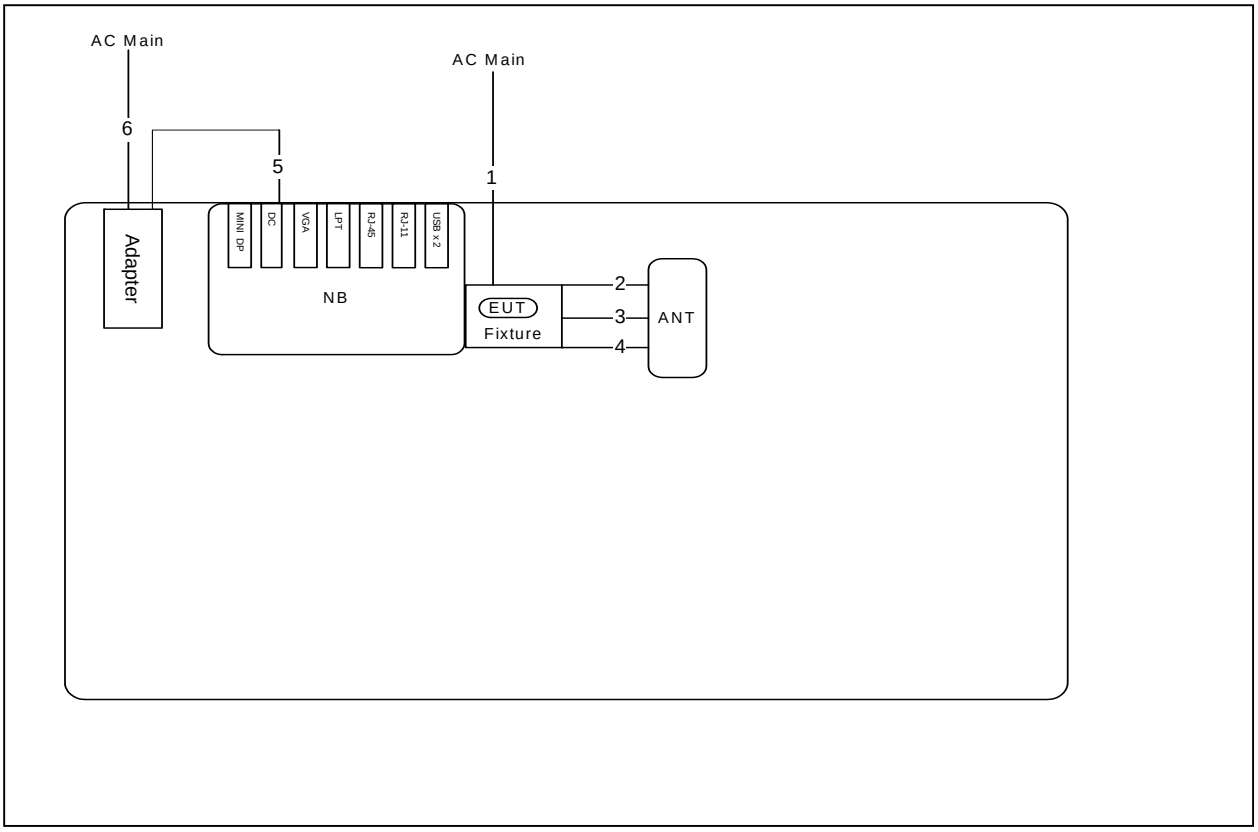
IEEE 802.11a


RBW 1 MHz
VBW 1 MHz
SWT 5 ms
Delta 3 [T1]
-41.39 dB
2.090000 ms
Ref 20 dBm
Att 30 dB
Marker 1 [T1]
-17.24 dBm
1.460000 ms
Delta 2 [T1]
15.95 dB
2
1 RM
CLRWR
A
SGL
3DB
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 5.18 GHz
500 µs/
Date: 17.JUL.2013 22:33:29

3.12. Test Configurations

3.12.1. AC Power Line Conduction Emissions Test Configuration

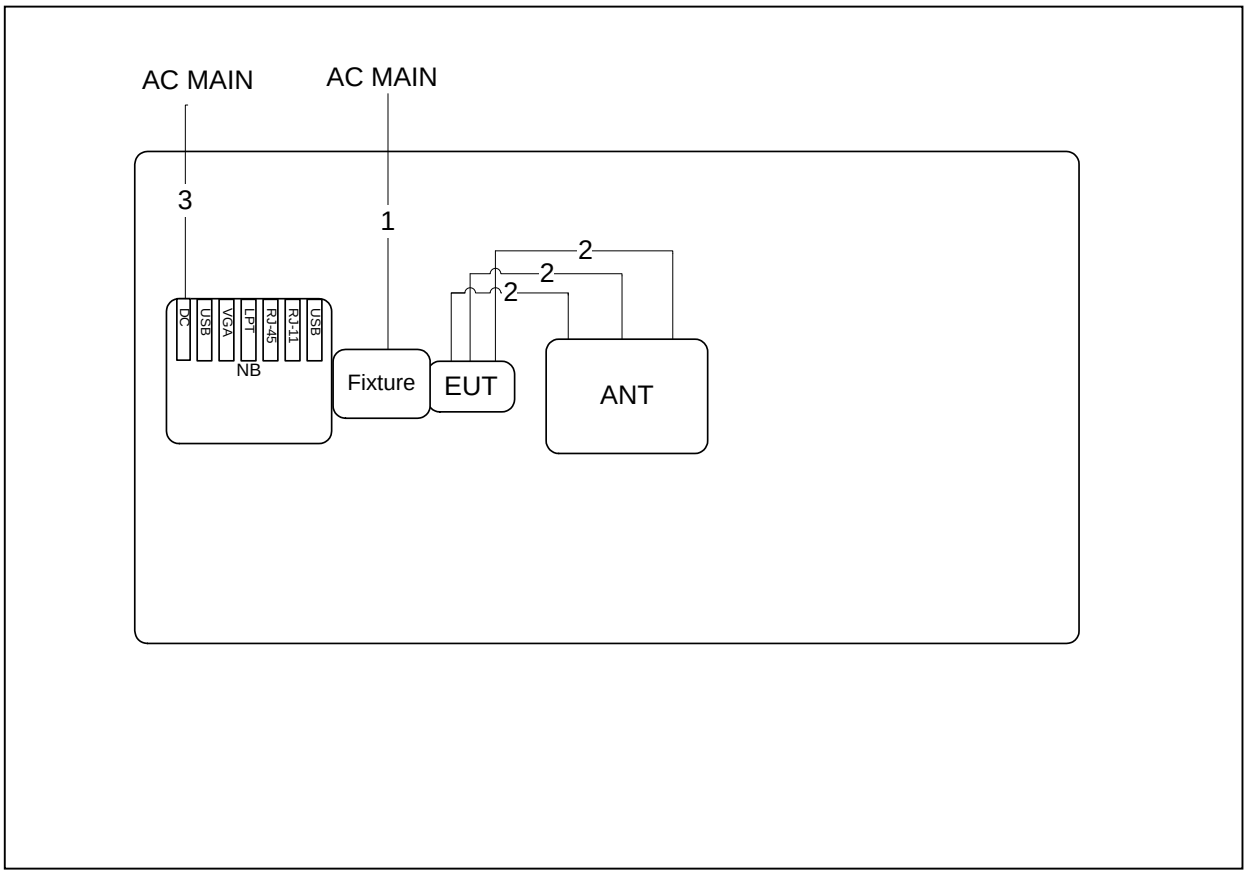
Test Mode : Mode 2



Item	Connection	Shielded	Length
1	AC Power Cable	No	1.4m
2	Antenna Cable	No	1.1m
3	Antenna Cable	No	1.1m
4	Antenna Cable	No	1.1m
5	AC Power Cable	No	1.8m
6	DC Power Cable	No	1.8m

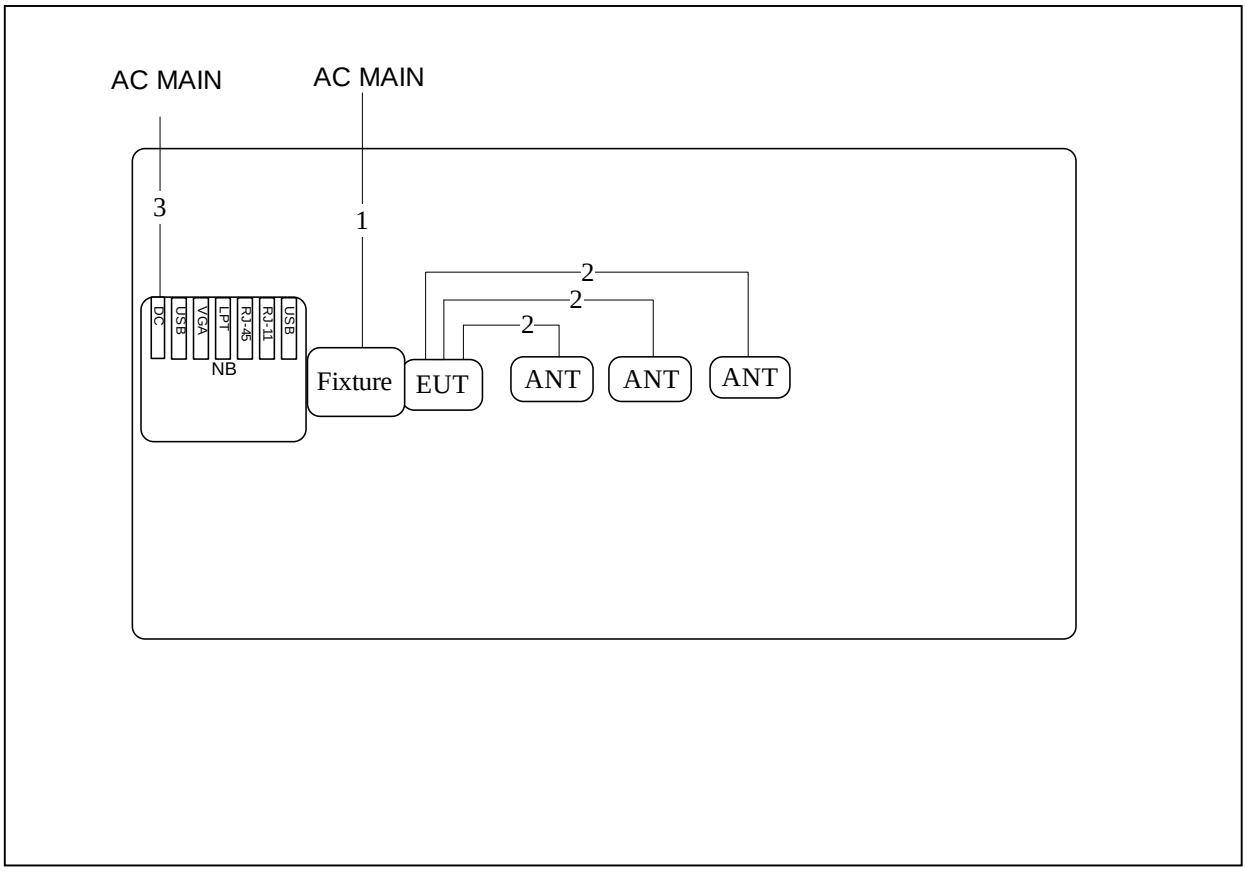
3.12.2. Radiation Emissions Test Configuration

Test Configuration: 30MHz ~1GHz / Test Mode: Mode 1



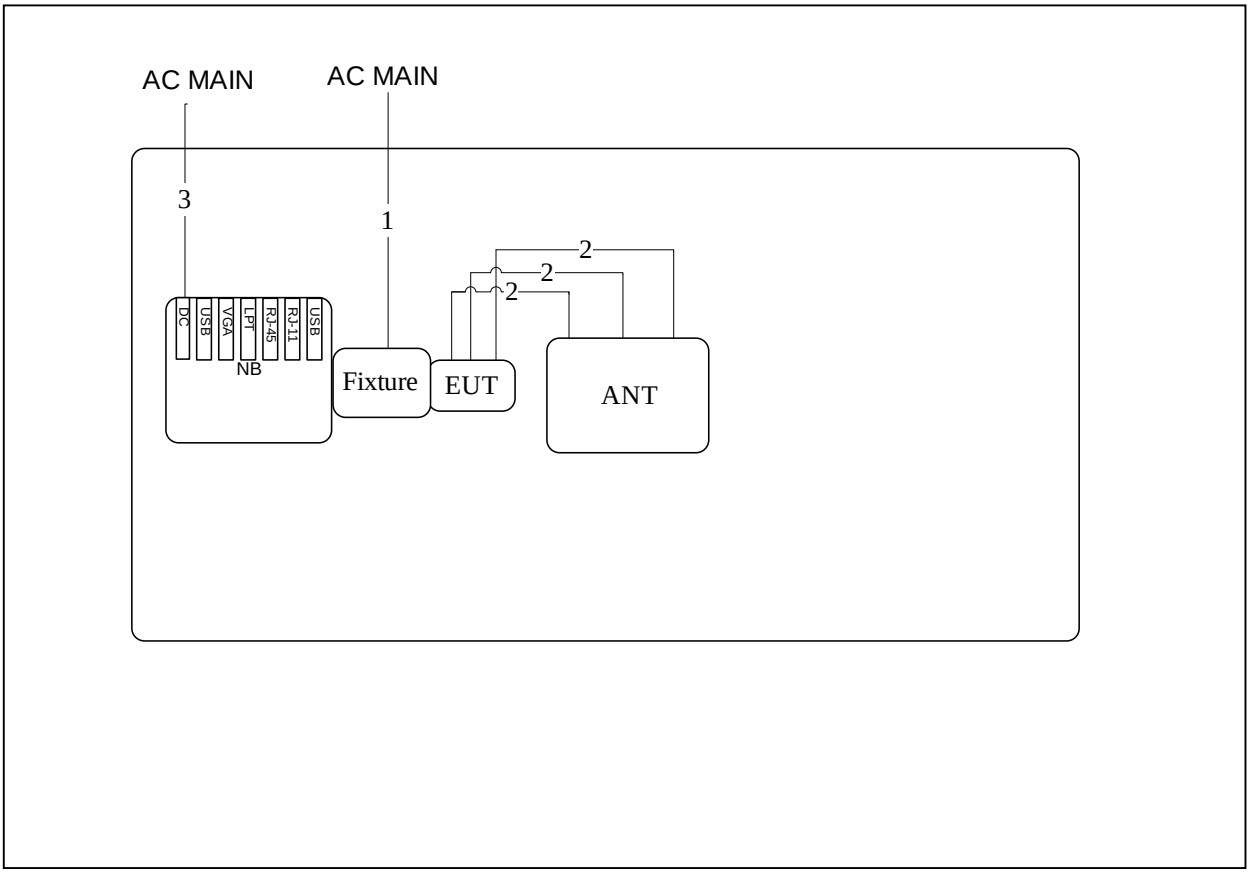
Item	Connection	Shielded	Length(m)
1	Power Cable	No	1.4m
2	RF Cable*3	Yes	1.05m
3	Power Cable	No	2.6m

Test Configuration: above 1GHz / Test Mode: Mode 1



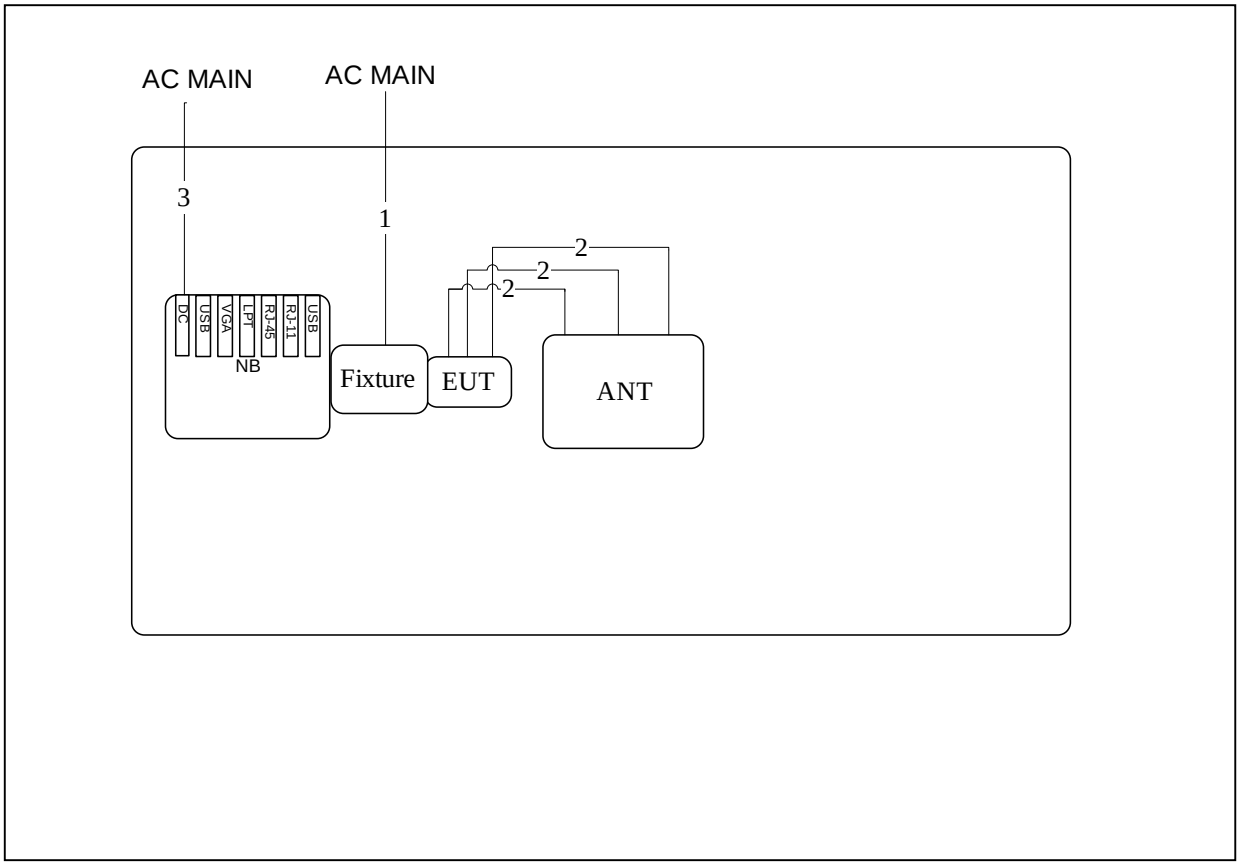
Item	Connection	Shielded	Length(m)
1	Power Cable	No	1.4m
2	RF Cable	Yes	0.2m
3	Power Cable	No	2.6m

Test Configuration: above 1GHz / Test Mode: Mode 2



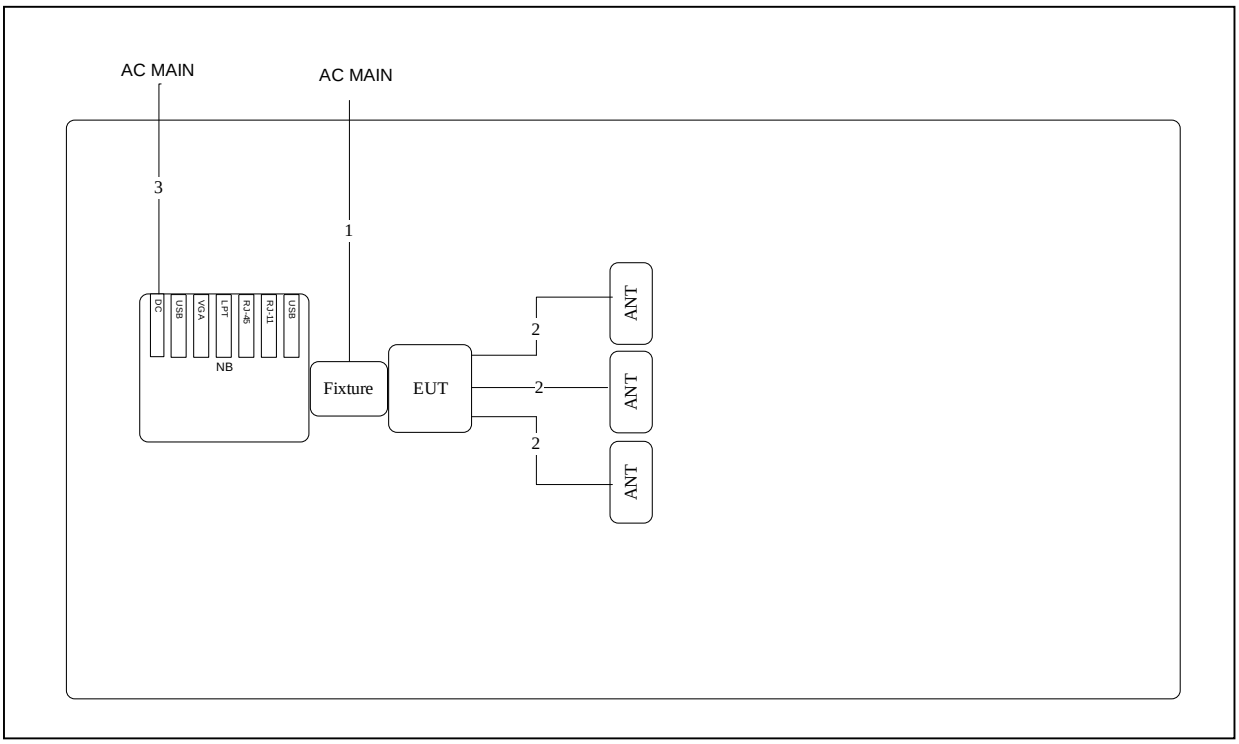
Item	Connection	Shielded	Length(m)
1	Power Cable	No	1.4m
2	RF Cable*3	Yes	1.1m
3	Power Cable	No	2.6m

Test Configuration: above 1GHz / Test Mode: Mode 3



Item	Connection	Shielded	Length(m)
1	Power Cable	No	1.4m
2	RF Cable*3	Yes	1.05m
3	Power Cable	No	2.6m

Test Configuration: above 1GHz / Test Mode: Mode 4



Item	Connection	Shielded	Length(m)
1	Power Cable	No	2.6m
2	Antenna cable*3	Yes	0.15m
3	Power Cable	No	1.4m

4. TEST RESULT

4.1. AC Power Line Conducted Emissions Measurement

4.1.1. Limit

For this product that is designed to connect to the AC power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed below limits table.

Frequency (MHz)	QP Limit (dBuV)	AV Limit (dBuV)
0.15~0.5	66~56	56~46
0.5~5	56	46
5~30	60	50

4.1.2. Measuring Instruments and Setting

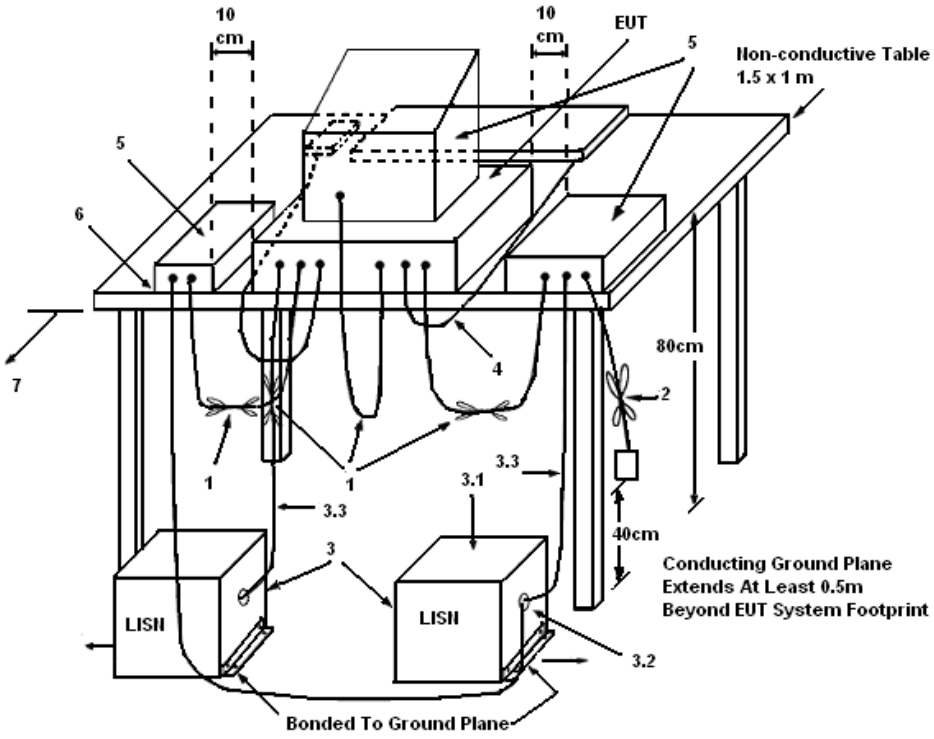
Please refer to section 5 of equipments list in this report. The following table is the setting of the receiver.

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

4.1.3. Test Procedures

1. Configure the EUT according to ANSI C63.10. The EUT or host of EUT has to be placed 0.4 meter far from the conducting wall of the shielding room and at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT or host of EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connected to the other LISNs. The LISN should provide 50uH/50ohms coupling impedance.
4. The frequency range from 150 kHz to 30 MHz was searched.
5. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. The measurement has to be done between each power line and ground at the power terminal.

4.1.4. Test Setup Layout



LEGEND:

(1) Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

(2) I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

(3) EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in 50 Ω. LISN can be placed on top of, or immediately beneath, reference ground plane.

(3.1) All other equipment powered from additional LISN(s).

(3.2) Multiple outlet strip can be used for multiple power cords of non-EUT equipment.

(3.3) LISN at least 80 cm from nearest part of EUT chassis.

(4) Cables of hand-operated devices, such as keyboards, mice, etc., shall be placed as for normal use.

(5) Non-EUT components of EUT system being tested.

(6) Rear of EUT, including peripherals, shall all be aligned and flush with rear of tabletop.

(7) Rear of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.

4.1.5. Test Deviation

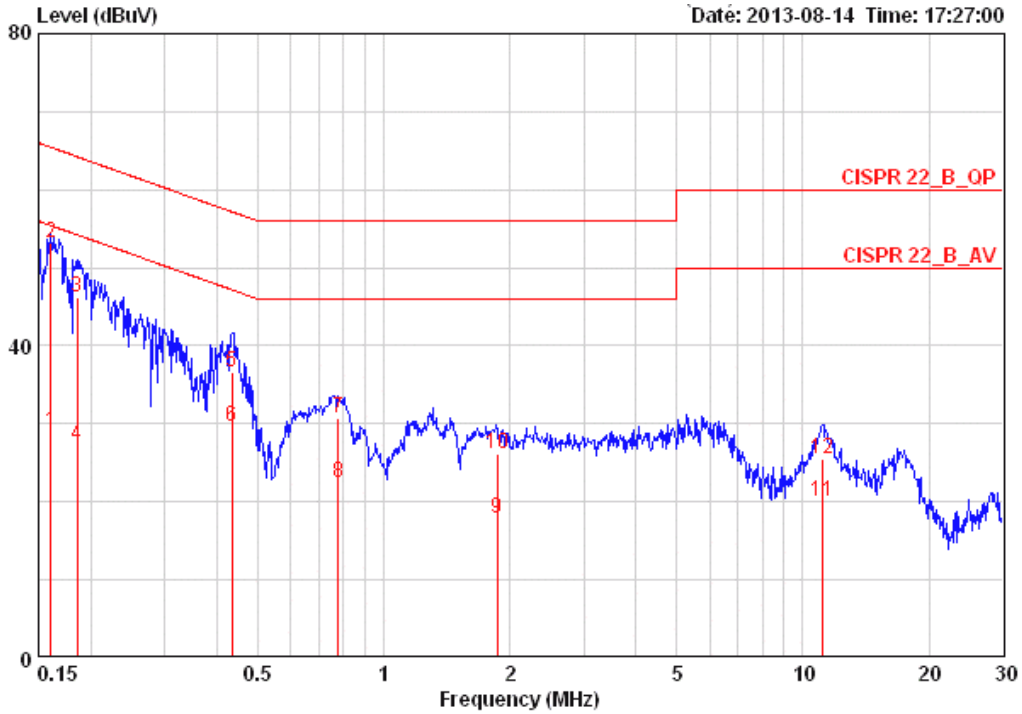
There is no deviation with the original standard.

4.1.6. EUT Operation during Test

The EUT was placed on the test table and programmed in normal function.

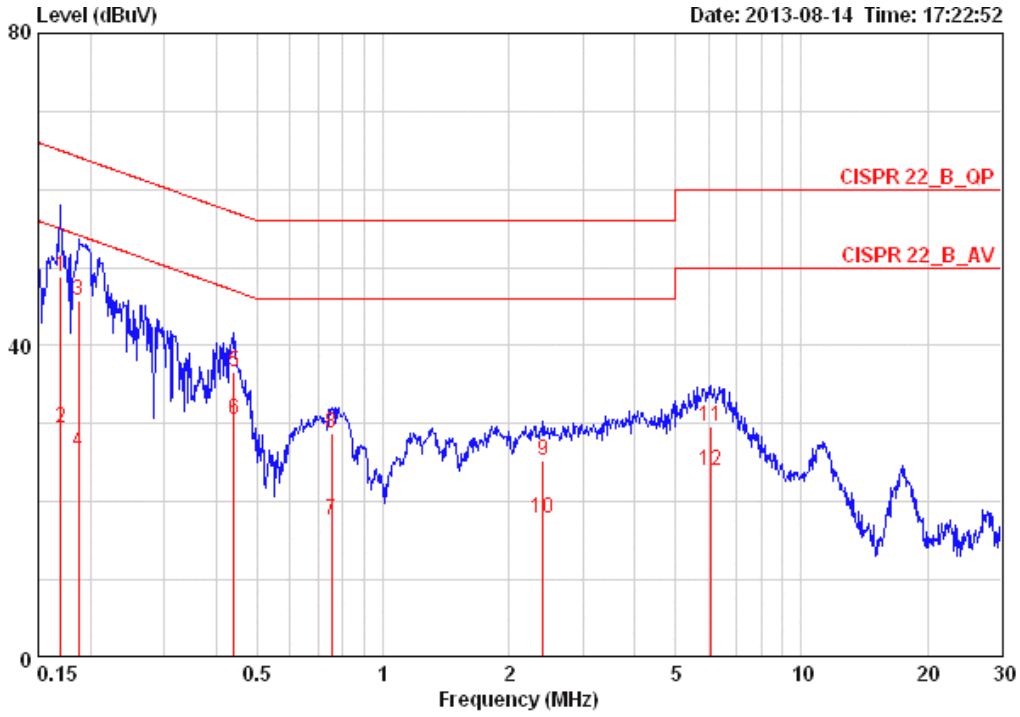
4.1.7. Results of AC Power Line Conducted Emissions Measurement

Temperature	22°C	Humidity	58%
Test Engineer	Parody Lin	Phase	Line
Configuration	CTX	Test Mode	Mode 2



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Pol/Phase	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.16070	28.91	-26.51	55.43	28.58	0.15	0.18	LINE	AVERAGE
2 @	0.16070	53.09	-12.33	65.43	52.76	0.15	0.18	LINE	QP
3	0.18541	46.20	-18.04	64.24	45.86	0.15	0.19	LINE	QP
4	0.18541	27.18	-27.06	54.24	26.84	0.15	0.19	LINE	AVERAGE
5	0.43511	36.60	-20.55	57.15	36.25	0.15	0.20	LINE	QP
6	0.43511	29.73	-17.42	47.15	29.38	0.15	0.20	LINE	AVERAGE
7	0.77931	30.79	-25.21	56.00	30.43	0.16	0.20	LINE	QP
8	0.77931	22.39	-23.61	46.00	22.03	0.16	0.20	LINE	AVERAGE
9	1.868	17.93	-28.07	46.00	17.52	0.19	0.23	LINE	AVERAGE
10	1.868	26.12	-29.88	56.00	25.71	0.19	0.23	LINE	QP
11	11.139	20.02	-29.98	50.00	19.24	0.40	0.38	LINE	AVERAGE
12	11.139	25.46	-34.54	60.00	24.68	0.40	0.38	LINE	QP

Temperature	22°C	Humidity	58%
Test Engineer	Parody Lin	Phase	Neutral
Configuration	CTX	Test Mode	Mode 2



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Pol/Phase	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.16944	48.77	-16.22	64.99	48.51	0.07	0.19	NEUTRAL	QP
2	0.16944	29.42	-25.57	54.99	29.16	0.07	0.19	NEUTRAL	AVERAGE
3	0.18739	45.89	-18.27	64.15	45.62	0.07	0.20	NEUTRAL	QP
4	0.18739	26.32	-27.84	54.15	26.05	0.07	0.20	NEUTRAL	AVERAGE
5	0.43974	36.54	-20.53	57.07	36.27	0.07	0.20	NEUTRAL	QP
6	0.43974	30.46	-16.61	47.07	30.19	0.07	0.20	NEUTRAL	AVERAGE
7	0.75493	17.57	-28.43	46.00	17.29	0.08	0.20	NEUTRAL	AVERAGE
8	0.75493	28.67	-27.33	56.00	28.39	0.08	0.20	NEUTRAL	QP
9	2.409	25.28	-30.72	56.00	24.93	0.11	0.24	NEUTRAL	QP
10	2.409	17.90	-28.10	46.00	17.55	0.11	0.24	NEUTRAL	AVERAGE
11	6.056	29.68	-30.32	60.00	29.17	0.18	0.33	NEUTRAL	QP
12	6.056	23.88	-26.12	50.00	23.37	0.18	0.33	NEUTRAL	AVERAGE

Note:

Level = Read Level + LISN Factor + Cable Loss.

4.2. 26dB Bandwidth and 99% Occupied Bandwidth Measurement

4.2.1. Limit

No restriction limits.

4.2.2. Measuring Instruments and Setting

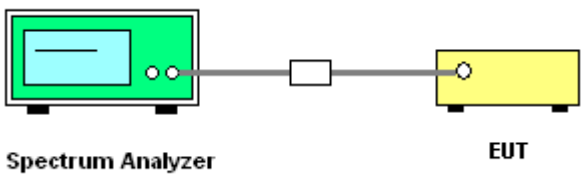
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

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	≥ 3 x RBW
Detector	Peak
Trace	Max Hold

4.2.3. Test Procedures

1. The transmitter output (antenna port) was connected 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%.

4.2.4. 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 26dB Bandwidth and 99% Occupied Bandwidth

Temperature	25°C	Humidity	56%
Test Engineer	Benson peng	Configurations	IEEE 802.11a / ac
Test Mode	Mode 1 (Ant.1 Dipole antenna / 1dBi)		

Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	19.84	17.76
40	5200 MHz	19.84	17.60
48	5240 MHz	20.16	17.60
52	5260 MHz	37.60	20.32
60	5300 MHz	19.84	17.76
64	5320 MHz	20.00	17.60
100	5500 MHz	19.84	17.60
116	5580 MHz	39.84	19.68
140	5700 MHz	21.92	17.60
144	5720 MHz	32.96	18.96

Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	20.16	18.08
40	5200 MHz	20.32	17.92
48	5240 MHz	20.64	17.92
52	5260 MHz	28.96	18.40
60	5300 MHz	32.64	18.40
64	5320 MHz	25.12	18.40
100	5500 MHz	29.92	18.72
116	5580 MHz	29.12	18.56
140	5700 MHz	21.28	18.24
144	5720 MHz	23.44	18.16

Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
38	5190 MHz	39.04	36.48
46	5230 MHz	38.40	36.48
54	5270 MHz	60.80	36.80
62	5310 MHz	38.08	36.48
102	5510 MHz	38.72	36.16
110	5550 MHz	71.36	37.76
134	5670 MHz	60.16	36.48
142	5710 MHz	74.56	36.96

Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
38	5190 MHz	38.40	36.48
46	5230 MHz	38.72	36.48
54	5270 MHz	75.52	37.44
62	5310 MHz	55.36	36.48
102	5510 MHz	38.72	36.48
110	5550 MHz	70.72	37.12
134	5670 MHz	53.12	36.48
142	5710 MHz	70.56	36.80

Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
42	5210 MHz	81.92	75.52
58	5290 MHz	80.64	76.16
106	5530 MHz	81.92	76.16
138	5690 MHz	131.84	76.16

Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
42	5210 MHz	81.92	76.80
58	5290 MHz	82.56	76.80
106	5530 MHz	81.92	76.80
138	5690 MHz	91.84	76.48

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

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	19.52	16.64
40	5200 MHz	19.36	16.64
48	5240 MHz	19.36	16.96
52	5260 MHz	24.00	21.44
60	5300 MHz	21.28	17.12
64	5320 MHz	20.64	16.96
100	5500 MHz	19.20	16.96
116	5580 MHz	24.16	20.48
140	5700 MHz	22.88	18.24
144	5720 MHz	26.88	19.20

Temperature	25℃	Humidity	56%
Test Engineer	Benson peng	Configurations	IEEE 802.11a / ac
Test Mode	Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)		

Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	19.84	17.60
40	5200 MHz	19.84	17.60
48	5240 MHz	19.84	17.60
52	5260 MHz	19.68	17.60
60	5300 MHz	19.84	17.60
64	5320 MHz	20.00	17.60
100	5500 MHz	19.84	17.44
116	5580 MHz	20.16	17.60
140	5700 MHz	19.68	17.28
144	5720 MHz	20.24	17.68

Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	20.16	17.92
40	5200 MHz	20.32	18.08
48	5240 MHz	20.48	18.08
52	5260 MHz	27.20	18.40
60	5300 MHz	20.32	17.92
64	5320 MHz	20.16	17.92
100	5500 MHz	20.32	18.08
116	5580 MHz	24.16	18.40
140	5700 MHz	20.32	18.08
144	5720 MHz	25.04	18.24

Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
38	5190 MHz	38.72	36.16
46	5230 MHz	38.40	36.48
54	5270 MHz	38.40	36.48
62	5310 MHz	38.40	36.16
102	5510 MHz	38.40	36.16
110	5550 MHz	39.36	36.16
134	5670 MHz	38.72	36.48
142	5710 MHz	60.16	36.64

Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
38	5190 MHz	38.40	36.48
46	5230 MHz	38.40	36.48
54	5270 MHz	51.52	36.48
62	5310 MHz	38.40	36.48
102	5510 MHz	38.40	36.48
110	5550 MHz	50.24	36.48
134	5670 MHz	50.56	36.48
142	5710 MHz	70.72	36.96

Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
42	5210 MHz	81.28	76.16
58	5290 MHz	81.92	75.52
106	5530 MHz	81.28	76.16
138	5690 MHz	155.52	77.44

Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
42	5210 MHz	81.92	76.16
58	5290 MHz	81.92	76.16
106	5530 MHz	81.92	76.80
138	5690 MHz	140.16	77.12

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

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	19.20	16.48
40	5200 MHz	19.20	16.80
48	5240 MHz	19.20	16.64
52	5260 MHz	19.36	16.80
60	5300 MHz	19.04	16.64
64	5320 MHz	19.36	16.64
100	5500 MHz	19.20	16.96
116	5580 MHz	19.36	16.96
140	5700 MHz	19.20	16.96
144	5720 MHz	19.68	16.72

Temperature	25℃	Humidity	56%
Test Engineer	Benson peng	Configurations	IEEE 802.11a / ac
Test Mode	Mode 3 (Ant.4 Panel antenna / 9.2dBi)		

Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	20.00	17.60
40	5200 MHz	19.84	17.60
48	5240 MHz	19.84	17.60
52	5260 MHz	19.84	17.60
60	5300 MHz	19.84	17.60
64	5320 MHz	19.84	17.60
100	5500 MHz	20.16	17.44
116	5580 MHz	19.68	17.44
140	5700 MHz	19.68	17.60
144	5720 MHz	20.32	17.60

Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	20.00	17.92
40	5200 MHz	20.00	17.92
48	5240 MHz	20.16	17.92
52	5260 MHz	20.32	18.08
60	5300 MHz	20.16	17.92
64	5320 MHz	20.32	17.92
100	5500 MHz	20.32	18.08
116	5580 MHz	20.32	18.08
140	5700 MHz	20.48	18.08
144	5720 MHz	20.32	18.00

Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
38	5190 MHz	38.72	36.16
46	5230 MHz	39.04	36.16
54	5270 MHz	38.72	36.16
62	5310 MHz	38.40	36.48
102	5510 MHz	38.40	36.16
110	5550 MHz	38.40	36.48
134	5670 MHz	38.40	36.16
142	5710 MHz	39.04	36.48

Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
38	5190 MHz	38.72	36.48
46	5230 MHz	38.40	36.48
54	5270 MHz	38.72	36.48
62	5310 MHz	38.40	36.48
102	5510 MHz	38.40	36.48
110	5550 MHz	38.72	36.48
134	5670 MHz	38.72	36.48
142	5710 MHz	51.20	36.48

Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
42	5210 MHz	81.28	76.16
58	5290 MHz	80.64	76.16
106	5530 MHz	81.28	76.16
138	5690 MHz	80.00	75.84

Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
42	5210 MHz	81.92	76.80
58	5290 MHz	81.28	76.80
106	5530 MHz	81.92	76.80
138	5690 MHz	79.36	76.16

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

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	19.20	16.48
40	5200 MHz	19.20	16.64
48	5240 MHz	19.20	16.64
52	5260 MHz	19.36	16.80
60	5300 MHz	19.04	16.64
64	5320 MHz	19.20	16.64
100	5500 MHz	19.20	16.96
116	5580 MHz	19.20	16.96
140	5700 MHz	19.36	16.96
144	5720 MHz	19.36	16.72

Temperature	25℃	Humidity	56%
Test Engineer	Benson peng	Configurations	IEEE 802.11a / ac
Test Mode	Mode 4 (Ant.5 PCB antenna / 5.74dBi)		

Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	19.84	17.44
40	5200 MHz	20.16	17.60
48	5240 MHz	19.84	17.60
52	5260 MHz	20.48	17.60
60	5300 MHz	20.16	17.60
64	5320 MHz	20.16	17.60
100	5500 MHz	20.00	17.60
116	5580 MHz	20.32	17.60
140	5700 MHz	20.32	17.60
144	5720 MHz	22.24	17.92

Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	20.32	17.92
40	5200 MHz	20.32	17.92
48	5240 MHz	20.32	18.08
52	5260 MHz	30.88	18.40
60	5300 MHz	20.32	17.92
64	5320 MHz	20.32	18.08
100	5500 MHz	20.48	18.08
116	5580 MHz	25.76	18.24
140	5700 MHz	20.64	18.08
144	5720 MHz	26.16	18.24

Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
38	5190 MHz	38.40	36.16
46	5230 MHz	38.40	36.48
54	5270 MHz	49.60	36.48
62	5310 MHz	38.72	36.48
102	5510 MHz	38.08	36.16
110	5550 MHz	38.40	36.48
134	5670 MHz	40.64	36.16
142	5710 MHz	75.04	36.96

Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
38	5190 MHz	38.72	36.48
46	5230 MHz	38.72	36.48
54	5270 MHz	75.84	38.40
62	5310 MHz	38.72	36.48
102	5510 MHz	38.40	36.48
110	5550 MHz	70.72	37.12
134	5670 MHz	55.36	36.48
142	5710 MHz	70.72	36.96

Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
42	5210 MHz	81.92	75.52
58	5290 MHz	80.64	76.16
106	5530 MHz	81.92	76.16
138	5690 MHz	147.52	77.44

Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3

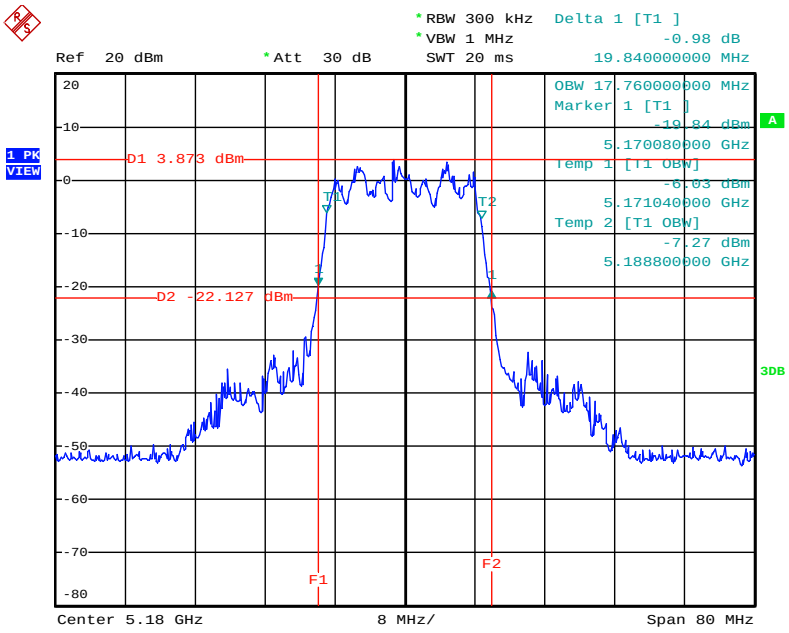
Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
42	5210 MHz	81.92	76.16
58	5290 MHz	81.92	76.80
106	5530 MHz	81.92	76.80
138	5690 MHz	117.76	76.48

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

Channel	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
36	5180 MHz	19.36	16.64
40	5200 MHz	19.36	16.96
48	5240 MHz	19.20	16.64
52	5260 MHz	19.36	16.80
60	5300 MHz	19.04	16.96
64	5320 MHz	19.20	16.64
100	5500 MHz	19.20	16.96
116	5580 MHz	19.20	16.96
140	5700 MHz	19.36	16.96
144	5720 MHz	21.28	16.96

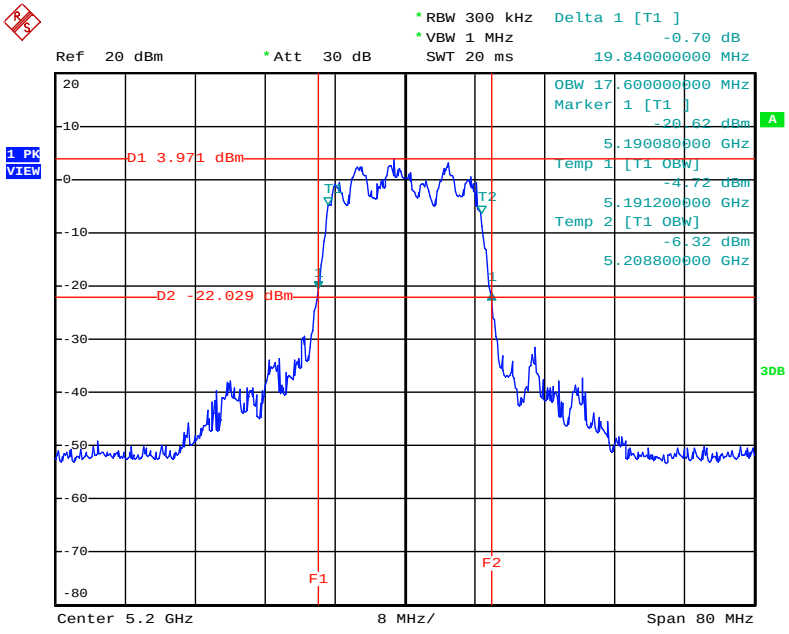
Test Mode: Mode 1 (Ant.1 Dipole antenna / 1dBi)

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



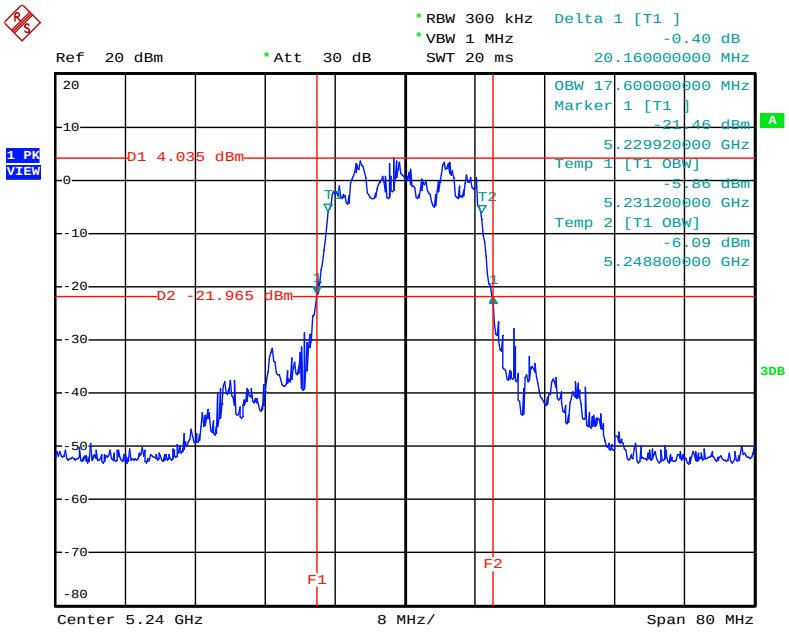
Date: 6.AUG.2013 08:06:32

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5200 MHz



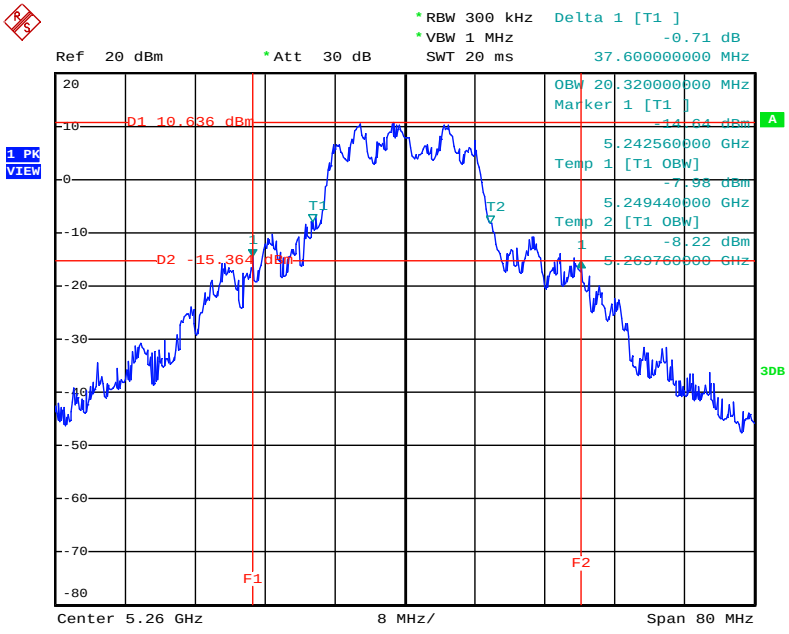
Date: 6.AUG.2013 08:06:05

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



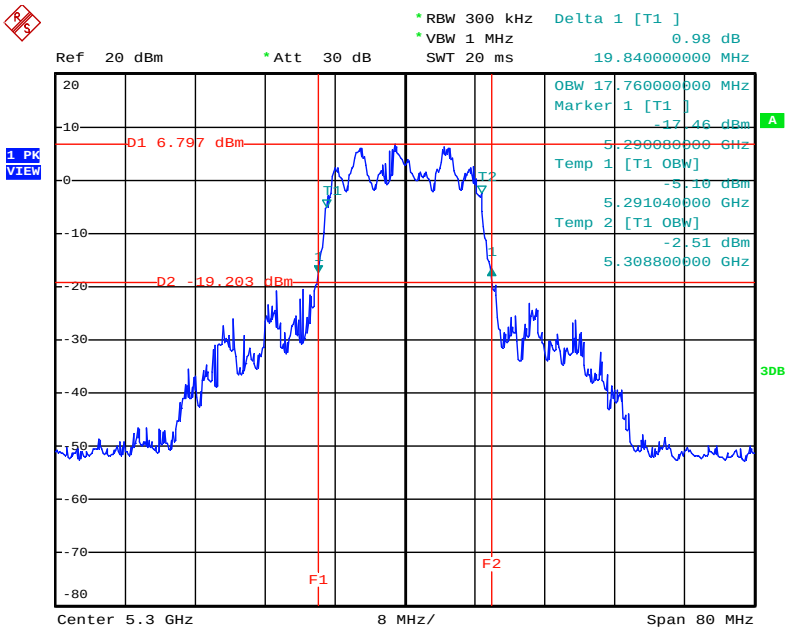
Date: 6.AUG.2013 08:05:44

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz



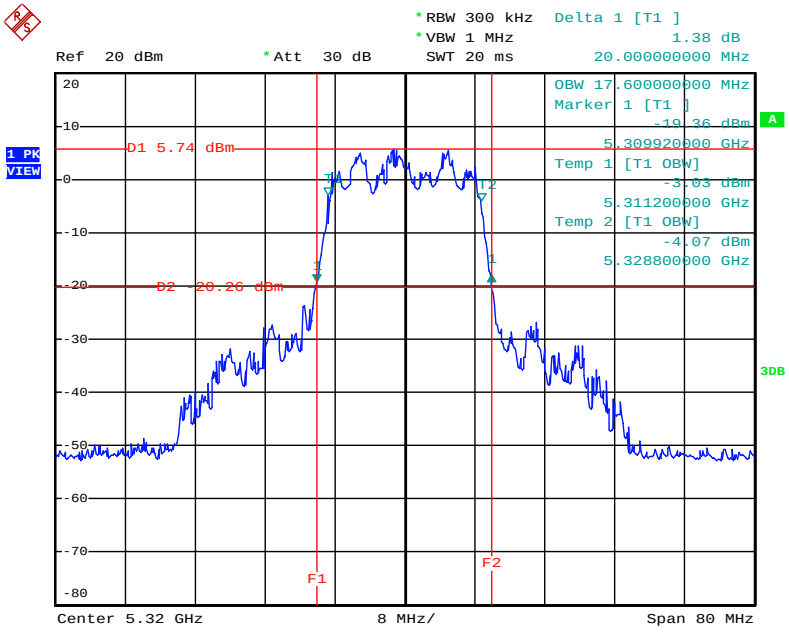
Date: 9.AUG.2013 09:14:08

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5300 MHz



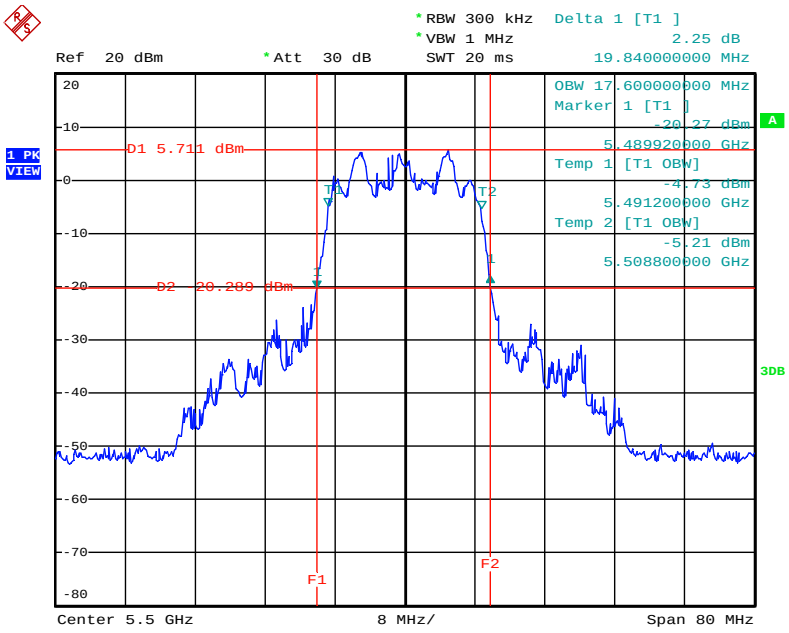
Date: 9.AUG.2013 09:13:40

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5320 MHz



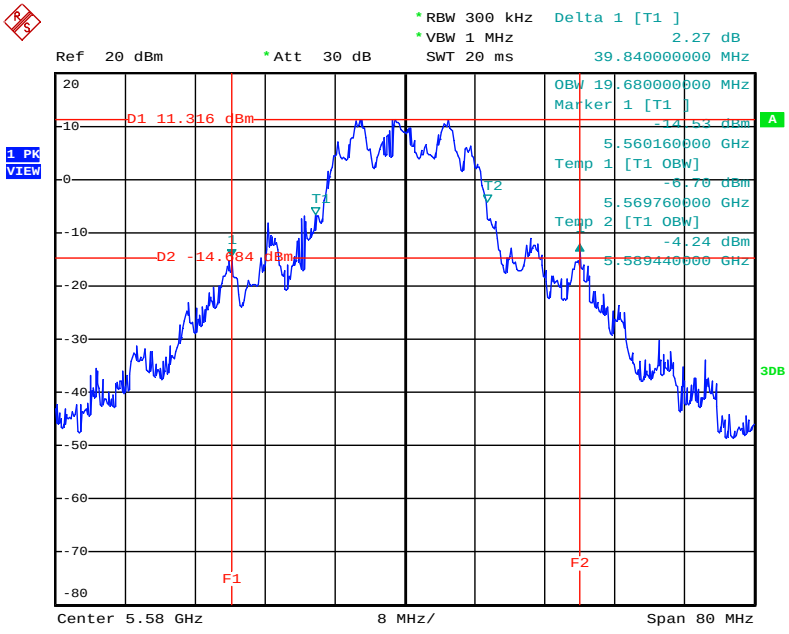
Date: 9.AUG.2013 09:13:20

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5500 MHz



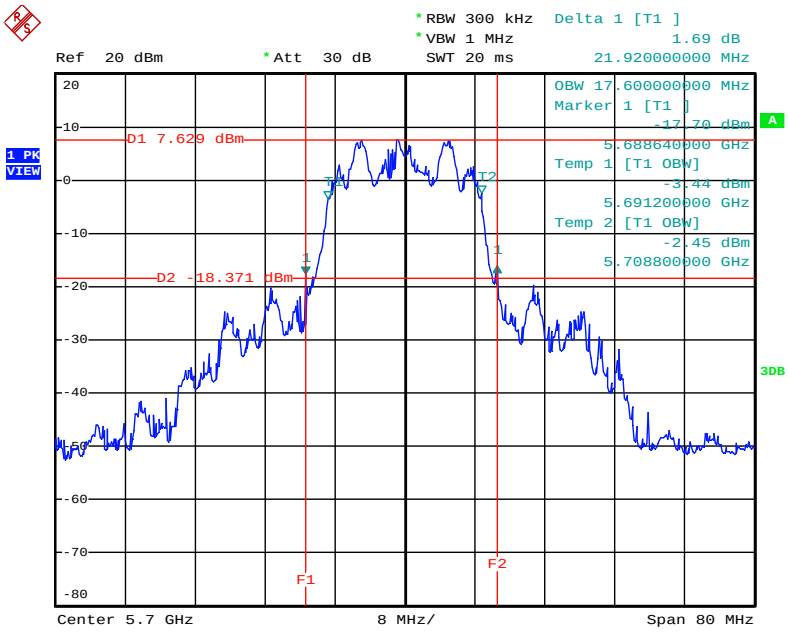
Date: 9.AUG.2013 09:12:50

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz



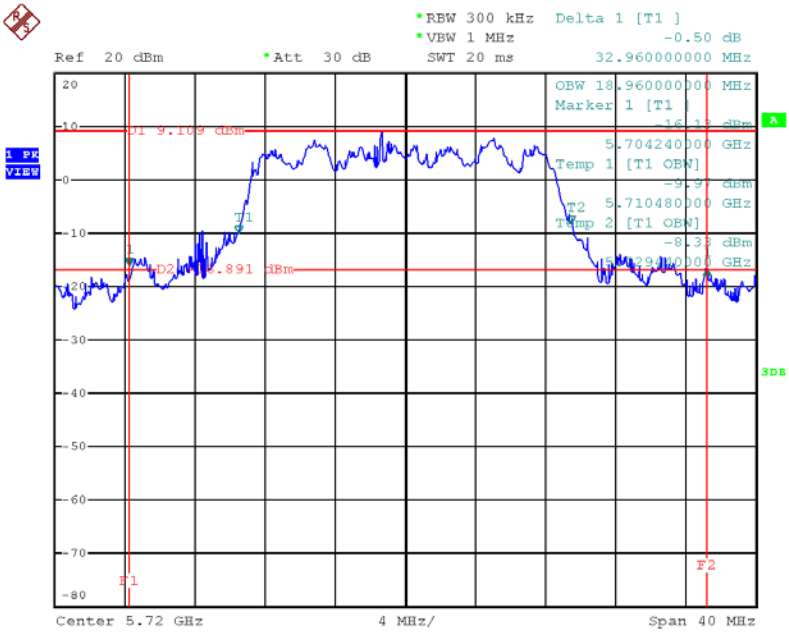
Date: 9.AUG.2013 09:12:25

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5700 MHz



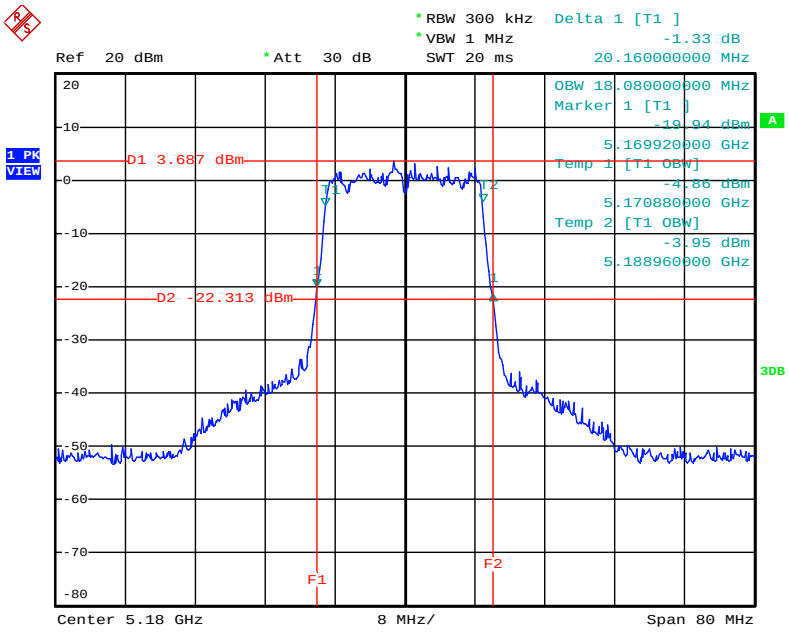
Date: 9.AUG.2013 09:11:49

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5720 MHz



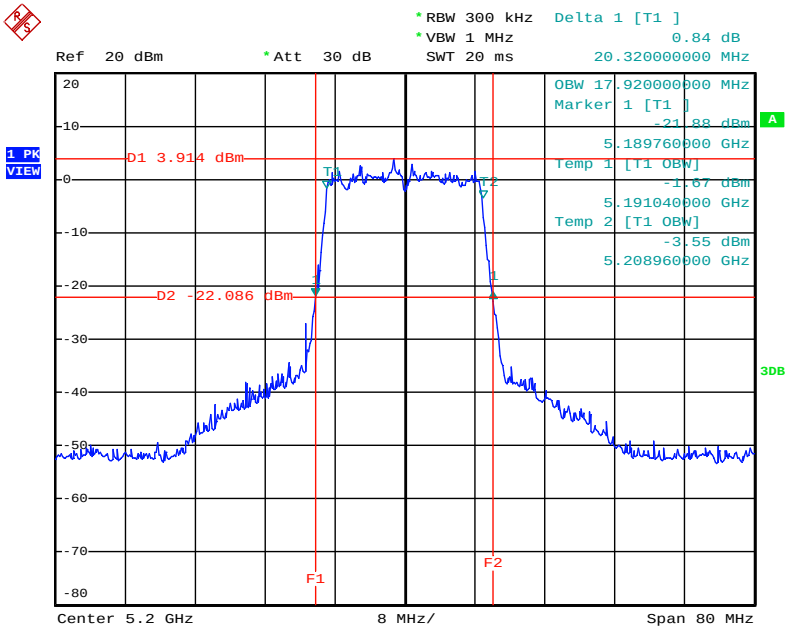
Date: 22.AUG.2013 21:16:57

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



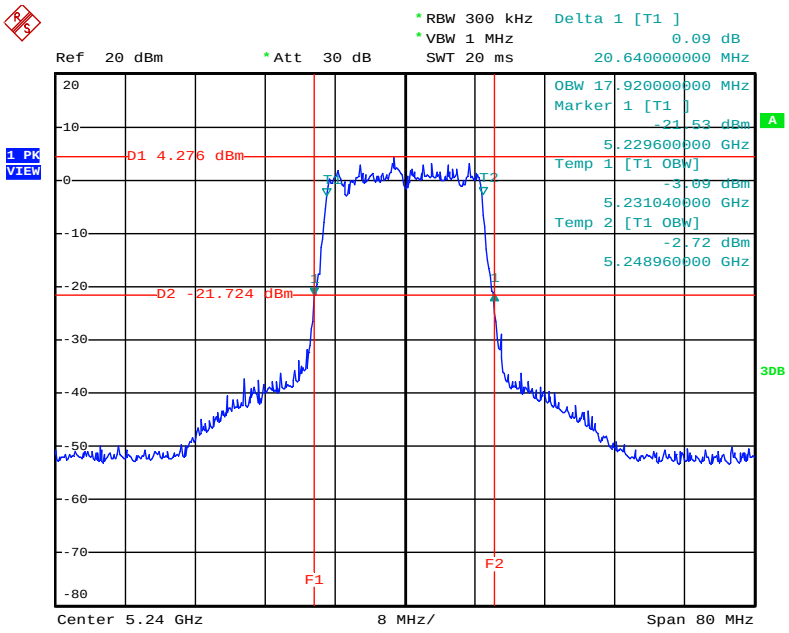
Date: 6.AUG.2013 08:12:12

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5200 MHz



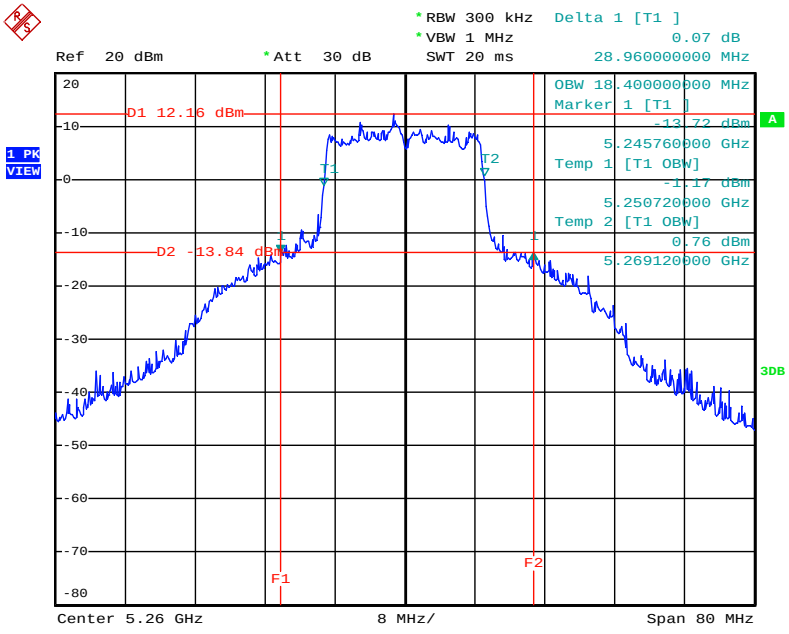
Date: 6.AUG.2013 08:12:58

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



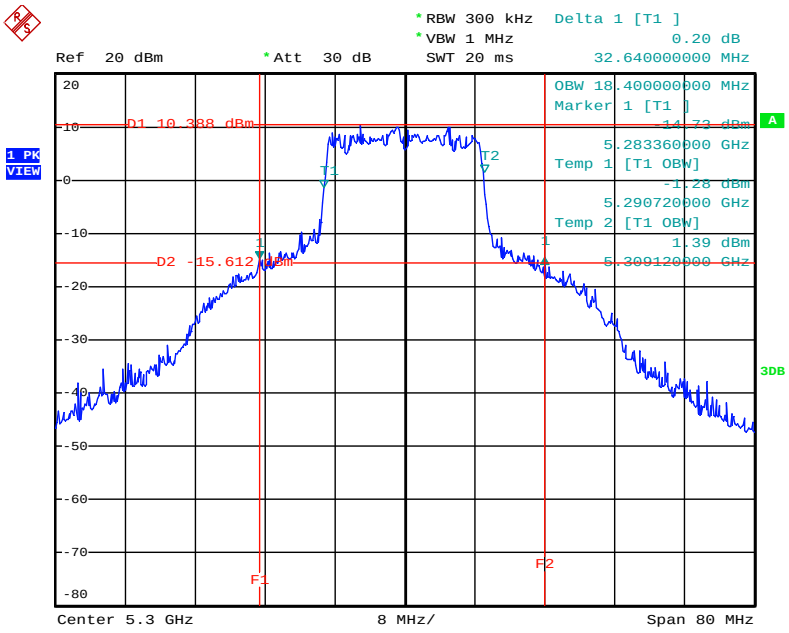
Date: 6.AUG.2013 08:13:53

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz



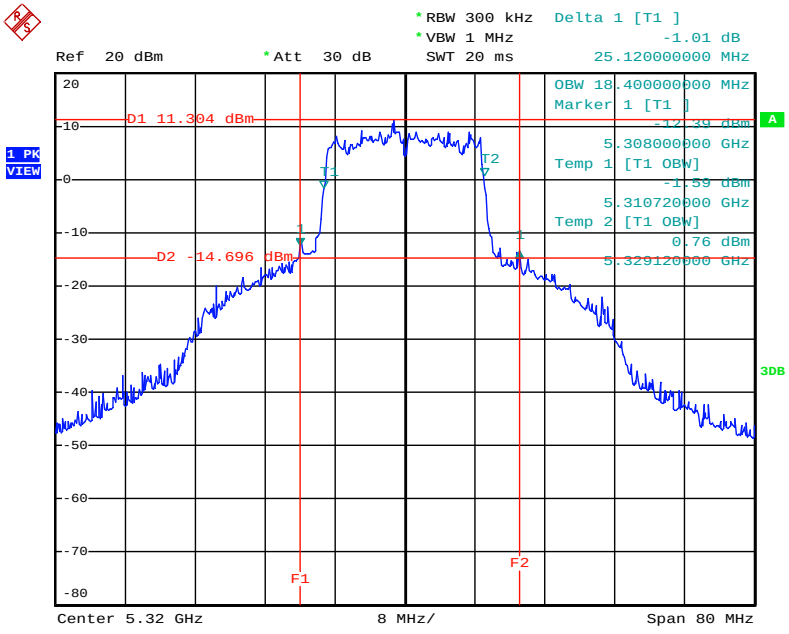
Date: 9.AUG.2013 15:01:59

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5300 MHz



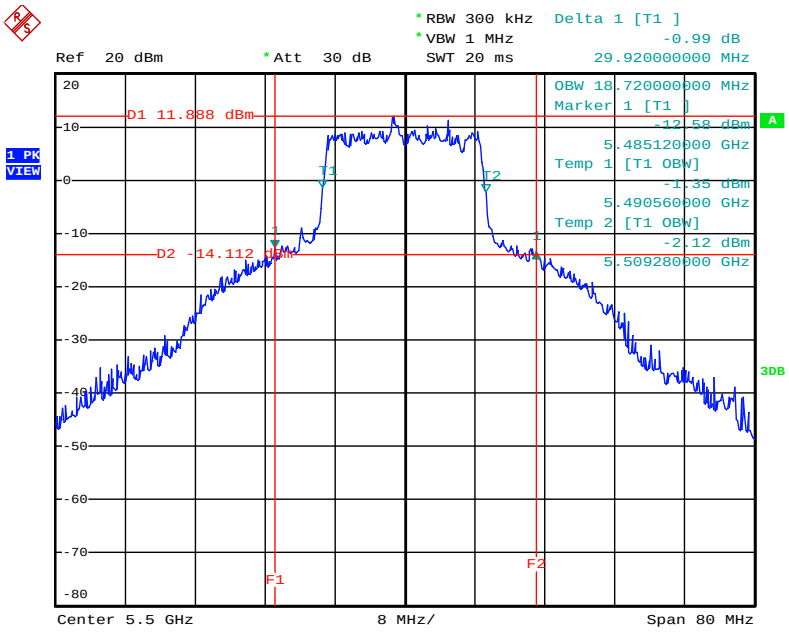
Date: 9.AUG.2013 15:02:29

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5320 MHz



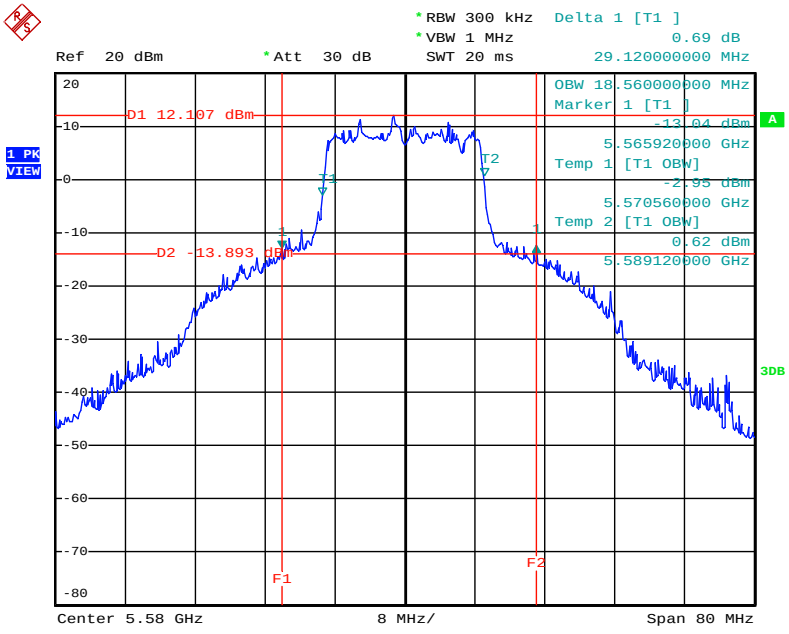
Date: 9.AUG.2013 15:02:55

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5500 MHz



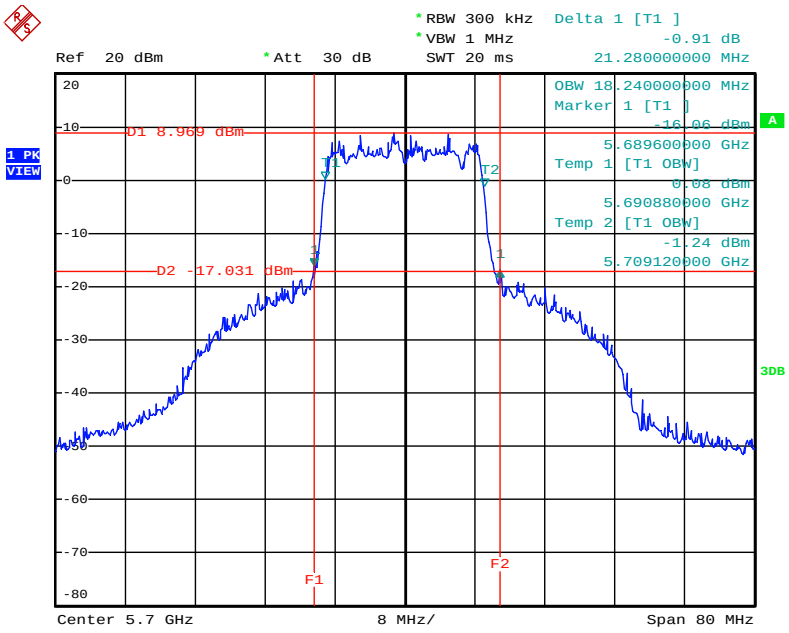
Date: 9.AUG.2013 15:03:20

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz



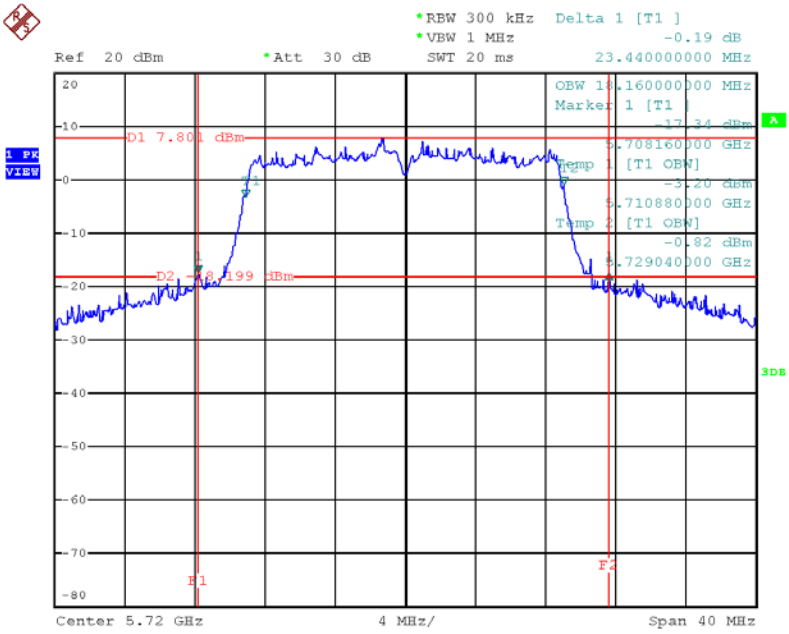
Date: 9.AUG.2013 15:03:43

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5700 MHz



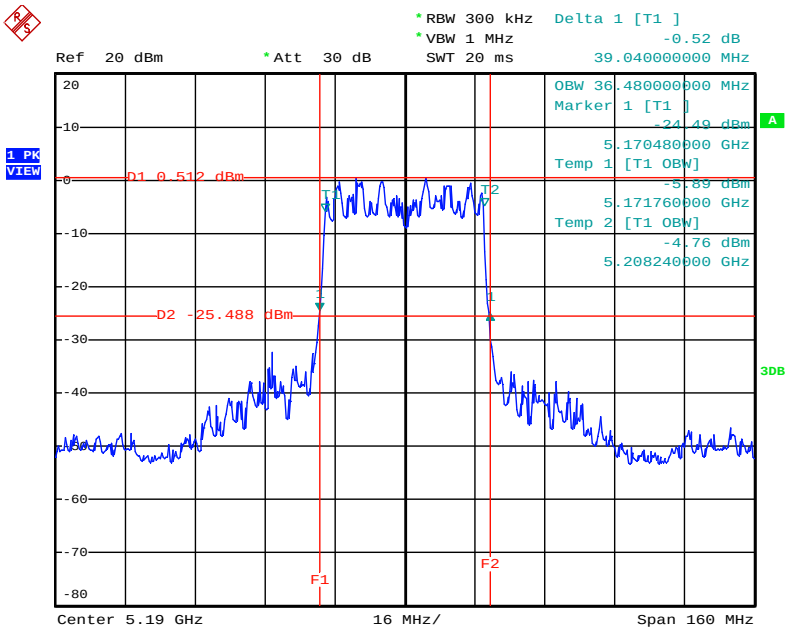
Date: 9.AUG.2013 15:04:10

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5720 MHz



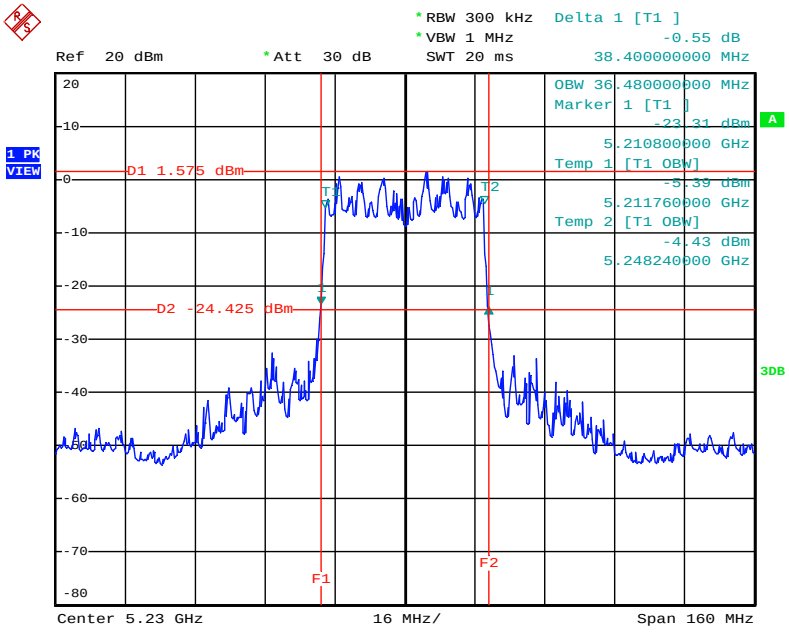
Date: 22.AUG.2013 21:26:17

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5190 MHz



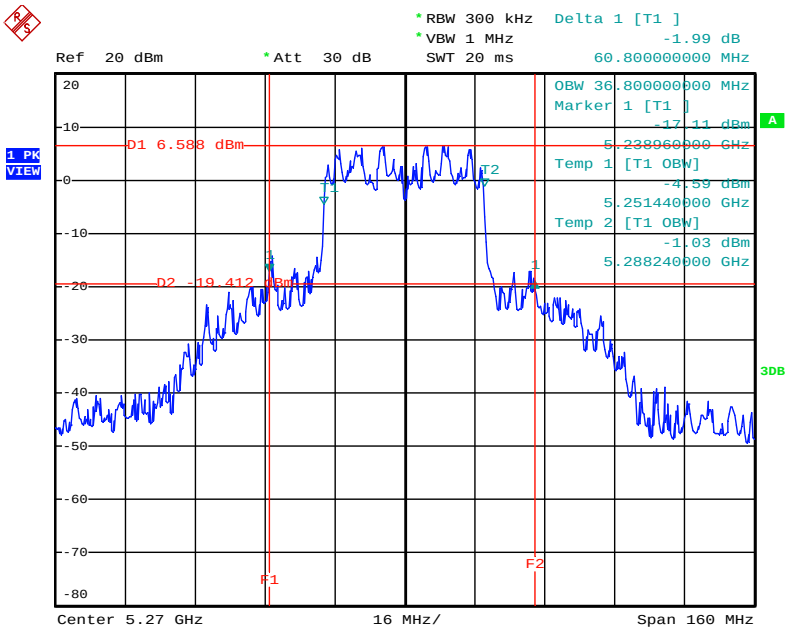
Date: 6.AUG.2013 08:07:03

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5230 MHz



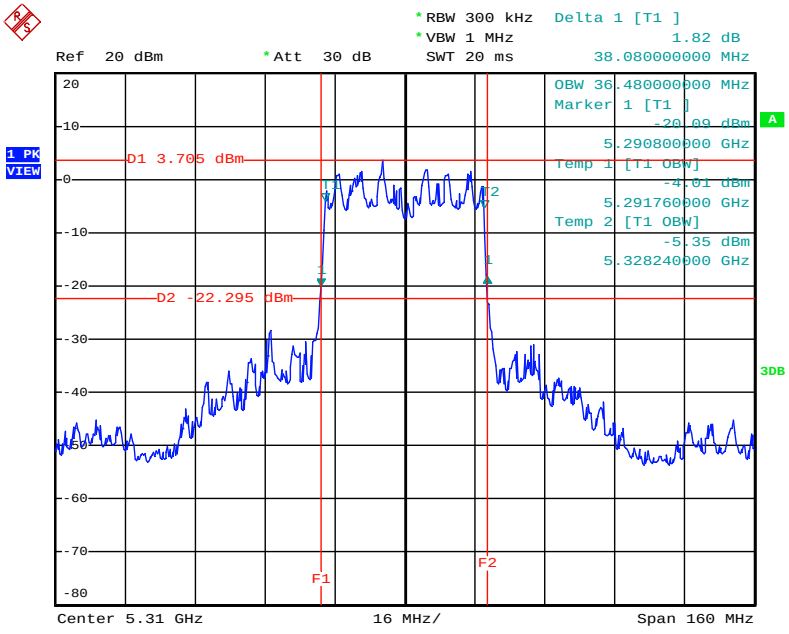
Date: 6.AUG.2013 08:07:29

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz



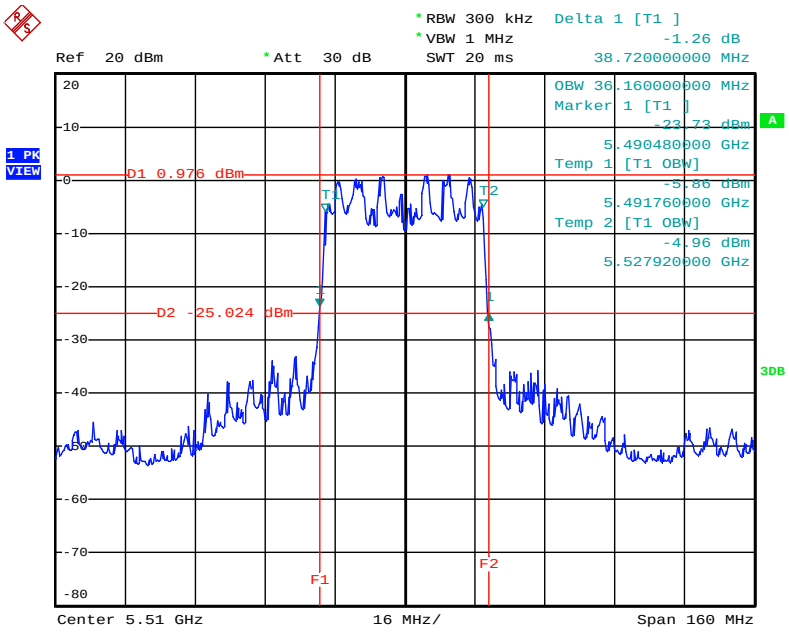
Date: 9.AUG.2013 09:14:42

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5310 MHz



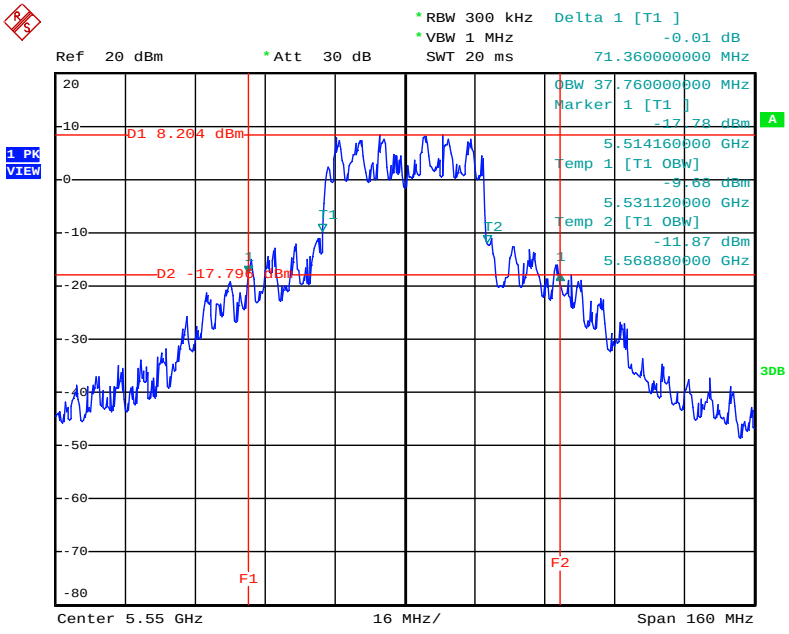
Date: 9.AUG.2013 09:15:07

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5510 MHz



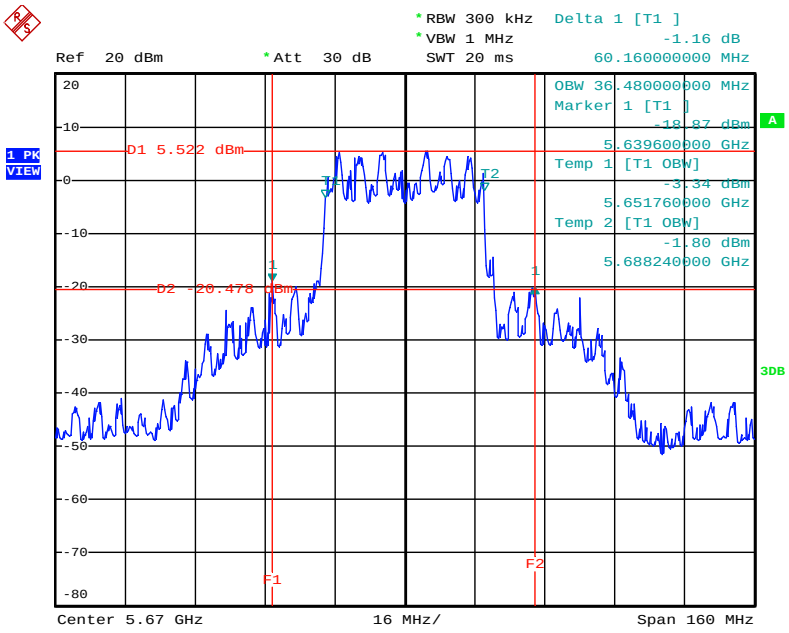
Date: 9.AUG.2013 09:15:32

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5550 MHz



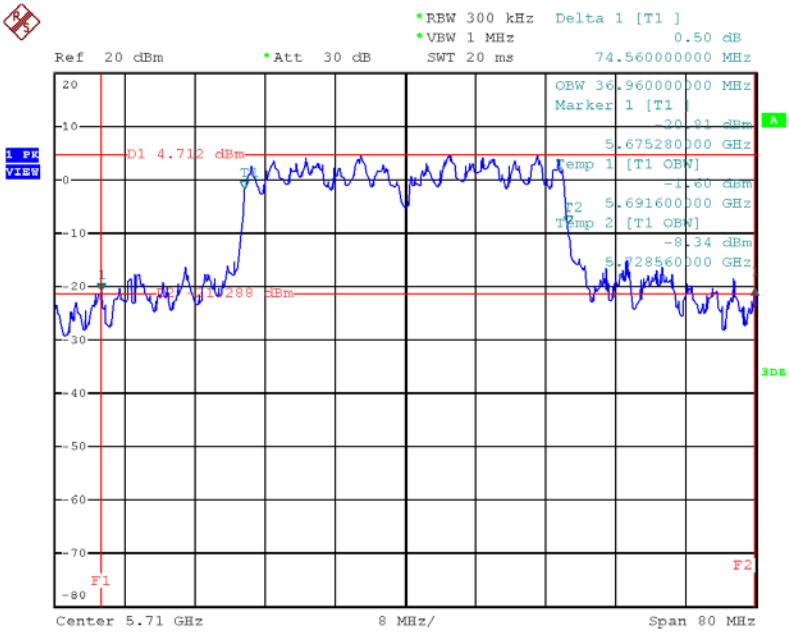
Date: 9.AUG.2013 09:16:09

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5670 MHz



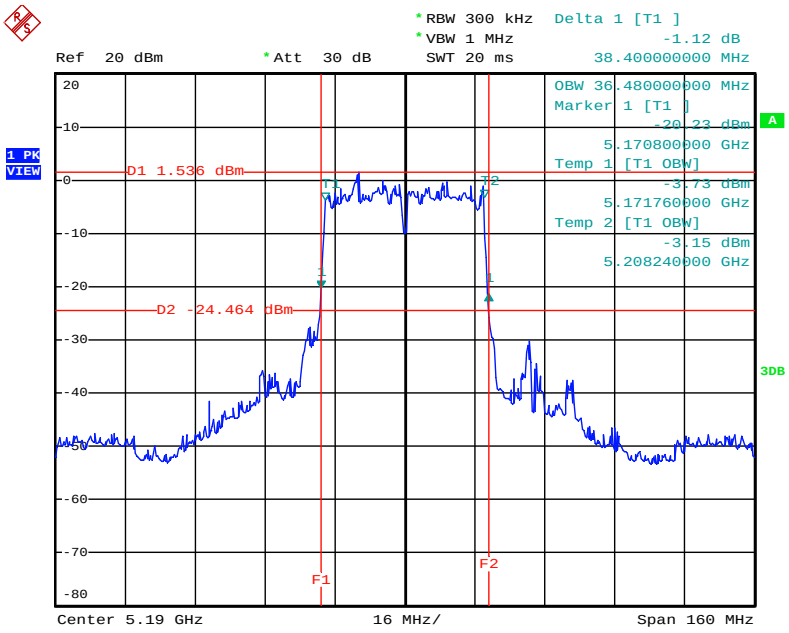
Date: 9.AUG.2013 09:16:30

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5710 MHz



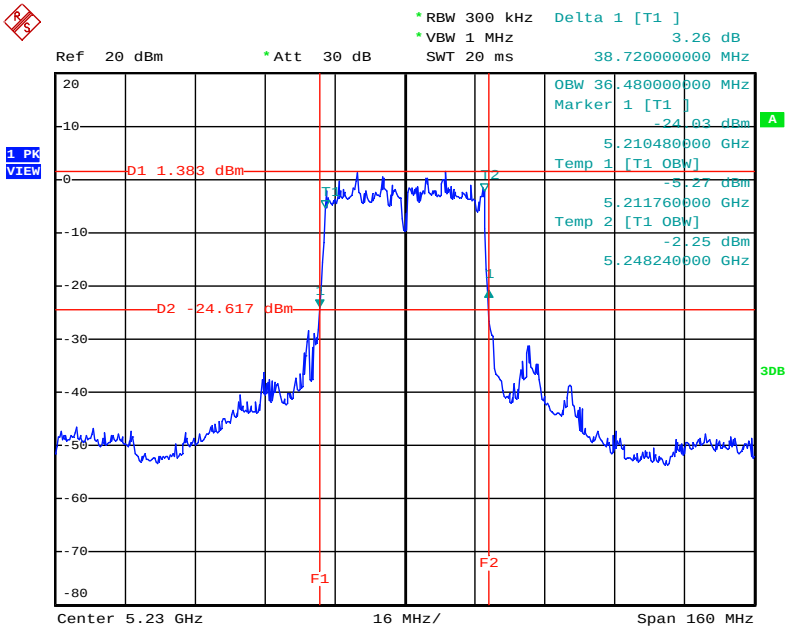
Date: 22.AUG.2013 21:18:34

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5190 MHz



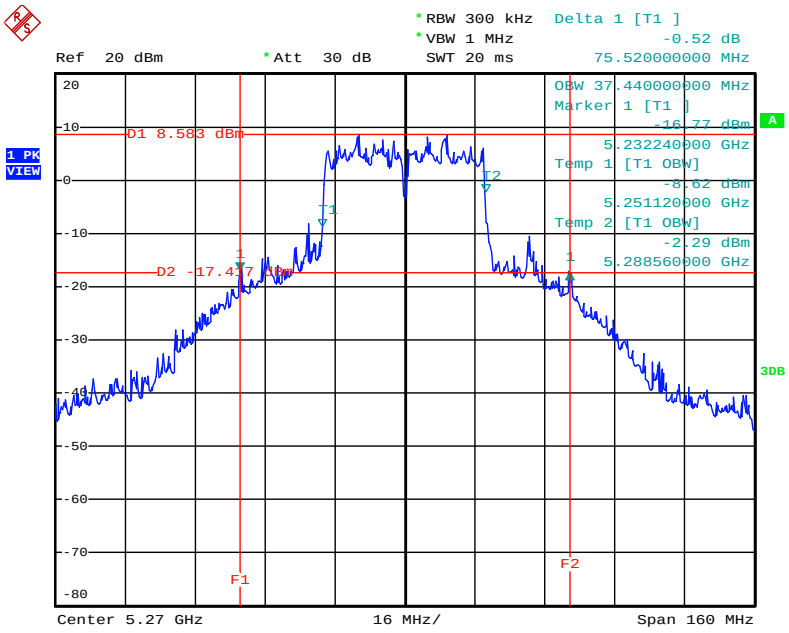
Date: 6.AUG.2013 08:10:59

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5230 MHz



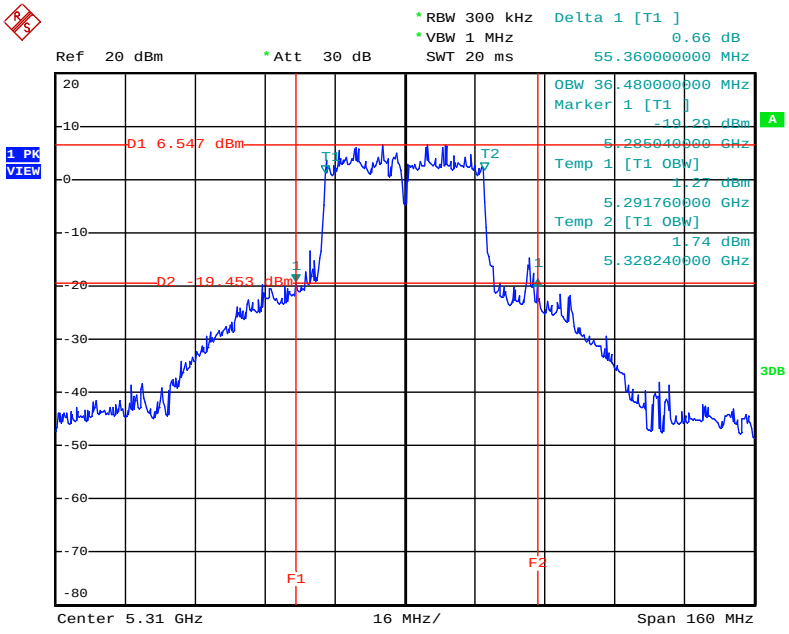
Date: 6.AUG.2013 08:11:23

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz



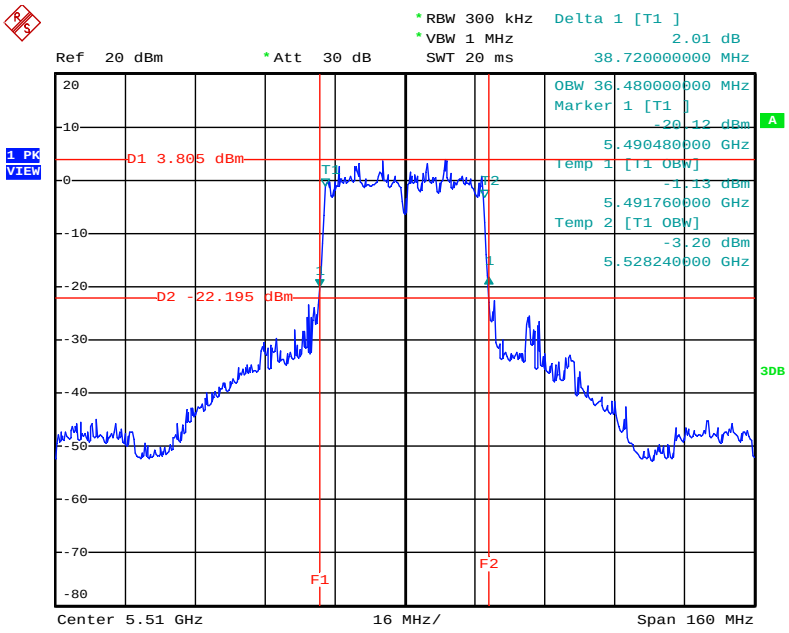
Date: 9.AUG.2013 09:22:06

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5310 MHz



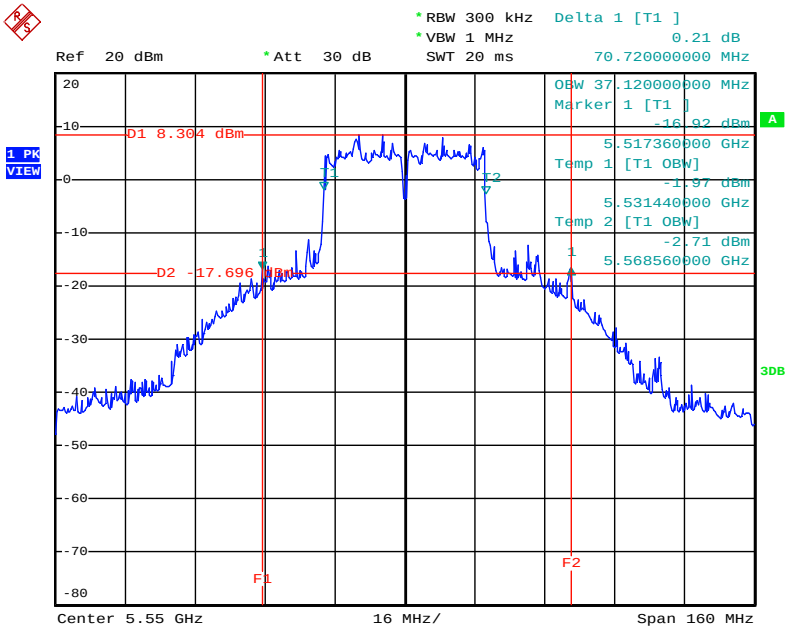
Date: 9.AUG.2013 09:21:46

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5510 MHz



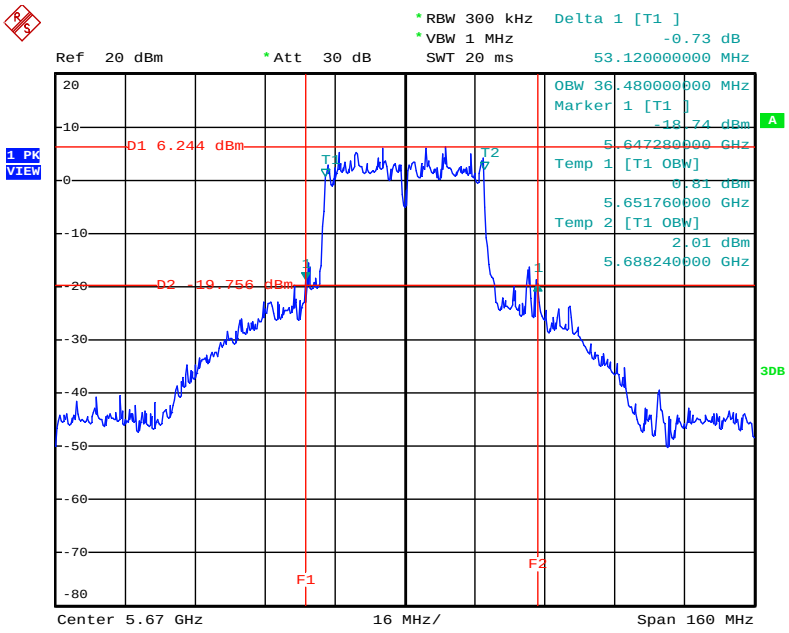
Date: 9.AUG.2013 09:21:23

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5550 MHz



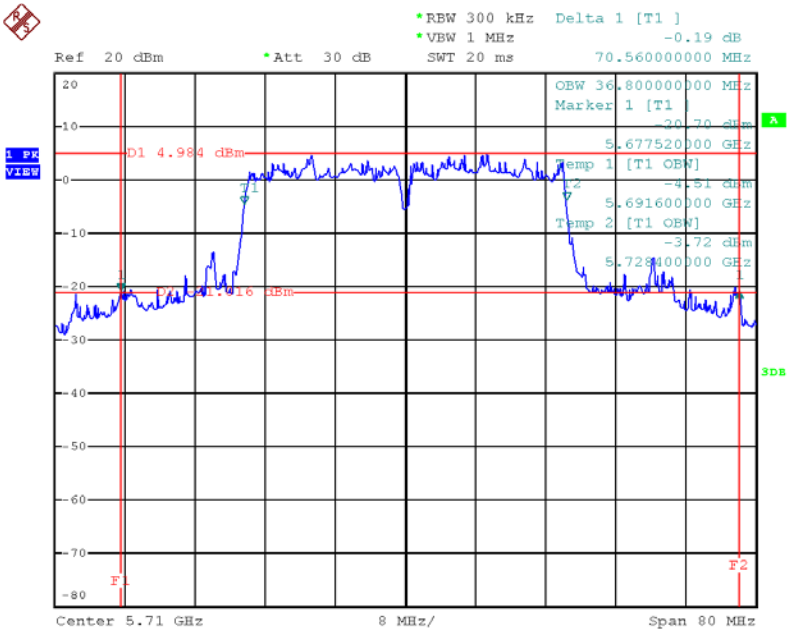
Date: 9.AUG.2013 15:46:15

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5670 MHz



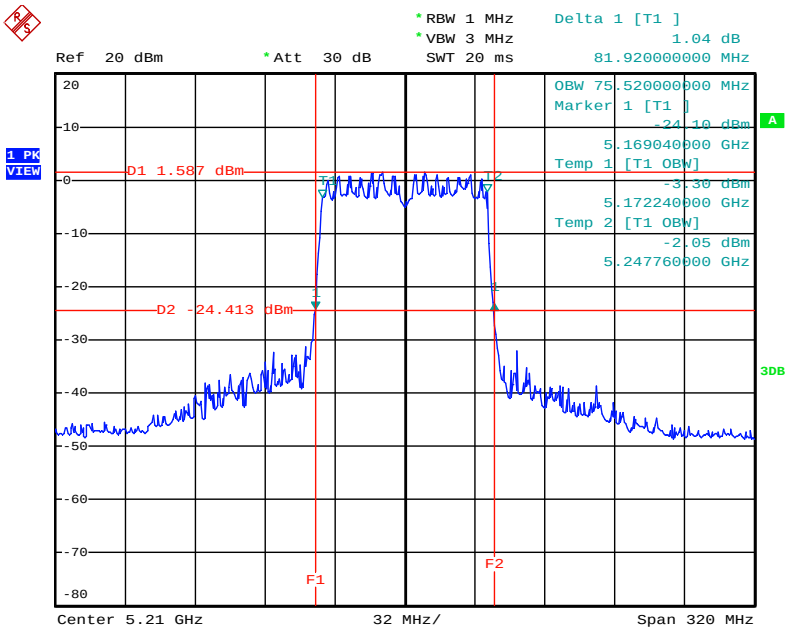
Date: 9.AUG.2013 09:20:31

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5710 MHz



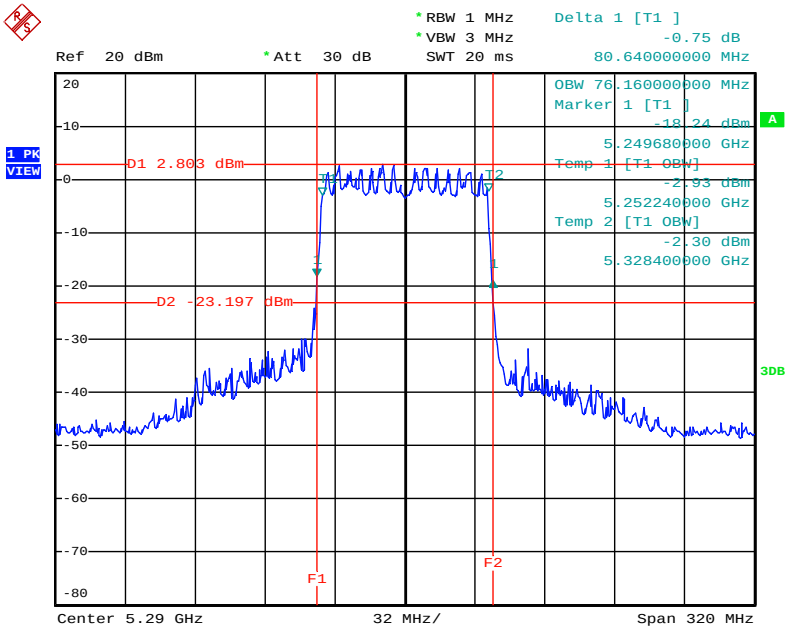
Date: 22.AUG.2013 21:24:47

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



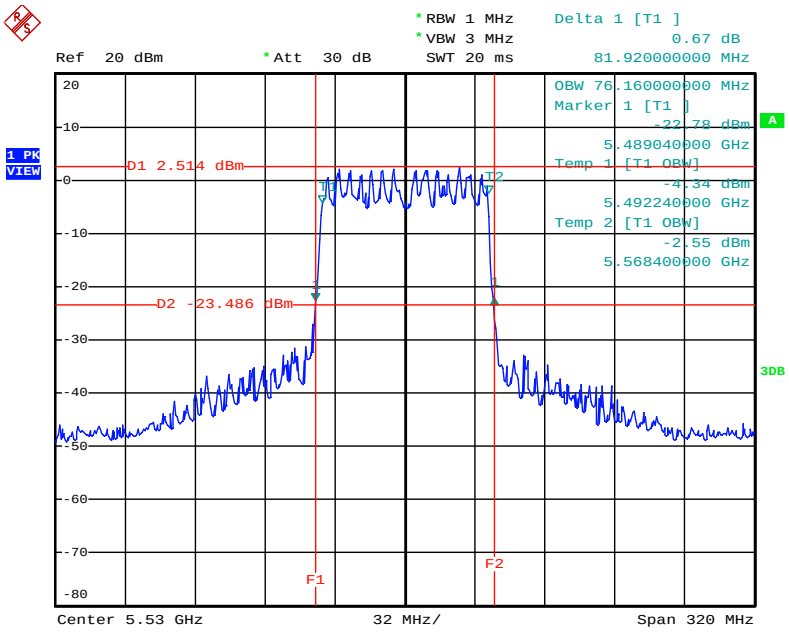
Date: 9.AUG.2013 09:17:56

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5290 MHz



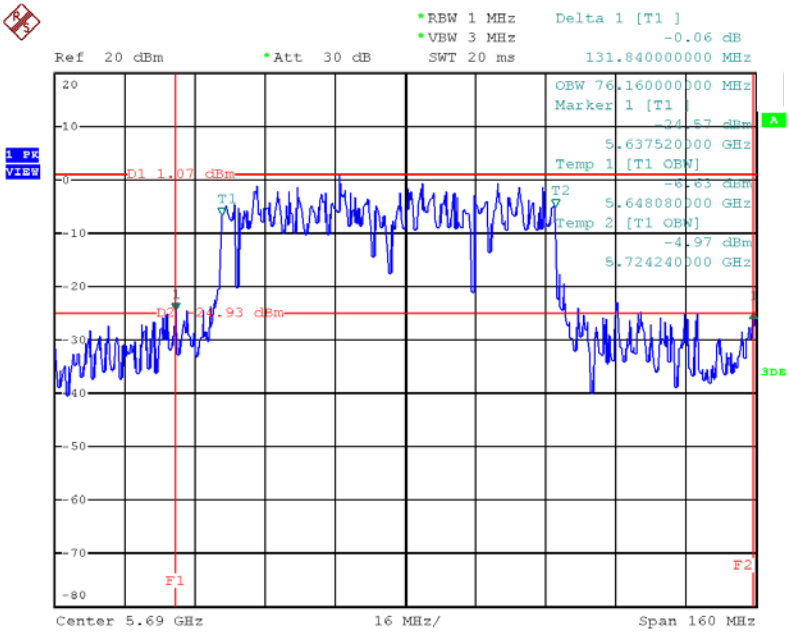
Date: 9.AUG.2013 09:17:33

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5530 MHz



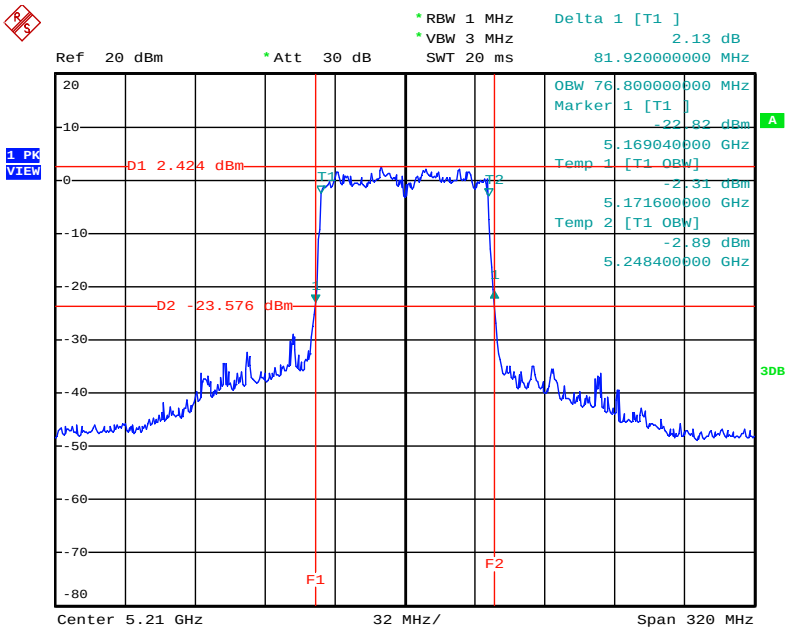
Date: 9.AUG.2013 09:17:08

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5690 MHz



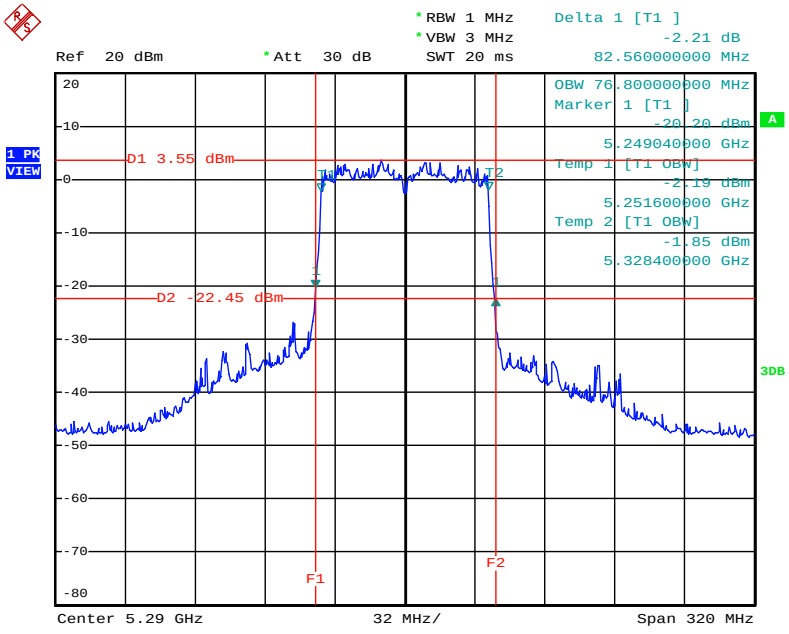
Date: 22.AUG.2013 21:20:41

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



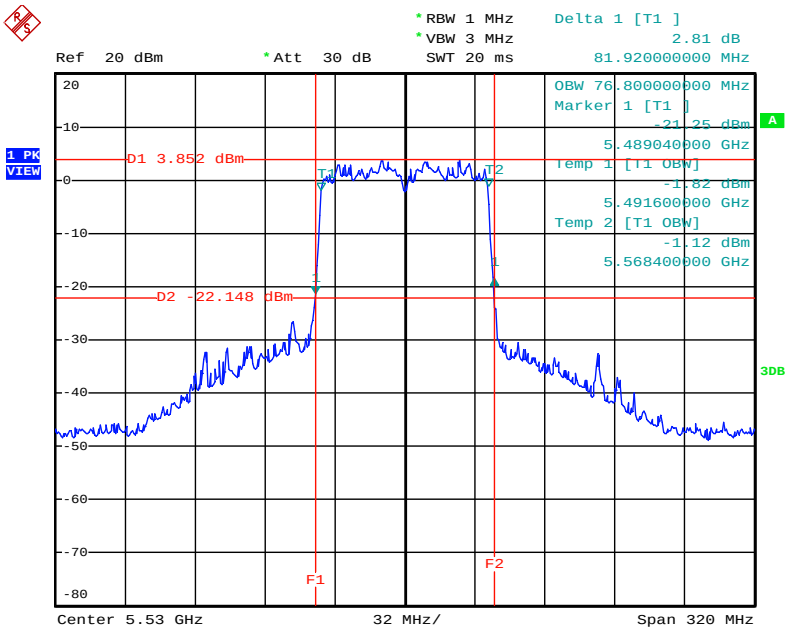
Date: 9.AUG.2013 09:18:57

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5290 MHz



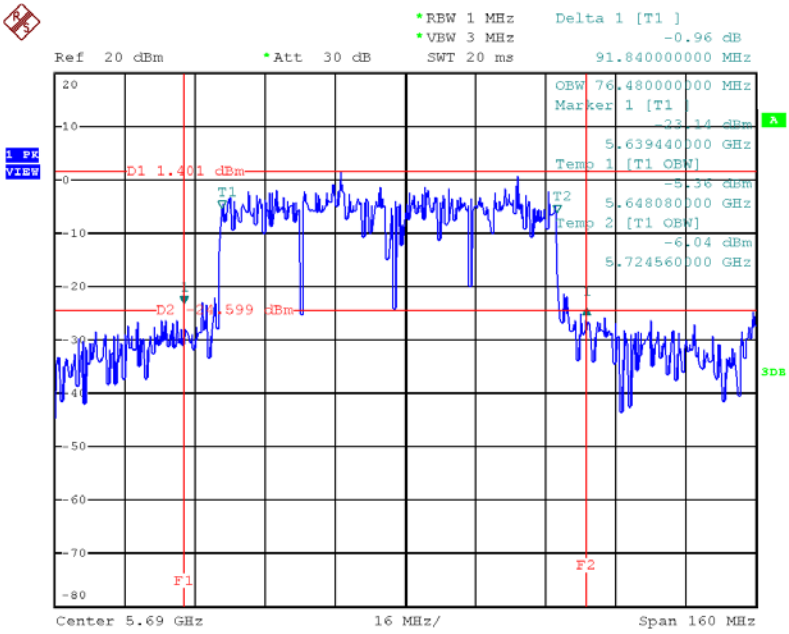
Date: 9.AUG.2013 09:19:32

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5530 MHz



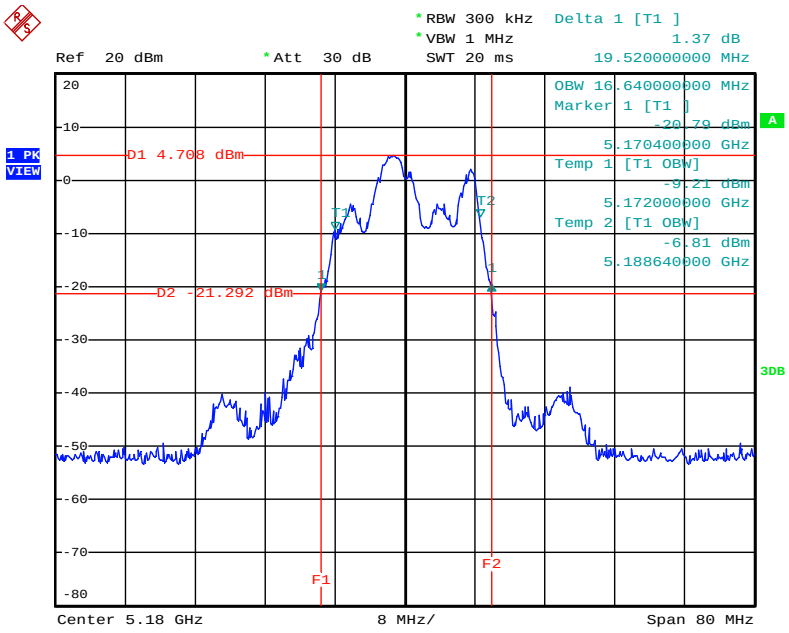
Date: 9.AUG.2013 09:19:53

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5690 MHz



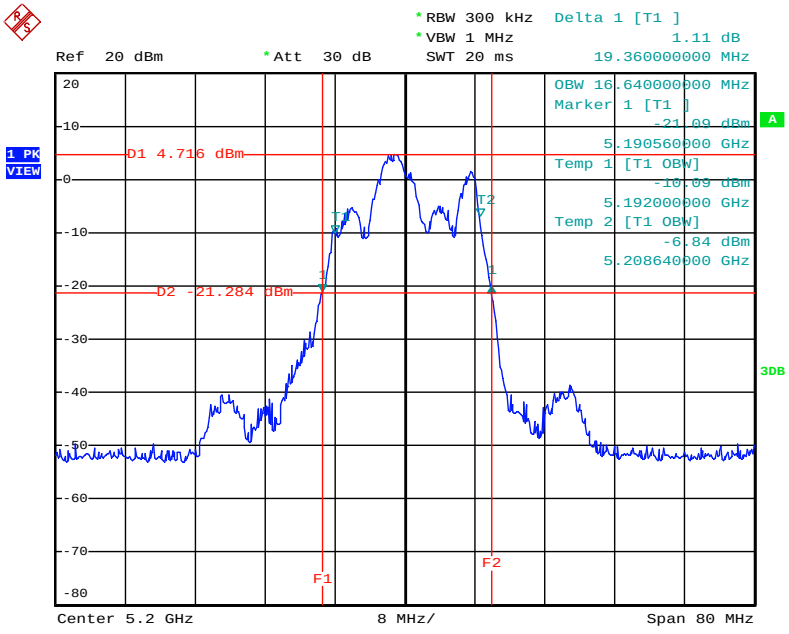
Date: 22.AUG.2013 21:22:35

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



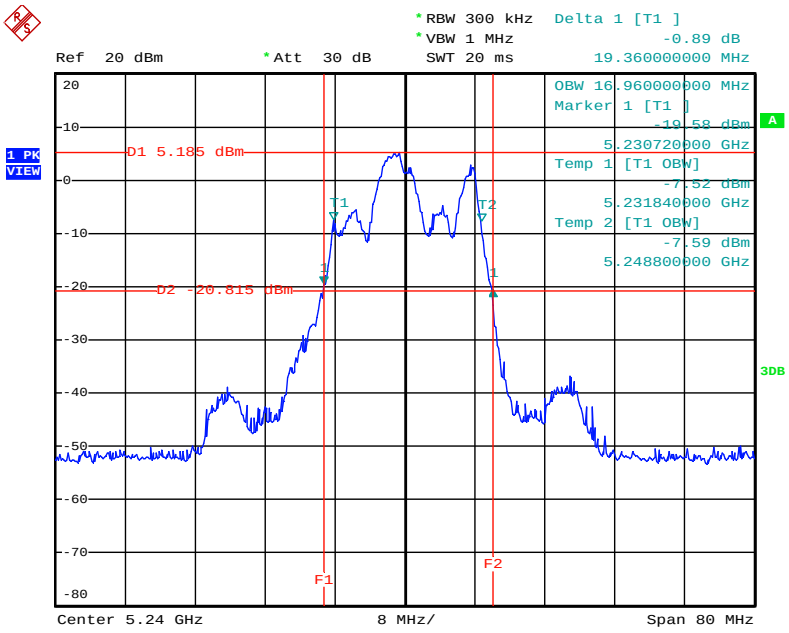
Date: 6.AUG.2013 14:22:25

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



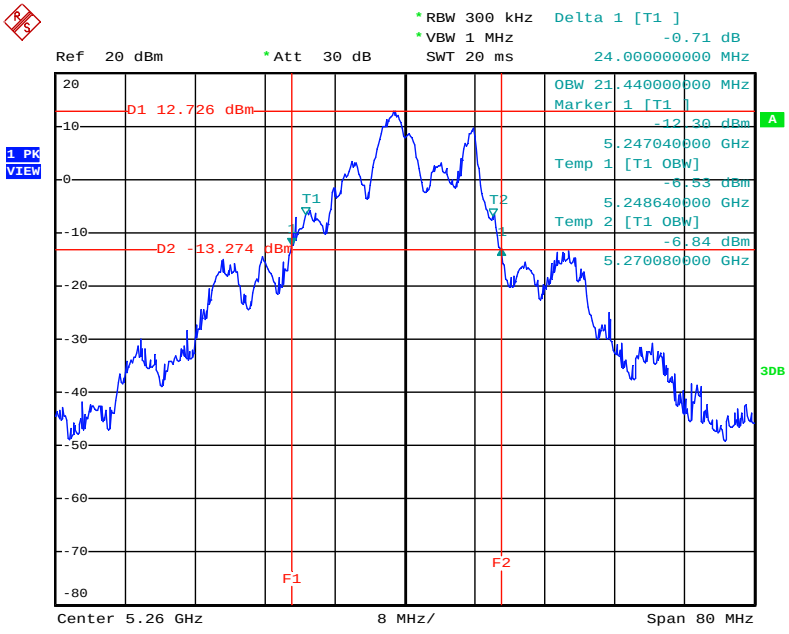
Date: 6.AUG.2013 14:23:15

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



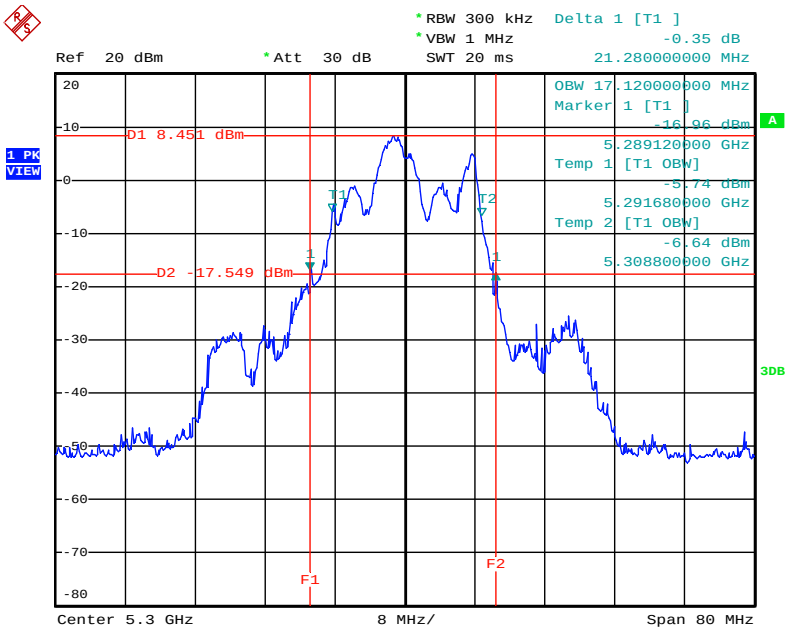
Date: 6.AUG.2013 08:04:28

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5260 MHz



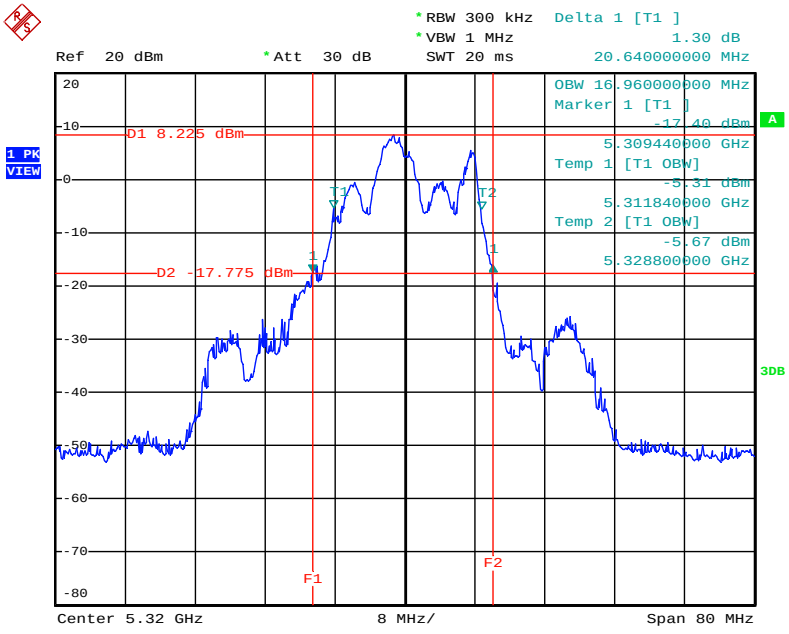
Date: 9.AUG.2013 08:50:13

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5300 MHz



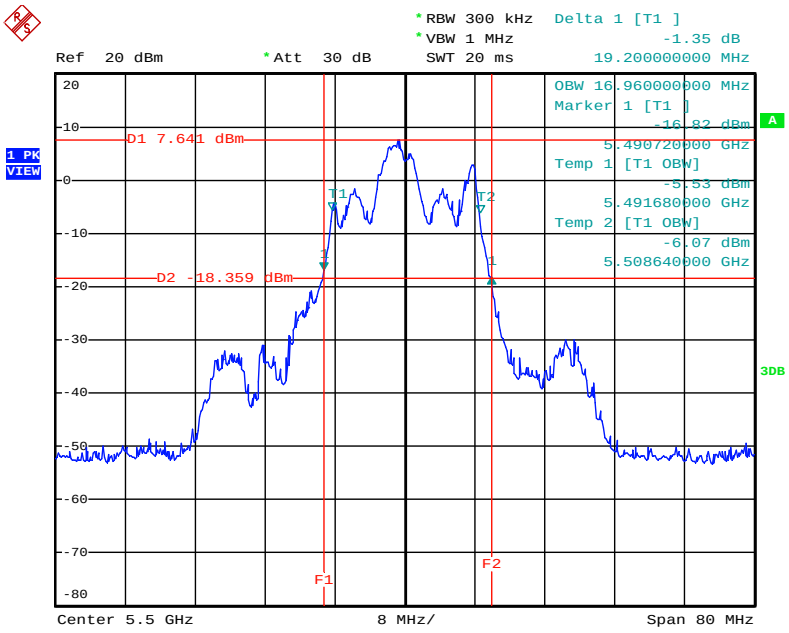
Date: 9.AUG.2013 08:50:40

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5320 MHz



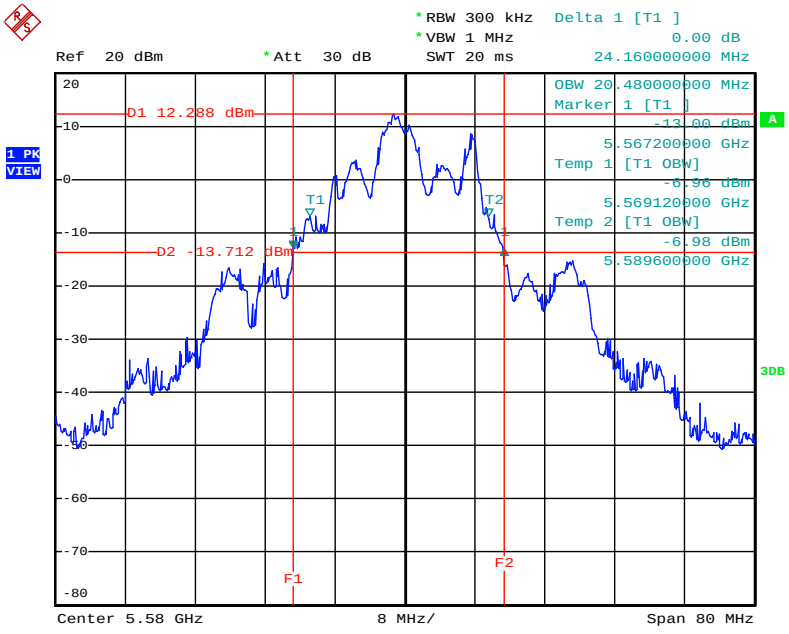
Date: 9.AUG.2013 08:51:02

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5500 MHz



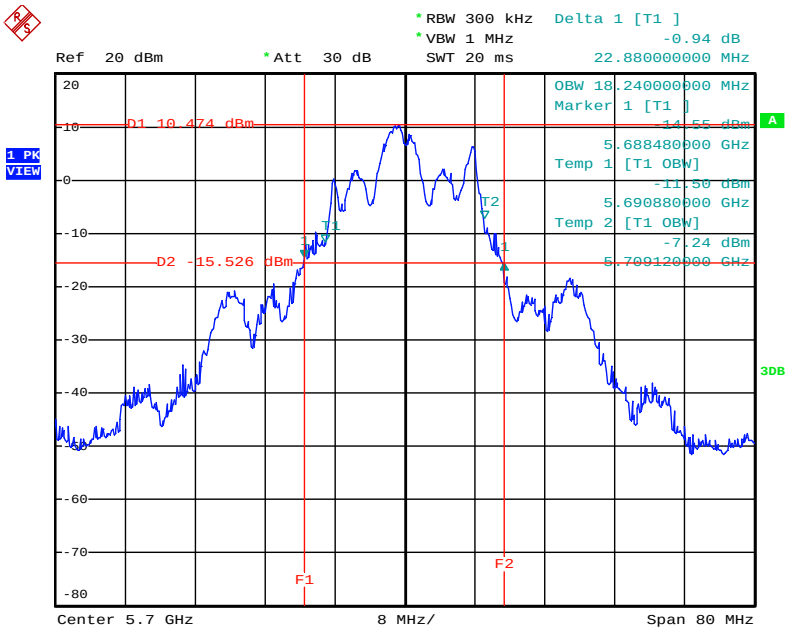
Date: 9.AUG.2013 08:51:28

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5580 MHz



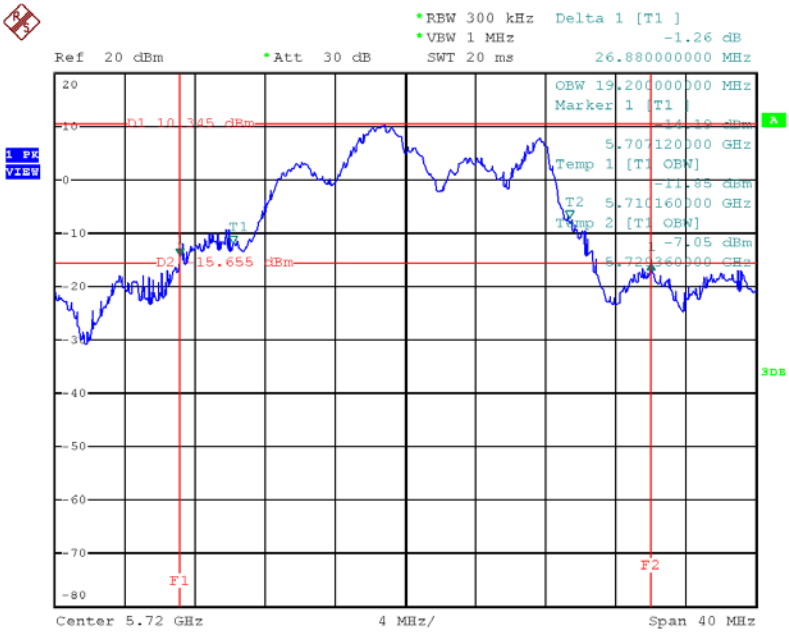
Date: 9.AUG.2013 08:51:58

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5700 MHz



Date: 9.AUG.2013 08:52:21

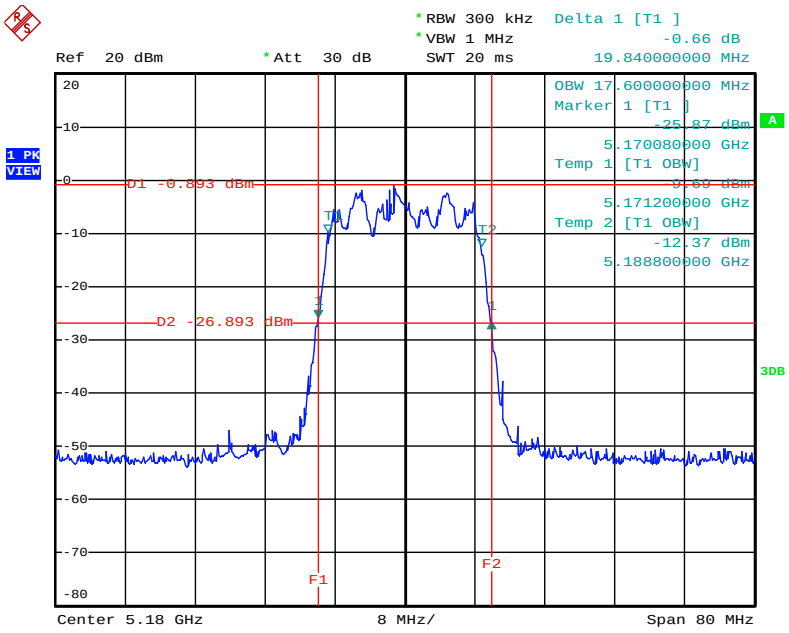
26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5720 MHz



Date: 22.AUG.2013 21:15:02

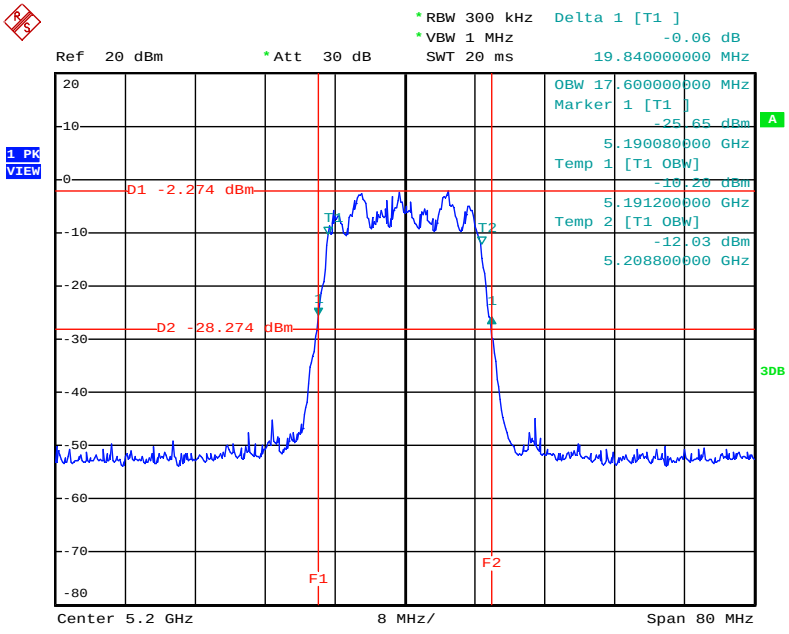
Test Mode: Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



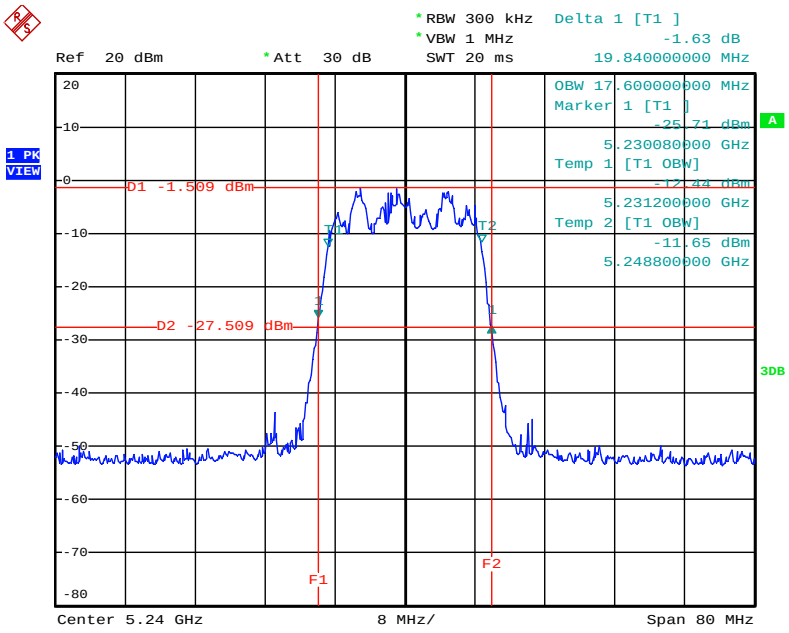
Date: 6.AUG.2013 11:10:51

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5200 MHz



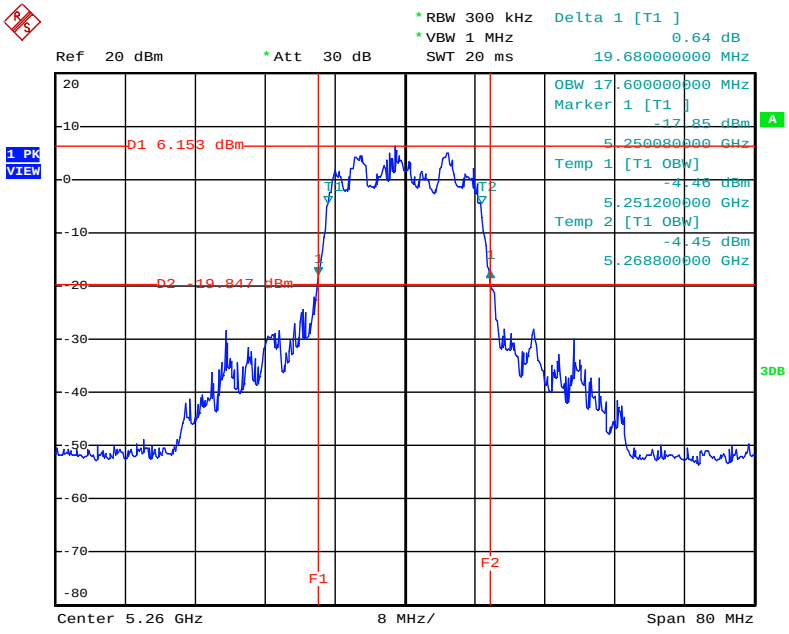
Date: 6.AUG.2013 11:10:30

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



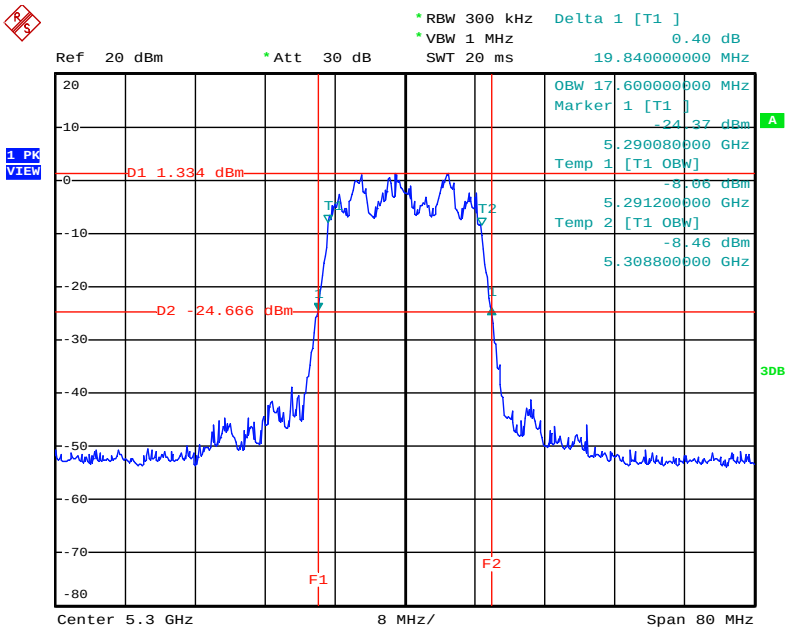
Date: 6.AUG.2013 11:10:04

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz



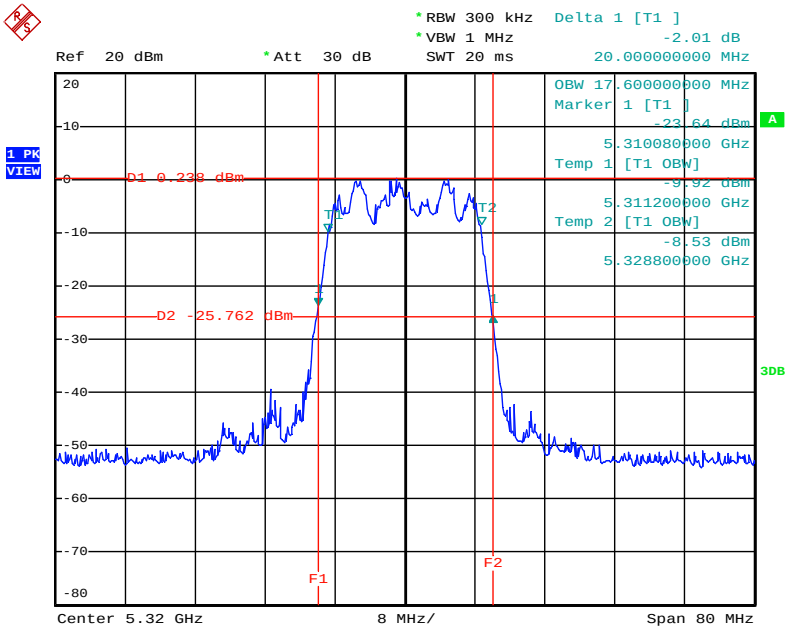
Date: 9.AUG.2013 15:14:45

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5300 MHz



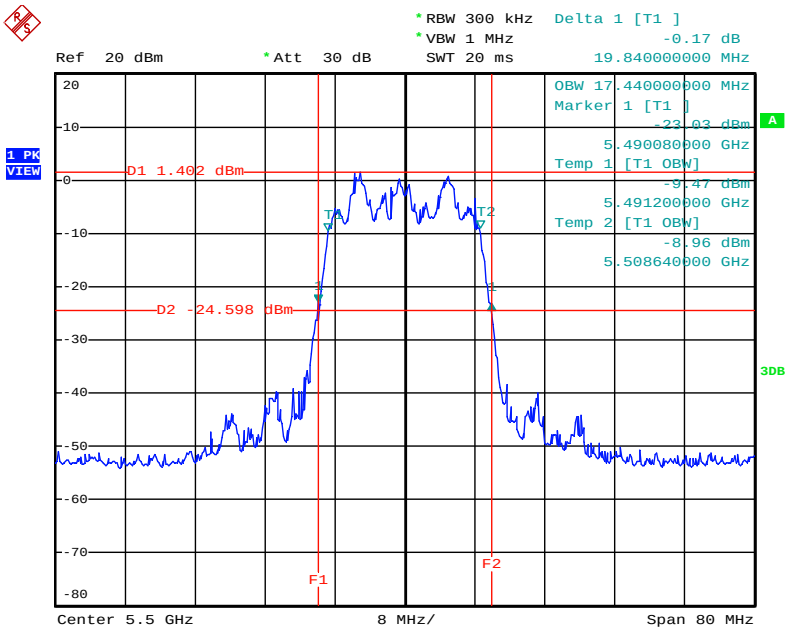
Date: 9.AUG.2013 08:19:00

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5320 MHz



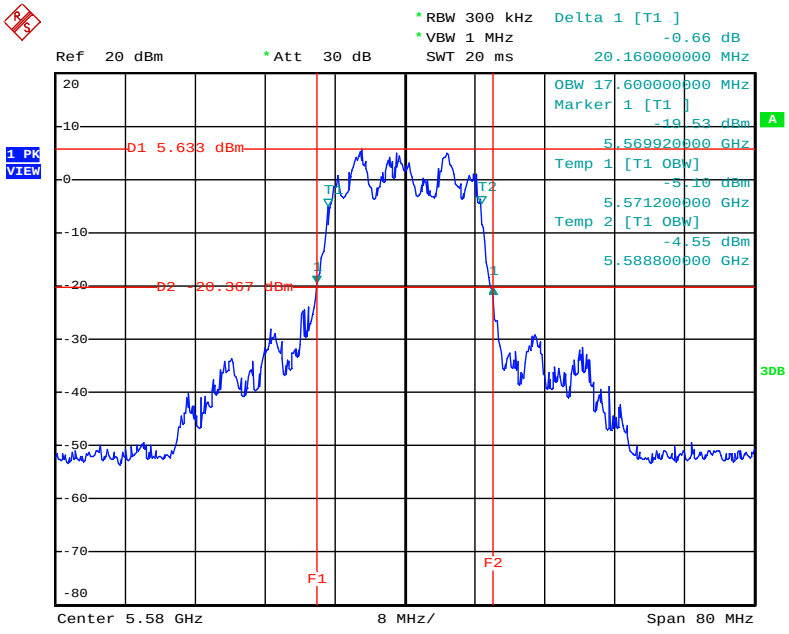
Date: 9.AUG.2013 15:13:54

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5500 MHz



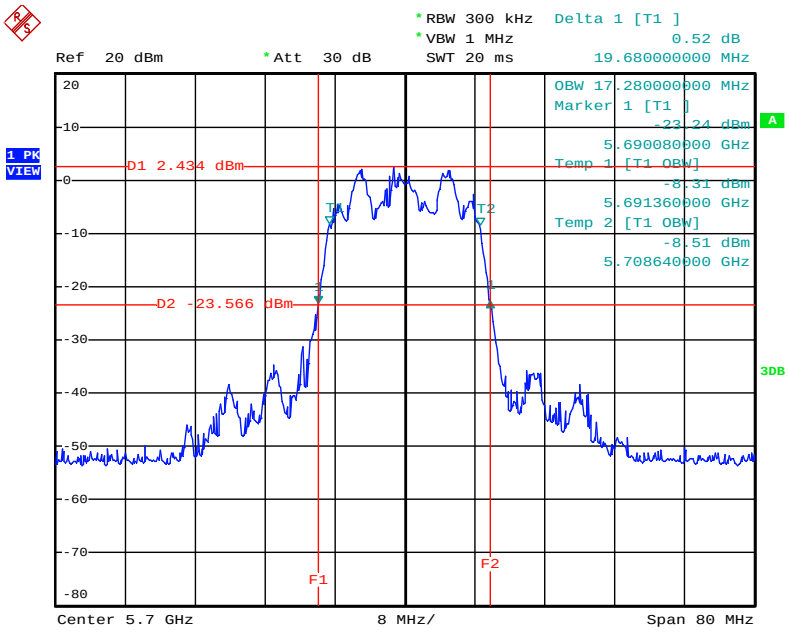
Date: 9.AUG.2013 15:13:26

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz



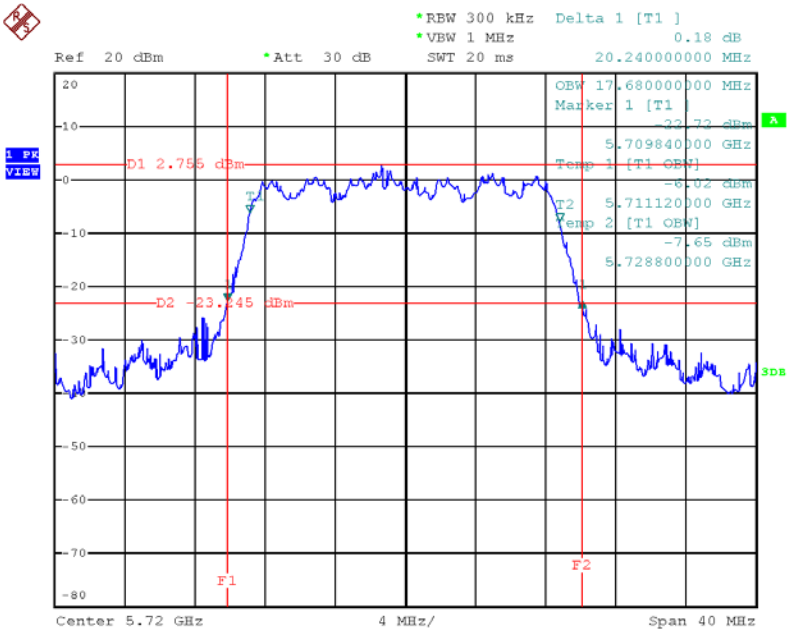
Date: 9.AUG.2013 15:13:01

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5700 MHz



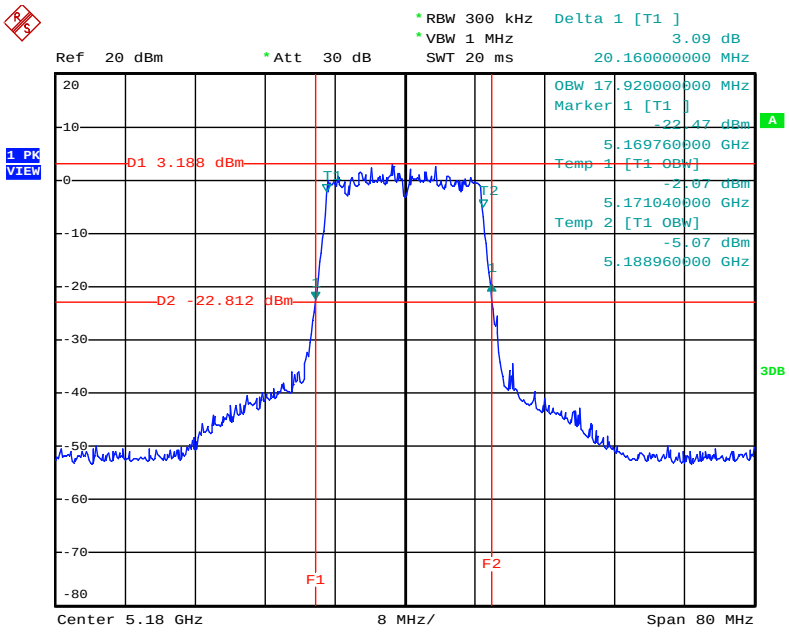
Date: 9.AUG.2013 15:12:30

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5720 MHz



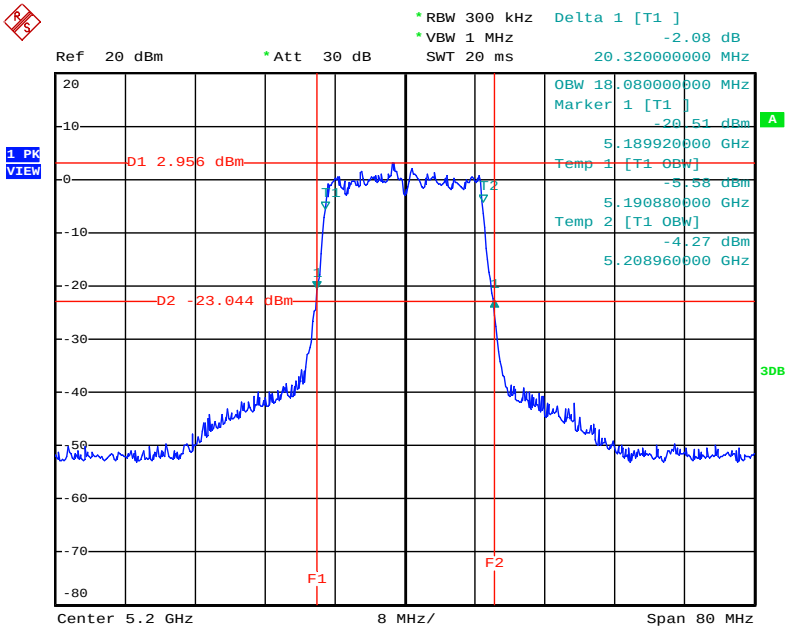
Date: 22.AUG.2013 22:57:22

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



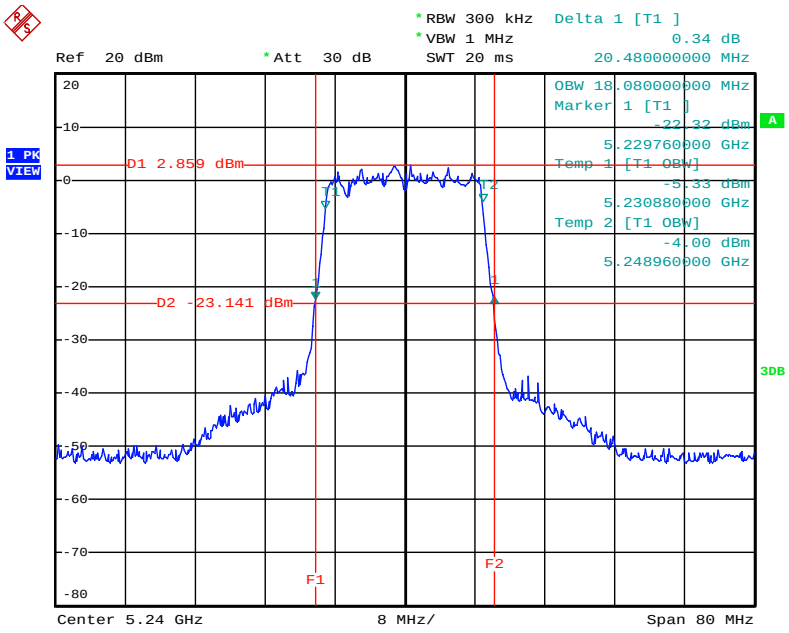
Date: 6.AUG.2013 11:15:01

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5200 MHz



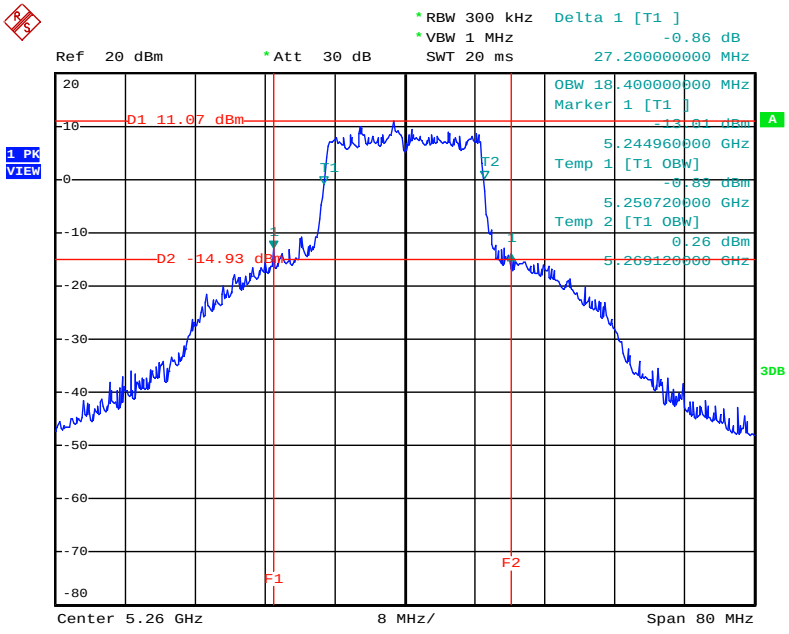
Date: 6.AUG.2013 11:15:21

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



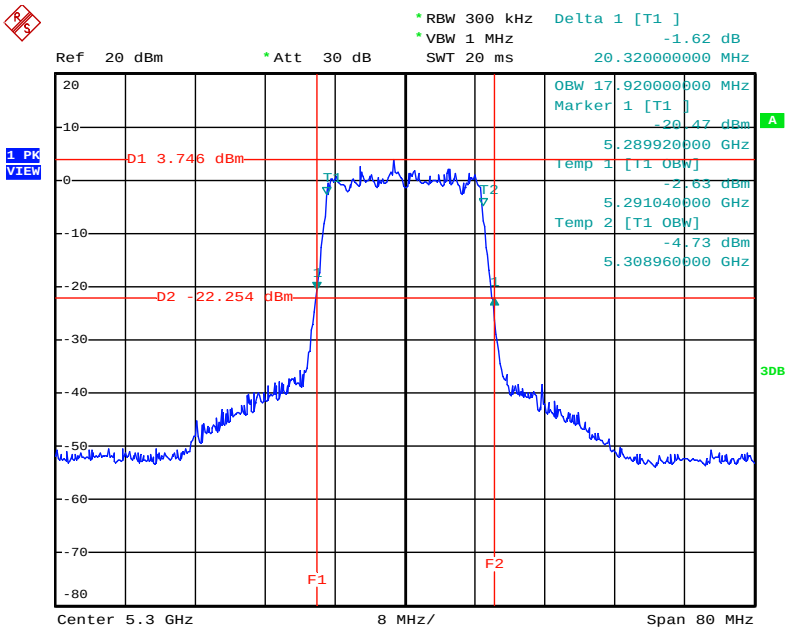
Date: 6.AUG.2013 11:15:44

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz



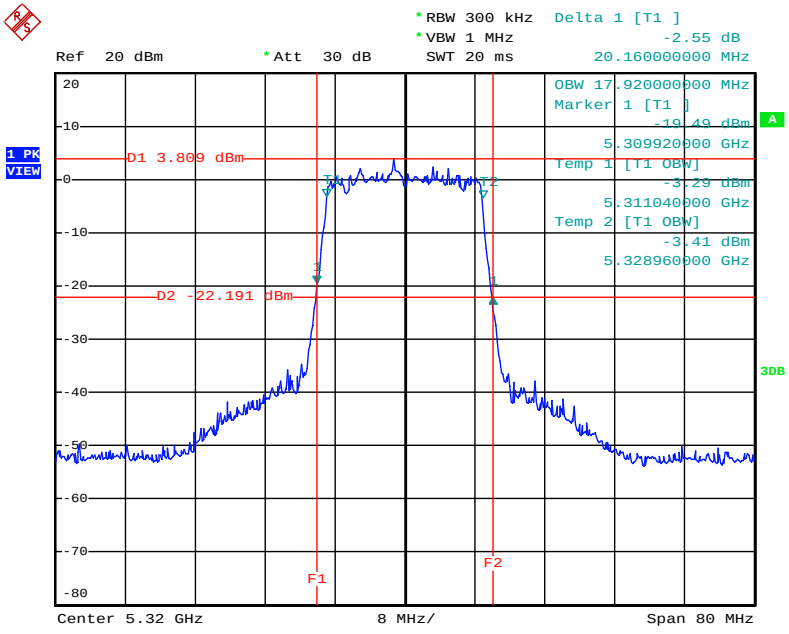
Date: 9.AUG.2013 15:15:51

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5300 MHz



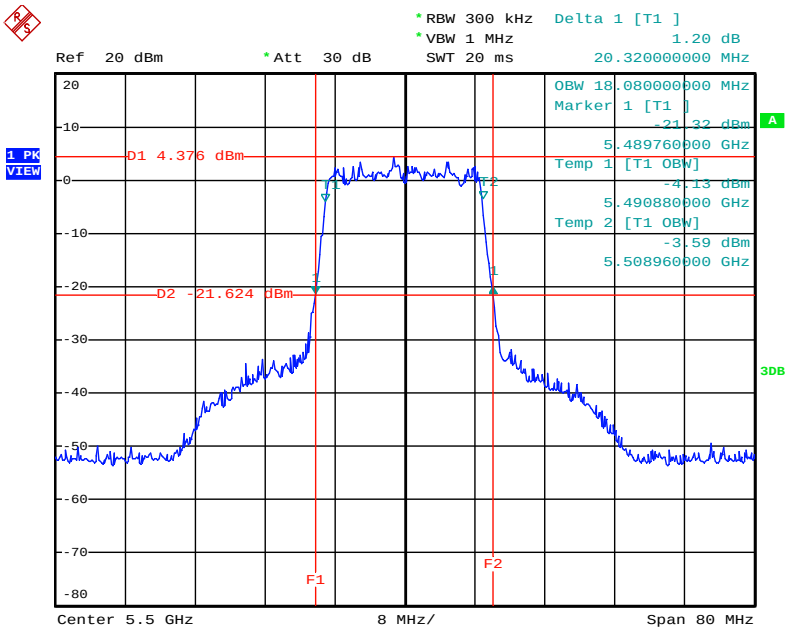
Date: 9.AUG.2013 15:16:15

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5320 MHz



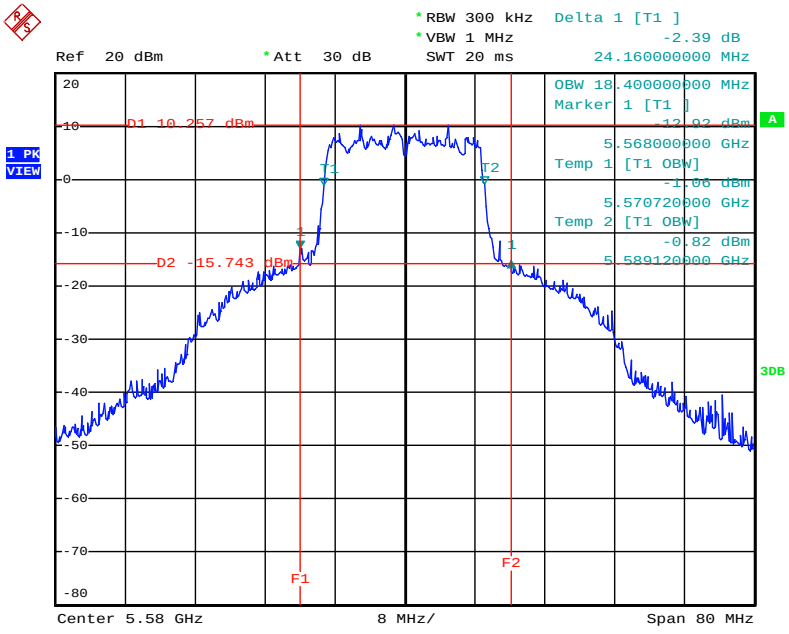
Date: 9.AUG.2013 15:16:53

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5500 MHz



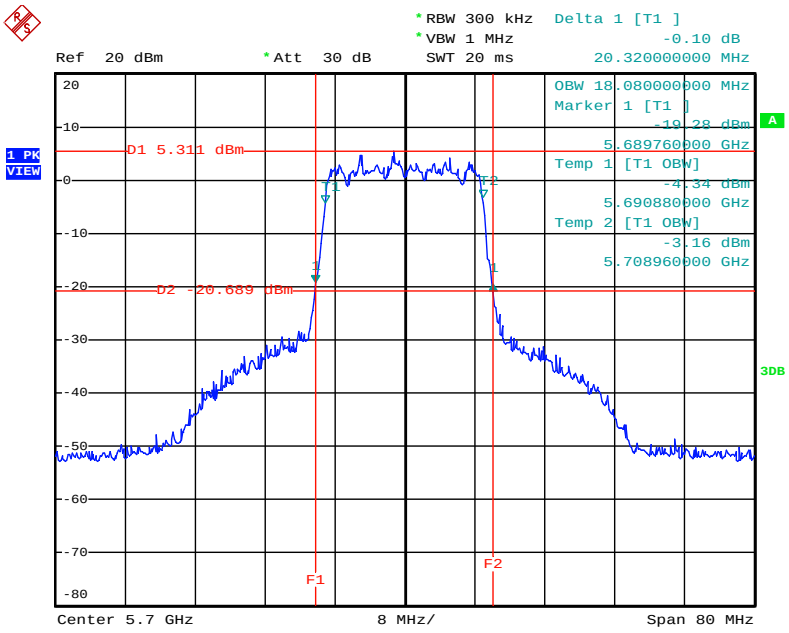
Date: 9.AUG.2013 15:17:20

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz



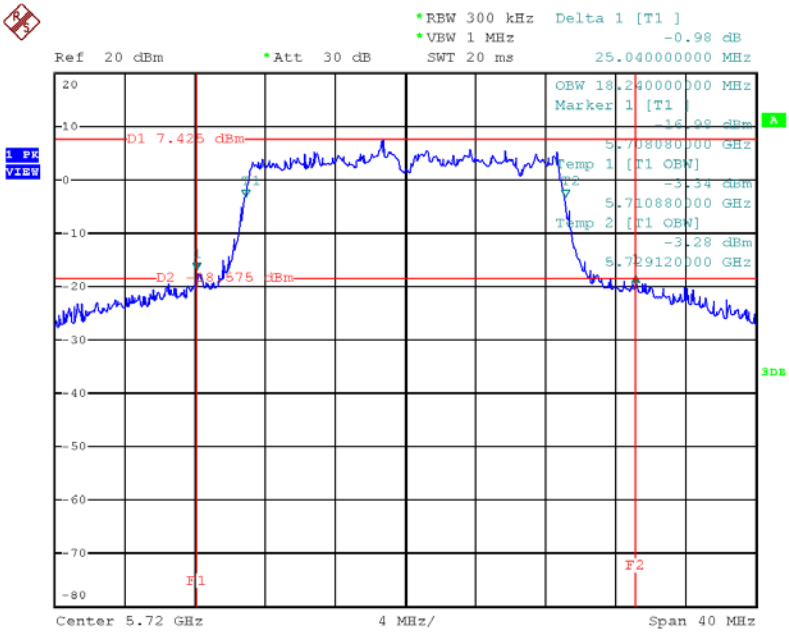
Date: 9.AUG.2013 15:17:46

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5700 MHz



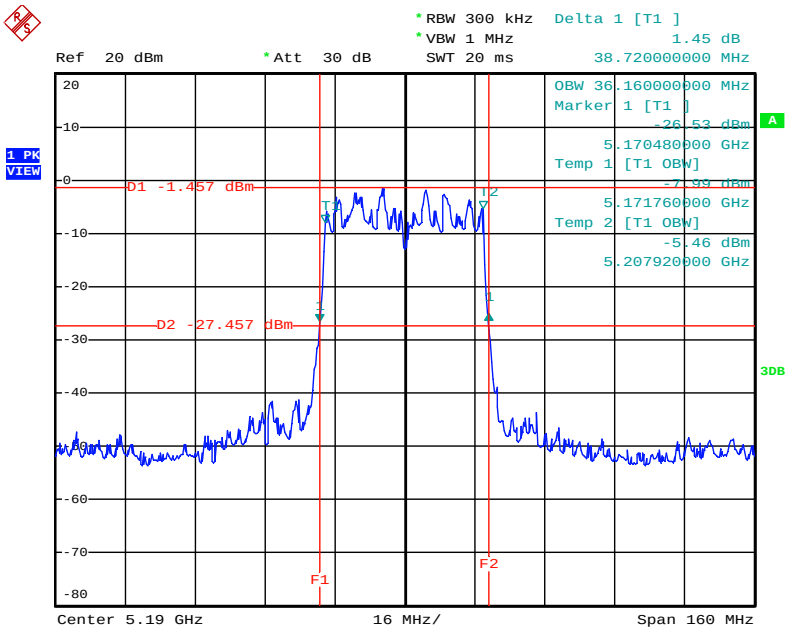
Date: 9.AUG.2013 15:18:21

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5720 MHz



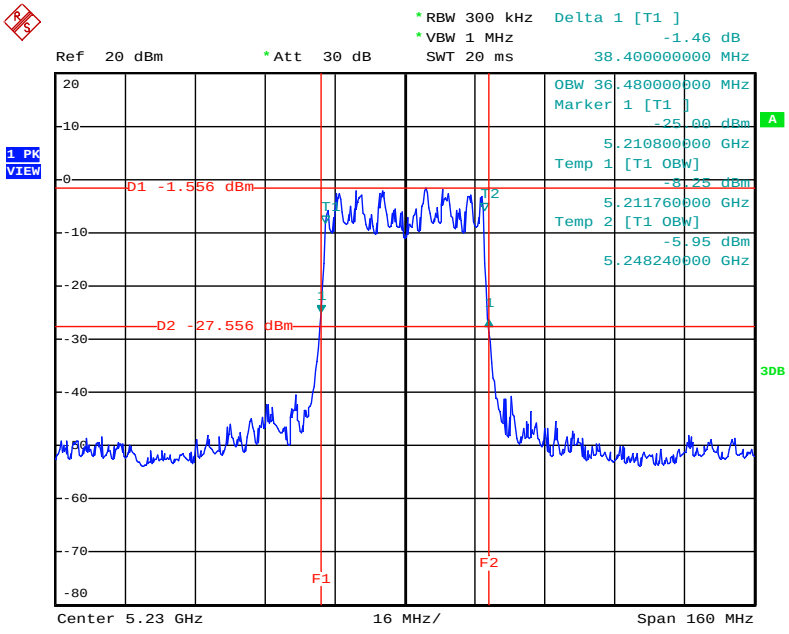
Date: 22.AUG.2013 23:02:51

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5190 MHz



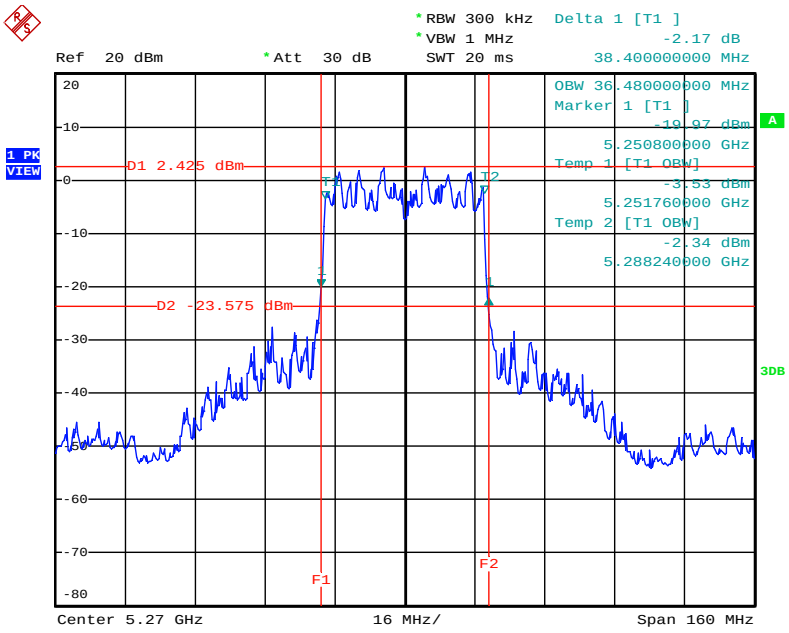
Date: 6.AUG.2013 11:11:42

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5230 MHz



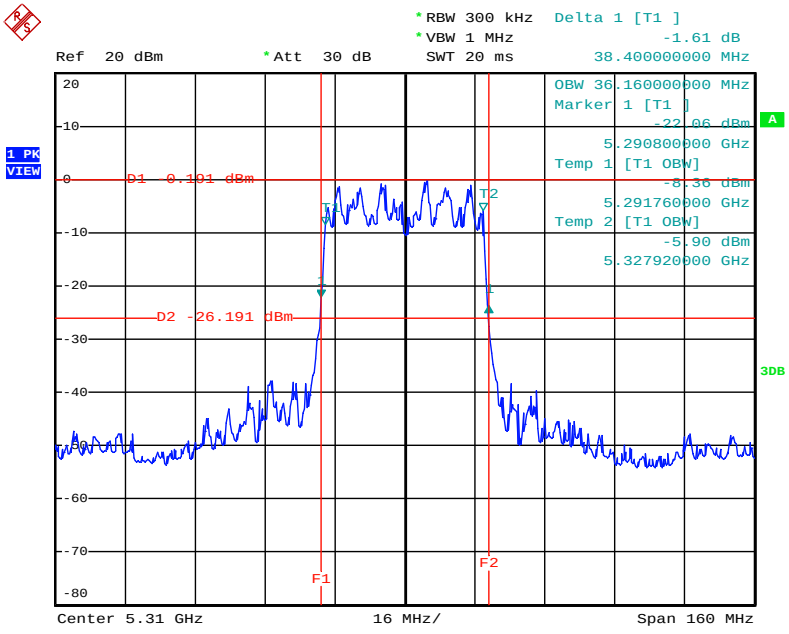
Date: 6.AUG.2013 11:12:02

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz



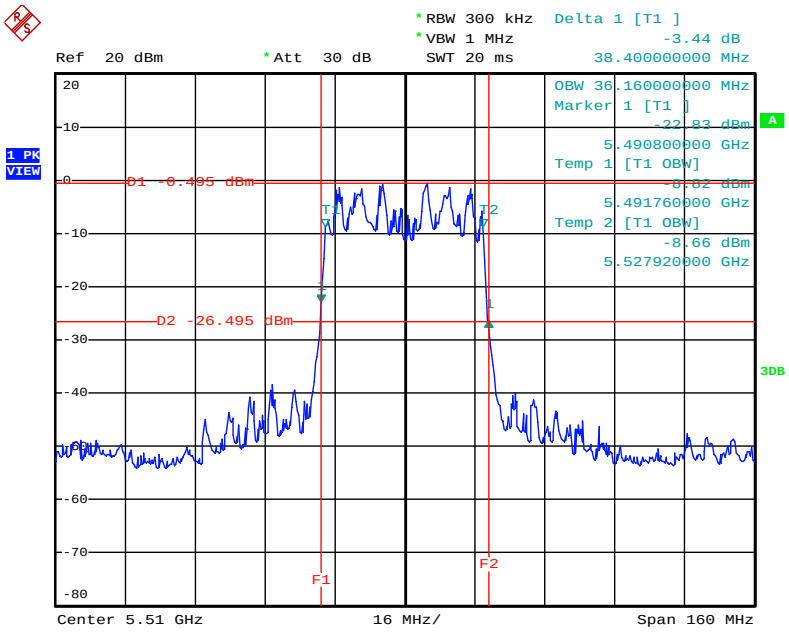
Date: 9.AUG.2013 15:21:52

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5310 MHz



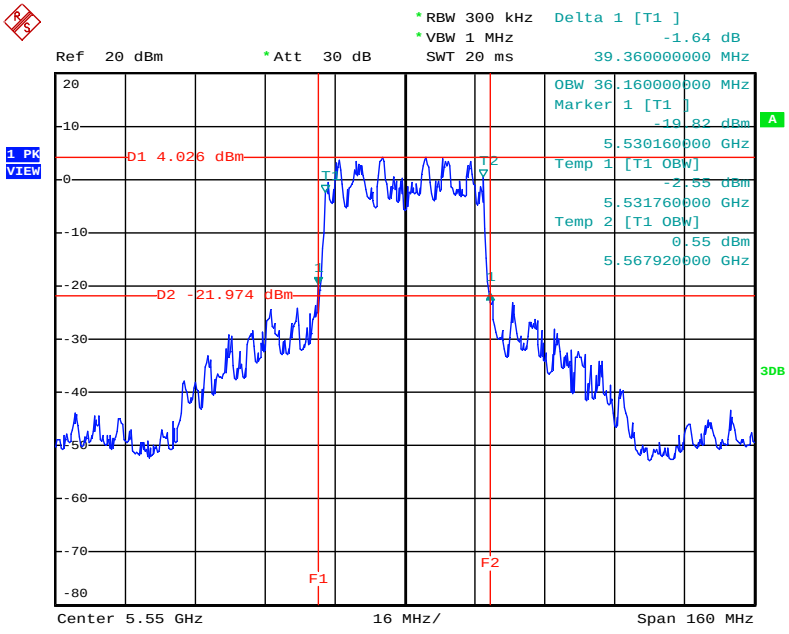
Date: 9.AUG.2013 15:22:20

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5510 MHz



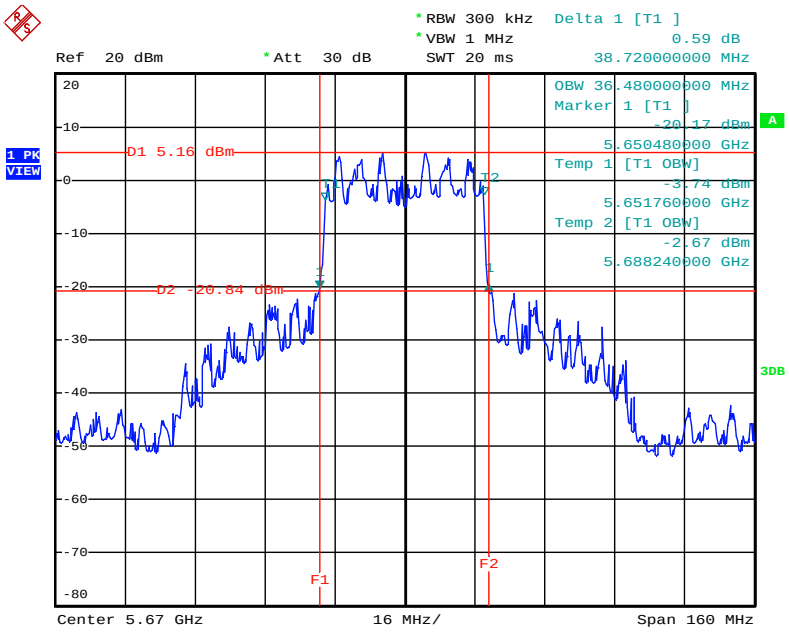
Date: 9.AUG.2013 15:22:47

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5550 MHz



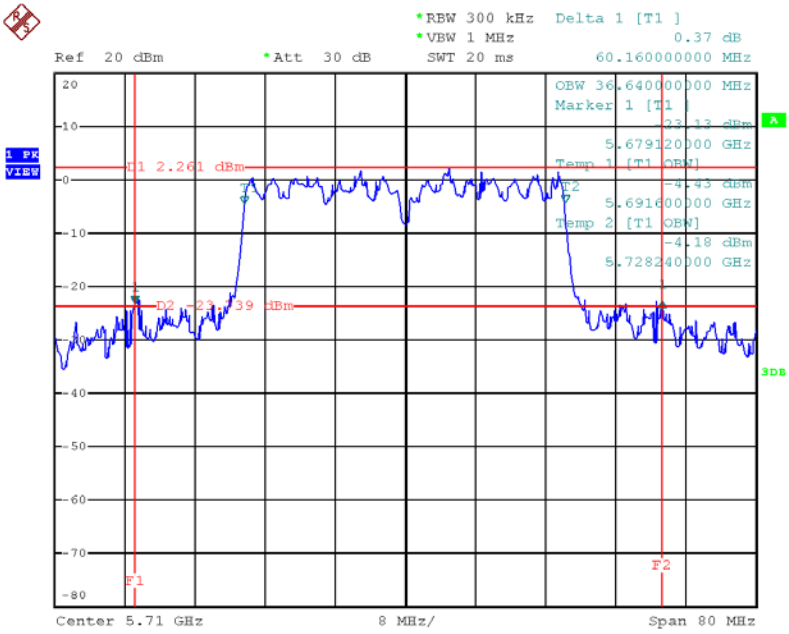
Date: 9.AUG.2013 15:23:29

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5670 MHz



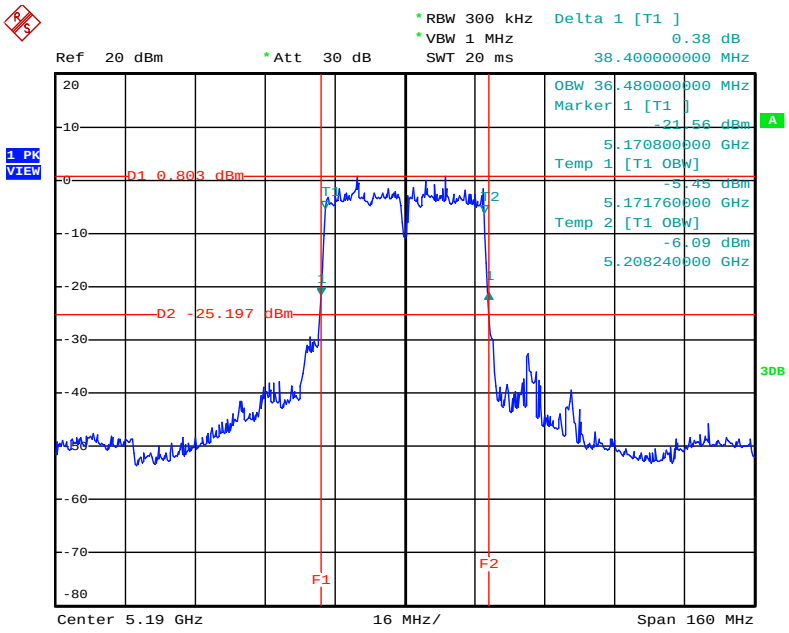
Date: 9.AUG.2013 15:24:12

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5710 MHz



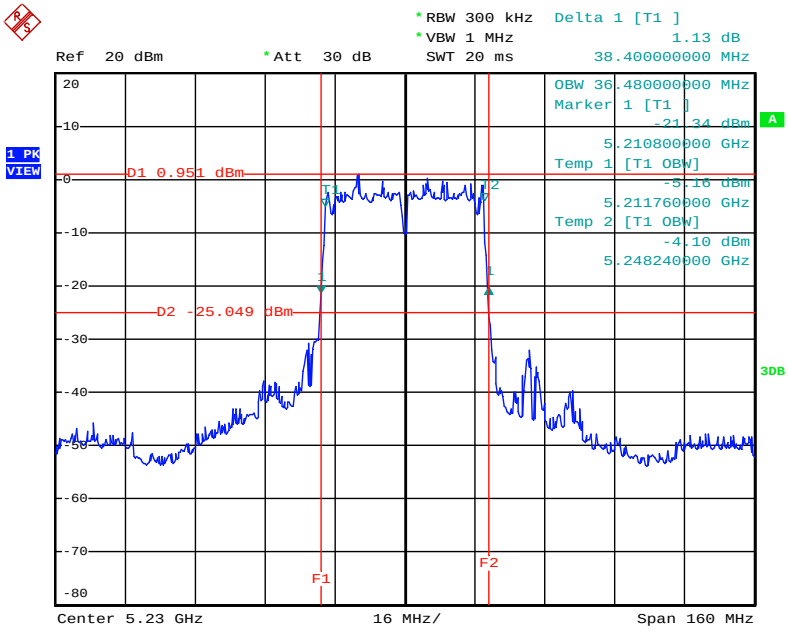
Date: 22.AUG.2013 22:58:17

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5190 MHz



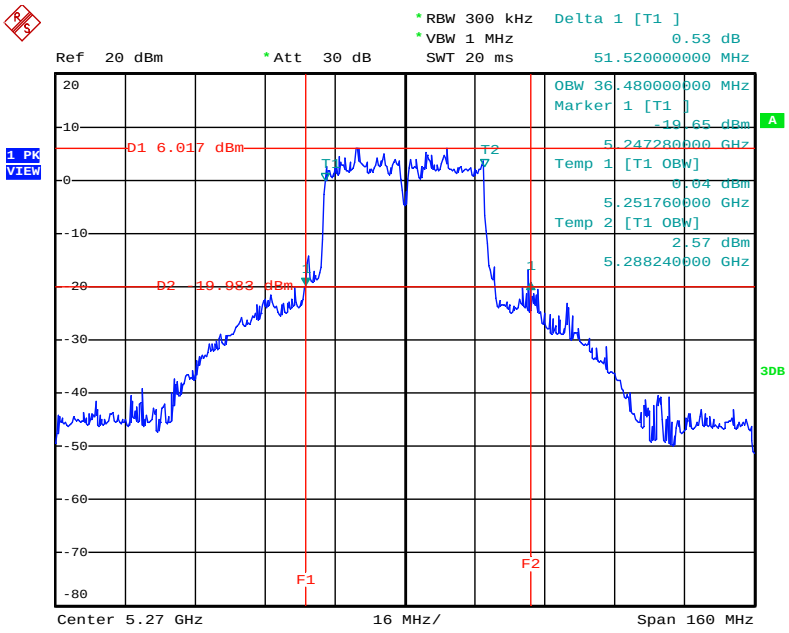
Date: 6.AUG.2013 11:14:08

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5230 MHz



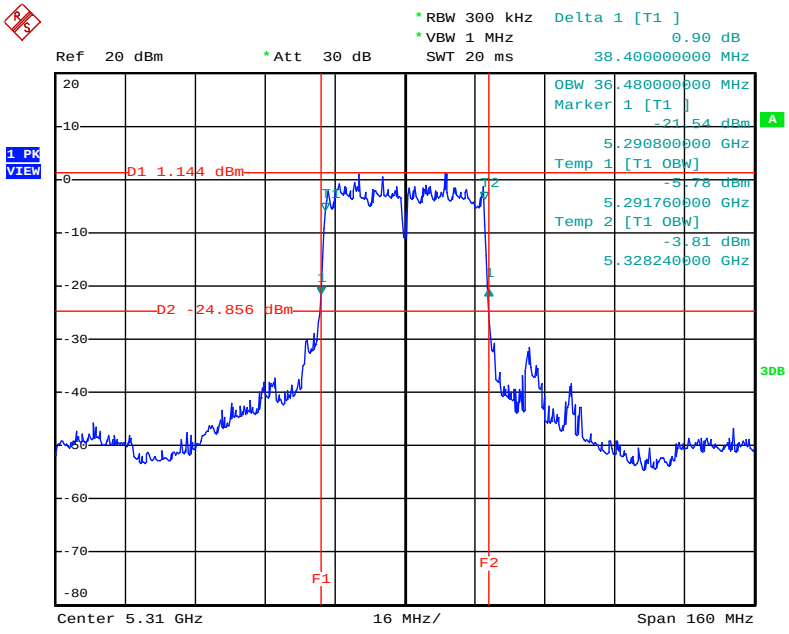
Date: 6.AUG.2013 11:14:29

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz



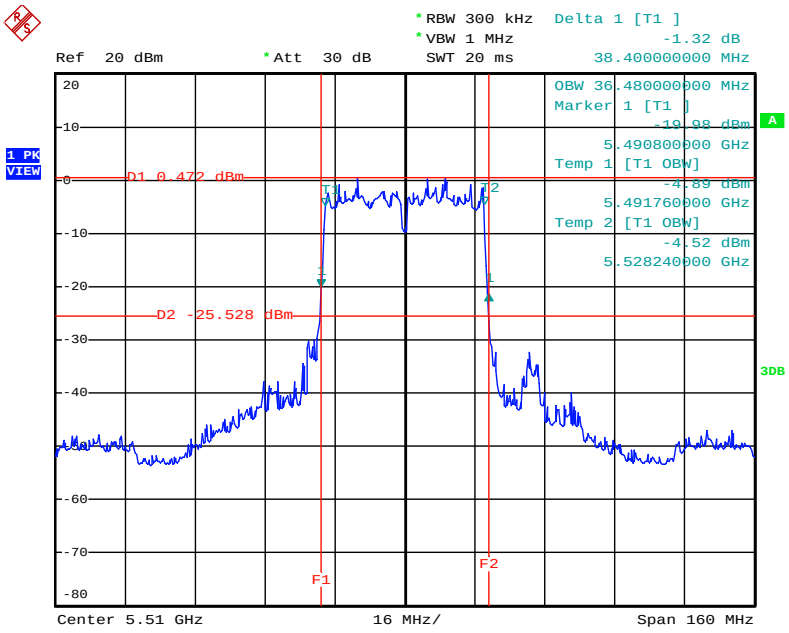
Date: 9.AUG.2013 15:21:17

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5310 MHz



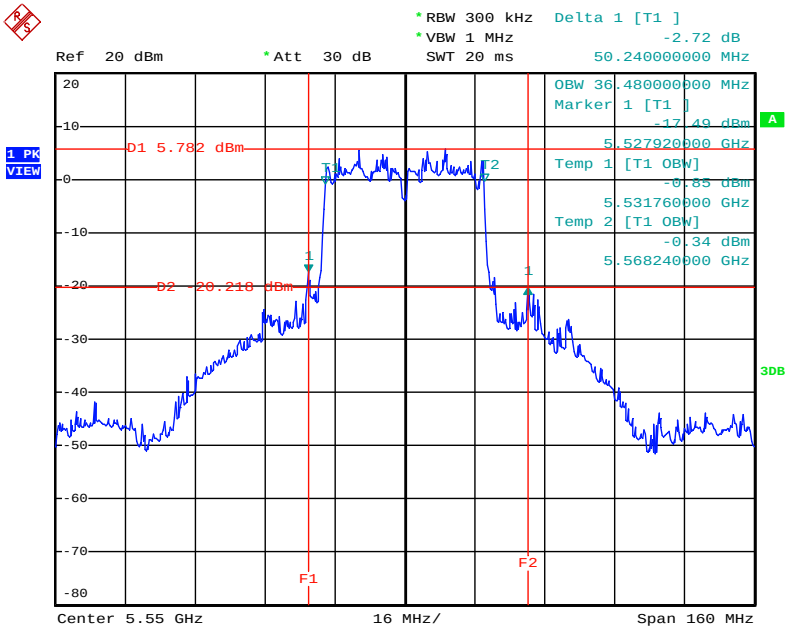
Date: 9.AUG.2013 15:20:45

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5510 MHz



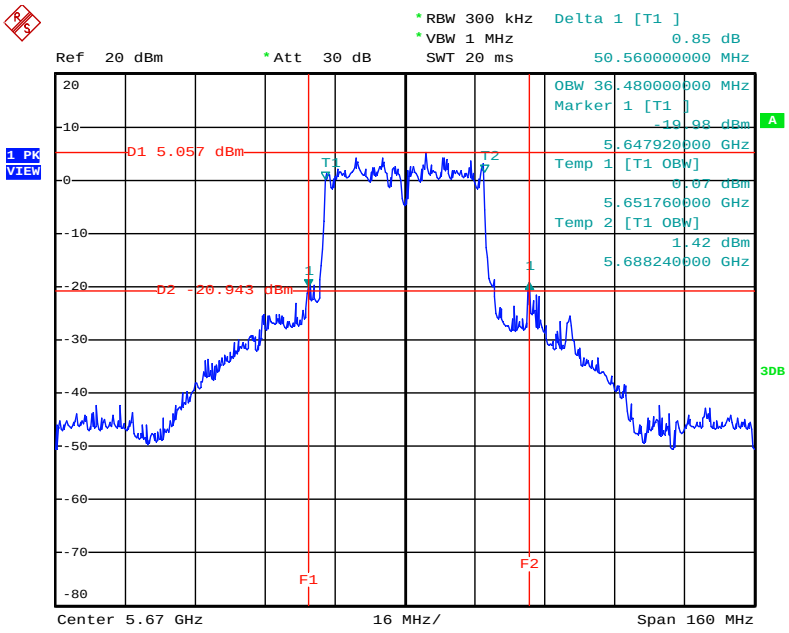
Date: 9.AUG.2013 15:20:15

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5550 MHz



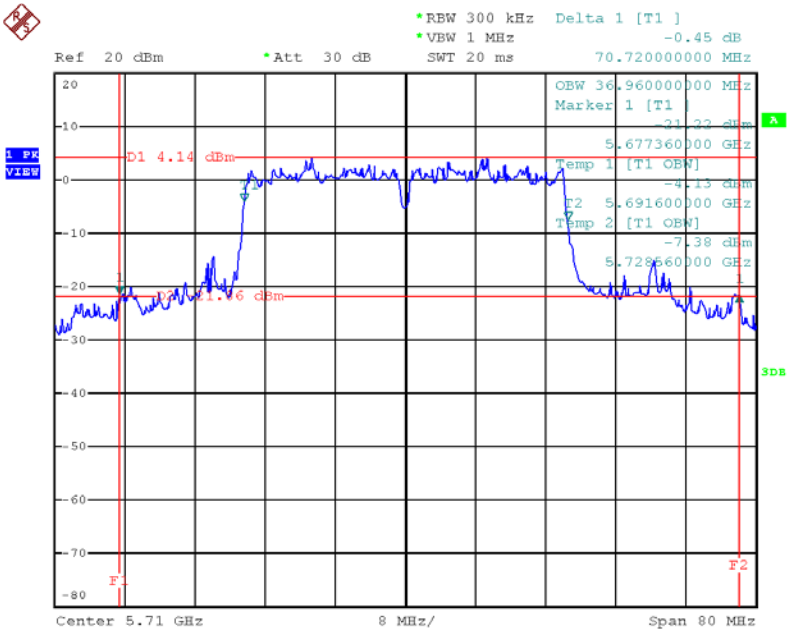
Date: 9.AUG.2013 15:19:50

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5670 MHz



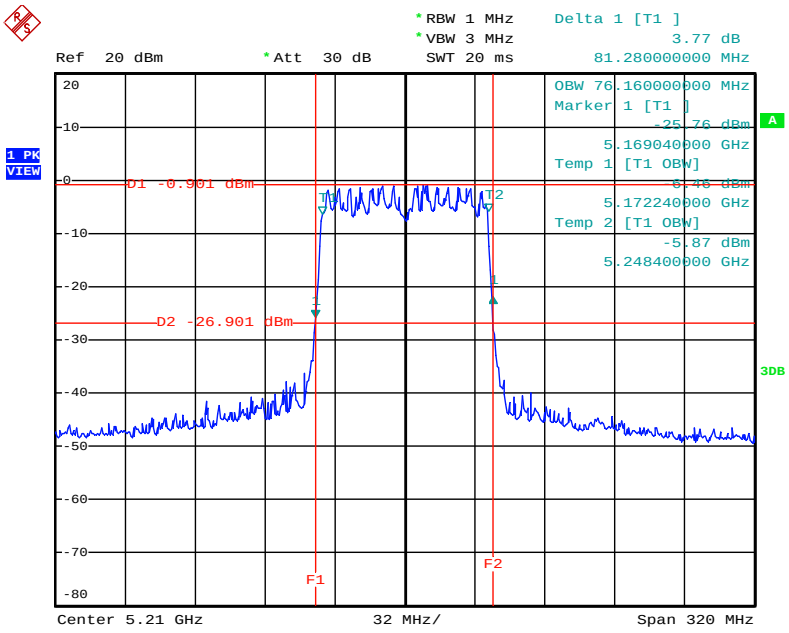
Date: 9.AUG.2013 15:19:22

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5710 MHz



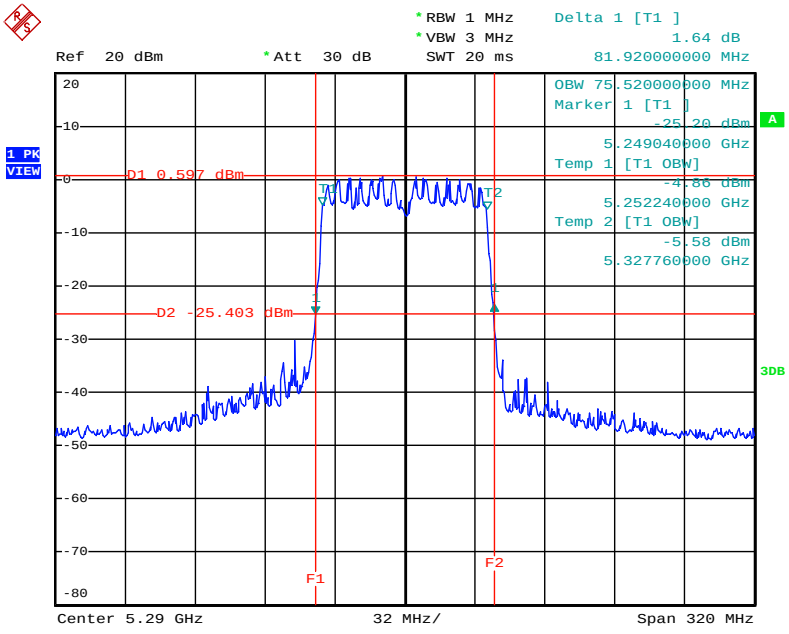
Date: 22.AUG.2013 23:01:59

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



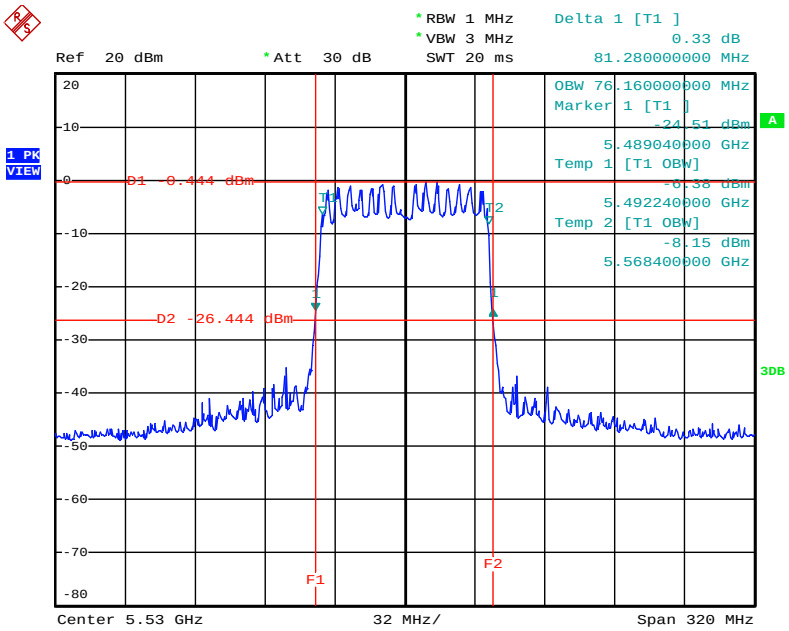
Date: 9.AUG.2013 15:25:43

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5290 MHz



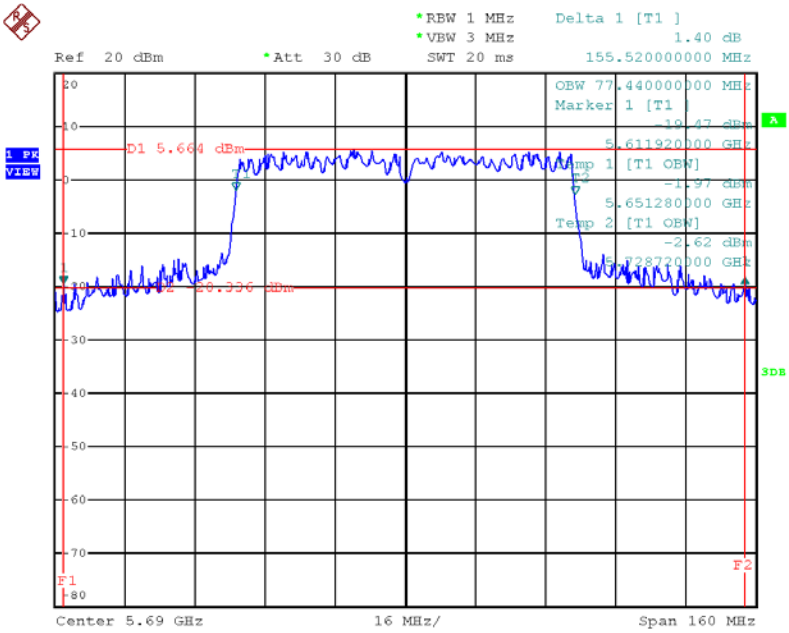
Date: 9.AUG.2013 15:25:21

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5530 MHz



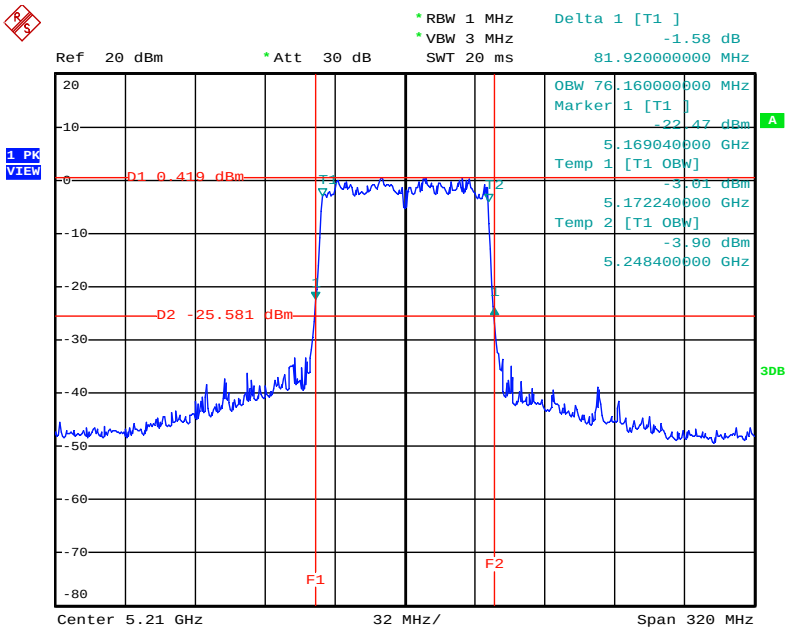
Date: 9.AUG.2013 15:24:50

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5690 MHz



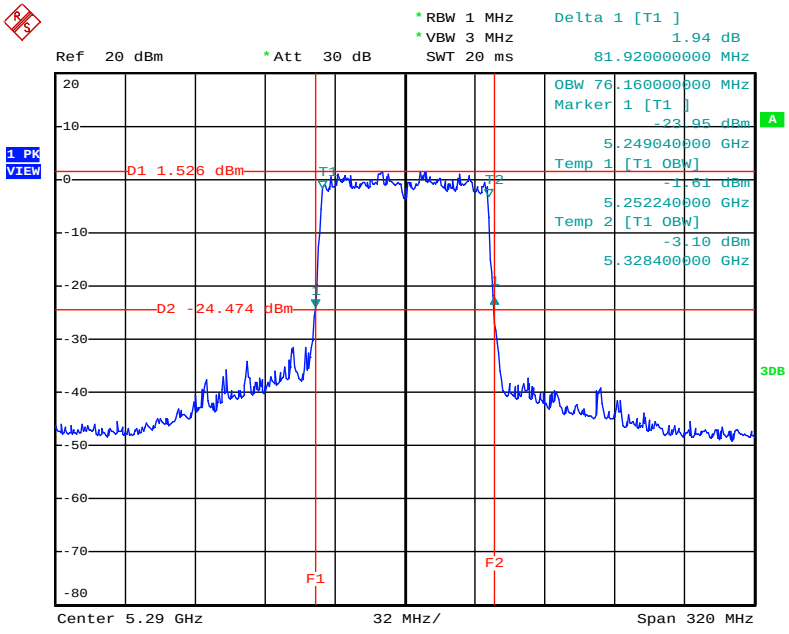
Date: 22.AUG.2013 22:59:24

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



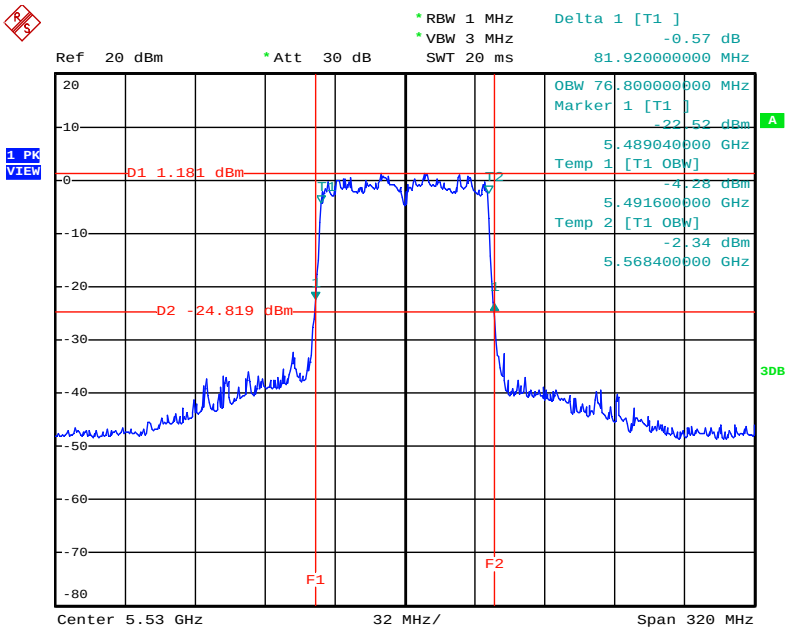
Date: 9.AUG.2013 15:26:14

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5290 MHz



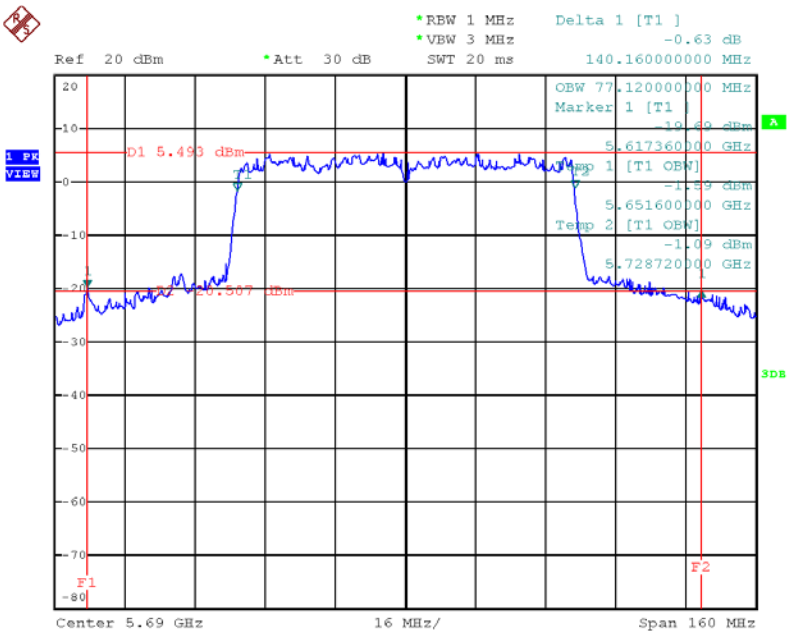
Date: 9.AUG.2013 15:26:36

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5530 MHz



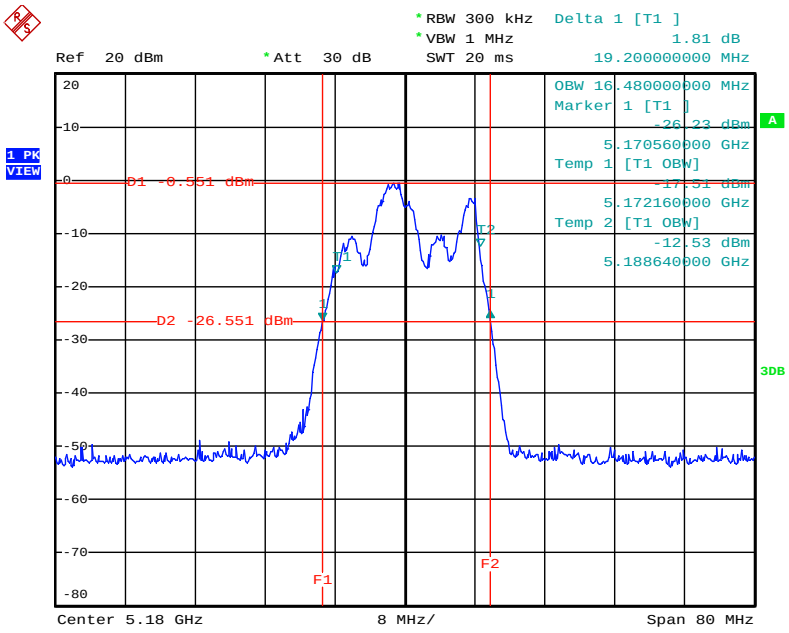
Date: 9.AUG.2013 15:26:58

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5690 MHz



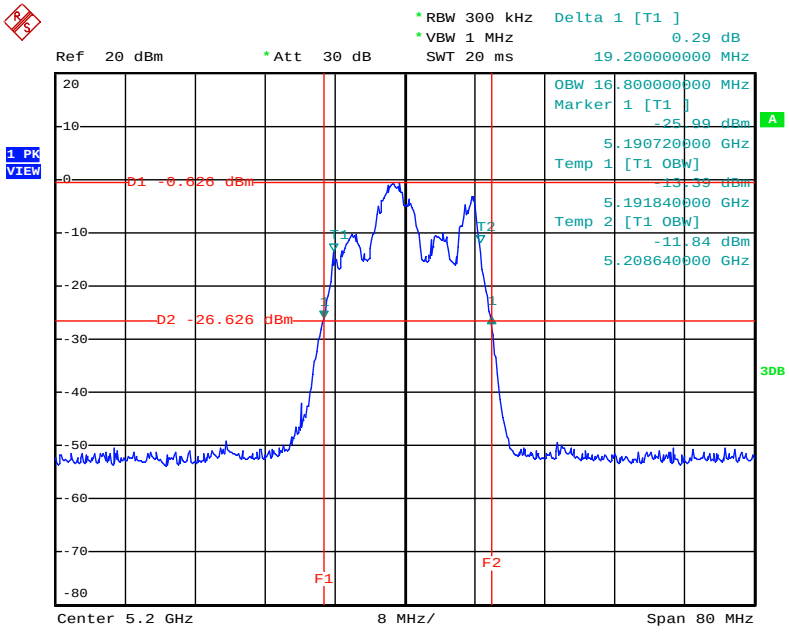
Date: 22.AUG.2013 23:00:45

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



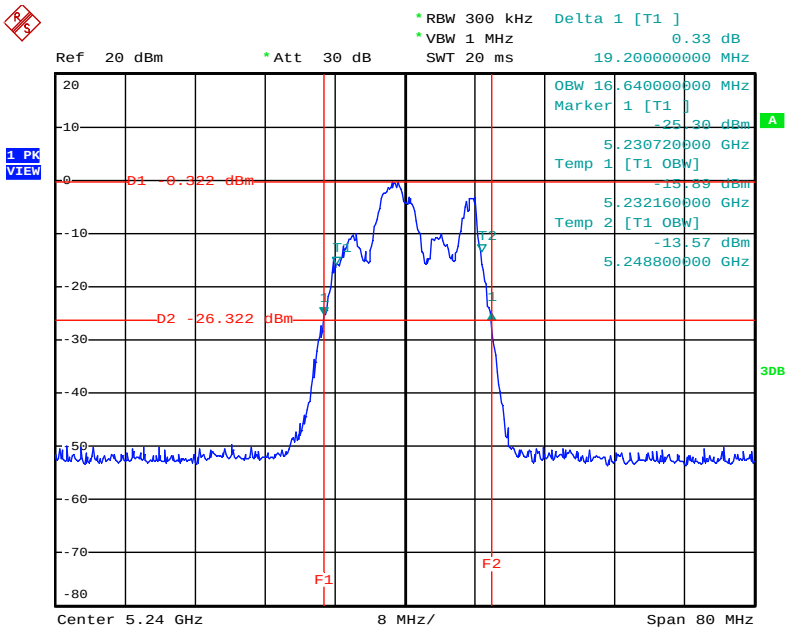
Date: 6.AUG.2013 11:08:26

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



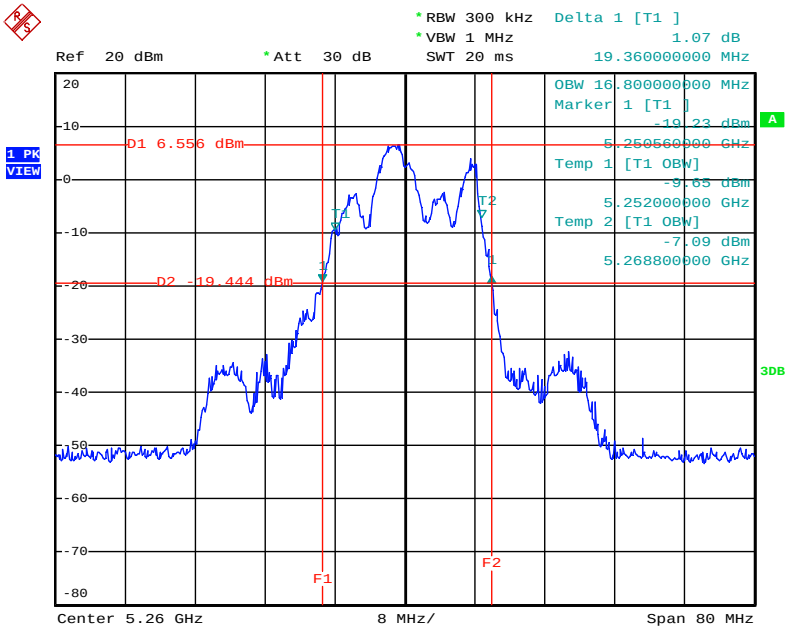
Date: 6.AUG.2013 11:08:52

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



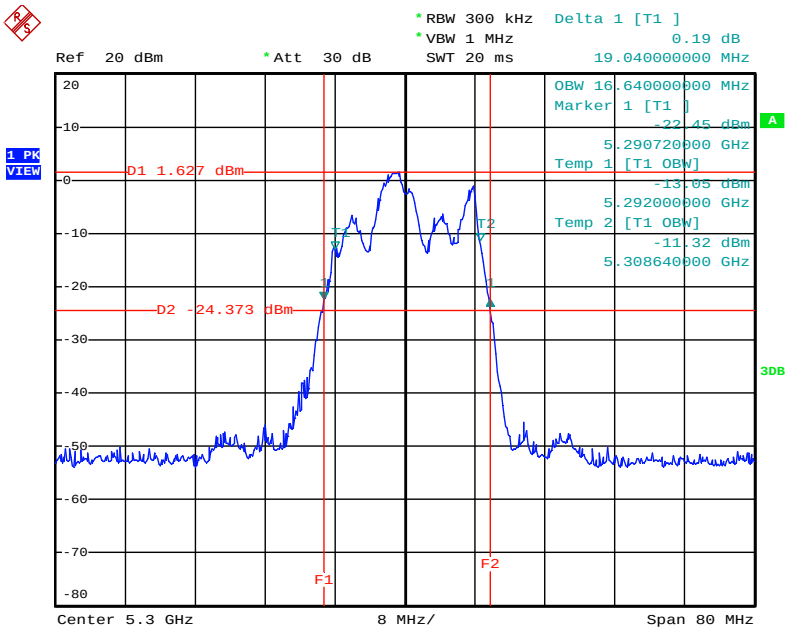
Date: 6.AUG.2013 11:09:27

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5260 MHz



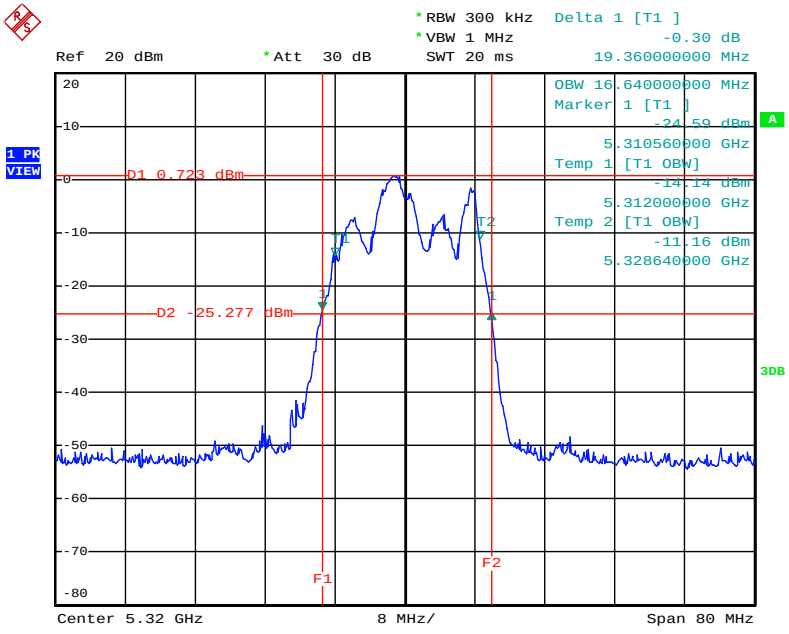
Date: 9.AUG.2013 15:09:48

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5300 MHz



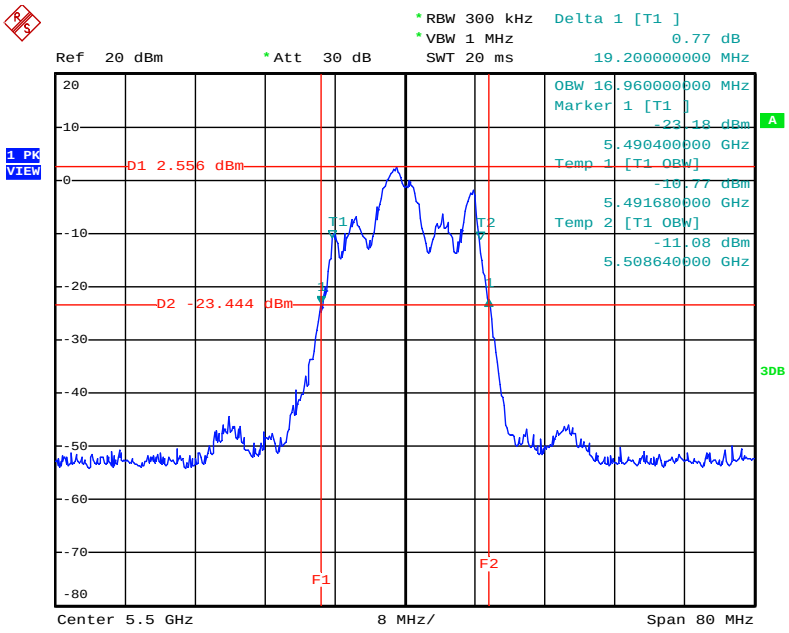
Date: 9.AUG.2013 08:06:39

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5320 MHz



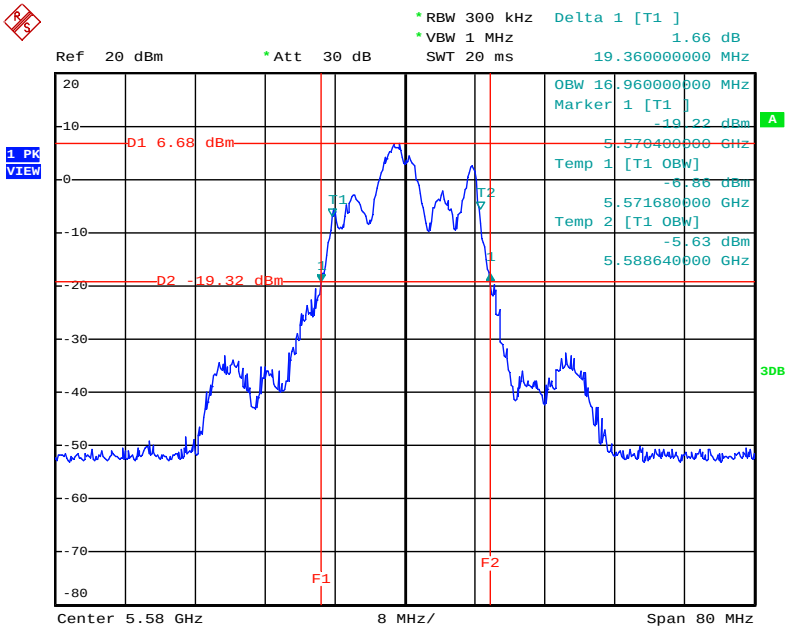
Date: 9.AUG.2013 15:10:38

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5500 MHz



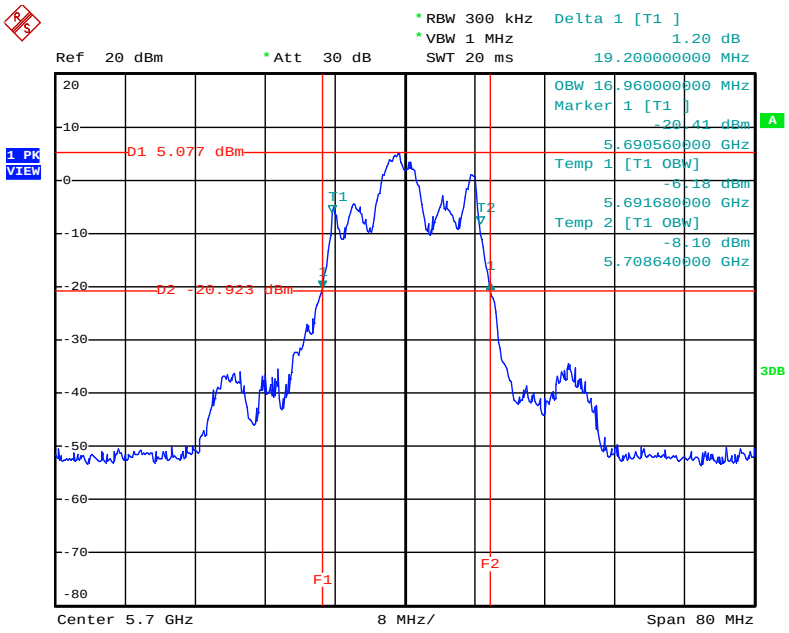
Date: 9.AUG.2013 15:11:02

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5580 MHz



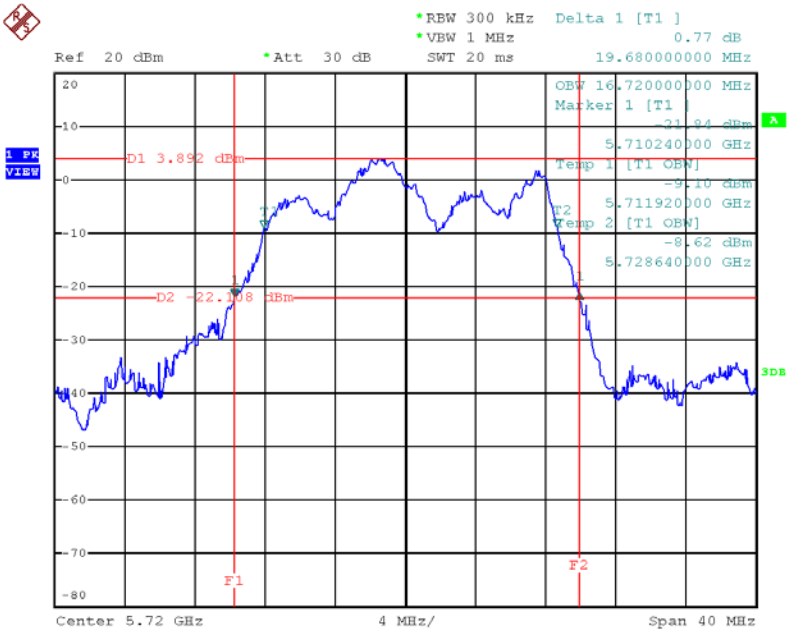
Date: 9.AUG.2013 15:11:27

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5700 MHz



Date: 9.AUG.2013 15:11:50

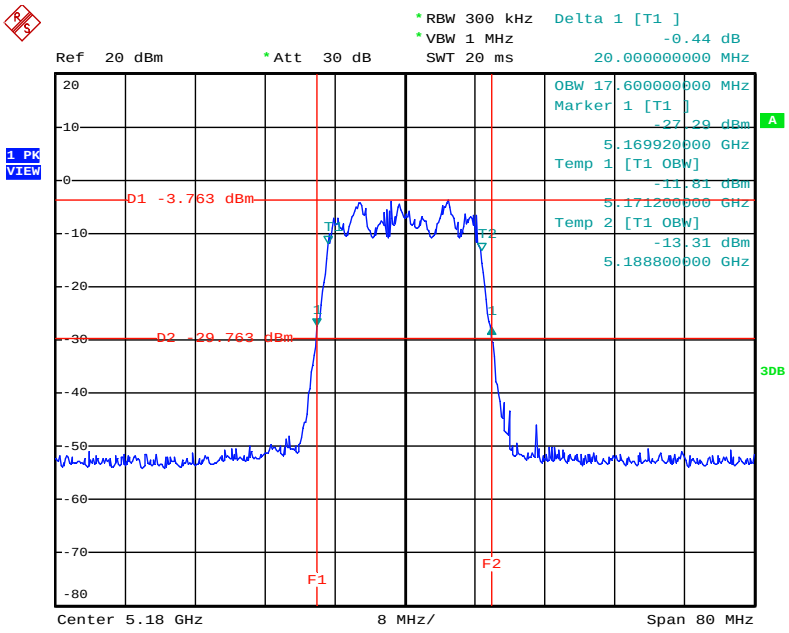
26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5720 MHz



Date: 22.AUG.2013 22:55:53

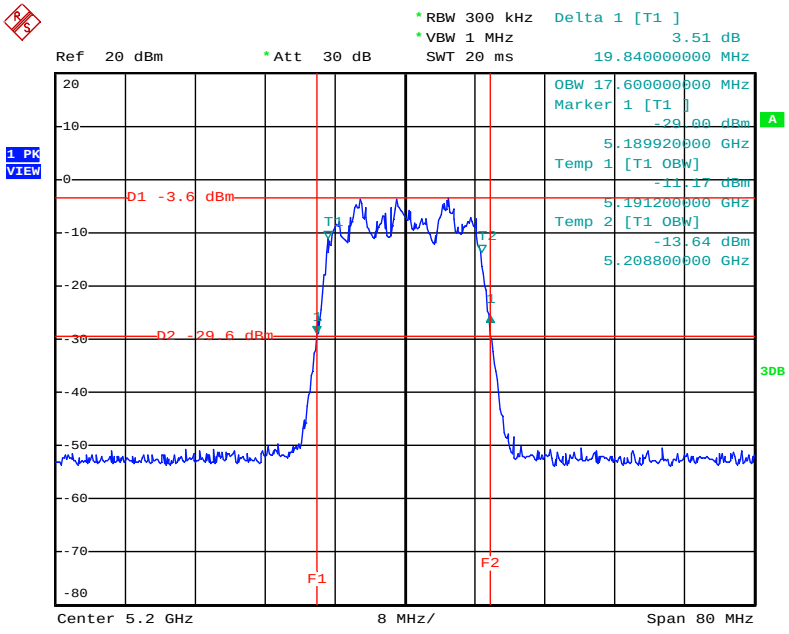
Test Mode: Mode 3 (Ant.4 Panel antenna / 9.2dBi)

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



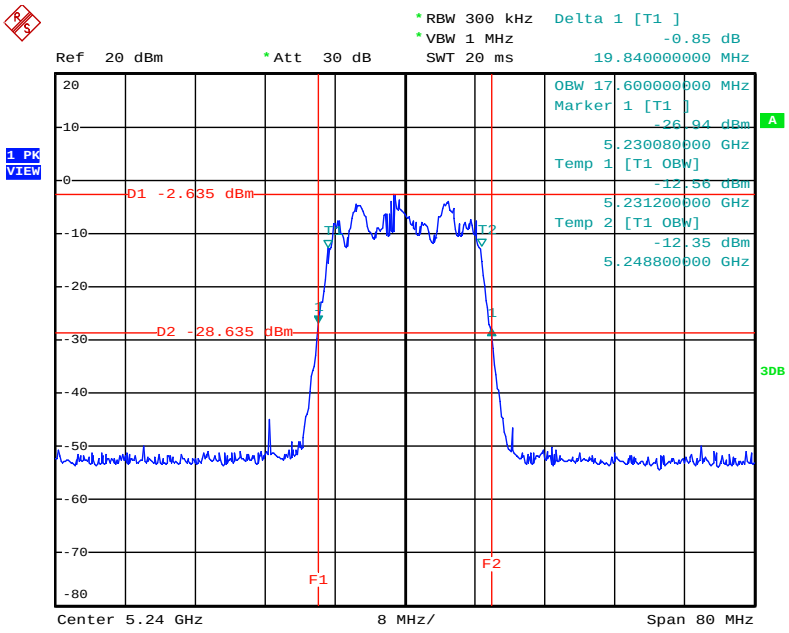
Date: 5.AUG.2013 14:49:03

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5200 MHz



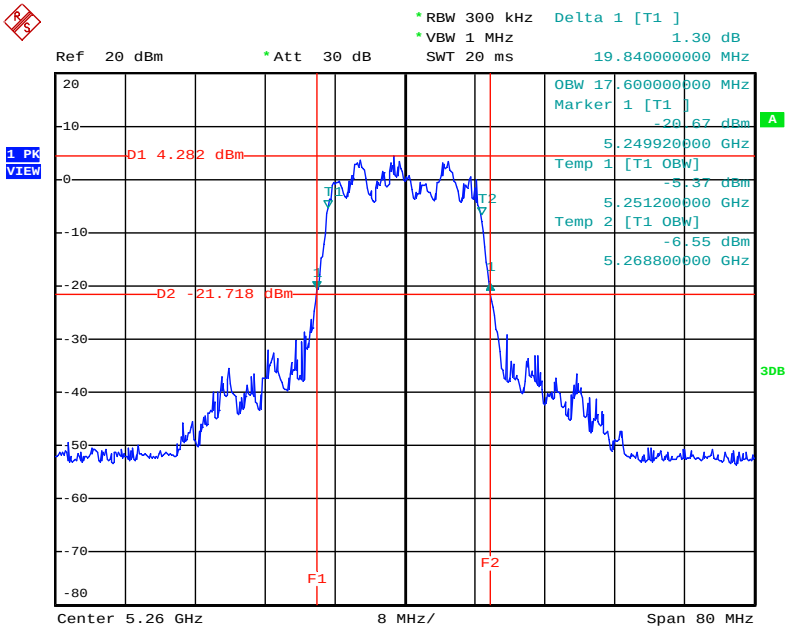
Date: 5.AUG.2013 14:48:40

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



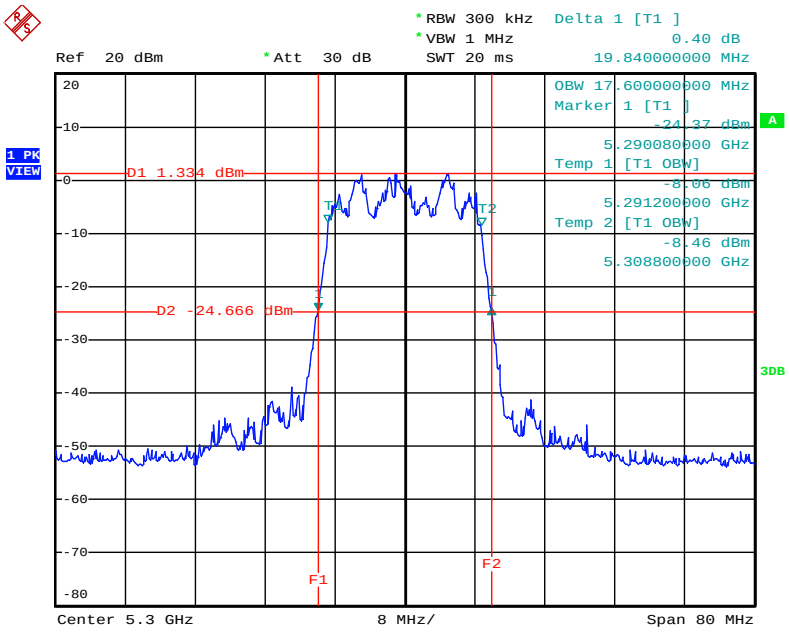
Date: 5.AUG.2013 14:48:05

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz



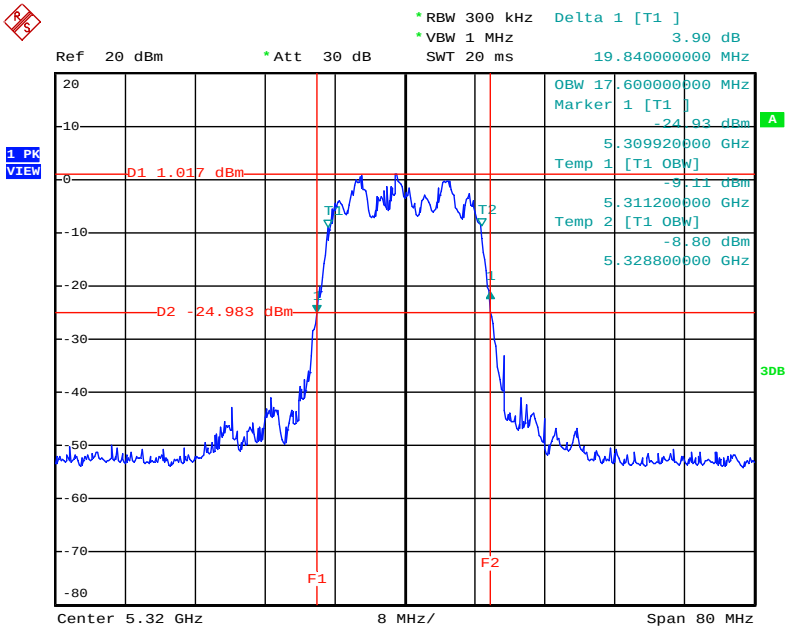
Date: 9.AUG.2013 08:19:24

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5300 MHz



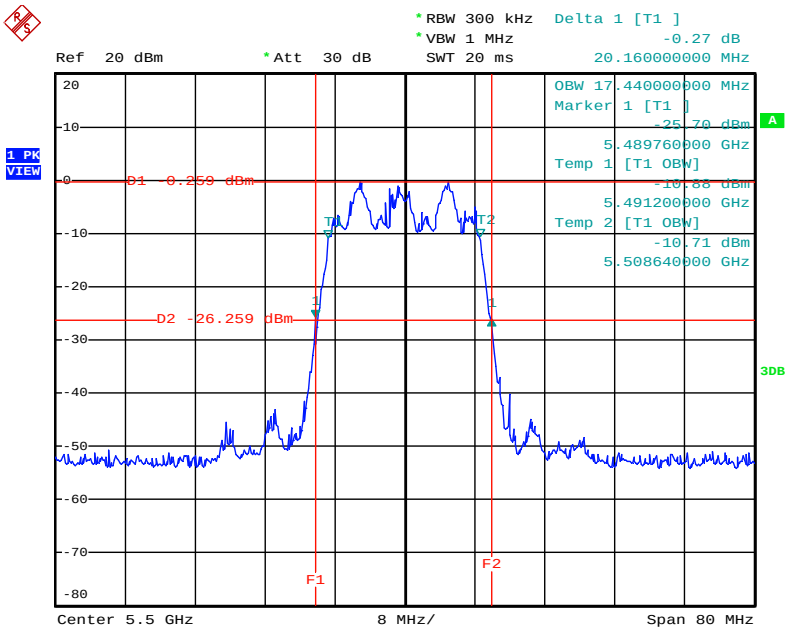
Date: 9.AUG.2013 08:19:00

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5320 MHz



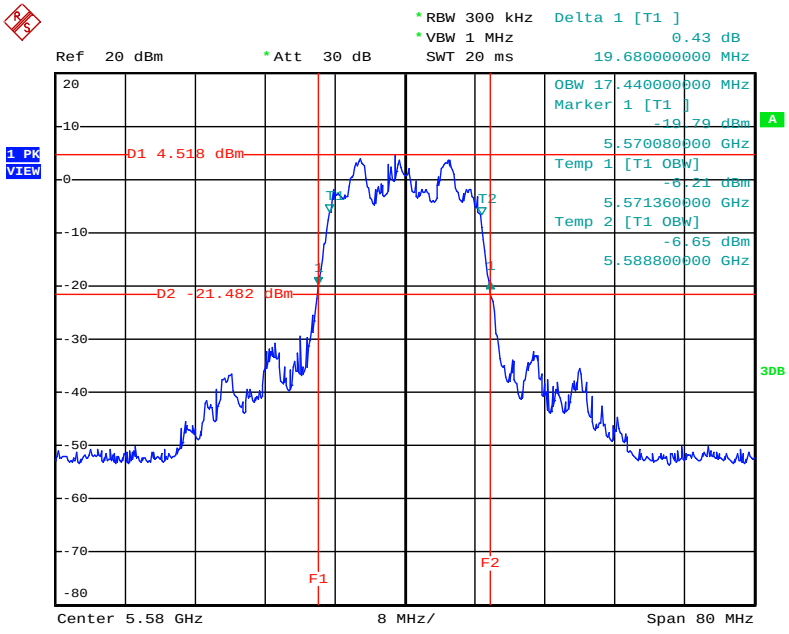
Date: 9.AUG.2013 08:18:39

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5500 MHz



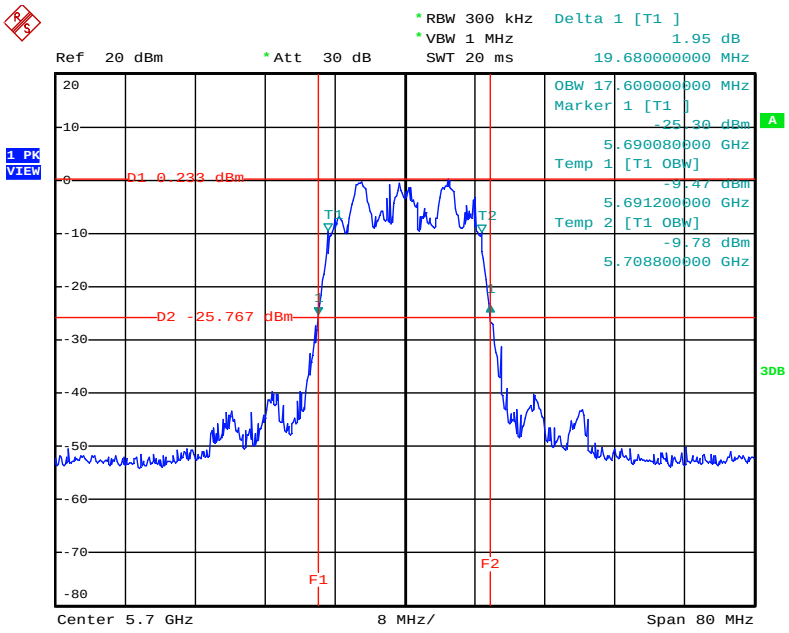
Date: 9.AUG.2013 08:17:56

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz



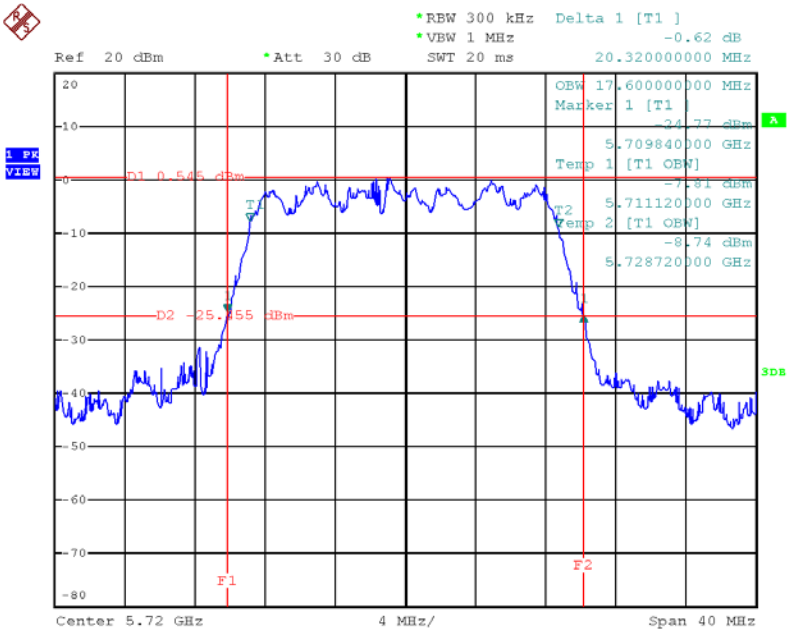
Date: 9.AUG.2013 08:17:22

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5700 MHz



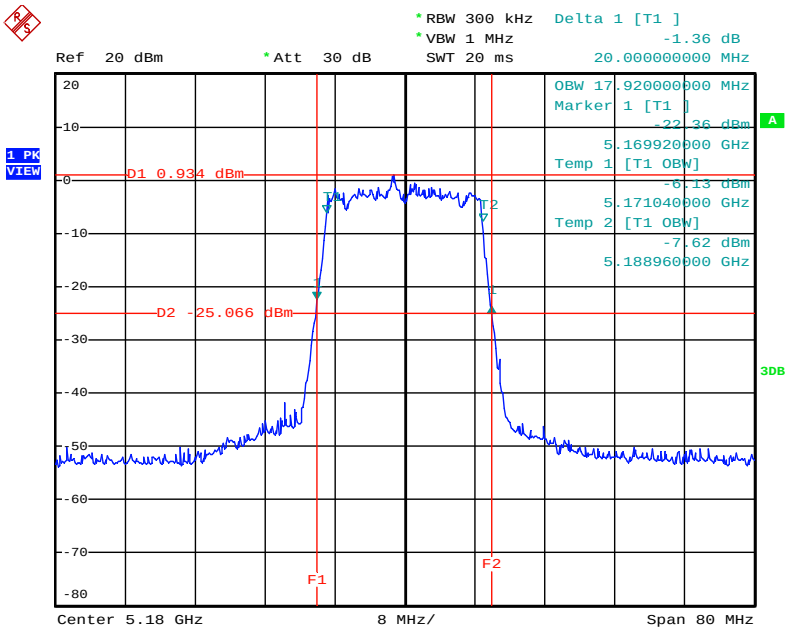
Date: 9.AUG.2013 08:16:53

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5720 MHz



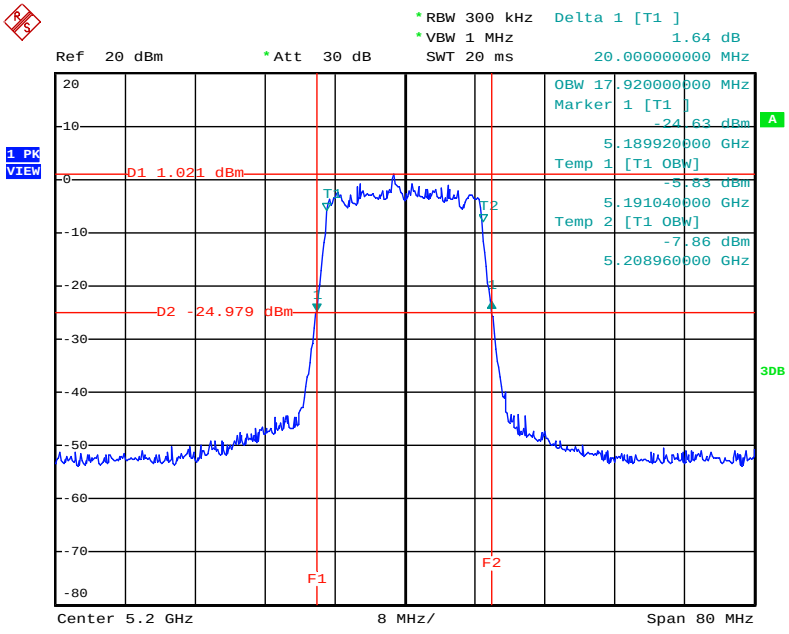
Date: 22.AUG.2013 21:31:01

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



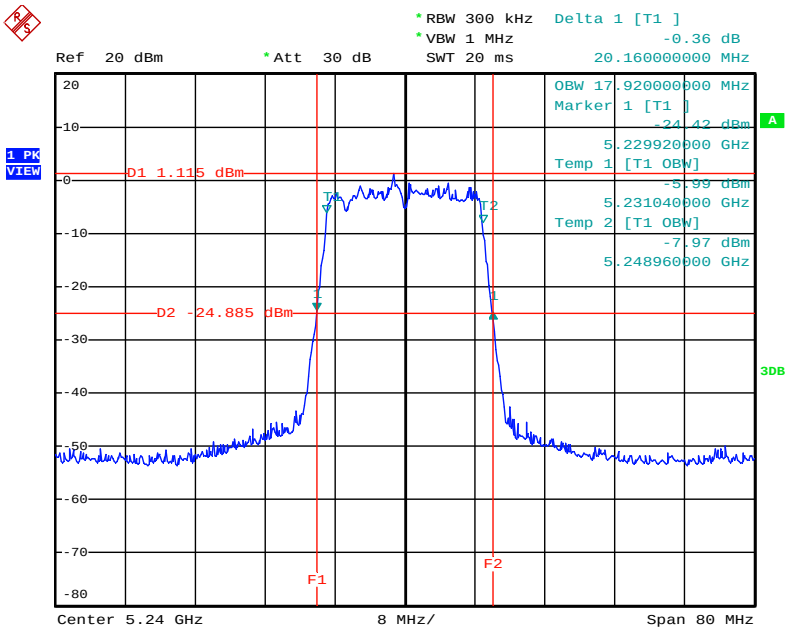
Date: 5.AUG.2013 14:52:49

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5200 MHz



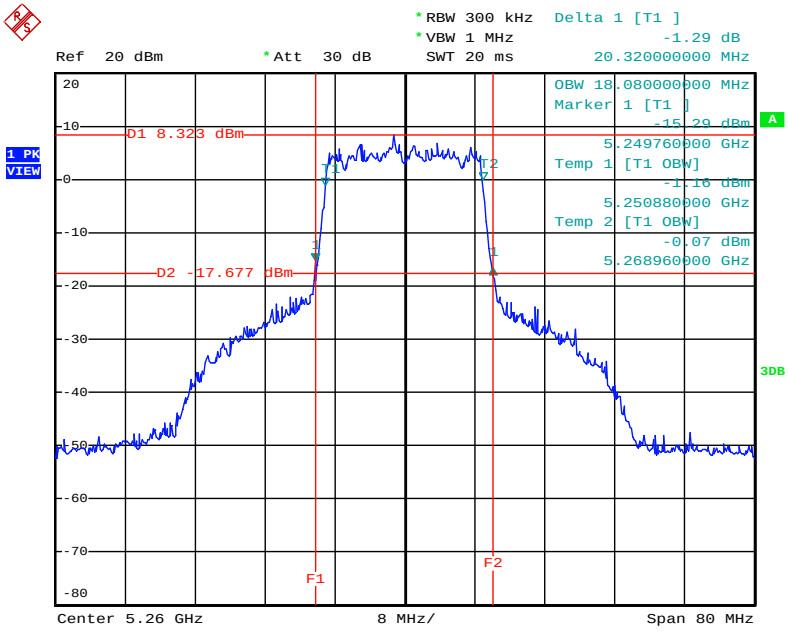
Date: 5.AUG.2013 14:53:10

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



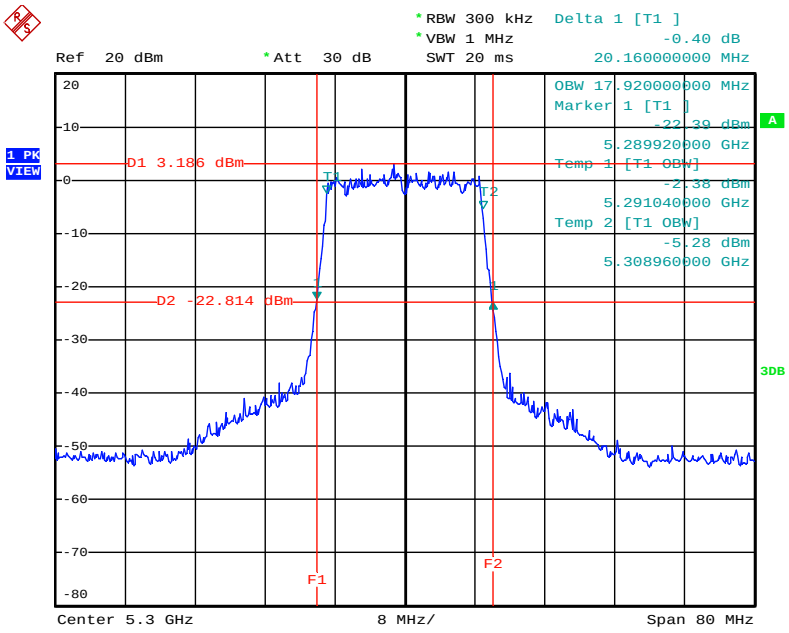
Date: 5.AUG.2013 14:53:41

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz



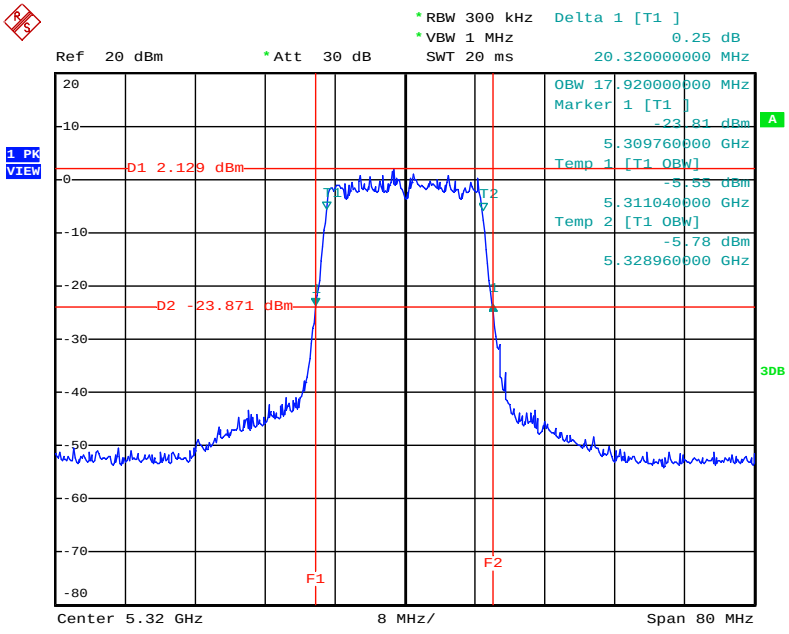
Date: 9.AUG.2013 08:35:26

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5300 MHz



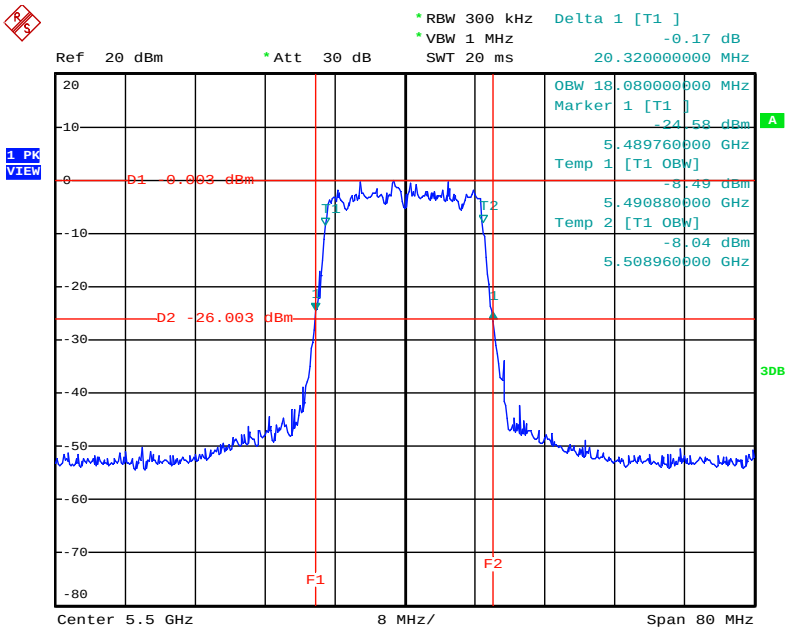
Date: 9.AUG.2013 08:35:51

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5320 MHz



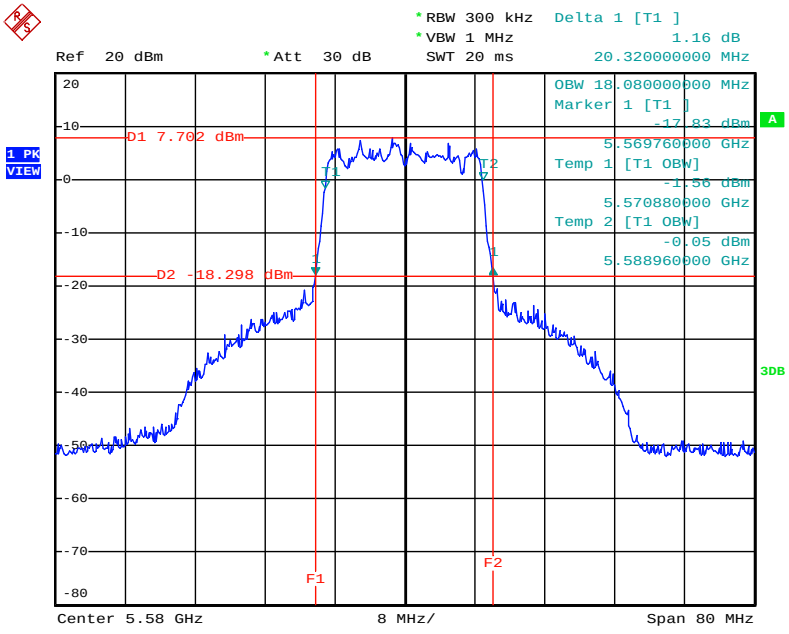
Date: 9.AUG.2013 08:36:12

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5500 MHz



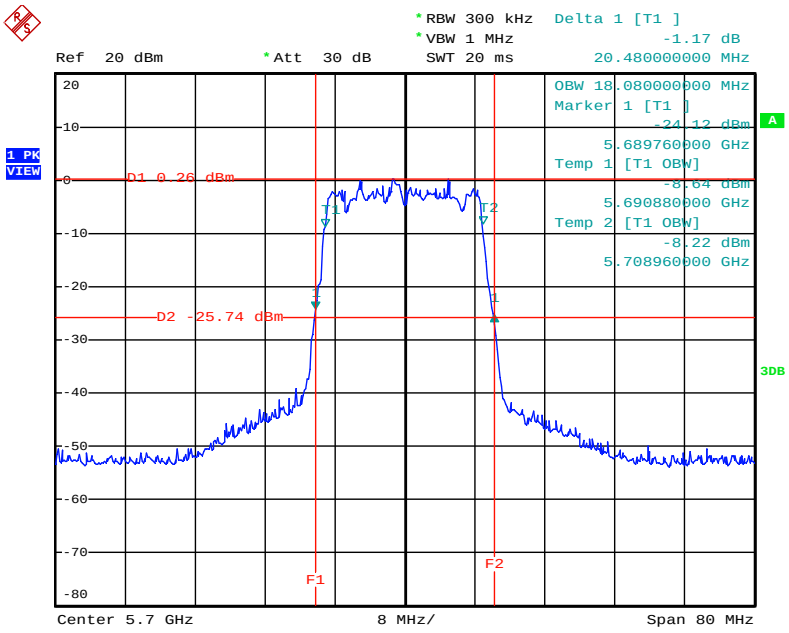
Date: 9.AUG.2013 08:36:43

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz



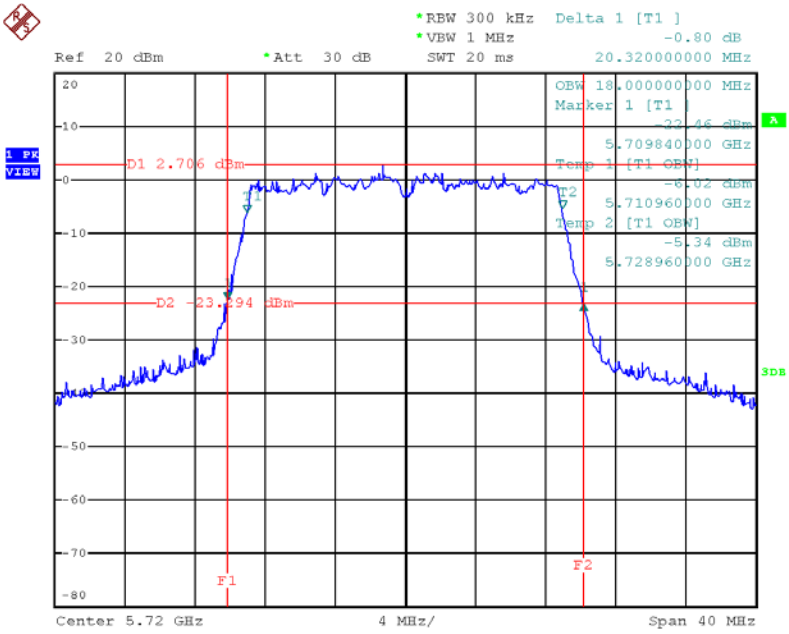
Date: 9.AUG.2013 08:37:08

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5700 MHz



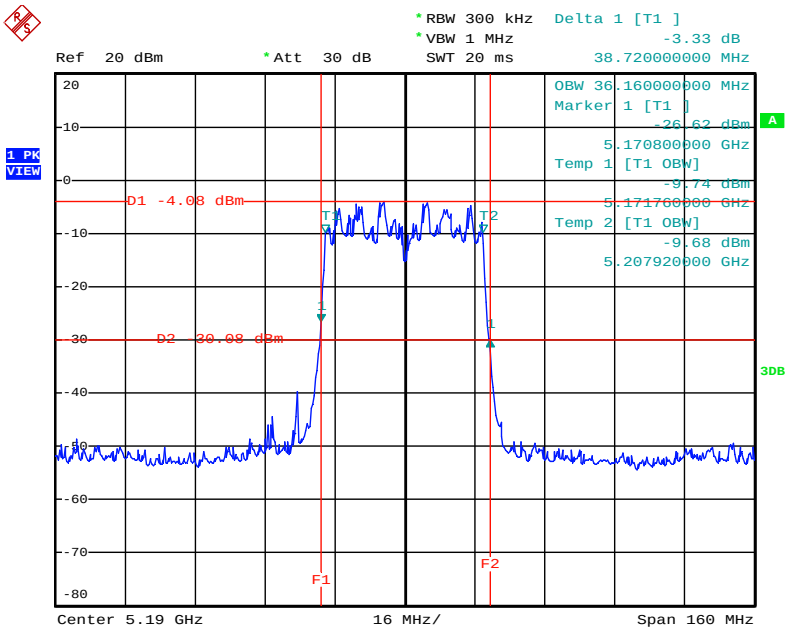
Date: 9.AUG.2013 08:37:35

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5720 MHz



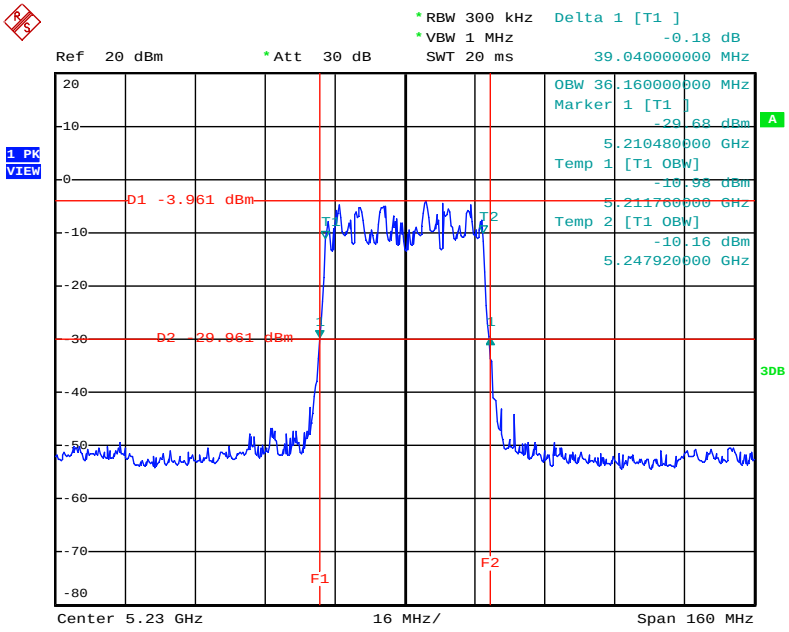
Date: 22.AUG.2013 21:40:51

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5190 MHz



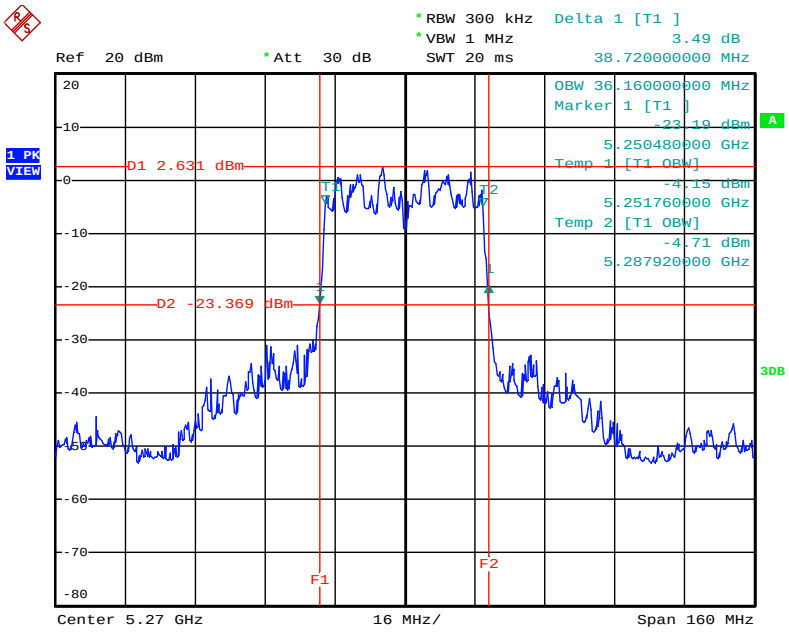
Date: 5.AUG.2013 14:49:47

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5230 MHz



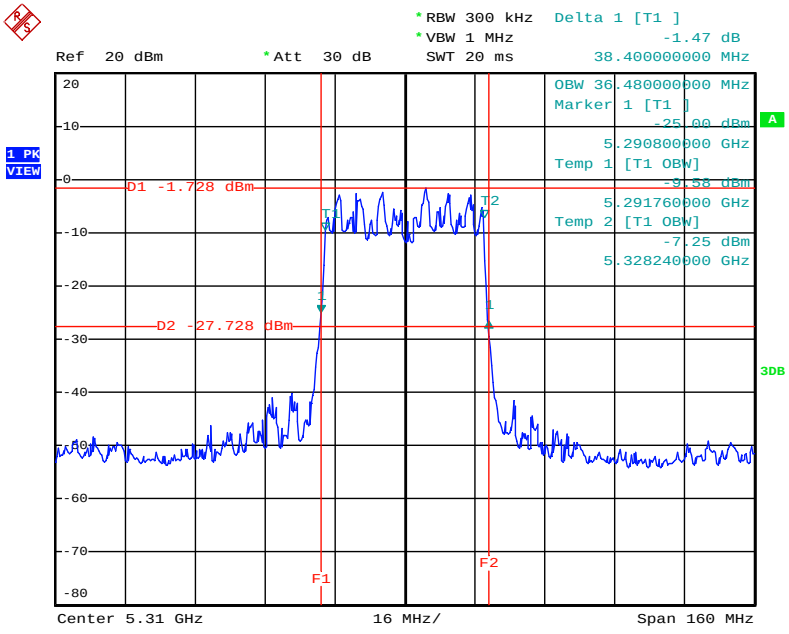
Date: 5.AUG.2013 14:50:08

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz



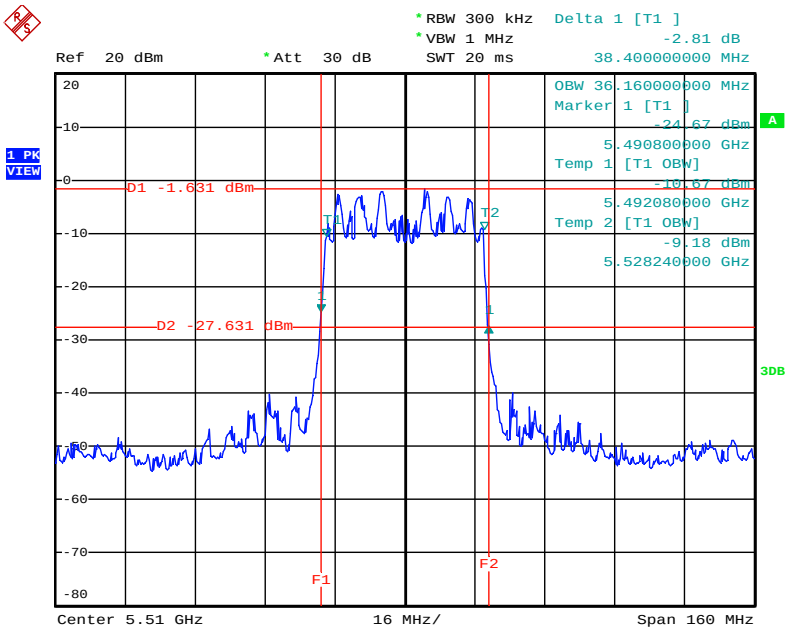
Date: 9.AUG.2013 08:19:58

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5310 MHz



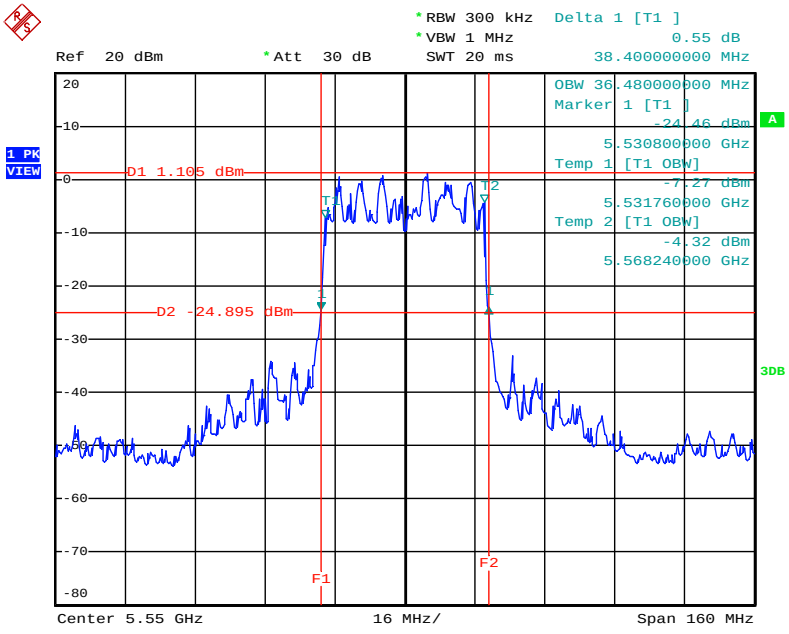
Date: 9.AUG.2013 08:26:57

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5510 MHz



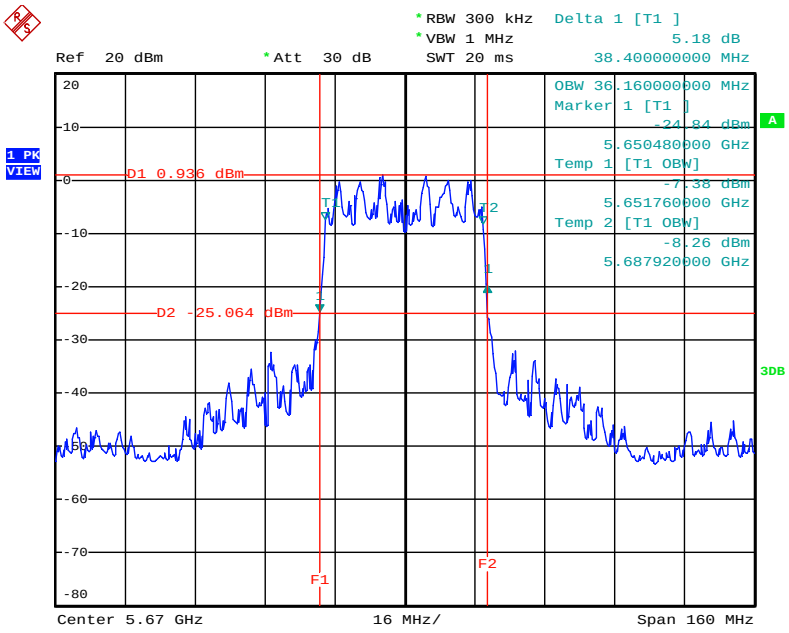
Date: 9.AUG.2013 08:27:23

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5550 MHz



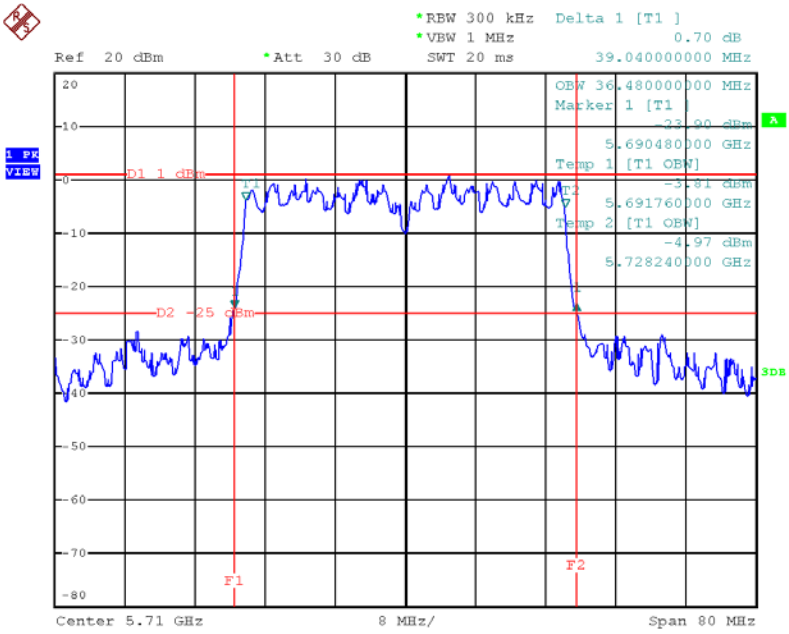
Date: 9.AUG.2013 08:27:47

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5670 MHz



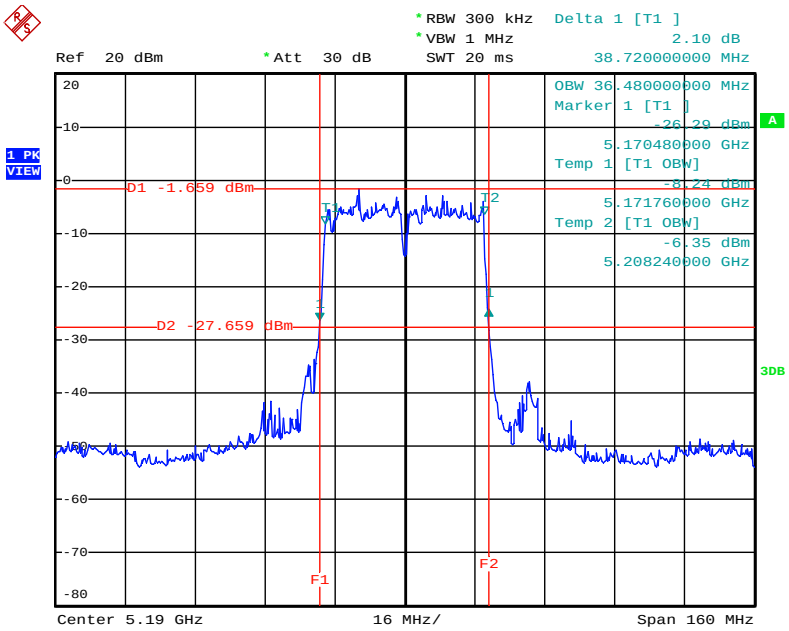
Date: 9.AUG.2013 08:28:12

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5710 MHz



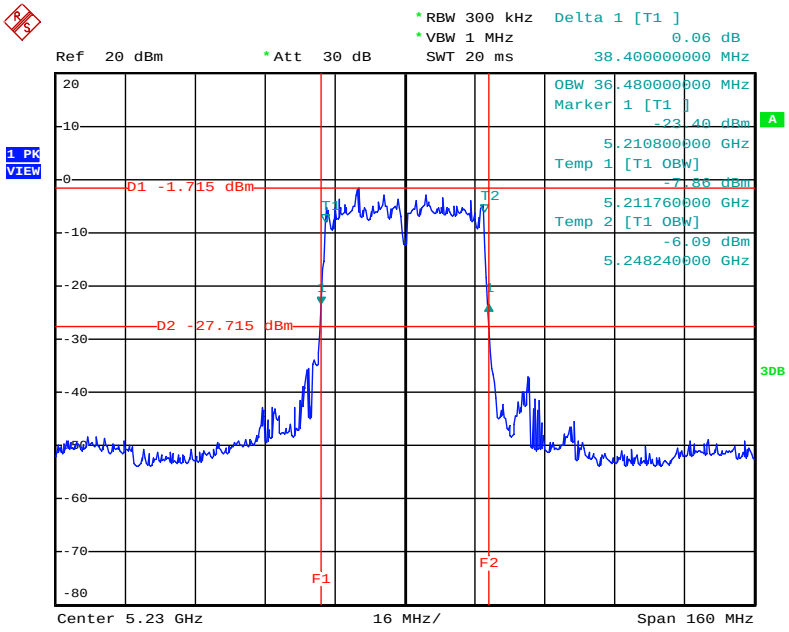
Date: 22.AUG.2013 21:32:58

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5190 MHz



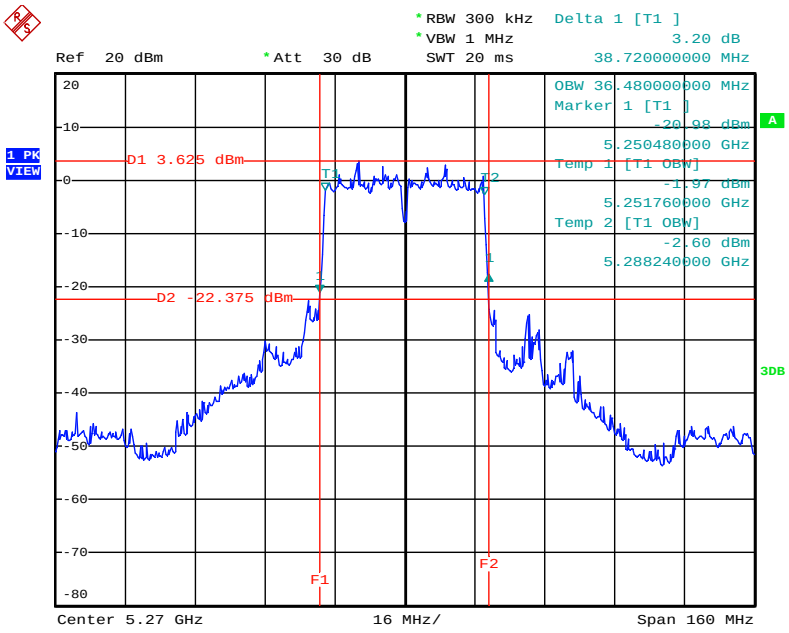
Date: 5.AUG.2013 14:51:48

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5230 MHz



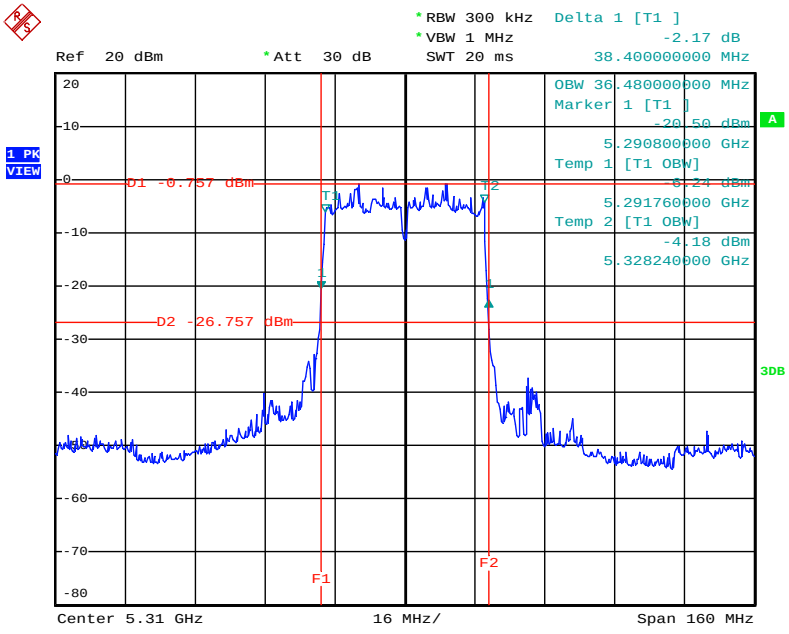
Date: 5.AUG.2013 14:52:08

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz



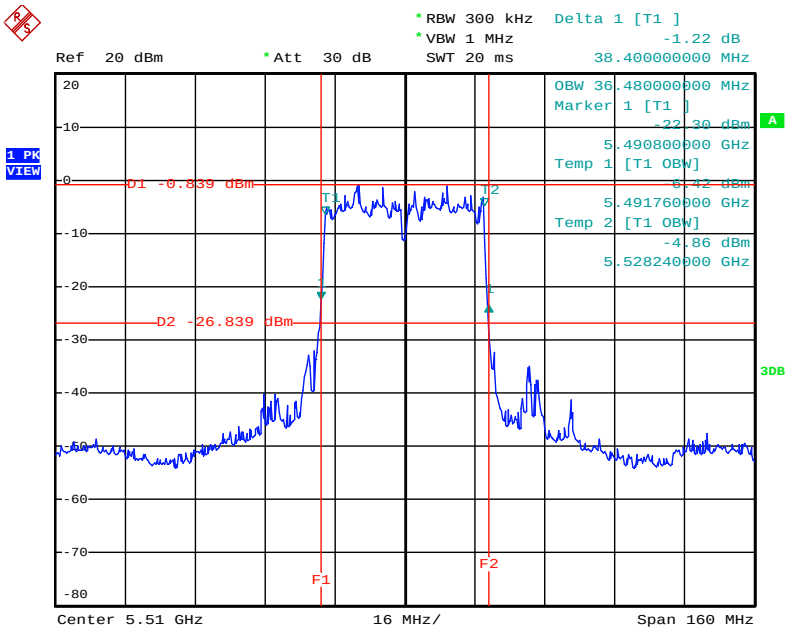
Date: 9.AUG.2013 08:34:29

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5310 MHz



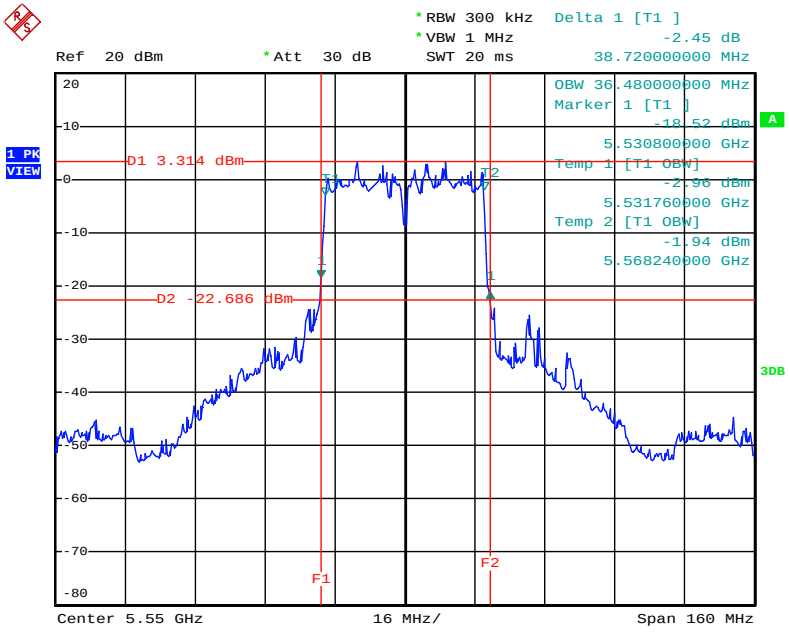
Date: 9.AUG.2013 08:34:01

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5510 MHz



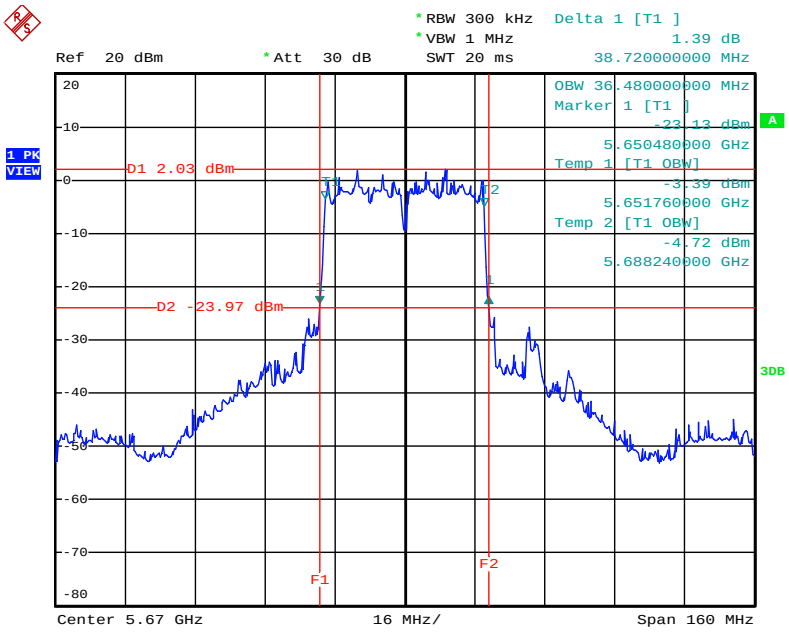
Date: 9.AUG.2013 08:33:22

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5550 MHz



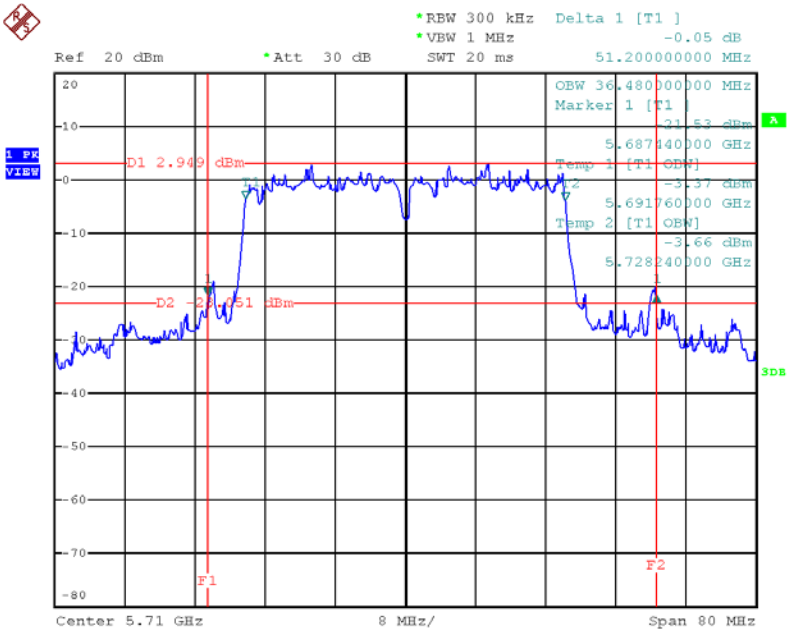
Date: 9.AUG.2013 08:32:45

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5670 MHz



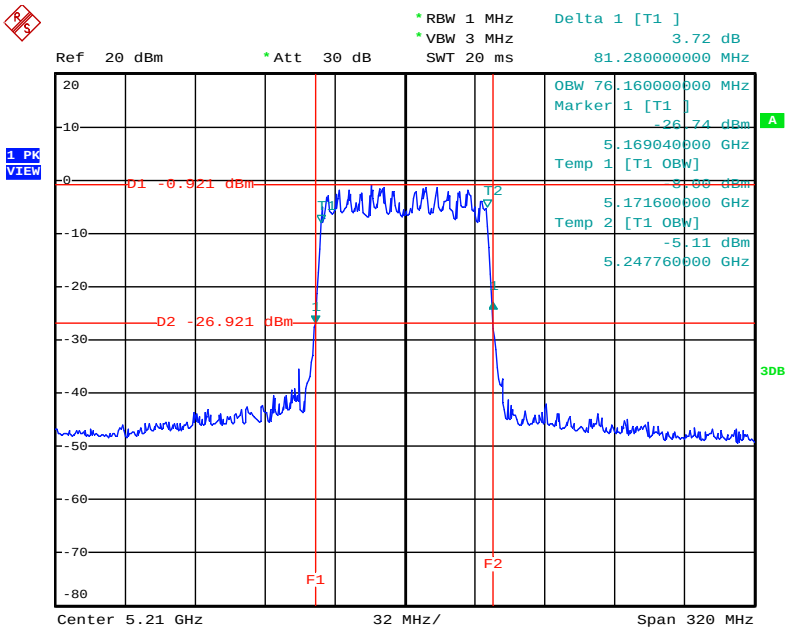
Date: 9.AUG.2013 08:32:14

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5710 MHz



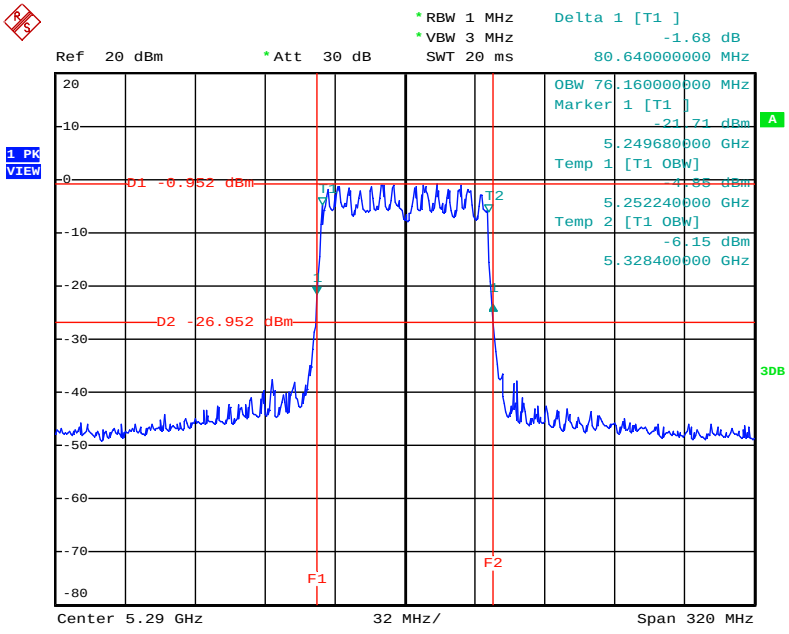
Date: 22.AUG.2013 21:39:42

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



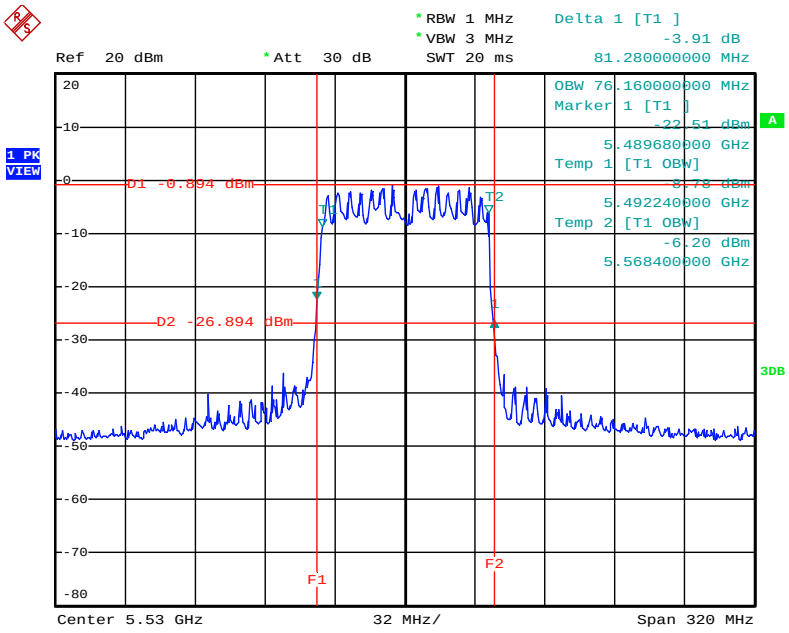
Date: 9.AUG.2013 08:45:55

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5290 MHz



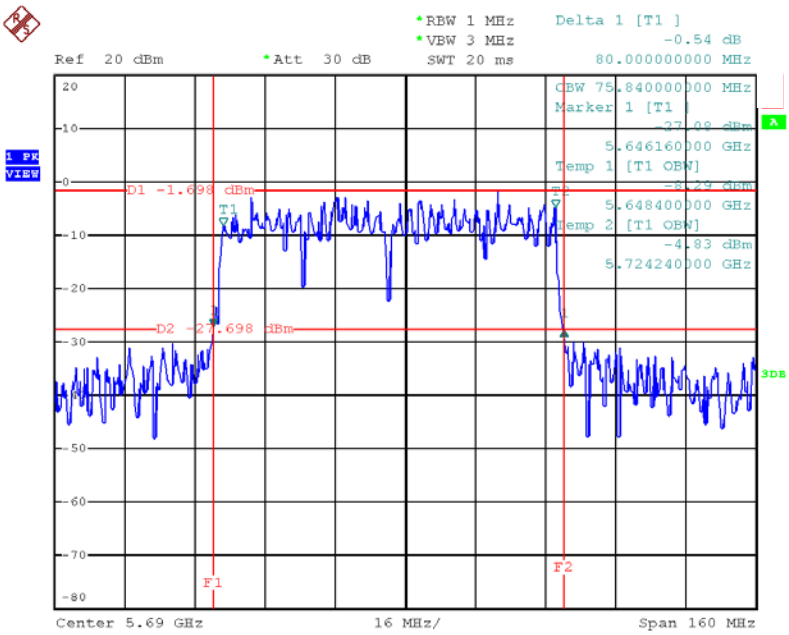
Date: 9.AUG.2013 08:29:54

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5530 MHz



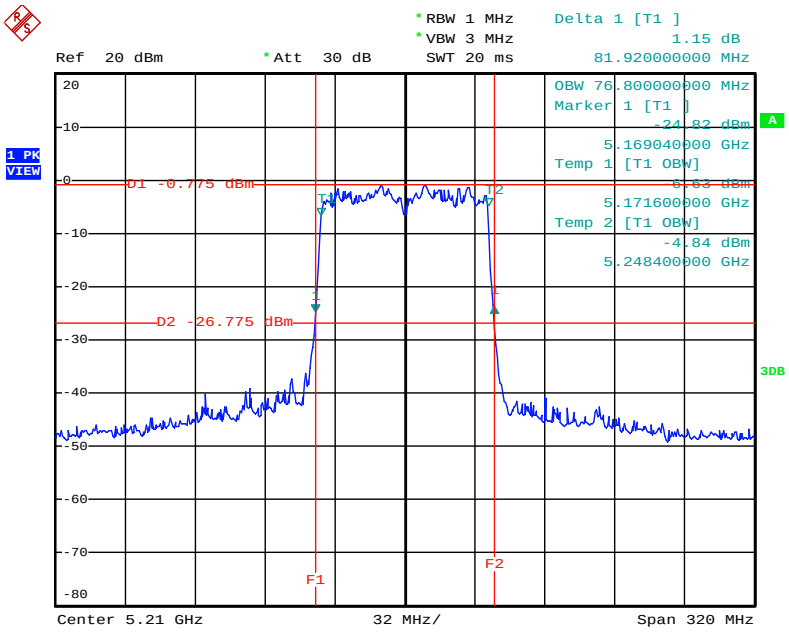
Date: 9.AUG.2013 08:28:49

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5690 MHz



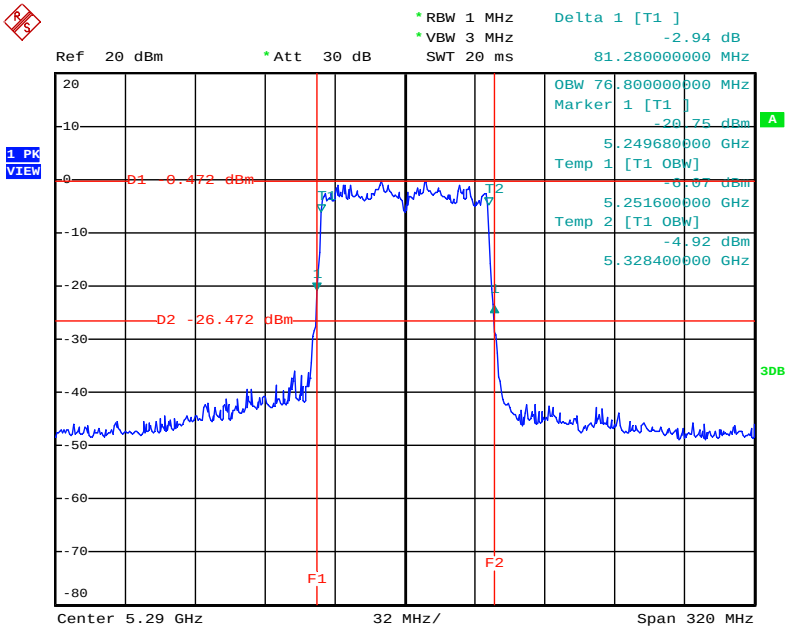
Date: 22.AUG.2013 21:34:10

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



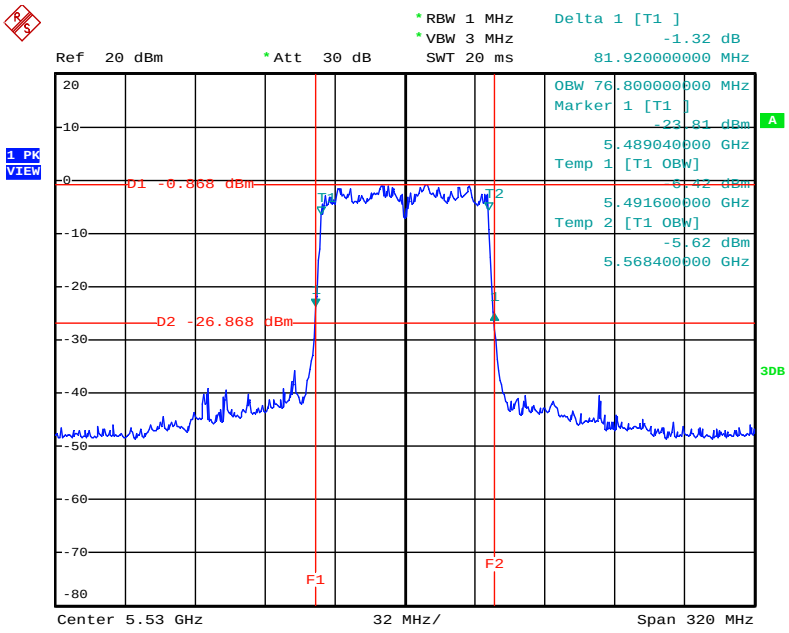
Date: 9.AUG.2013 08:45:24

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5290 MHz



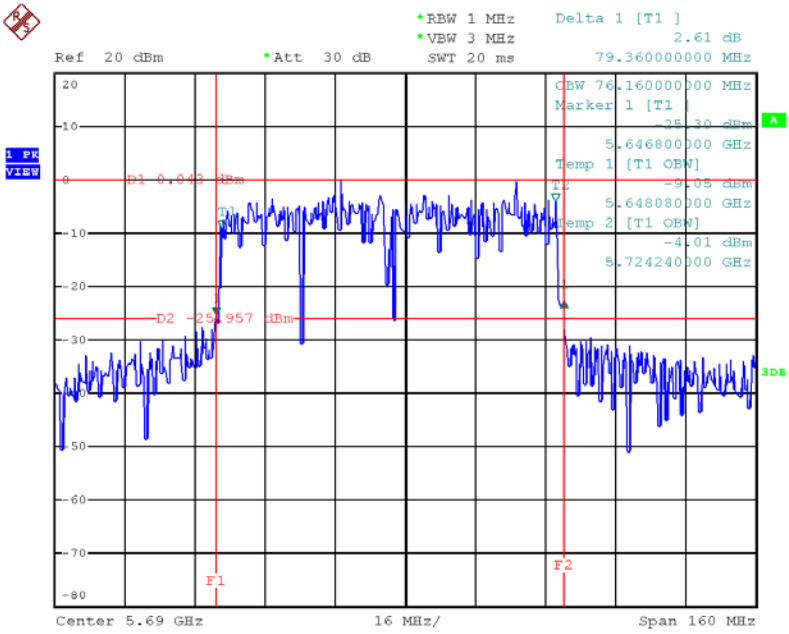
Date: 9.AUG.2013 08:30:53

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5530 MHz



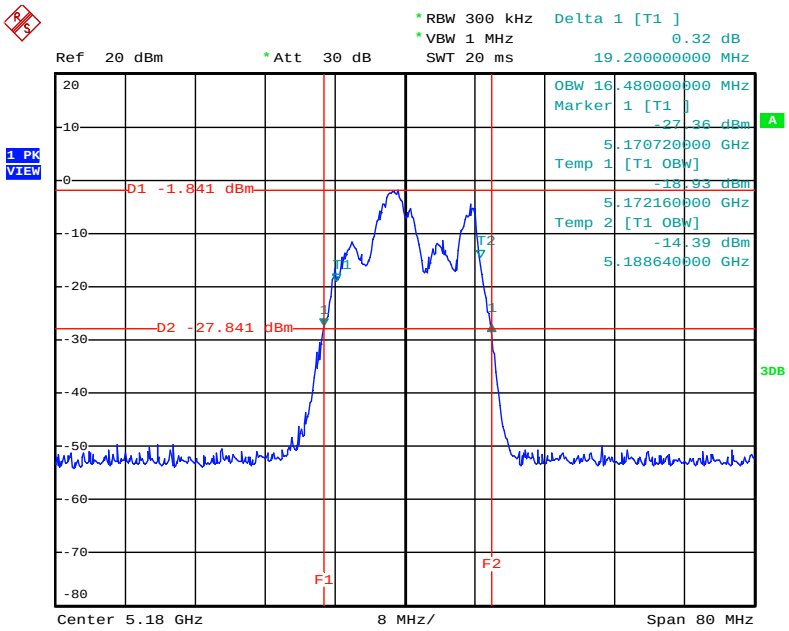
Date: 9.AUG.2013 08:31:28

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5690 MHz



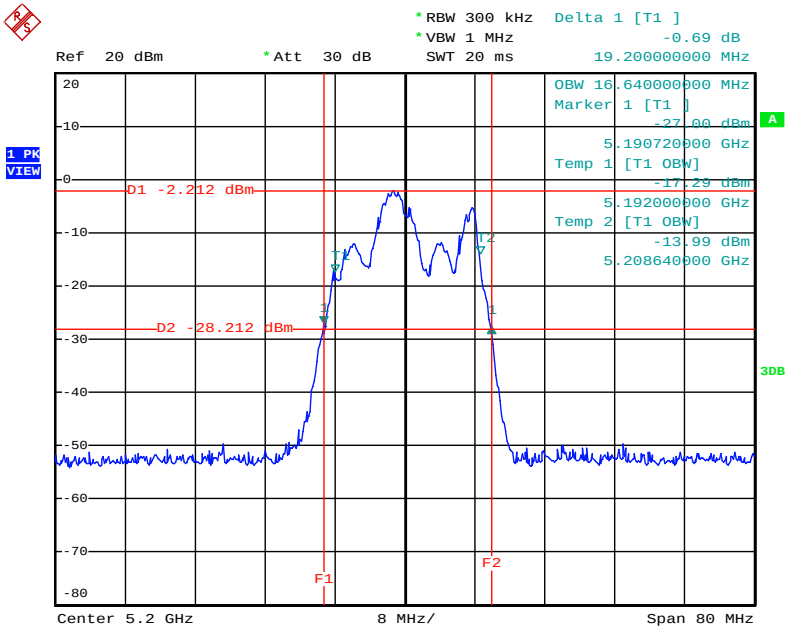
Date: 22.AUG.2013 21:38:28

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



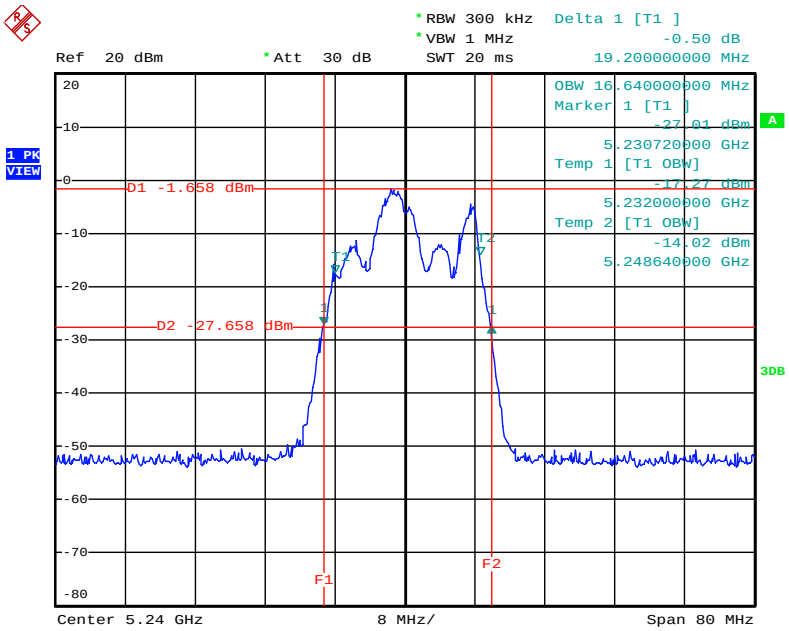
Date: 5.AUG.2013 14:43:45

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



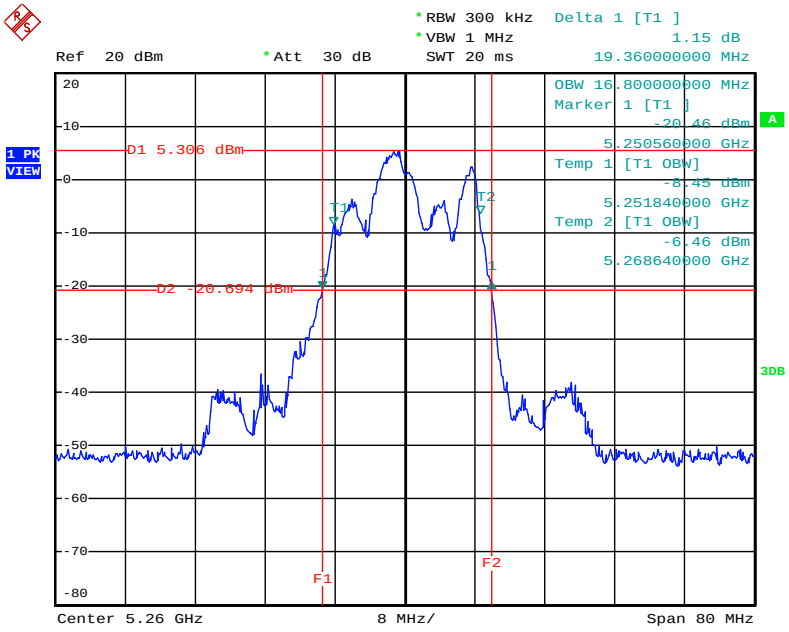
Date: 5.AUG.2013 14:44:11

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



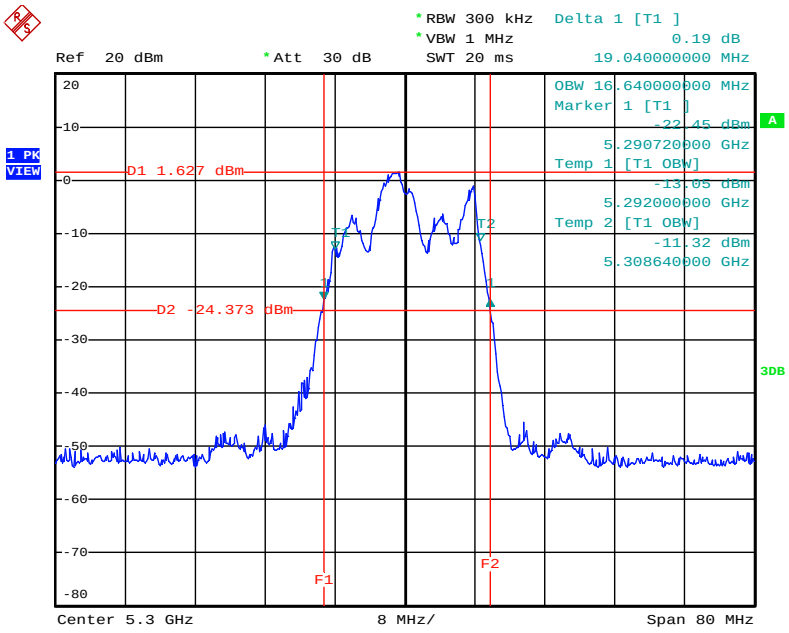
Date: 5.AUG.2013 14:47:25

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5260 MHz



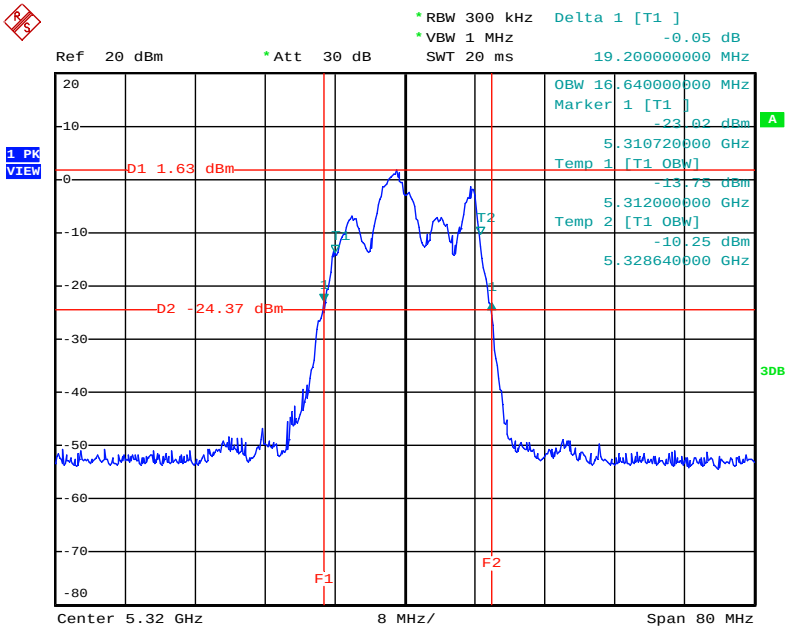
Date: 9.AUG.2013 08:05:02

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5300 MHz



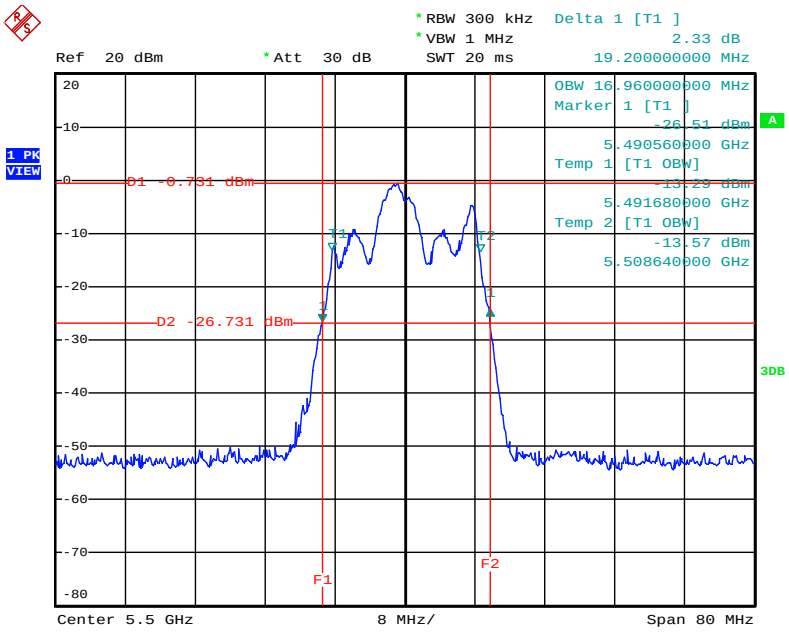
Date: 9.AUG.2013 08:06:39

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5320 MHz



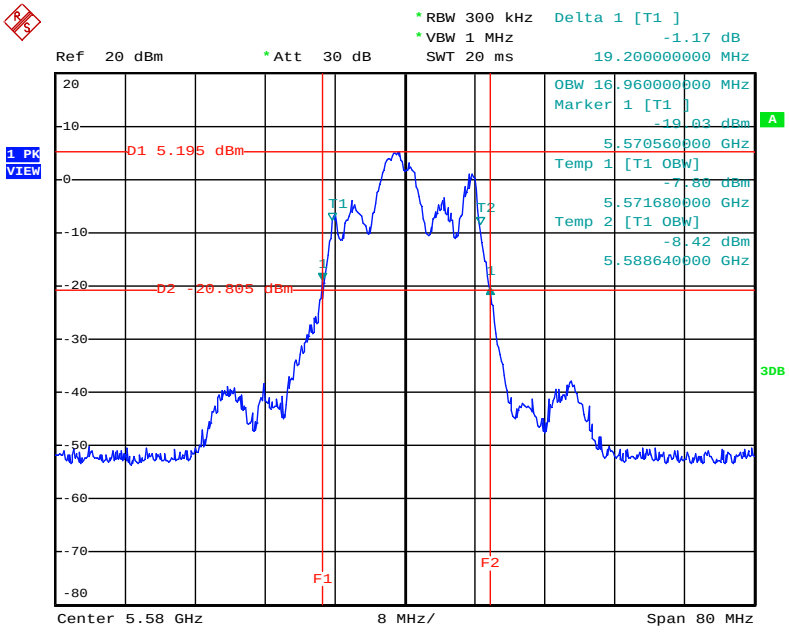
Date: 9.AUG.2013 08:07:01

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5500 MHz



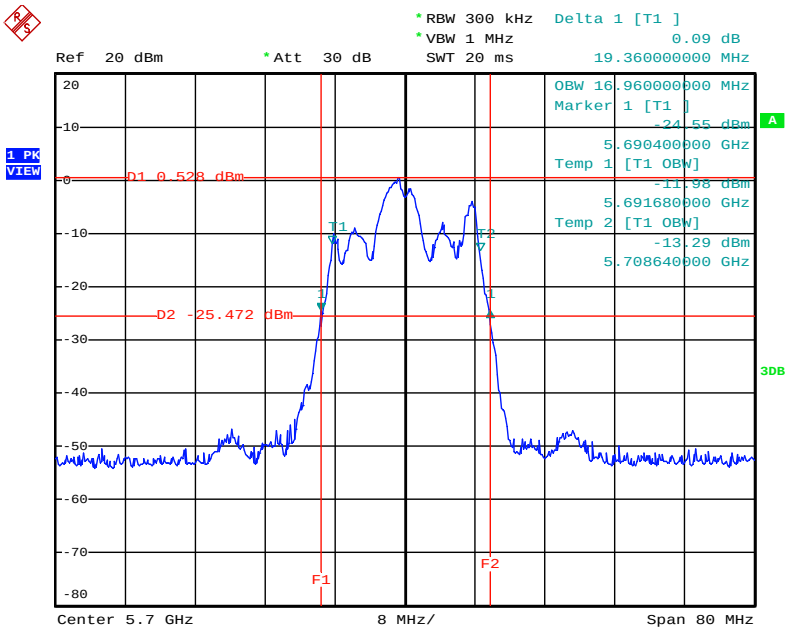
Date: 9.AUG.2013 08:07:27

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5580 MHz



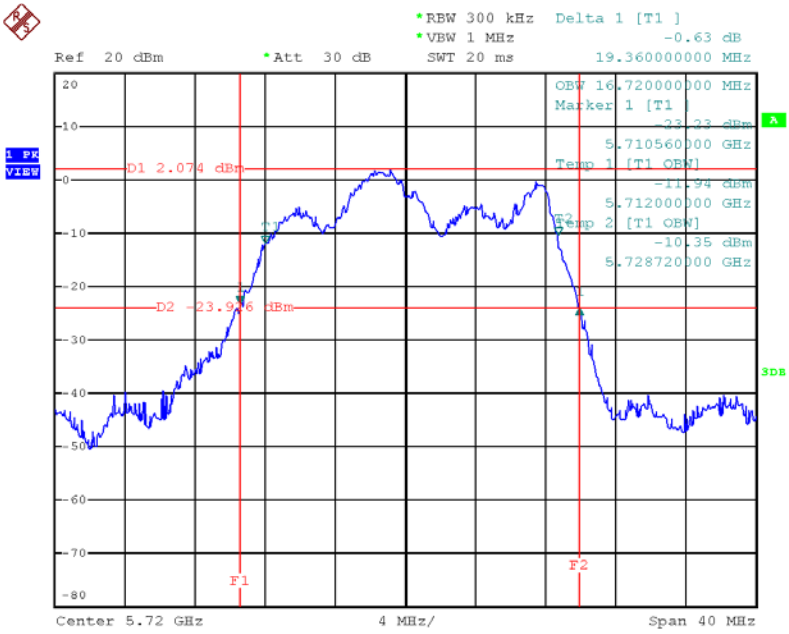
Date: 9.AUG.2013 08:07:51

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5700 MHz



Date: 9.AUG.2013 08:08:20

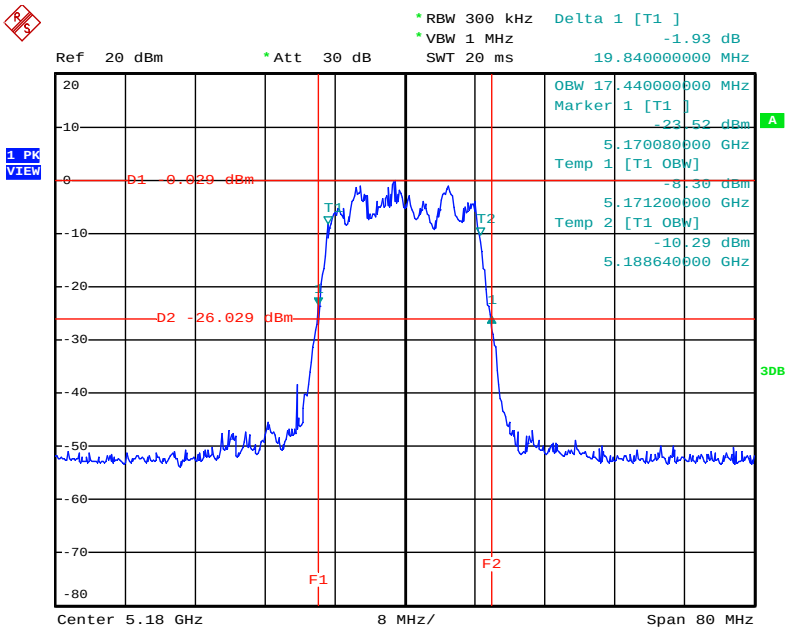
26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5720 MHz



Date: 22.AUG.2013 21:29:41

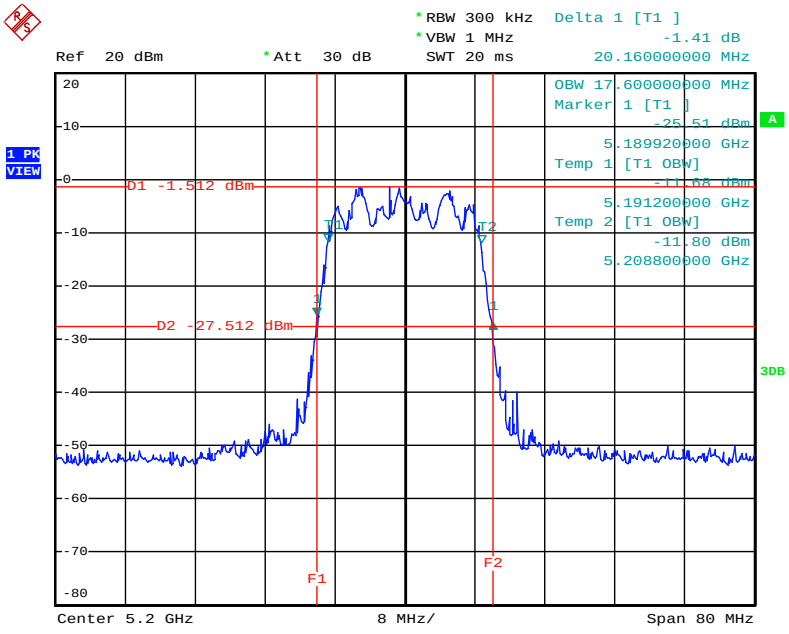
Test Mode: Mode 4 (Ant.5 PCB antenna / 5.74dBi)

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



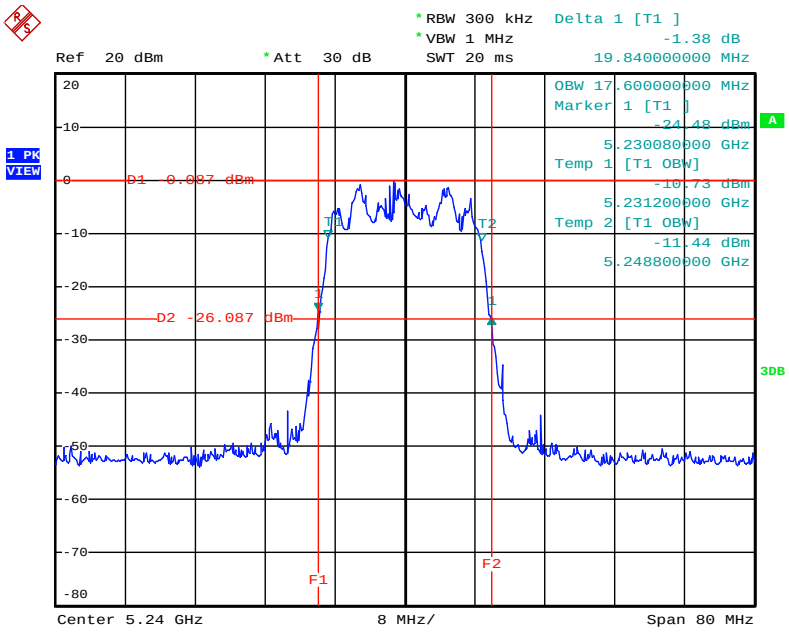
Date: 6.AUG.2013 11:47:50

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5200 MHz



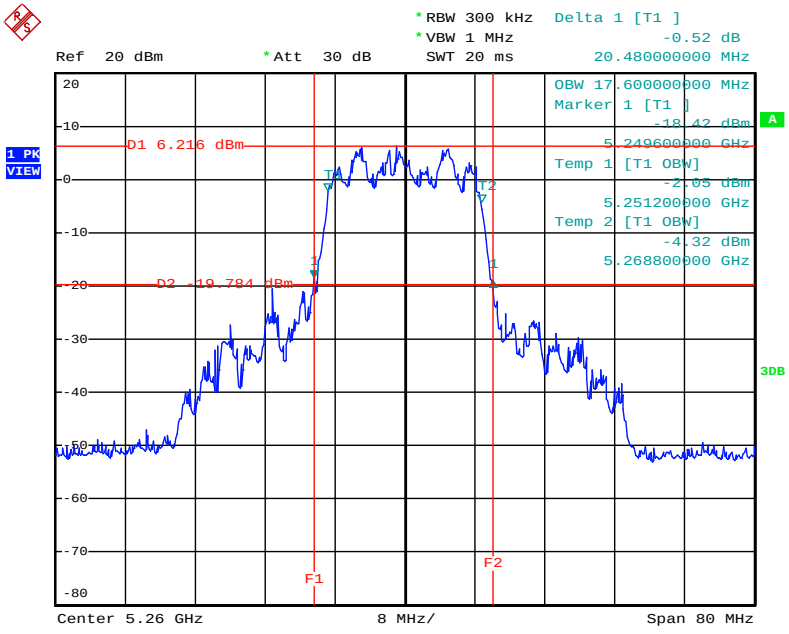
Date: 6.AUG.2013 11:47:31

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



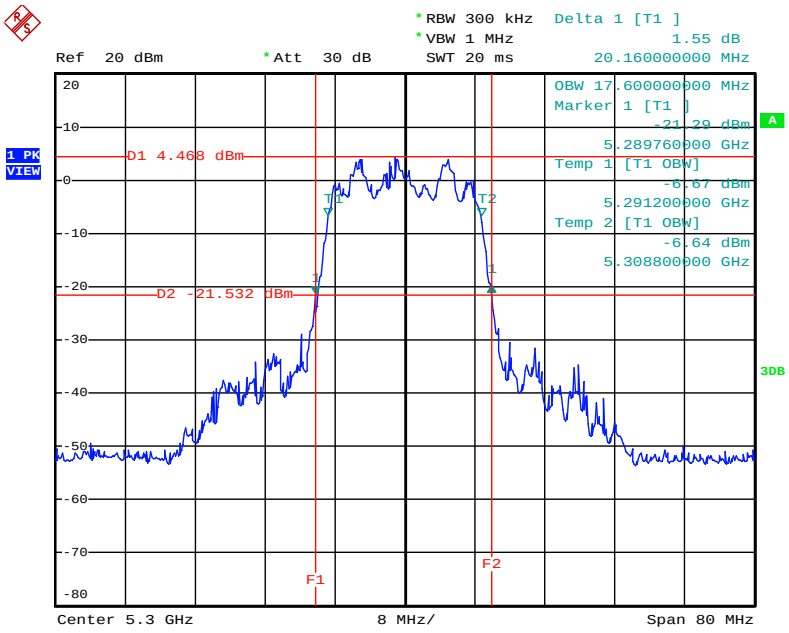
Date: 6.AUG.2013 11:47:12

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz



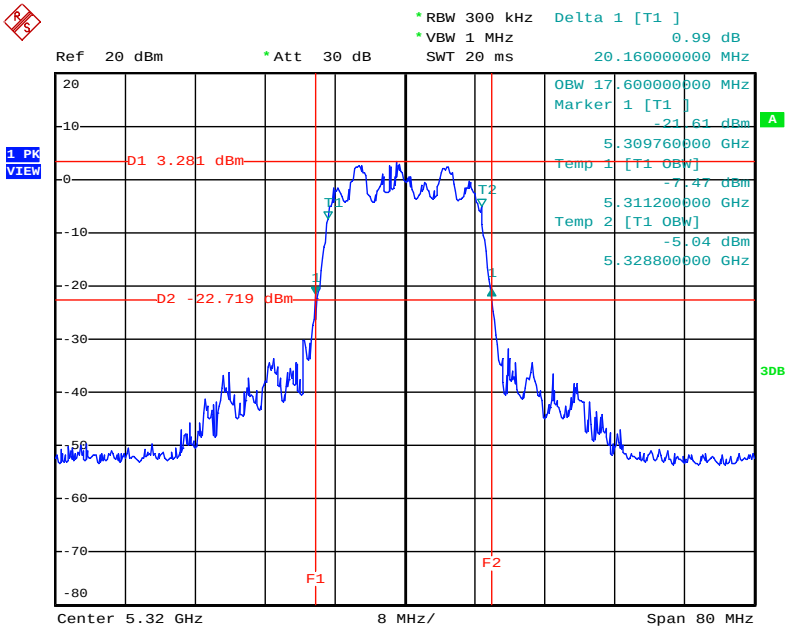
Date: 9.AUG.2013 15:36:39

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5300 MHz



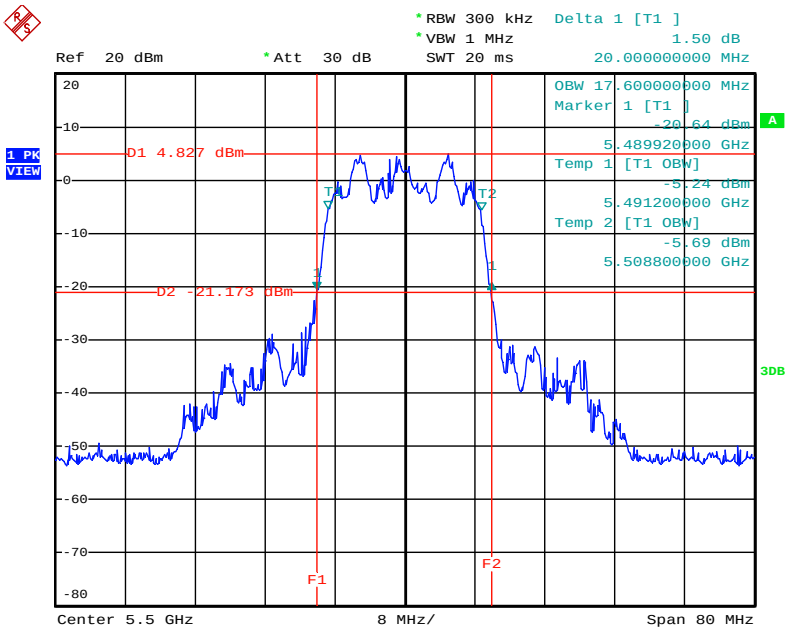
Date: 9.AUG.2013 15:36:13

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5320 MHz



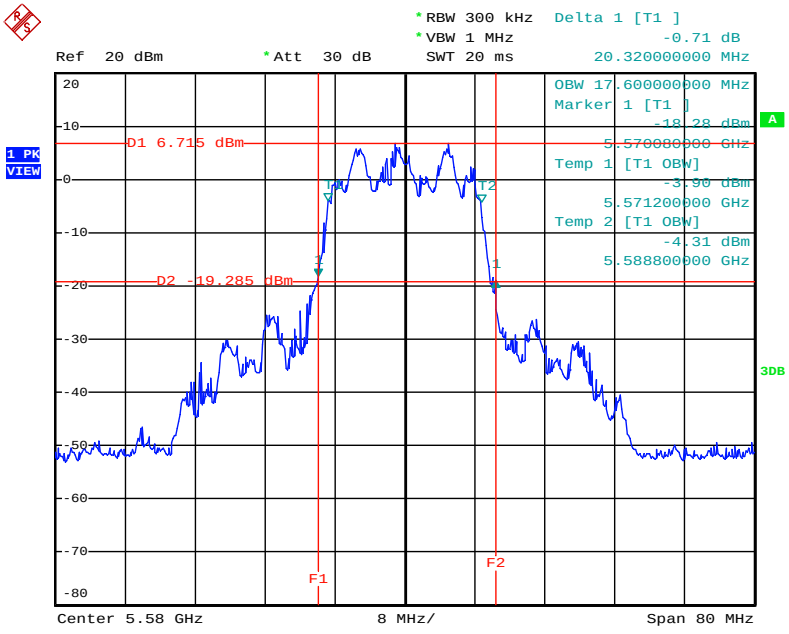
Date: 9.AUG.2013 15:35:52

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5500 MHz



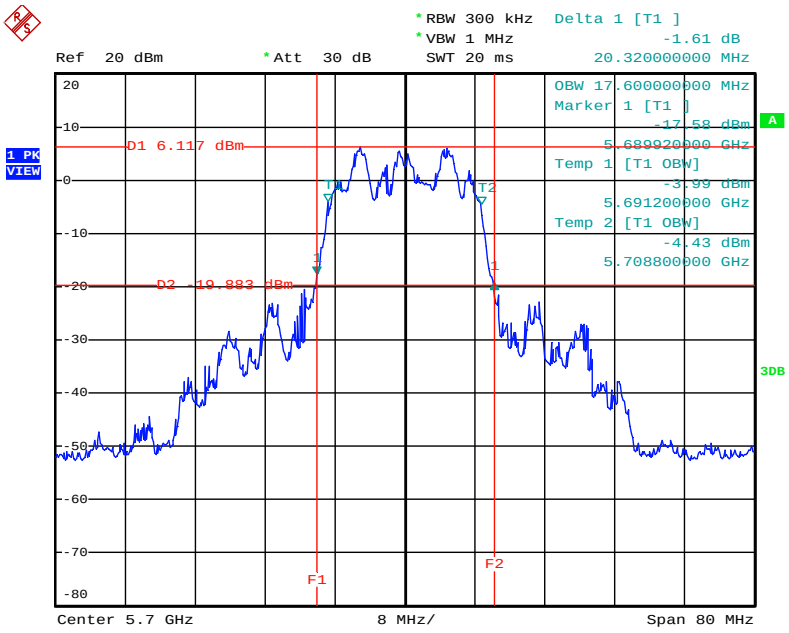
Date: 9.AUG.2013 15:35:24

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz



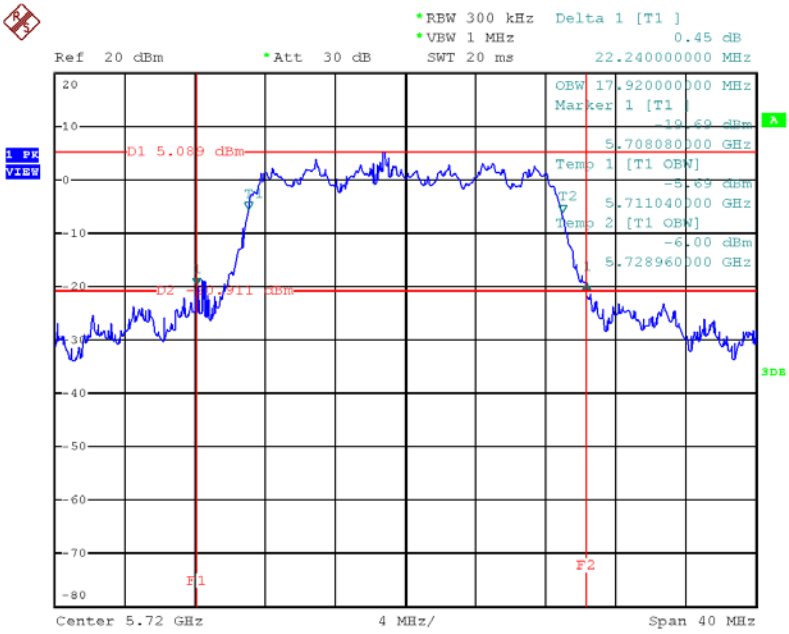
Date: 9.AUG.2013 15:35:01

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5700 MHz



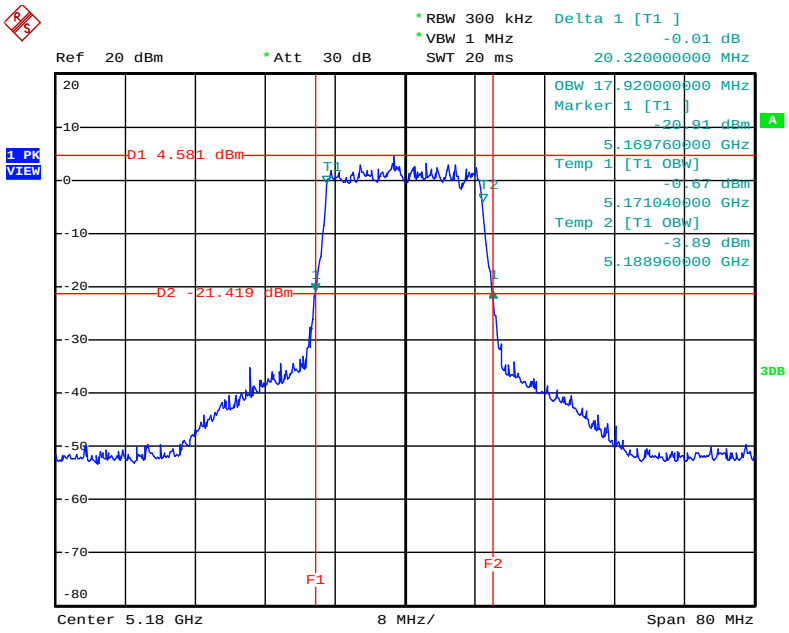
Date: 9.AUG.2013 15:34:34

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5720 MHz



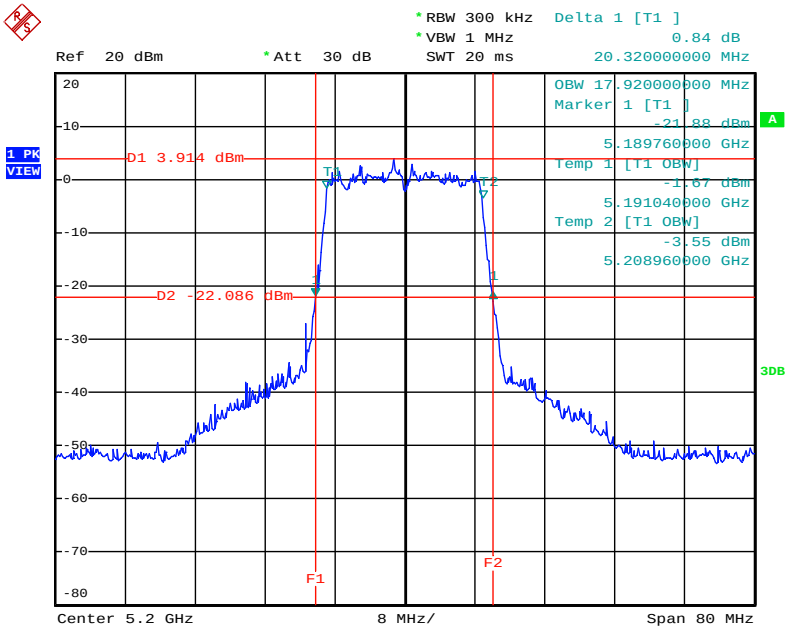
Date: 22.AUG.2013 23:09:16

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



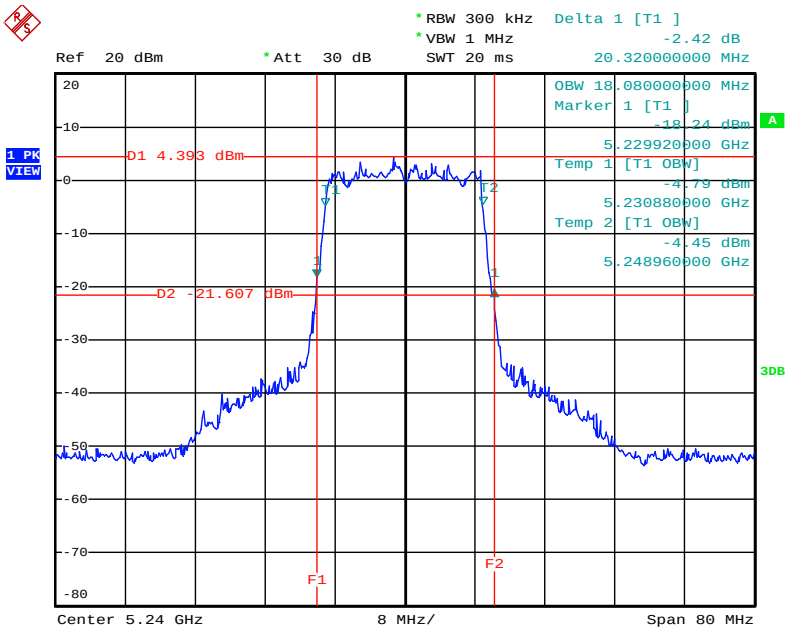
Date: 6.AUG.2013 11:51:45

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5200 MHz



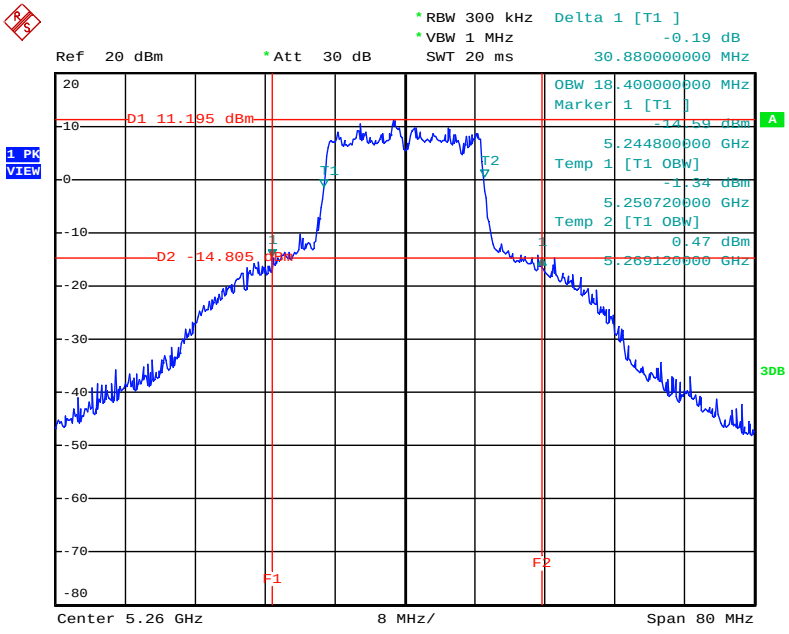
Date: 6.AUG.2013 08:12:58

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



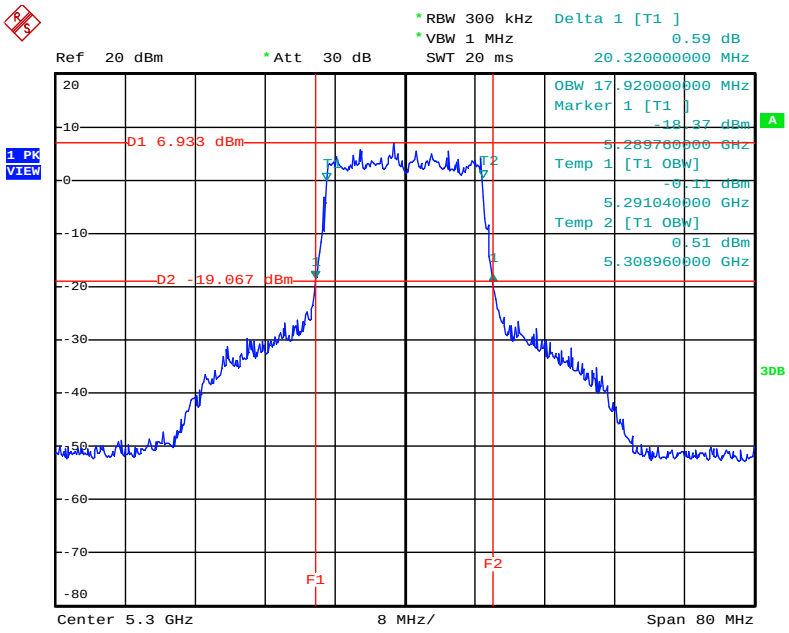
Date: 6.AUG.2013 11:52:22

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz



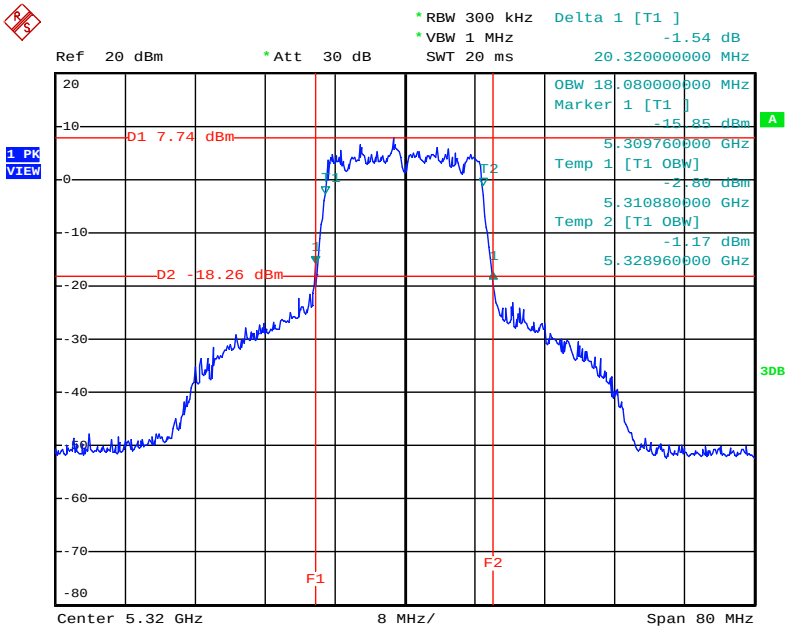
Date: 9.AUG.2013 15:48:25

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5300 MHz



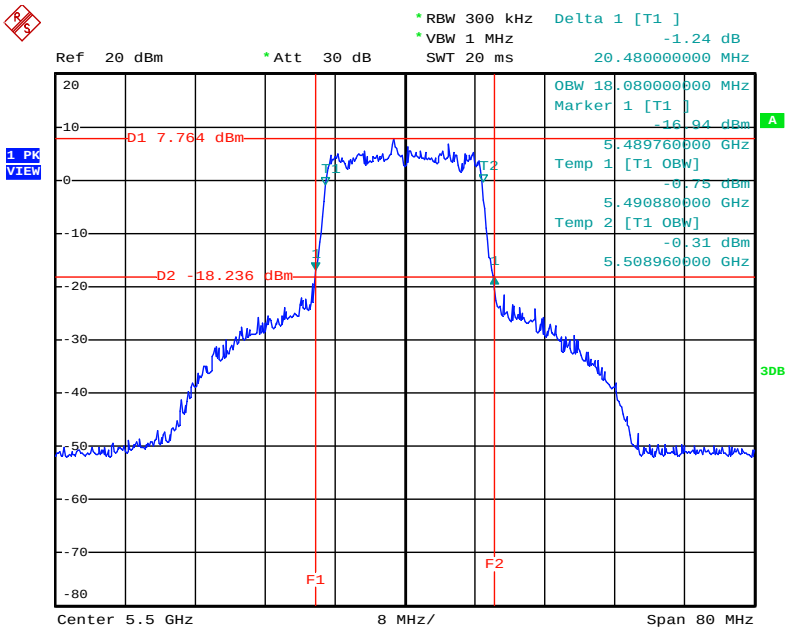
Date: 9.AUG.2013 15:48:50

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5320 MHz



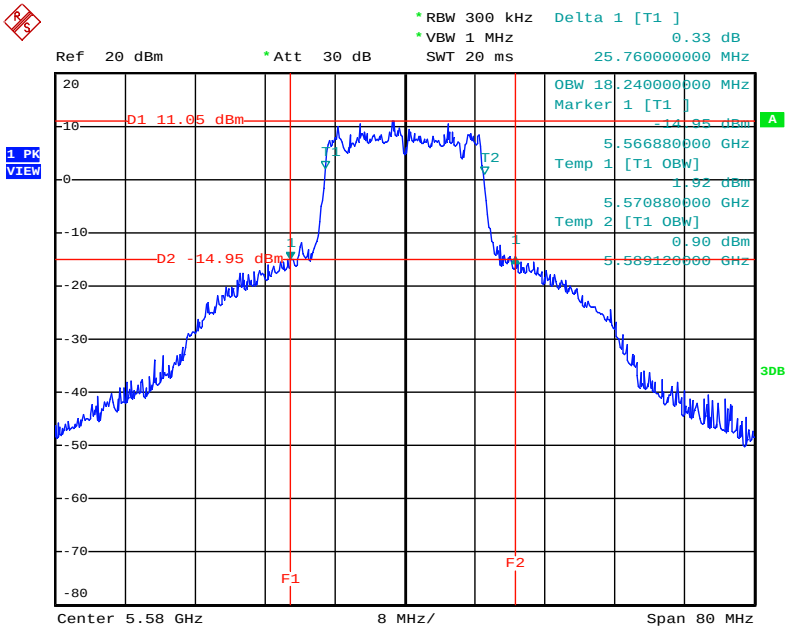
Date: 9.AUG.2013 15:49:13

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5500 MHz



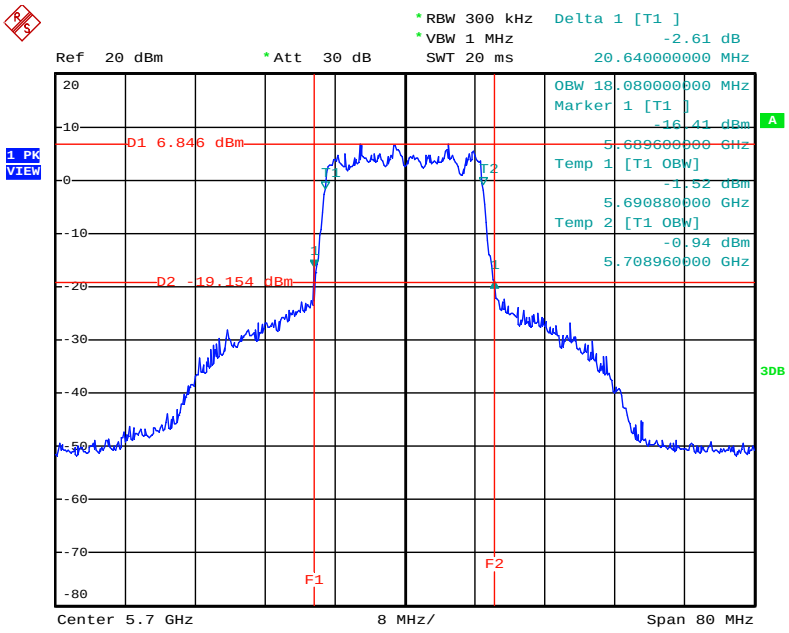
Date: 9.AUG.2013 15:49:39

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz



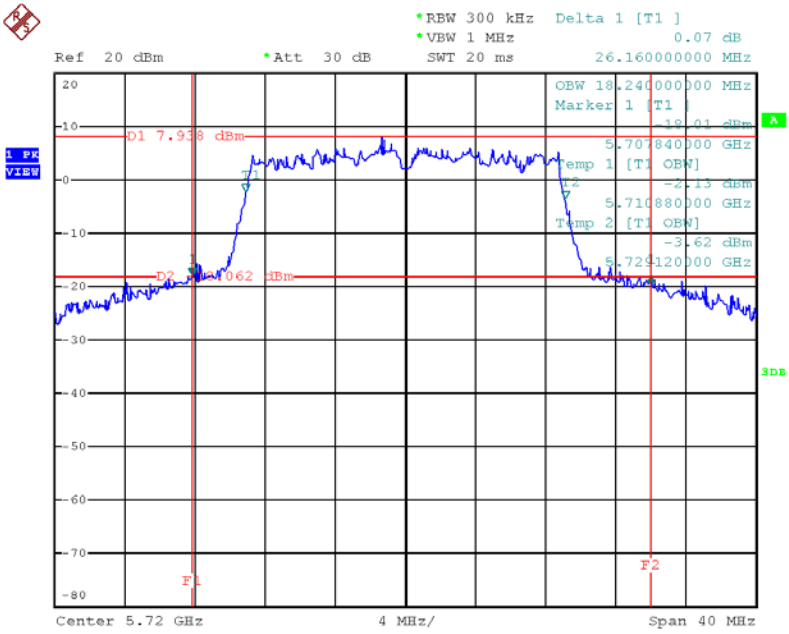
Date: 9.AUG.2013 15:50:10

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5700 MHz



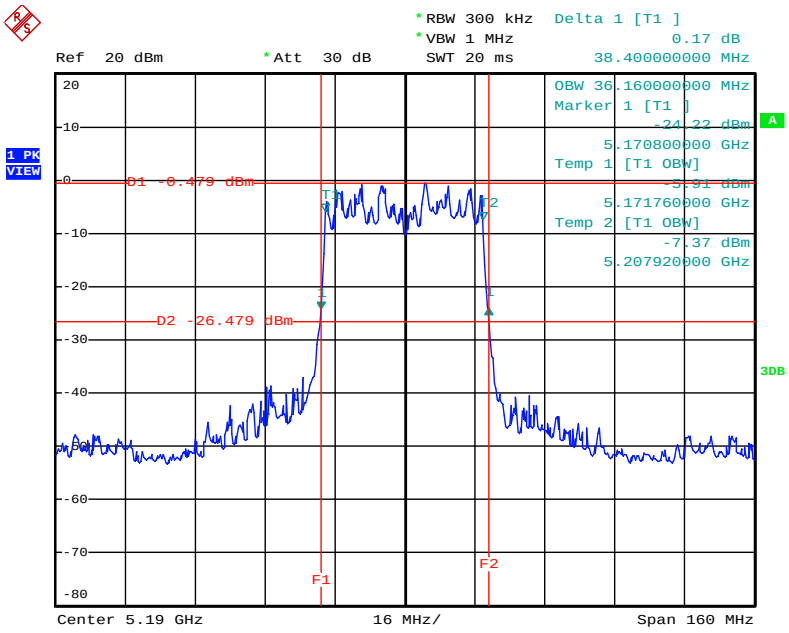
Date: 9.AUG.2013 15:50:41

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5720 MHz



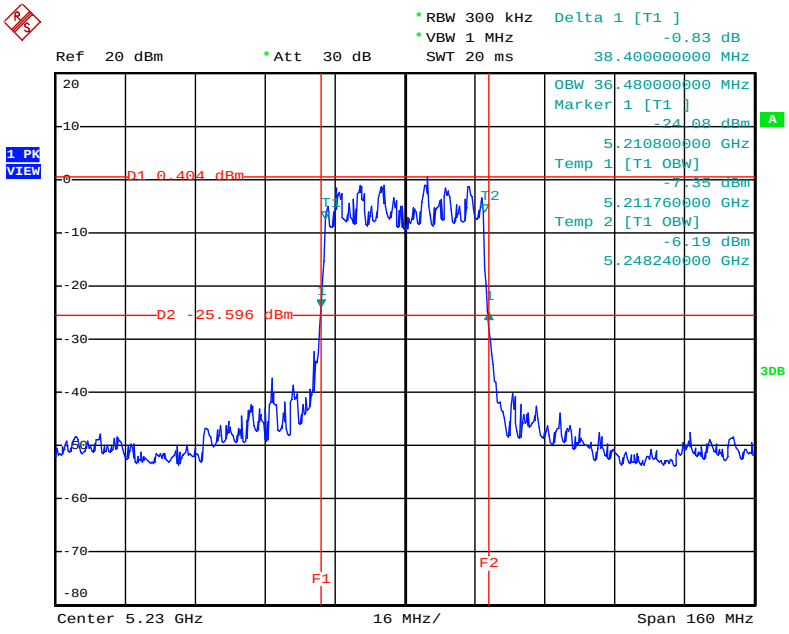
Date: 22.AUG.2013 23:14:37

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5190 MHz



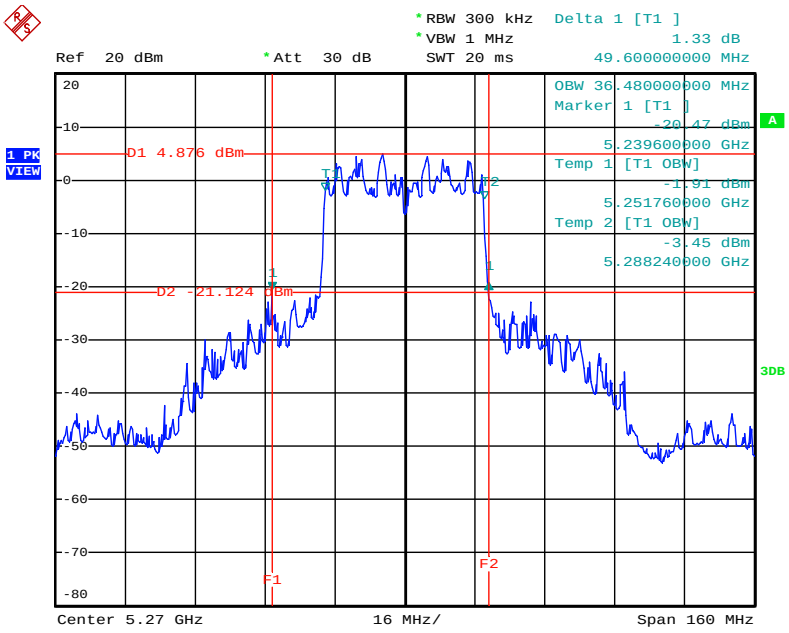
Date: 6.AUG.2013 11:48:24

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5230 MHz



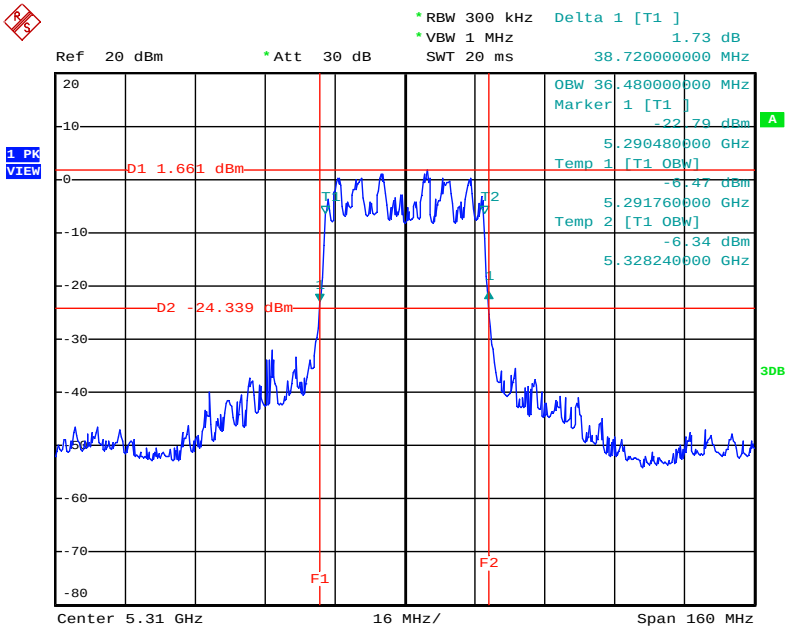
Date: 6.AUG.2013 11:48:55

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz



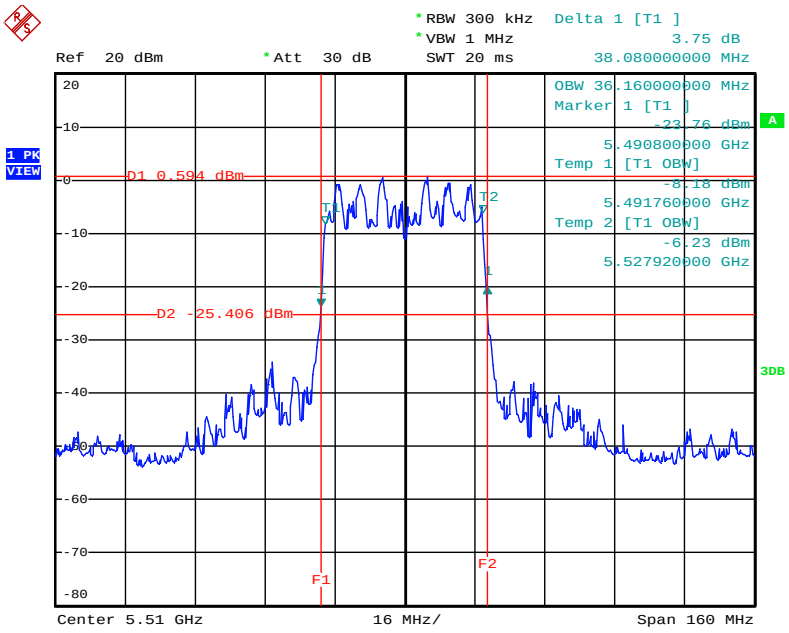
Date: 9.AUG.2013 15:38:17

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5310 MHz



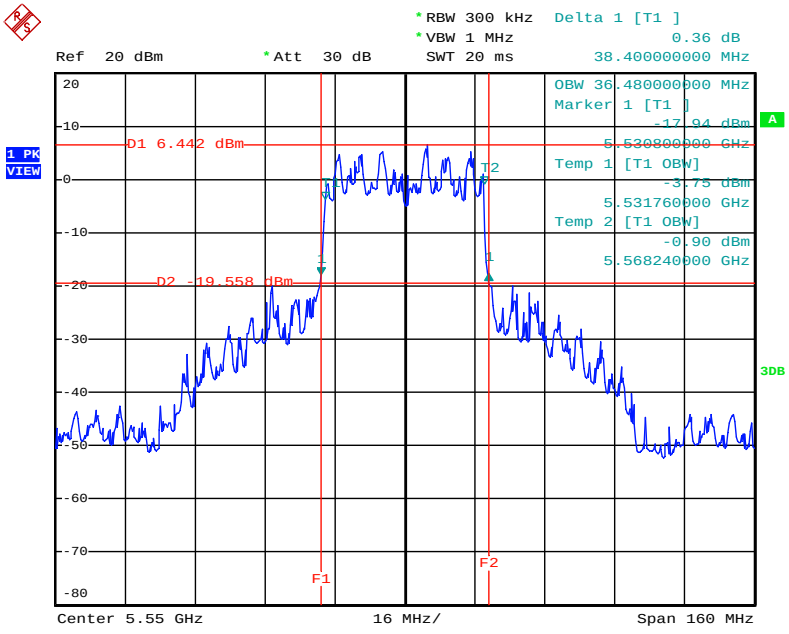
Date: 9.AUG.2013 15:39:08

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5510 MHz



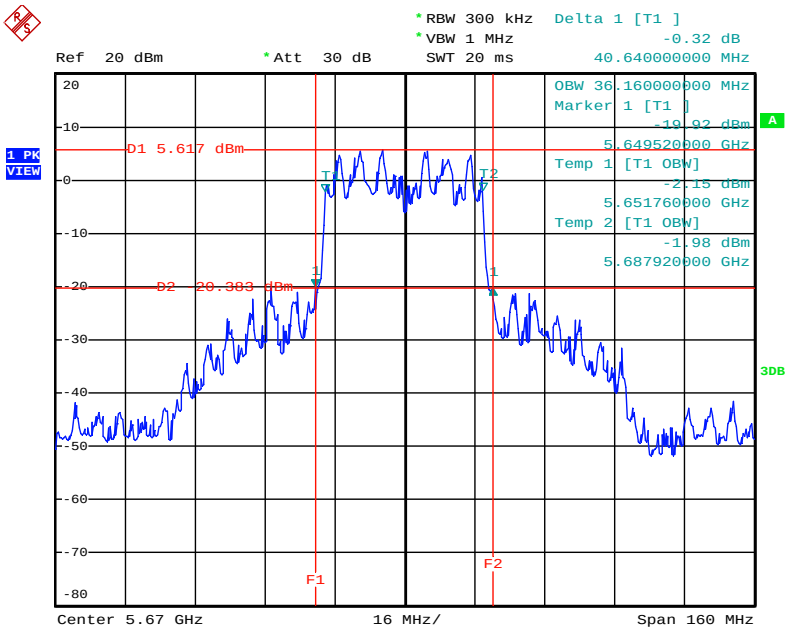
Date: 9.AUG.2013 15:39:42

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5550 MHz



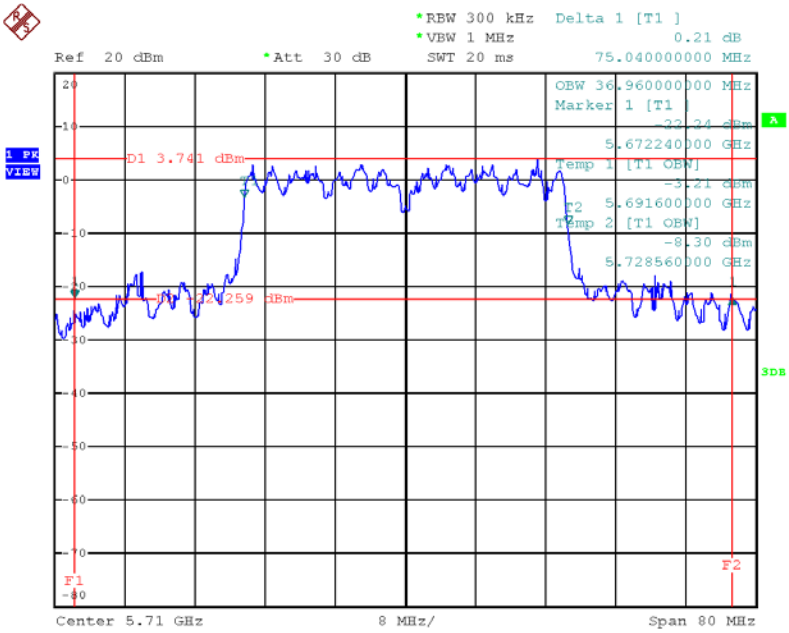
Date: 9.AUG.2013 15:40:15

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5670 MHz



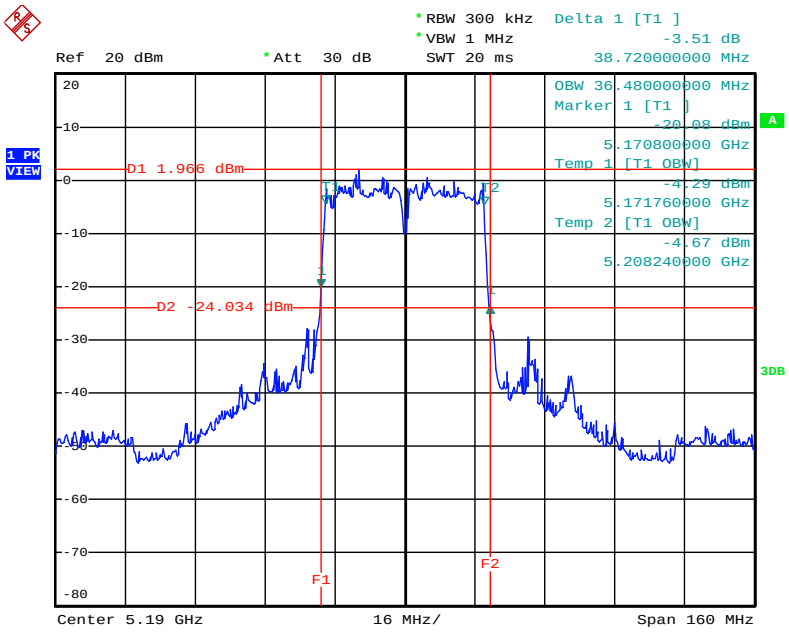
Date: 9.AUG.2013 15:40:37

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5710 MHz



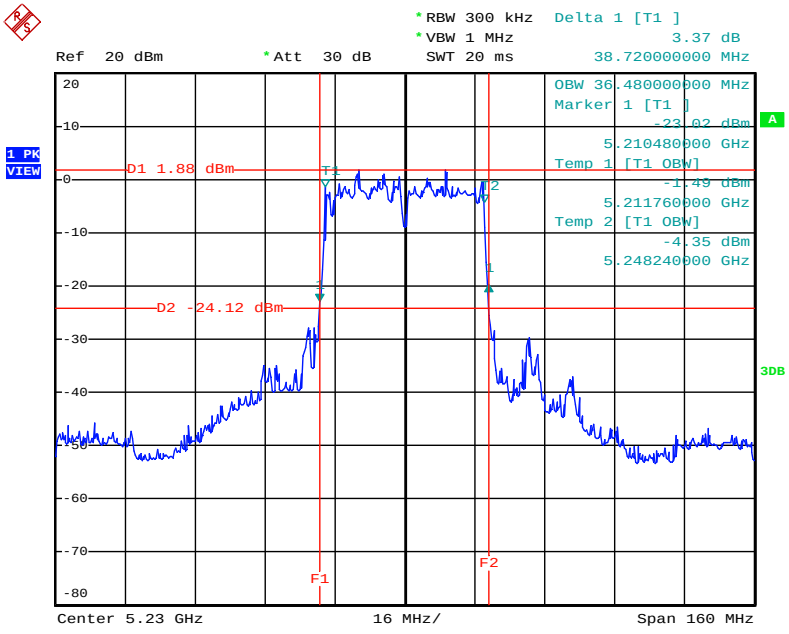
Date: 22.AUG.2013 23:10:07

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5190 MHz



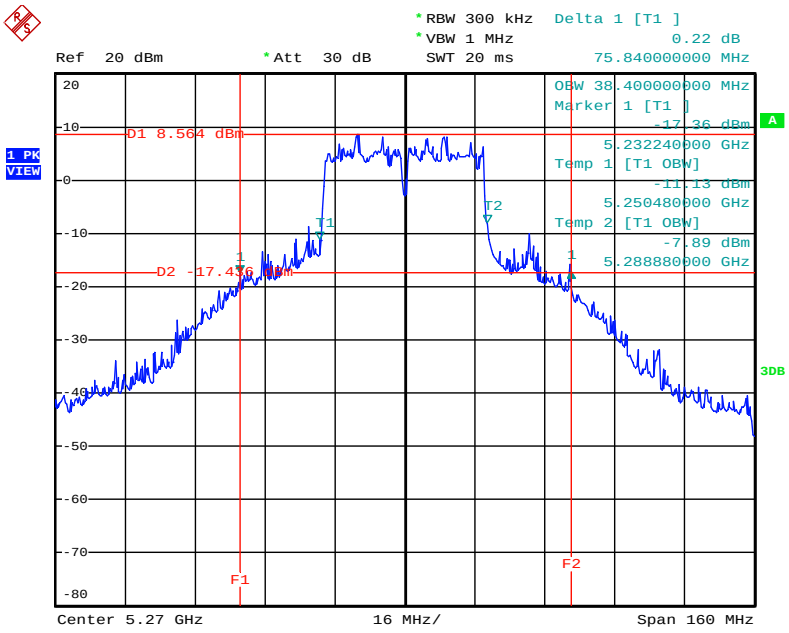
Date: 6.AUG.2013 11:50:42

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5230 MHz



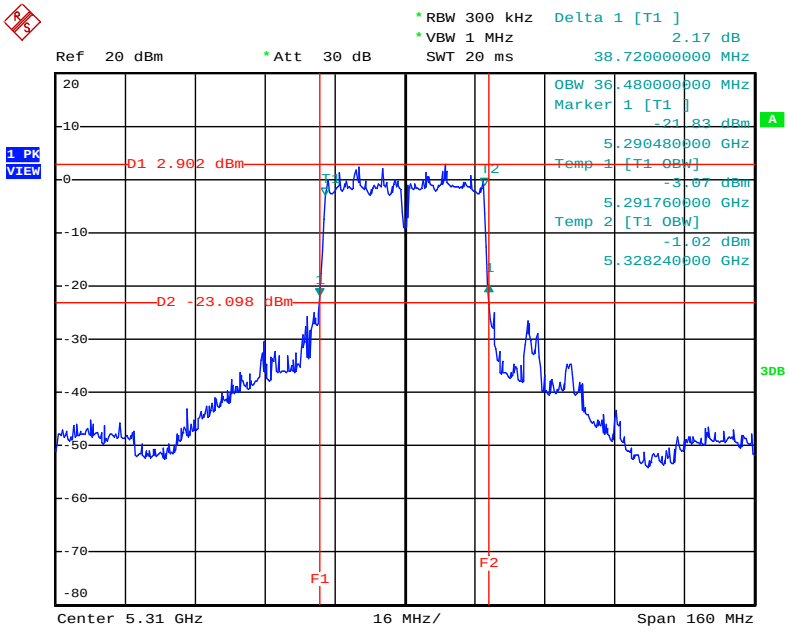
Date: 6.AUG.2013 11:51:11

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz



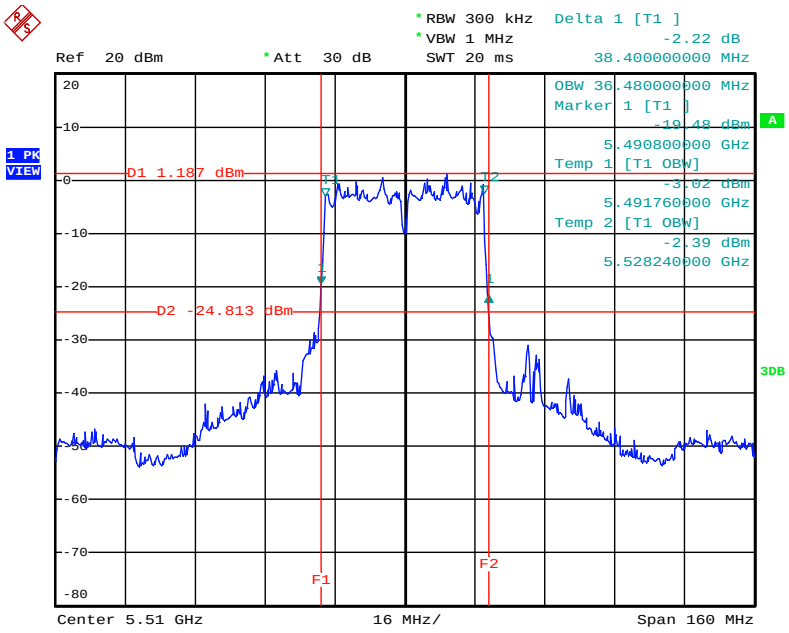
Date: 9.AUG.2013 15:47:33

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5310 MHz



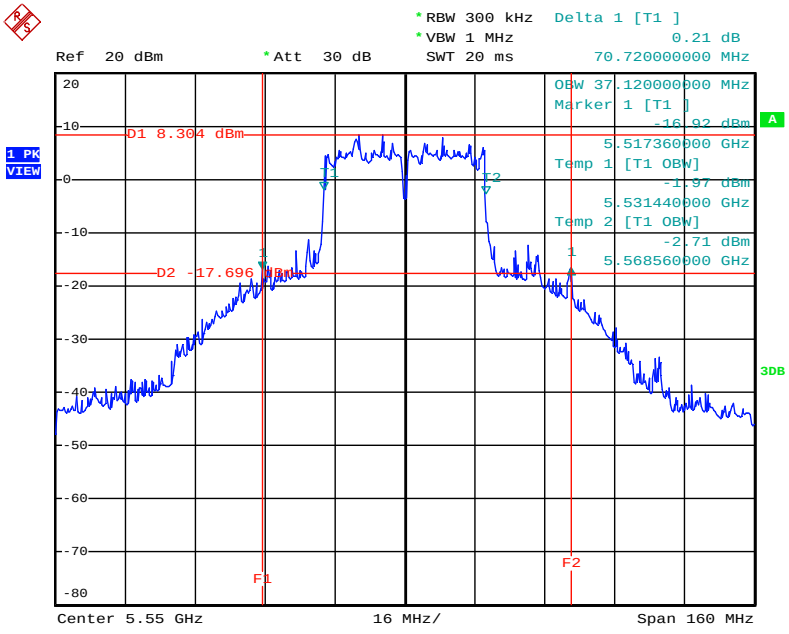
Date: 9.AUG.2013 15:47:06

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5510 MHz



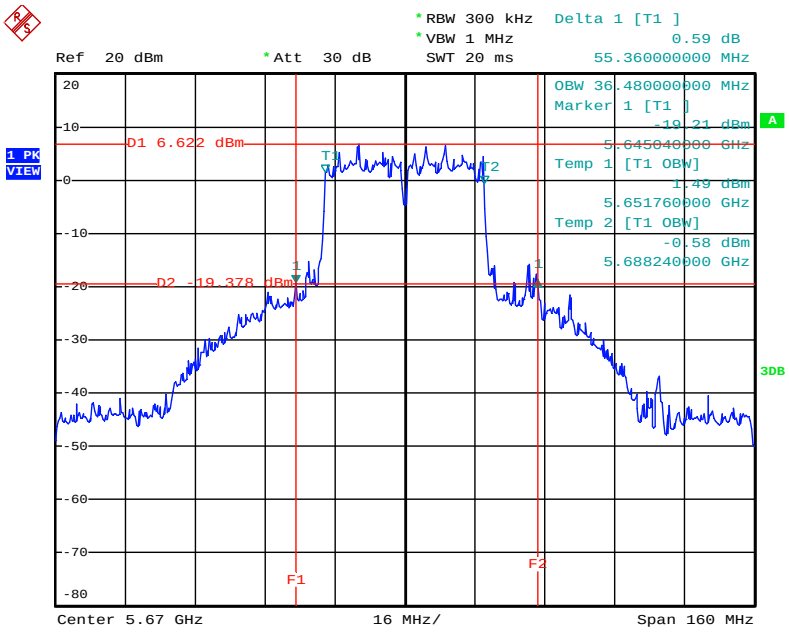
Date: 9.AUG.2013 15:46:40

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5550 MHz



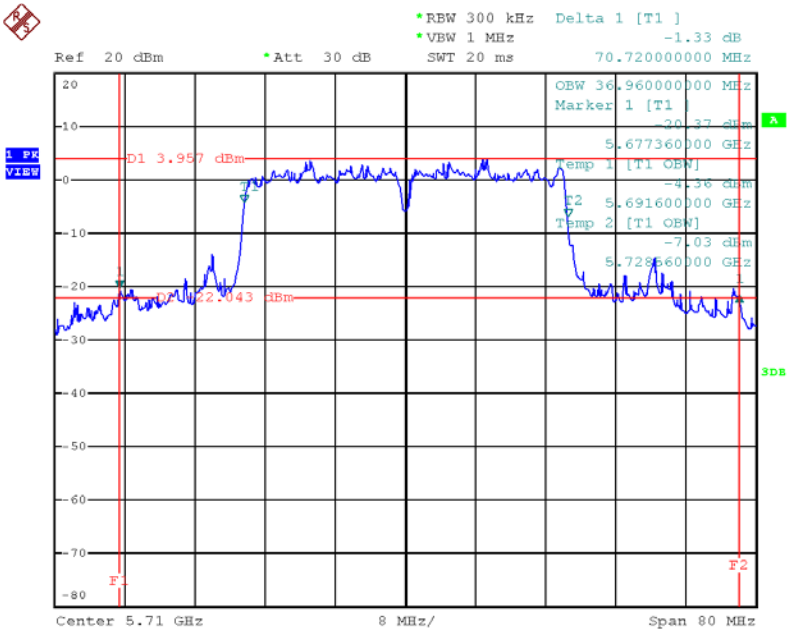
Date: 9.AUG.2013 15:46:15

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5670 MHz



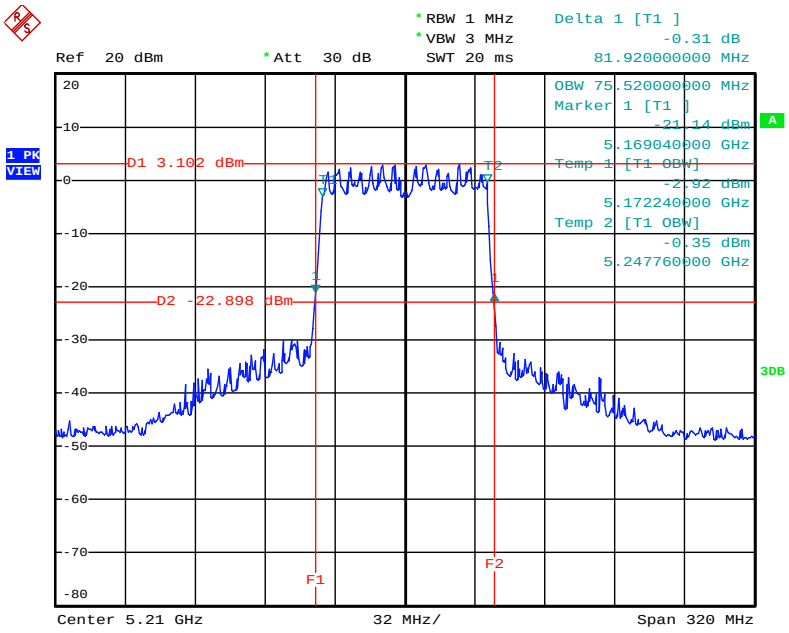
Date: 9.AUG.2013 15:45:49

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5710 MHz



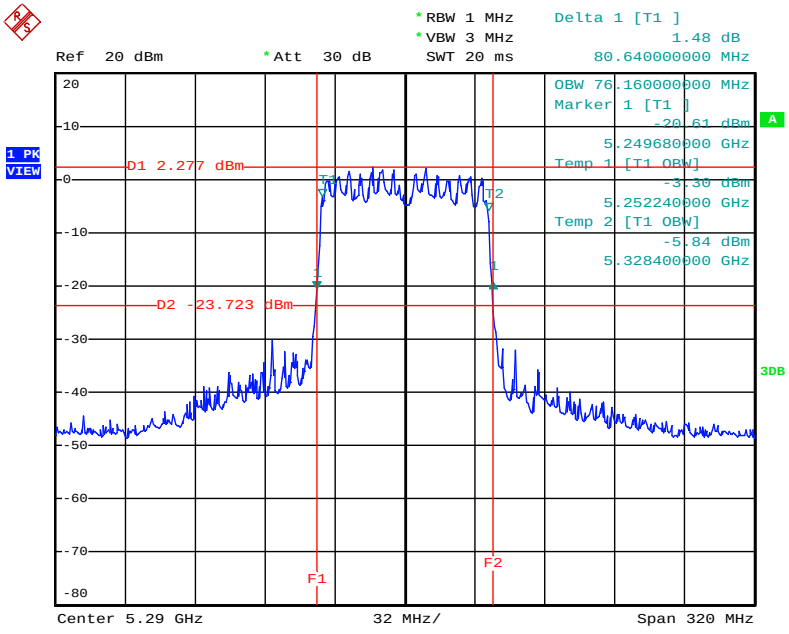
Date: 22.AUG.2013 23:13:31

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



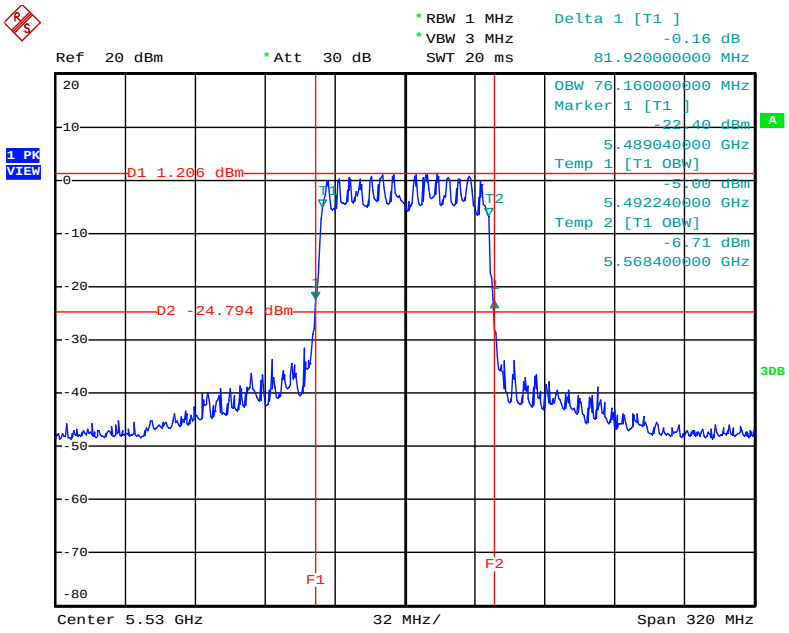
Date: 9.AUG.2013 15:42:05

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5290 MHz



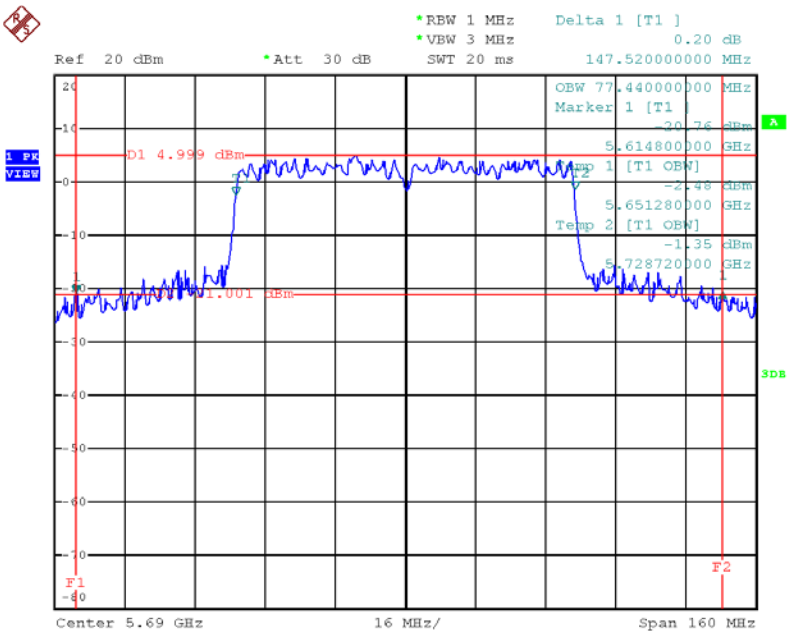
Date: 9.AUG.2013 15:41:43

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5530 MHz



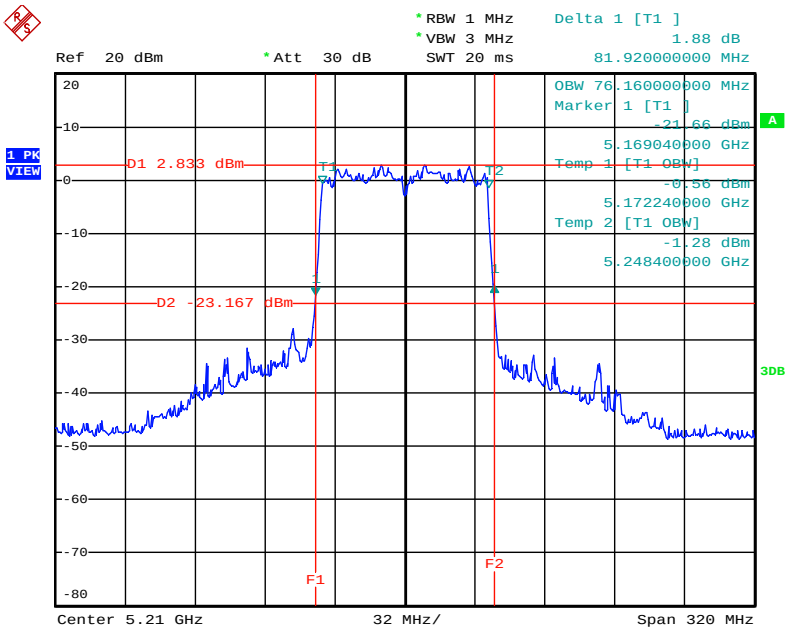
Date: 9.AUG.2013 15:41:14

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5690 MHz



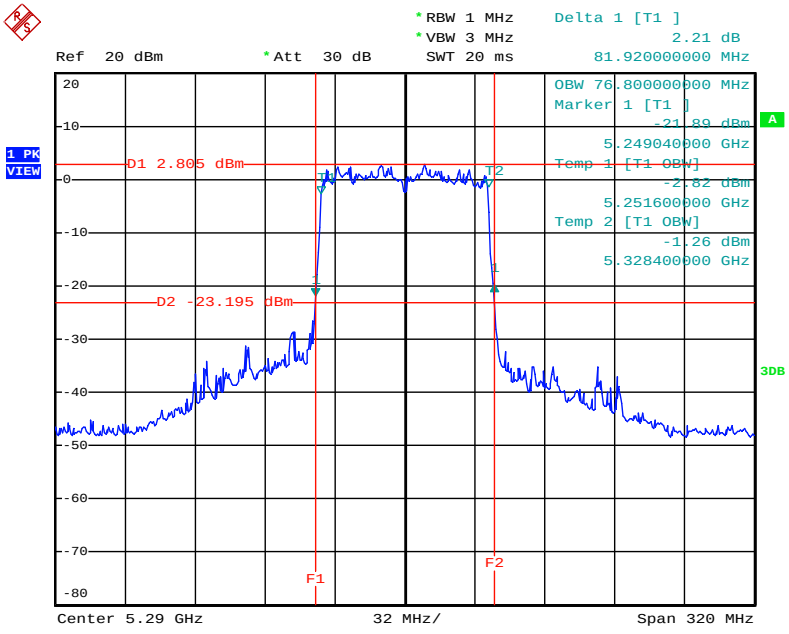
Date: 22.AUG.2013 23:11:29

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



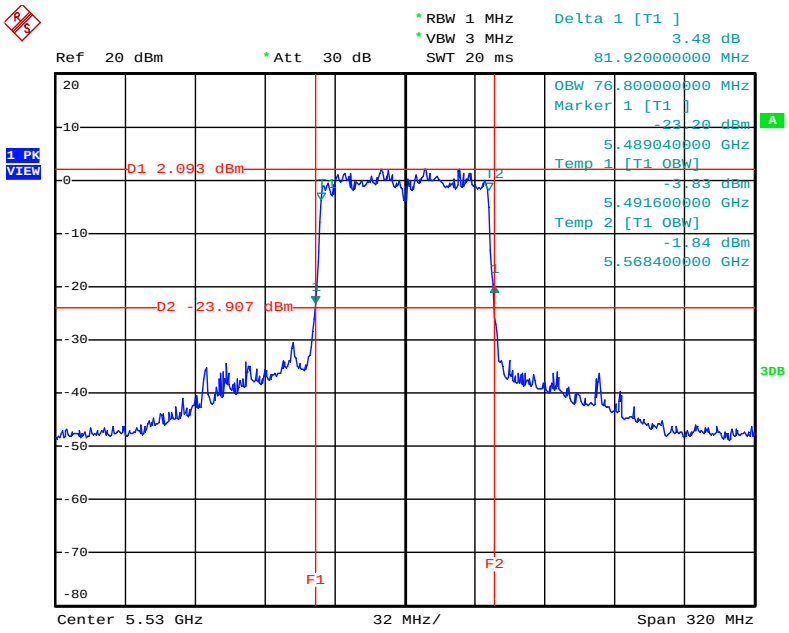
Date: 9.AUG.2013 15:43:02

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5290 MHz



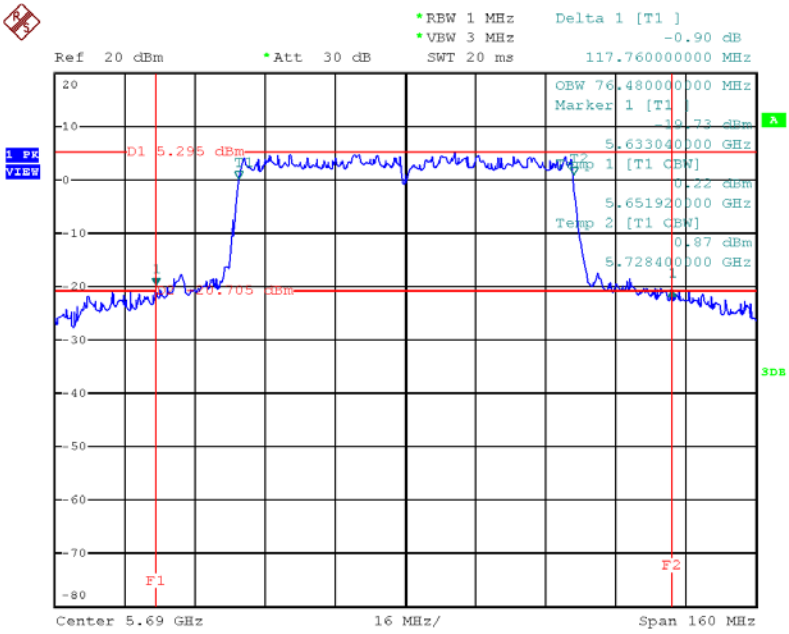
Date: 9.AUG.2013 15:43:34

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5530 MHz



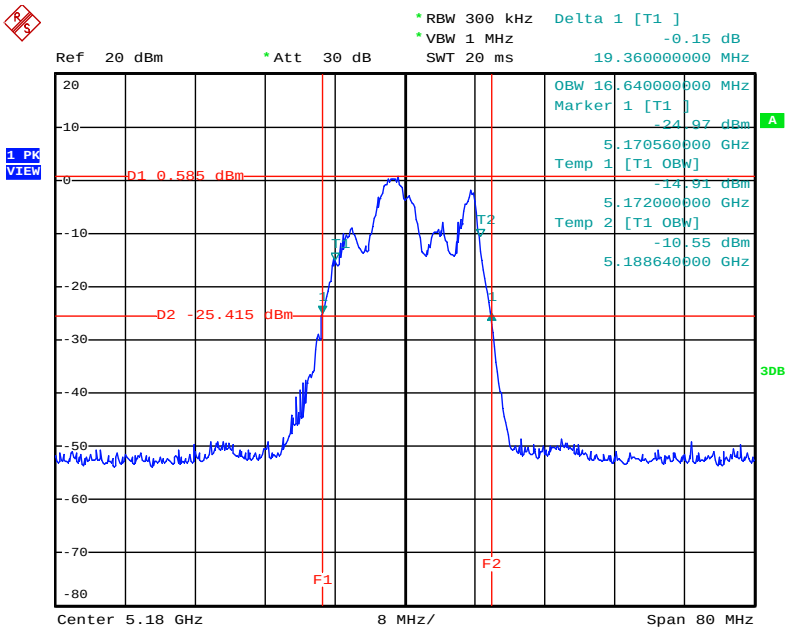
Date: 9.AUG.2013 15:45:00

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5690 MHz



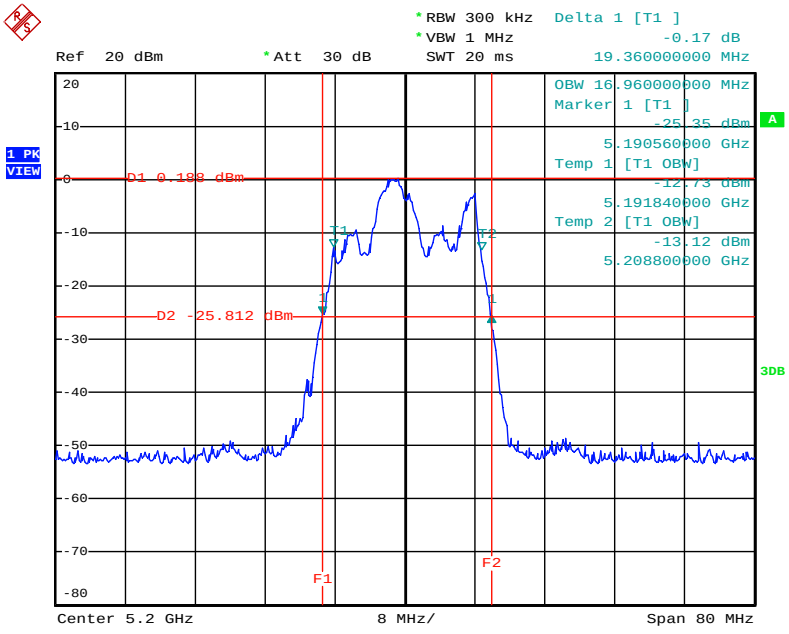
Date: 22.AUG.2013 23:12:29

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



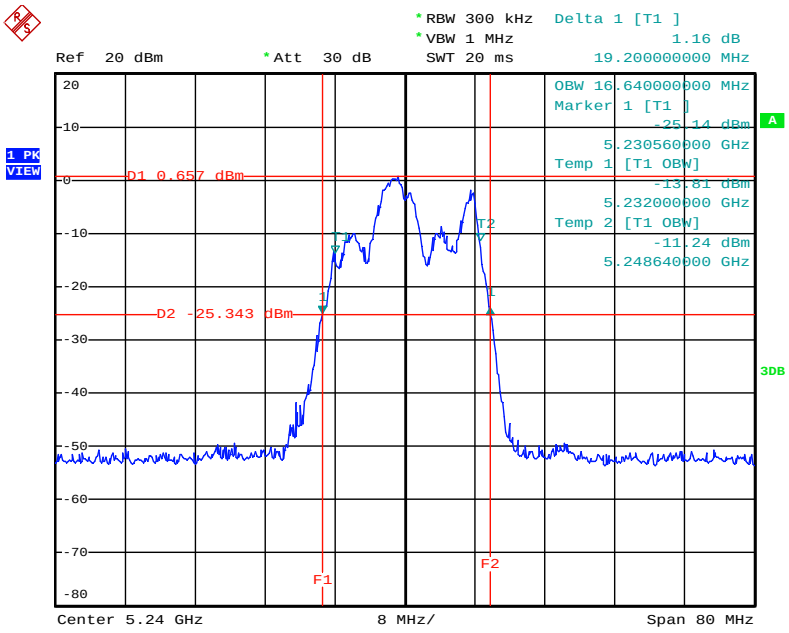
Date: 6.AUG.2013 11:46:05

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



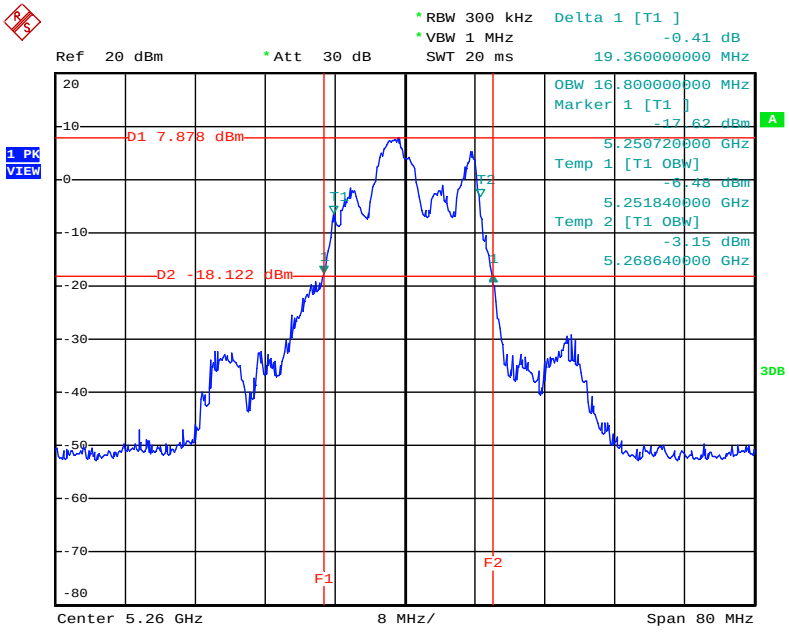
Date: 6.AUG.2013 11:46:24

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



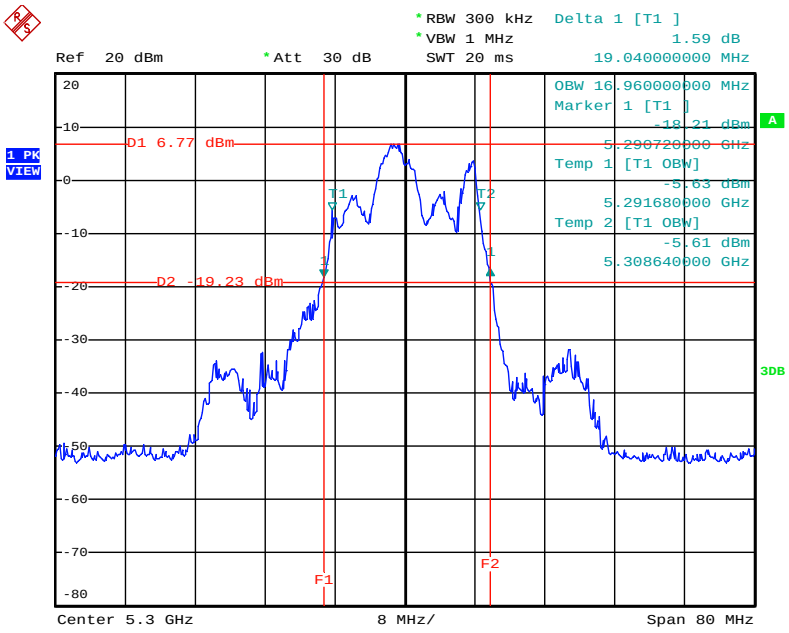
Date: 6.AUG.2013 11:46:42

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5260 MHz



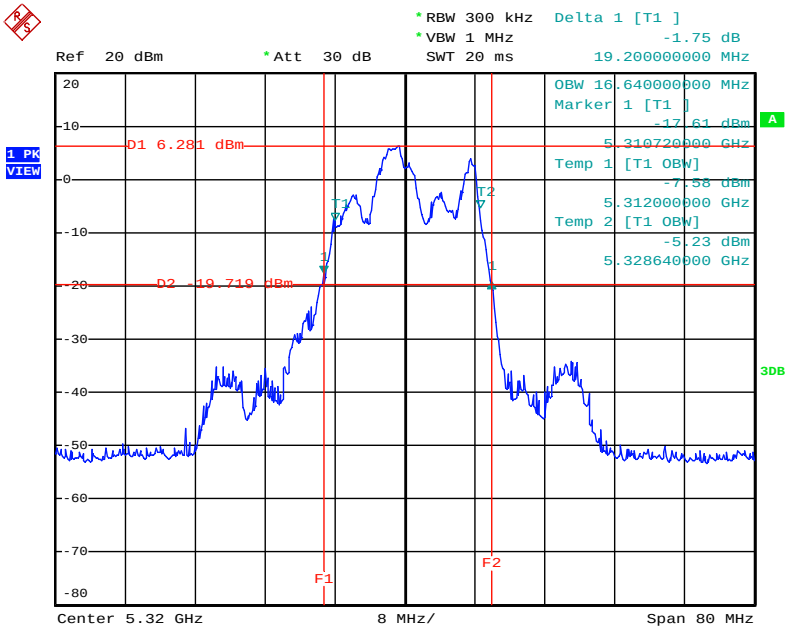
Date: 9.AUG.2013 15:32:03

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5300 MHz



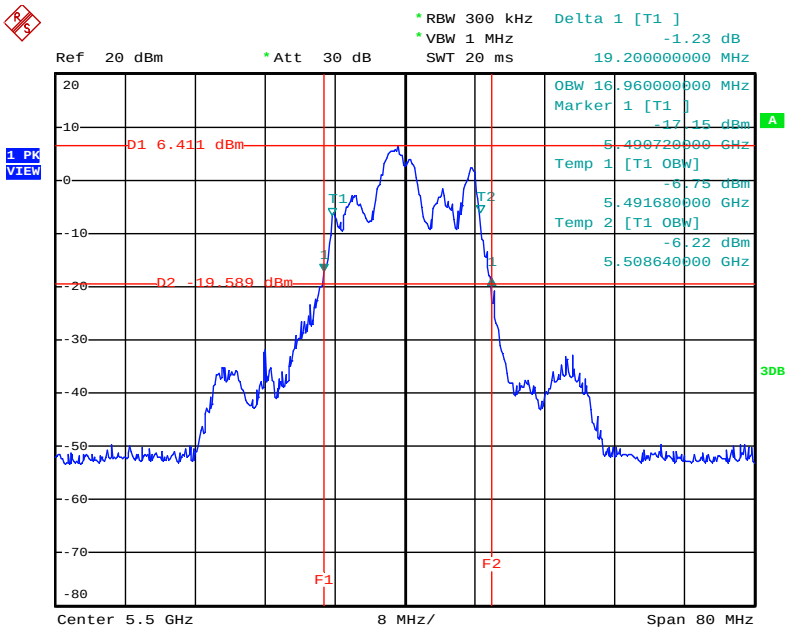
Date: 9.AUG.2013 15:32:33

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5320 MHz



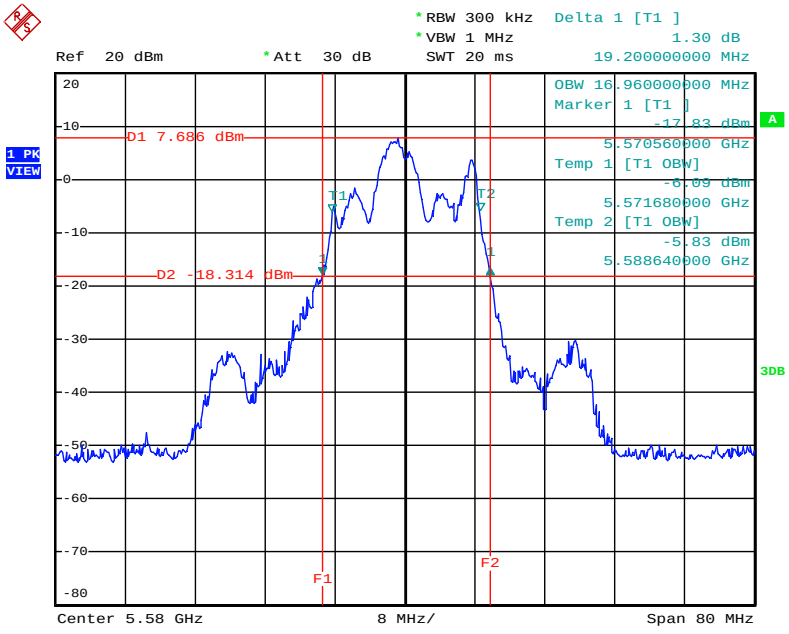
Date: 9.AUG.2013 15:32:55

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5500 MHz



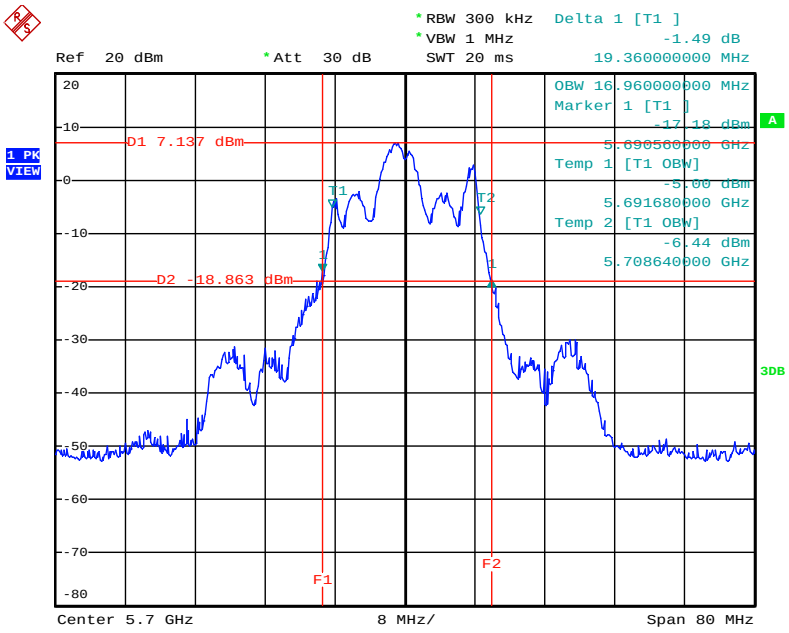
Date: 9.AUG.2013 15:33:17

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5580 MHz



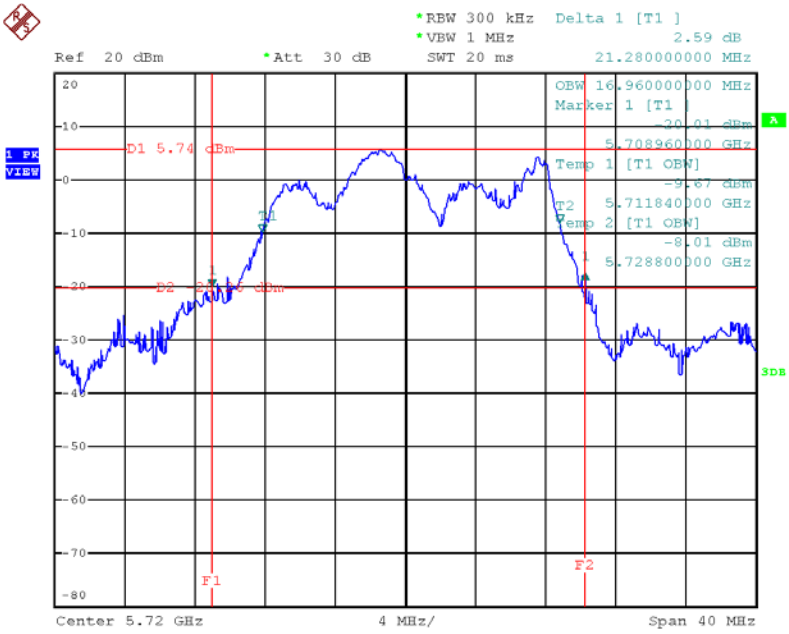
Date: 9.AUG.2013 15:33:42

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5700 MHz



Date: 9.AUG.2013 15:34:04

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5720 MHz



Date: 22.AUG.2013 23:08:05

4.3. Maximum Conducted Output Power Measurement

4.3.1. Limit

For the band 5.15~5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 50 mW (17dBm) or 4 dBm + 10log B, where B is the 26 dB emissions bandwidth in MHz. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the 5.25-5.35 GHz and 5.470-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW (24dBm) or 11 dBm + 10log B, where B is the 26-dB emission bandwidth in MHz. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

4.3.2. Measuring Instruments and Setting

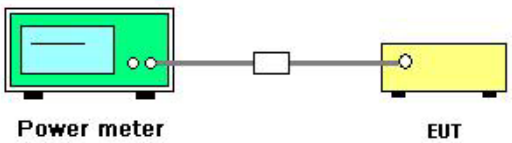
The following table is the setting of the peak power meter.

Power Meter Parameter	Setting
Detector	AVERAGE

4.3.3. Test Procedures

1. The transmitter output (antenna port) was connected to the power meter.
2. Test was performed in accordance with KDB 789033 D01 v01r03 for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - Part 15, Subpart E,section (E) Maximum conducted output power =>(3) Method PM (Measurement using an RF average power meter) Multiple antenna systems was performed in accordance with KDB 662911 D01 v02 Emissions Testing of Transmitters with Multiple Outputs in the Same Band.
3. When measuring maximum conducted output power with multiple antenna systems,add every result of the values by mathematic formula.

4.3.4. Test Setup Layout



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 Maximum Conducted Output Power

Temperature	25°C	Humidity	56%
Test Engineer	Benson Peng	Configurations	IEEE 802.11a / ac
Test Date	Aug. 05, 2013	Test Mode	Mode 1 (Ant.1 Dipole antenna / 1dBi)

Configuration IEEE 802.11ac MCS0/Nss1 20MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	11.69	12.46	11.84	16.78	16.98	Complies
40	5200 MHz	11.78	12.26	11.88	16.75	16.98	Complies
48	5240 MHz	11.86	12.43	11.93	16.85	17.00	Complies
52	5260 MHz	19.12	18.66	19.31	23.81	24.00	Complies
60	5300 MHz	14.92	14.81	14.81	19.62	23.98	Complies
64	5320 MHz	14.02	14.01	14.09	18.81	24.00	Complies
100	5500 MHz	13.54	13.91	14.21	18.67	23.98	Complies
116	5580 MHz	19.03	18.62	19.47	23.83	24.00	Complies
140	5700 MHz	16.16	16.15	16.83	21.16	24.00	Complies
144	5720 MHz	19.05	18.86	19.23	23.82	24.00	Complies

Note: 5180 MHz Power Limit=4+10 log (B), So 5180 MHz Limit=4+10 log (19.84)=16.98 dBm

Note: 5200 MHz Power Limit=4+10 log (B), So 5200 MHz Limit=4+10 log (19.84)=16.98 dBm

Note: 5300 MHz Power Limit=11+10 log (B), So 5300 MHz Limit=11+10 log (19.84)=23.98 dBm

Note: 5500 MHz Power Limit=11+10 log (B), So 5500 MHz Limit=11+10 log (19.84)=23.98 dBm

Configuration IEEE 802.11ac MCS0/Nss3 20MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	11.87	12.86	11.78	16.97	17.00	Complies
40	5200 MHz	11.64	12.65	12.02	16.89	17.00	Complies
48	5240 MHz	11.83	12.59	11.76	16.85	17.00	Complies
52	5260 MHz	19.19	18.59	19.27	23.80	24.00	Complies
60	5300 MHz	19.09	18.53	19.23	23.73	24.00	Complies
64	5320 MHz	18.54	17.98	18.65	23.17	24.00	Complies
100	5500 MHz	19.27	18.81	19.52	23.98	24.00	Complies
116	5580 MHz	19.23	18.74	19.37	23.89	24.00	Complies
140	5700 MHz	16.94	16.94	18.04	22.11	24.00	Complies
144	5720 MHz	19.35	18.81	19.24	23.91	24.00	Complies

Configuration IEEE 802.11ac MCS0/Nss1 40MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
38	5190 MHz	11.74	12.63	12.03	16.92	17.00	Complies
46	5230 MHz	11.73	12.58	11.89	16.85	17.00	Complies
54	5270 MHz	17.66	17.68	18.31	22.67	24.00	Complies
62	5310 MHz	13.68	13.73	13.95	18.56	24.00	Complies
102	5510 MHz	11.81	12.48	12.13	16.92	24.00	Complies
110	5550 MHz	18.93	18.94	19.32	23.84	24.00	Complies
134	5670 MHz	16.56	16.88	17.13	21.63	24.00	Complies
142	5710 MHz	18.89	19.01	19.09	23.77	24.00	Complies

Configuration IEEE 802.11ac MCS0/Nss3 40MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
38	5190 MHz	11.85	12.76	11.85	16.95	17.00	Complies
46	5230 MHz	11.97	12.78	11.68	16.94	17.00	Complies
54	5270 MHz	19.12	18.84	18.67	23.65	24.00	Complies
62	5310 MHz	15.11	15.15	15.19	19.92	24.00	Complies
102	5510 MHz	13.77	14.05	14.26	18.80	24.00	Complies
110	5550 MHz	18.84	18.57	19.28	23.68	24.00	Complies
134	5670 MHz	16.99	16.92	17.54	21.93	24.00	Complies
142	5710 MHz	18.72	18.95	19.18	23.73	24.00	Complies

Configuration IEEE 802.11ac MCS0/Nss1 80MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
42	5210 MHz	10.85	11.69	11.05	15.98	17.00	Complies
58	5290 MHz	11.96	12.02	12.21	16.84	24.00	Complies
106	5530 MHz	10.88	11.74	11.19	16.06	24.00	Complies
138	5690 MHz	18.84	18.92	18.95	23.67	24.00	Complies

Configuration IEEE 802.11ac MCS0/Nss3 80MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
42	5210 MHz	11.51	12.26	11.67	16.60	17.00	Complies
58	5290 MHz	12.50	12.49	12.40	17.23	24.00	Complies
106	5530 MHz	12.31	12.86	12.79	17.43	24.00	Complies
138	5690 MHz	18.88	19.15	19.31	23.89	24.00	Complies

Configuration IEEE 802.11a

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	11.75	12.65	11.84	16.87	16.90	Complies
40	5200 MHz	11.54	12.56	11.88	16.79	16.87	Complies
48	5240 MHz	11.79	12.49	11.79	16.81	16.87	Complies
52	5260 MHz	19.21	18.76	19.39	23.90	24.00	Complies
60	5300 MHz	15.25	15.19	15.26	20.00	24.00	Complies
64	5320 MHz	15.32	15.09	15.21	19.98	24.00	Complies
100	5500 MHz	13.97	14.14	14.26	18.90	23.83	Complies
116	5580 MHz	19.03	18.59	19.73	23.91	24.00	Complies
140	5700 MHz	17.75	17.42	18.58	22.72	24.00	Complies
144	5720 MHz	19.49	18.88	19.16	23.96	24.00	Complies

Note: 5180 MHz Power Limit=4+10 log(B), So 5180 MHz Limit=4+10 log (19.52)=16.90 dBm

Note: 5200 MHz Power Limit=4+10 log(B), So 5200 MHz Limit=4+10 log (19.36)=16.87 dBm

Note: 5240 MHz Power Limit=4+10 log(B), So 5240 MHz Limit=4+10 log (19.36)=16.87 dBm

Note: 5500 MHz Power Limit=11+10 log(B), So 5500 MHz Limit=11+10 log (19.20)=23.83 dBm

Temperature	25°C	Humidity	56%
Test Engineer	Benson Peng	Configurations	IEEE 802.11a / ac
Test Date	Aug. 05, 2013	Test Mode	Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)

Configuration IEEE 802.11ac MCS0/Nss1 20MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	6.51	7.28	6.88	11.67	16.30	Complies
40	5200 MHz	6.45	7.29	6.86	11.65	16.30	Complies
48	5240 MHz	6.43	7.01	6.89	11.55	16.30	Complies
52	5260 MHz	13.65	13.86	13.68	18.50	23.30	Complies
60	5300 MHz	9.51	9.24	9.42	14.16	23.30	Complies
64	5320 MHz	8.87	8.11	8.81	13.38	23.30	Complies
100	5500 MHz	8.83	9.64	9.39	14.07	23.30	Complies
116	5580 MHz	13.54	13.87	13.59	18.44	23.30	Complies
140	5700 MHz	10.66	11.05	11.25	15.76	23.30	Complies
144	5720 MHz	13.42	13.62	14.12	18.50	23.30	Complies

Note: Ant Gain =6.7 dBi > 6 dBi, So B1 Power Limit=17-(6.7-6)=16.30 dBm
Note: Ant Gain =6.7 dBi > 6 dBi, So B2 Power Limit=24-(6.7-6)=23.30 dBm
Note: Ant Gain =6.7 dBi > 6 dBi, So B3 Power Limit=24-(6.7-6)=23.30 dBm

Configuration IEEE 802.11ac MCS0/Nss3 20MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	11.02	11.91	11.11	16.14	16.30	Complies
40	5200 MHz	11.09	11.80	11.01	16.09	16.30	Complies
48	5240 MHz	11.01	11.88	11.27	16.17	16.30	Complies
52	5260 MHz	18.46	18.08	18.89	23.26	23.30	Complies
60	5300 MHz	11.62	11.22	11.35	16.17	23.30	Complies
64	5320 MHz	11.69	11.28	11.30	16.20	23.30	Complies
100	5500 MHz	12.48	12.77	12.86	17.48	23.30	Complies
116	5580 MHz	18.25	17.62	18.96	23.08	23.30	Complies
140	5700 MHz	13.89	14.11	14.29	18.87	23.30	Complies
144	5720 MHz	18.43	18.12	18.97	23.29	23.30	Complies

Note: Ant Gain =6.7 dBi > 6 dBi, So B1 Power Limit=17-(6.7-6)=16.30 dBm
Note: Ant Gain =6.7 dBi > 6 dBi, So B2 Power Limit=24-(6.7-6)=23.30 dBm
Note: Ant Gain =6.7 dBi > 6 dBi, So B3 Power Limit=24-(6.7-6)=23.30 dBm

Configuration IEEE 802.11ac MCS0/Nss1 40MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
38	5190 MHz	9.54	10.44	9.43	14.60	16.30	Complies
46	5230 MHz	9.48	10.31	9.51	14.56	16.30	Complies
54	5270 MHz	13.68	14.01	13.74	18.58	23.30	Complies
62	5310 MHz	10.65	10.76	10.99	15.57	23.30	Complies
102	5510 MHz	9.57	10.79	10.38	15.05	23.30	Complies
110	5550 MHz	15.06	15.77	15.61	20.26	23.30	Complies
134	5670 MHz	15.72	16.34	16.52	20.98	23.30	Complies
142	5710 MHz	16.62	16.71	16.95	21.53	23.30	Complies

Note: Ant Gain =6.7 dBi > 6 dBi, So B1 Power Limit=17-(6.7-6)=16.30 dBm

Note: Ant Gain =6.7 dBi > 6 dBi, So B2 Power Limit=24-(6.7-6)=23.30 dBm

Note: Ant Gain =6.7 dBi > 6 dBi, So B3 Power Limit=24-(6.7-6)=23.30 dBm

Configuration IEEE 802.11ac MCS0/Nss3 40MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
38	5190 MHz	10.95	11.72	10.76	15.93	16.30	Complies
46	5230 MHz	10.99	11.81	11.13	16.10	16.30	Complies
54	5270 MHz	16.86	16.90	17.03	21.70	23.30	Complies
62	5310 MHz	11.56	11.39	11.58	16.28	23.30	Complies
102	5510 MHz	10.73	11.19	11.12	15.79	23.30	Complies
110	5550 MHz	15.82	15.88	16.21	20.74	23.30	Complies
134	5670 MHz	16.01	16.33	16.47	21.05	23.30	Complies
142	5710 MHz	18.51	18.51	18.46	23.26	23.30	Complies

Note: Ant Gain =6.7 dBi > 6 dBi, So B1 Power Limit=17-(6.7-6)=16.30 dBm

Note: Ant Gain =6.7 dBi > 6 dBi, So B2 Power Limit=24-(6.7-6)=23.30 dBm

Note: Ant Gain =6.7 dBi > 6 dBi, So B3 Power Limit=24-(6.7-6)=23.30 dBm

Configuration IEEE 802.11ac MCS0/Nss1 80MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
42	5210 MHz	8.59	9.43	8.74	13.71	16.30	Complies
58	5290 MHz	9.72	9.92	9.89	14.62	23.30	Complies
106	5530 MHz	7.87	9.34	8.81	13.49	23.30	Complies
138	5690 MHz	18.72	18.43	18.38	23.28	23.30	Complies

Note: Ant Gain =6.7 dBi > 6 dBi, So B1 Power Limit=17-(6.7-6)=16.30 dBm
Note: Ant Gain =6.7 dBi > 6 dBi, So B2 Power Limit=24-(6.7-6)=23.30 dBm
Note: Ant Gain =6.7 dBi > 6 dBi, So B3 Power Limit=24-(6.7-6)=23.30 dBm

Configuration IEEE 802.11ac MCS0/Nss3 80MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
42	5210 MHz	9.76	10.52	10.01	14.88	16.30	Complies
58	5290 MHz	10.80	10.77	10.92	15.60	23.30	Complies
106	5530 MHz	10.00	10.56	10.43	15.11	23.30	Complies
138	5690 MHz	18.52	18.37	18.27	23.16	23.30	Complies

Note: Ant Gain =6.7 dBi > 6 dBi, So B1 Power Limit=17-(6.7-6)=16.30 dBm
Note: Ant Gain =6.7 dBi > 6 dBi, So B2 Power Limit=24-(6.7-6)=23.30 dBm
Note: Ant Gain =6.7 dBi > 6 dBi, So B3 Power Limit=24-(6.7-6)=23.30 dBm

Configuration IEEE 802.11a

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	6.32	6.78	6.72	11.38	16.30	Complies
40	5200 MHz	6.12	6.75	6.69	11.30	16.30	Complies
48	5240 MHz	6.39	6.82	6.75	11.43	16.30	Complies
52	5260 MHz	13.52	13.60	13.78	18.41	23.30	Complies
60	5300 MHz	9.23	8.39	9.06	13.68	23.30	Complies
64	5320 MHz	8.21	7.11	7.94	12.55	23.30	Complies
100	5500 MHz	8.88	9.10	9.26	13.85	23.30	Complies
116	5580 MHz	13.23	13.74	13.82	18.38	23.30	Complies
140	5700 MHz	12.41	13.01	12.94	17.57	23.30	Complies
144	5720 MHz	13.31	13.56	13.90	18.37	23.30	Complies

Note: Ant Gain =6.7 dBi > 6 dBi, So B1 Power Limit=17-(6.7-6)=16.30 dBm
Note: Ant Gain =6.7 dBi > 6 dBi, So B2 Power Limit=24-(6.7-6)=23.30 dBm
Note: Ant Gain =6.7 dBi > 6 dBi, So B3 Power Limit=24-(6.7-6)=23.30 dBm

Temperature	25°C	Humidity	56%
Test Engineer	Benson Peng	Configurations	IEEE 802.11a / ac
Test Date	Aug. 05, 2013	Test Mode	Mode 3 (Ant.4 Panel antenna / 9.2dBi)

Configuration IEEE 802.11ac MCS0/Nss1 20MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	4.22	5.11	5.32	9.68	13.80	Complies
40	5200 MHz	4.31	5.05	5.29	9.67	13.80	Complies
48	5240 MHz	4.29	4.82	5.21	9.56	13.80	Complies
52	5260 MHz	12.05	12.13	11.81	16.77	20.80	Complies
60	5300 MHz	9.61	9.08	9.46	14.16	20.80	Complies
64	5320 MHz	9.55	8.96	9.45	14.10	20.80	Complies
100	5500 MHz	7.25	7.63	7.99	12.41	20.80	Complies
116	5580 MHz	11.61	12.28	12.09	16.77	20.80	Complies
140	5700 MHz	8.51	9.15	8.97	13.66	20.80	Complies
144	5720 MHz	11.10	11.24	11.48	16.05	20.80	Complies

Note: Ant Gain =9.20 dBi > 6 dBi, So B1 Power Limit=17-(9.2-6)=13.80 dBm

Note: Ant Gain =9.20 dBi > 6 dBi, So B2 Power Limit=24-(9.2-6)=20.80 dBm

Note: Ant Gain =9.20 dBi > 6 dBi, So B3 Power Limit=24-(9.2-6)=20.80 dBm

Configuration IEEE 802.11ac MCS0/Nss3 20MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	8.86	9.41	8.69	13.77	13.80	Complies
40	5200 MHz	8.82	9.43	8.75	13.78	13.80	Complies
48	5240 MHz	8.71	9.32	8.65	13.68	13.80	Complies
52	5260 MHz	15.92	16.18	15.95	20.79	20.80	Complies
60	5300 MHz	11.42	11.34	11.31	16.13	20.80	Complies
64	5320 MHz	10.49	10.12	10.59	15.18	20.80	Complies
100	5500 MHz	8.29	8.91	9.01	13.52	20.80	Complies
116	5580 MHz	15.49	15.94	16.31	20.70	20.80	Complies
140	5700 MHz	9.02	9.64	9.77	14.26	20.80	Complies
144	5720 MHz	15.71	15.72	16.23	20.66	20.80	Complies

Note: Ant Gain =9.20 dBi > 6 dBi, So B1 Power Limit=17-(9.2-6)=13.80 dBm

Note: Ant Gain =9.20 dBi > 6 dBi, So B2 Power Limit=24-(9.2-6)=20.80 dBm

Note: Ant Gain =9.20 dBi > 6 dBi, So B3 Power Limit=24-(9.2-6)=20.80 dBm

Configuration IEEE 802.11ac MCS0/Nss1 40MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
38	5190 MHz	7.21	7.79	7.58	12.30	13.80	Complies
46	5230 MHz	7.11	7.67	7.51	12.21	13.80	Complies
54	5270 MHz	13.19	13.41	13.25	18.06	20.80	Complies
62	5310 MHz	9.49	8.86	9.81	14.18	20.80	Complies
102	5510 MHz	8.45	9.51	9.13	13.82	20.80	Complies
110	5550 MHz	10.99	12.12	11.53	16.34	20.80	Complies
134	5670 MHz	11.77	12.59	12.09	16.93	20.80	Complies
142	5710 MHz	14.11	14.57	14.81	19.28	20.80	Complies

Note: Ant Gain =9.20 dBi > 6 dBi, So B1 Power Limit=17-(9.2-6)=13.80 dBm

Note: Ant Gain =9.20 dBi > 6 dBi, So B2 Power Limit=24-(9.2-6)=20.80 dBm

Note: Ant Gain =9.20 dBi > 6 dBi, So B3 Power Limit=24-(9.2-6)=20.80 dBm

Configuration IEEE 802.11ac MCS0/Nss3 40MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
38	5190 MHz	8.85	9.36	8.81	13.79	13.80	Complies
46	5230 MHz	8.69	9.22	8.72	13.65	13.80	Complies
54	5270 MHz	13.78	14.21	14.16	18.83	20.80	Complies
62	5310 MHz	9.71	9.34	10.11	14.50	20.80	Complies
102	5510 MHz	9.13	9.85	9.54	14.29	20.80	Complies
110	5550 MHz	13.38	14.21	13.72	18.55	20.80	Complies
134	5670 MHz	12.67	13.37	13.08	17.82	20.80	Complies
142	5710 MHz	15.71	15.92	16.27	20.74	20.80	Complies

Note: Ant Gain =9.20 dBi > 6 dBi, So B1 Power Limit=17-(9.2-6)=13.80 dBm

Note: Ant Gain =9.20 dBi > 6 dBi, So B2 Power Limit=24-(9.2-6)=20.80 dBm

Note: Ant Gain =9.20 dBi > 6 dBi, So B3 Power Limit=24-(9.2-6)=20.80 dBm

Configuration IEEE 802.11ac MCS0/Nss1 80MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
42	5210 MHz	7.75	8.46	8.13	12.89	13.80	Complies
58	5290 MHz	8.63	8.23	8.99	13.40	20.80	Complies
106	5530 MHz	7.15	8.02	7.85	12.46	20.80	Complies
138	5690 MHz	15.72	15.86	16.26	20.72	20.80	Complies

Note: Ant Gain =9.20 dBi > 6 dBi, So B1 Power Limit=17-(9.2-6)=13.80 dBm
Note: Ant Gain =9.20 dBi > 6 dBi, So B2 Power Limit=24-(9.2-6)=20.80 dBm
Note: Ant Gain =9.20 dBi > 6 dBi, So B3 Power Limit=24-(9.2-6)=20.80 dBm

Configuration IEEE 802.11ac MCS0/Nss3 80MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
42	5210 MHz	8.49	9.06	8.62	13.50	13.80	Complies
58	5290 MHz	8.98	8.56	9.12	13.66	20.80	Complies
106	5530 MHz	7.94	9.07	8.69	13.36	20.80	Complies
138	5690 MHz	15.56	15.85	16.23	20.66	20.80	Complies

Note: Ant Gain =9.20 dBi > 6 dBi, So B1 Power Limit=17-(9.2-6)=13.80 dBm
Note: Ant Gain =9.20 dBi > 6 dBi, So B2 Power Limit=24-(9.2-6)=20.80 dBm
Note: Ant Gain =9.20 dBi > 6 dBi, So B3 Power Limit=24-(9.2-6)=20.80 dBm

Configuration IEEE 802.11a

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	4.38	4.99	5.37	9.70	13.80	Complies
40	5200 MHz	4.31	5.01	5.35	9.68	13.80	Complies
48	5240 MHz	4.27	4.93	5.25	9.61	13.80	Complies
52	5260 MHz	12.04	12.21	11.82	16.80	20.80	Complies
60	5300 MHz	9.25	8.78	9.29	13.88	20.80	Complies
64	5320 MHz	8.81	7.95	8.73	13.28	20.80	Complies
100	5500 MHz	6.13	6.29	7.01	11.27	20.80	Complies
116	5580 MHz	11.49	12.13	11.98	16.65	20.80	Complies
140	5700 MHz	7.57	7.99	8.58	12.84	20.80	Complies
144	5720 MHz	10.85	11.09	11.37	15.88	20.80	Complies

Note: Ant Gain =9.20 dBi > 6 dBi, So B1 Power Limit=17-(9.2-6)=13.80 dBm
Note: Ant Gain =9.20 dBi > 6 dBi, So B2 Power Limit=24-(9.2-6)=20.80 dBm
Note: Ant Gain =9.20 dBi > 6 dBi, So B3 Power Limit=24-(9.2-6)=20.80 dBm

Temperature	25°C	Humidity	56%
Test Engineer	Benson Peng	Configurations	IEEE 802.11a / ac
Test Date	Aug. 05, 2013	Test Mode	Mode 4 (Ant.5 PCB antenna / 5.74dBi)

Configuration IEEE 802.11ac MCS0/Nss1 20MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	6.84	7.84	7.23	12.09	16.98	Complies
40	5200 MHz	7.14	7.94	7.16	12.20	17.00	Complies
48	5240 MHz	7.04	7.66	7.10	12.05	16.98	Complies
52	5260 MHz	14.26	14.46	14.02	19.02	24.00	Complies
60	5300 MHz	12.14	12.08	12.07	16.87	24.00	Complies
64	5320 MHz	11.67	11.62	11.61	16.40	24.00	Complies
100	5500 MHz	12.24	12.98	12.93	17.50	24.00	Complies
116	5580 MHz	14.01	14.84	14.38	19.19	24.00	Complies
140	5700 MHz	14.77	14.89	15.27	19.75	24.00	Complies
144	5720 MHz	15.89	15.83	16.26	20.77	24.00	Complies

Note: 5180 MHz Power Limit=4+10 log (B), So 5180 MHz Limit=4+10 log (19.84)=16.98 dBm

Note: 5240 MHz Power Limit=4+10 log (B), So 5240 MHz Limit=4+10 log (19.84)=16.98 dBm

Configuration IEEE 802.11ac MCS0/Nss3 20MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	11.87	12.86	11.78	16.97	17.00	Complies
40	5200 MHz	11.64	12.65	12.02	16.89	17.00	Complies
48	5240 MHz	11.83	12.59	11.76	16.85	17.00	Complies
52	5260 MHz	19.19	18.59	19.27	23.80	24.00	Complies
60	5300 MHz	14.35	14.52	14.34	19.18	24.00	Complies
64	5320 MHz	15.01	15.22	15.19	19.91	24.00	Complies
100	5500 MHz	14.94	15.45	15.72	20.15	24.00	Complies
116	5580 MHz	18.46	18.38	19.16	23.45	24.00	Complies
140	5700 MHz	15.45	15.71	15.92	20.47	24.00	Complies
144	5720 MHz	19.35	18.81	19.24	23.91	24.00	Complies

Configuration IEEE 802.11ac MCS0/Nss1 40MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
38	5190 MHz	10.22	11.10	10.02	15.24	17.00	Complies
46	5230 MHz	10.17	10.92	9.96	15.14	17.00	Complies
54	5270 MHz	15.31	15.72	15.51	20.29	24.00	Complies
62	5310 MHz	11.84	12.02	11.97	16.72	24.00	Complies
102	5510 MHz	10.59	11.47	11.12	15.85	24.00	Complies
110	5550 MHz	15.84	16.45	16.35	20.99	24.00	Complies
134	5670 MHz	16.05	16.36	16.72	21.16	24.00	Complies
142	5710 MHz	18.31	18.18	18.76	23.20	24.00	Complies

Configuration IEEE 802.11ac MCS0/Nss3 40MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
38	5190 MHz	11.85	12.76	11.85	16.95	17.00	Complies
46	5230 MHz	11.97	12.78	11.68	16.94	17.00	Complies
54	5270 MHz	19.12	18.84	18.67	23.65	24.00	Complies
62	5310 MHz	12.87	13.27	13.02	17.83	24.00	Complies
102	5510 MHz	11.23	11.93	11.82	16.44	24.00	Complies
110	5550 MHz	18.64	19.04	19.02	23.68	24.00	Complies
134	5670 MHz	17.04	17.31	17.73	22.14	24.00	Complies
142	5710 MHz	18.72	18.95	19.18	23.73	24.00	Complies

Configuration IEEE 802.11ac MCS0/Nss1 80MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
42	5210 MHz	11.97	12.81	11.73	16.97	17.00	Complies
58	5290 MHz	10.52	10.65	10.65	15.38	24.00	Complies
106	5530 MHz	9.58	10.67	10.23	14.95	24.00	Complies
138	5690 MHz	18.84	18.92	18.95	23.67	24.00	Complies

Configuration IEEE 802.11ac MCS0/Nss3 80MHz

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
42	5210 MHz	12.01	12.66	11.61	16.89	17.00	Complies
58	5290 MHz	11.68	11.89	11.76	16.55	24.00	Complies
106	5530 MHz	10.78	11.75	11.29	16.06	24.00	Complies
138	5690 MHz	18.88	19.15	19.31	23.89	24.00	Complies

Configuration IEEE 802.11a

Channel	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
36	5180 MHz	7.28	8.26	7.62	12.51	16.87	Complies
40	5200 MHz	7.32	8.37	7.56	12.54	16.87	Complies
48	5240 MHz	7.46	8.16	7.45	12.47	16.83	Complies
52	5260 MHz	14.68	14.74	14.57	19.44	23.87	Complies
60	5300 MHz	13.67	13.92	13.64	18.52	23.80	Complies
64	5320 MHz	13.21	13.38	13.34	18.08	23.83	Complies
100	5500 MHz	13.13	13.75	13.68	18.30	23.83	Complies
116	5580 MHz	14.34	14.81	14.74	19.41	23.83	Complies
140	5700 MHz	14.54	14.94	14.98	19.60	23.87	Complies
144	5720 MHz	15.92	15.66	16.47	20.80	24.00	Complies

Note: 5180 MHz Power Limit=4+10 log (B), So 5180 MHz Limit=4+10 log (19.36)=16.87 dBm

Note: 5200 MHz Power Limit=4+10 log (B), So 5200 MHz Limit=4+10 log (19.36)=16.87 dBm

Note: 5240 MHz Power Limit=4+10 log (B), So 5240 MHz Limit=4+10 log (19.20)=16.83 dBm

Note: 5260 MHz Power Limit=11+10 log (B), So 5260 MHz Limit=11+10 log (19.36)=23.87 dBm

Note: 5300 MHz Power Limit=11+10 log (B), So 5300 MHz Limit=11+10 log (19.04)=23.80 dBm

Note: 5320 MHz Power Limit=11+10 log (B), So 5320 MHz Limit=11+10 log (19.20)=23.83 dBm

Note: 5500 MHz Power Limit=11+10 log (B), So 5500 MHz Limit=11+10 log (19.20)=23.83 dBm

Note: 5580 MHz Power Limit=11+10 log (B), So 5580 MHz Limit=11+10 log (19.20)=23.83 dBm

Note: 5700 MHz Power Limit=11+10 log (B), So 5700 MHz Limit=11+10 log (19.36)=23.87 dBm

4.4. Power Spectral Density Measurement

4.4.1. 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 4.3.1.

Frequency Range	Power Spectral Density limit (dBm/MHz)
5.15~5.25 GHz	4
5.25-5.35 GHz	11
5.470-5.725 GHz	11

4.4.2. Measuring Instruments and Setting

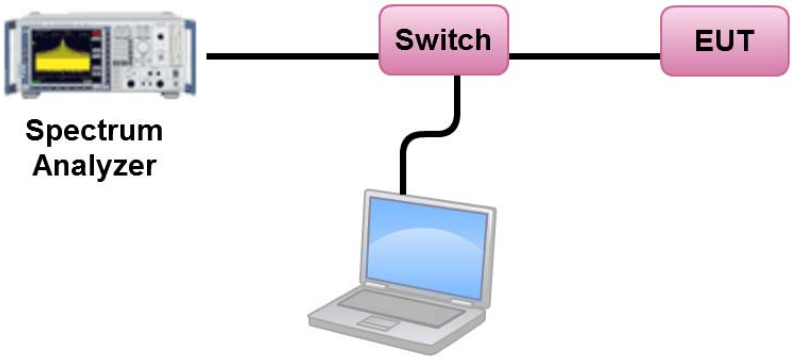
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

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

4.4.3. Test Procedures

1. The transmitter output (antenna port) was connected RF switch to the spectrum analyzer.
2. Test was performed in accordance with KDB 789033 D01 v01r03 for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - Part 15, Subpart E,section (C) Maximum conducted output power => (d) Method SA-2 (trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).
3. Multiple antenna systems was performed in accordance KDB 662911 D01 v02 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.

4.4.4. 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. Test Result of Power Spectral Density

Temperature	25°C	Humidity	56%
Test Engineer	Benson Peng	Configurations	IEEE 802.11a / ac
Test Date	Aug. 05, 2013	Test Mode	Mode 1 (Ant.1 Dipole antenna / 1dBi)

Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	3.51	4.00	Complies
40	5200 MHz	3.66	4.00	Complies
48	5240 MHz	3.73	4.00	Complies
52	5260 MHz	10.70	11.00	Complies
60	5300 MHz	6.57	11.00	Complies
64	5320 MHz	5.53	11.00	Complies
100	5500 MHz	5.58	11.00	Complies
116	5580 MHz	10.55	11.00	Complies
140	5700 MHz	7.78	11.00	Complies
144	5720 MHz	10.36	11.00	Complies

Note: Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =5.77dBi <6dBi, so the limit doesn't reduce.

Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	3.40	4.00	Complies
40	5200 MHz	3.63	4.00	Complies
48	5240 MHz	3.47	4.00	Complies
52	5260 MHz	10.63	11.00	Complies
60	5300 MHz	10.64	11.00	Complies
64	5320 MHz	9.99	11.00	Complies
100	5500 MHz	10.63	11.00	Complies
116	5580 MHz	10.78	11.00	Complies
140	5700 MHz	8.96	11.00	Complies
144	5720 MHz	10.33	11.00	Complies

Note: Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =1dBi <6dBi, so the limit doesn't reduce.

Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
38	5190 MHz	0.84	4.00	Complies
46	5230 MHz	0.65	4.00	Complies
54	5270 MHz	6.63	11.00	Complies
62	5310 MHz	2.20	11.00	Complies
102	5510 MHz	0.81	11.00	Complies
110	5550 MHz	7.82	11.00	Complies
134	5670 MHz	5.36	11.00	Complies
142	5710 MHz	7.14	11.00	Complies

Note: Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =5.77dBi <6dBi, so the limit doesn't reduce.

Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
38	5190 MHz	0.53	4.00	Complies
46	5230 MHz	0.51	4.00	Complies
54	5270 MHz	7.62	11.00	Complies
62	5310 MHz	3.87	11.00	Complies
102	5510 MHz	2.67	11.00	Complies
110	5550 MHz	7.31	11.00	Complies
134	5670 MHz	5.81	11.00	Complies
142	5710 MHz	7.33	11.00	Complies

Note: Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =1dBi <6dBi, so the limit doesn't reduce.

Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
42	5210 MHz	-3.13	4.00	Complies
58	5290 MHz	-2.37	11.00	Complies
106	5530 MHz	-2.94	11.00	Complies
138	5690 MHz	4.15	11.00	Complies

Note: Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =5.77dBi <6dBi, so the limit doesn't reduce.

Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
42	5210 MHz	-2.50	4.00	Complies
58	5290 MHz	-1.95	11.00	Complies
106	5530 MHz	-1.64	11.00	Complies
138	5690 MHz	4.47	11.00	Complies

Note: Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =1dBi <6dBi, so the limit doesn't reduce.

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

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	3.55	4.00	Complies
40	5200 MHz	3.65	4.00	Complies
48	5240 MHz	3.63	4.00	Complies
52	5260 MHz	10.87	11.00	Complies
60	5300 MHz	6.88	11.00	Complies
64	5320 MHz	6.86	11.00	Complies
100	5500 MHz	5.77	11.00	Complies
116	5580 MHz	10.59	11.00	Complies
140	5700 MHz	9.39	11.00	Complies
144	5720 MHz	10.73	11.00	Complies

Note: Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =5.77dBi <6dBi, so the limit doesn't reduce.

Temperature	25℃	Humidity	56%
Test Engineer	Benson Peng	Configurations	IEEE 802.11a / ac
Test Date	Aug. 05, 2013	Test Mode	Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)

Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	-1.61	-1.47	Complies
40	5200 MHz	-1.55	-1.47	Complies
48	5240 MHz	-1.50	-1.47	Complies
52	5260 MHz	5.33	5.53	Complies
60	5300 MHz	1.01	5.53	Complies
64	5320 MHz	0.29	5.53	Complies
100	5500 MHz	0.93	5.53	Complies
116	5580 MHz	5.43	5.53	Complies
140	5700 MHz	2.51	5.53	Complies
144	5720 MHz	5.45	5.53	Complies

Note:
Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =11.47dBi >6dBi, so Band 1 limit=4-(11.47-6)=-1.47dBm/MHz
Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =11.47dBi >6dBi, so Band 2 limit=11-(11.47-6)=5.53dBm/MHz
Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =11.47dBi >6dBi, so Band 3 limit=11-(11.47-6)=5.53dBm/MHz

Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	3.02	3.30	Complies
40	5200 MHz	2.93	3.30	Complies
48	5240 MHz	3.04	3.30	Complies
52	5260 MHz	10.11	10.30	Complies
60	5300 MHz	2.84	10.30	Complies
64	5320 MHz	3.03	10.30	Complies
100	5500 MHz	4.29	10.30	Complies
116	5580 MHz	9.85	10.30	Complies
140	5700 MHz	5.68	10.30	Complies
144	5720 MHz	9.32	10.30	Complies

Note:
Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =6.7dBi >6dBi, so Band 1 limit=4-(6.7-6)=3.30dBm/MHz
Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =6.7dBi >6dBi, so Band 2 limit=11-(6.7-6)=10.30dBm/MHz
Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =6.7dBi >6dBi, so Band 3 limit=11-(6.7-6)=10.30dBm/MHz

Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
38	5190 MHz	-1.55	-1.47	Complies
46	5230 MHz	-1.51	-1.47	Complies
54	5270 MHz	2.47	5.53	Complies
62	5310 MHz	-0.64	5.53	Complies
102	5510 MHz	-1.03	5.53	Complies
110	5550 MHz	4.19	5.53	Complies
134	5670 MHz	4.61	5.53	Complies
142	5710 MHz	5.34	5.53	Complies

Note:

Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =11.47dBi >6dBi, so Band 1 limit=4-(11.47-6)=-1.47dBm/MHz

Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =11.47dBi >6dBi, so Band 2 limit=11-(11.47-6)=5.53dBm/MHz

Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =11.47dBi >6dBi, so Band 3 limit=11-(11.47-6)=5.53dBm/MHz

Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
38	5190 MHz	-0.10	3.30	Complies
46	5230 MHz	0.05	3.30	Complies
54	5270 MHz	5.66	10.30	Complies
62	5310 MHz	0.14	10.30	Complies
102	5510 MHz	-0.25	10.30	Complies
110	5550 MHz	4.74	10.30	Complies
134	5670 MHz	4.70	10.30	Complies
142	5710 MHz	6.82	10.30	Complies

Note:

Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =6.7dBi >6dBi, so Band 1 limit=4-(6.7-6)=3.30dBm/MHz

Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =6.7dBi >6dBi, so Band 2 limit=11-(6.7-6)=10.30dBm/MHz

Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =6.7dBi >6dBi, so Band 3 limit=11-(6.7-6)=10.30dBm/MHz

Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
42	5210 MHz	-5.45	-1.47	Complies
58	5290 MHz	-4.42	5.53	Complies
106	5530 MHz	-5.59	5.53	Complies
138	5690 MHz	3.34	5.53	Complies

Note:

Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =11.47dBi >6dBi, so Band 1 limit=4-(11.47-6)=-1.47dBm/MHz

Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =11.47dBi >6dBi, so Band 2 limit=11-(11.47-6)=5.53dBm/MHz

Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =11.47dBi >6dBi, so Band 3 limit=11-(11.47-6)=5.53dBm/MHz

Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
42	5210 MHz	-4.14	3.30	Complies
58	5290 MHz	-3.50	10.30	Complies
106	5530 MHz	-3.99	10.30	Complies
138	5690 MHz	3.48	10.30	Complies

Note:

Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =6.7dBi >6dBi, so Band 1 limit=4-(6.7-6)=3.30dBm/MHz

Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =6.7dBi >6dBi, so Band 2 limit=11-(6.7-6)=10.30dBm/MHz

Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =6.7dBi >6dBi, so Band 3 limit=11-(6.7-6)=10.30dBm/MHz

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

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	-1.74	-1.47	Complies
40	5200 MHz	-1.74	-1.47	Complies
48	5240 MHz	-1.62	-1.47	Complies
52	5260 MHz	5.35	5.53	Complies
60	5300 MHz	0.51	5.53	Complies
64	5320 MHz	-0.49	5.53	Complies
100	5500 MHz	0.72	5.53	Complies
116	5580 MHz	5.30	5.53	Complies
140	5700 MHz	4.10	5.53	Complies
144	5720 MHz	5.41	5.53	Complies

Note:

Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =11.47dBi >6dBi, so Band 1 limit=4-(11.47-6)=-1.47dBm/MHz

Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =11.47dBi >6dBi, so Band 2 limit=11-(11.47-6)=5.53dBm/MHz

Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =11.47dBi >6dBi, so Band 3 limit=11-(11.47-6)=5.53dBm/MHz

Temperature	25°C	Humidity	56%
Test Engineer	Benson Peng	Configurations	IEEE 802.11a / ac
Test Date	Aug. 05, 2013	Test Mode	Mode 3 (Ant.4 Panel antenna / 9.2dBi)

Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	-3.98	-3.97	Complies
40	5200 MHz	-3.99	-3.97	Complies
48	5240 MHz	-4.07	-3.97	Complies
52	5260 MHz	3.01	3.03	Complies
60	5300 MHz	0.73	3.03	Complies
64	5320 MHz	0.57	3.03	Complies
100	5500 MHz	-1.18	3.03	Complies
116	5580 MHz	2.92	3.03	Complies
140	5700 MHz	-0.12	3.03	Complies
144	5720 MHz	2.88	3.03	Complies

Note:
Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =13.97dBi >6dBi, so Band 1 limit=4-(13.97-6)=-3.97dBm/MHz
Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =13.97dBi >6dBi, so Band 2 limit=11-(13.97-6)=3.03dBm/MHz
Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =13.97dBi >6dBi, so Band 3 limit=11-(13.97-6)=3.03dBm/MHz

Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	0.18	0.80	Complies
40	5200 MHz	0.30	0.80	Complies
48	5240 MHz	0.28	0.80	Complies
52	5260 MHz	7.32	7.80	Complies
60	5300 MHz	2.68	7.80	Complies
64	5320 MHz	1.58	7.80	Complies
100	5500 MHz	0.07	7.80	Complies
116	5580 MHz	7.36	7.80	Complies
140	5700 MHz	0.79	7.80	Complies
144	5720 MHz	7.34	7.80	Complies

Note:
Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =9.2dBi >6dBi, so Band 1 limit=4-(9.2-6)=0.80dBm/MHz
Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =9.2dBi >6dBi, so Band 2 limit=11-(9.2-6)=7.80dBm/MHz
Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =9.2dBi >6dBi, so Band 3 limit=11-(9.2-6)=7.80dBm/MHz

Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
38	5190 MHz	-4.09	-3.97	Complies
46	5230 MHz	-4.02	-3.97	Complies
54	5270 MHz	1.42	3.03	Complies
62	5310 MHz	-2.35	3.03	Complies
102	5510 MHz	-2.58	3.03	Complies
110	5550 MHz	0.04	3.03	Complies
134	5670 MHz	0.53	3.03	Complies
142	5710 MHz	3.01	3.03	Complies

Note:

Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =13.97dBi >6dBi, so Band 1 limit=4-(13.97-6)=-3.97dBm/MHz

Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =13.97dBi >6dBi, so Band 2 limit=11-(13.97-6)=3.03dBm/MHz

Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =13.97dBi >6dBi, so Band 3 limit=11-(13.97-6)=3.03dBm/MHz

Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
38	5190 MHz	-2.56	0.80	Complies
46	5230 MHz	-2.67	0.80	Complies
54	5270 MHz	2.65	7.80	Complies
62	5310 MHz	-1.79	7.80	Complies
102	5510 MHz	-1.96	7.80	Complies
110	5550 MHz	2.18	7.80	Complies
134	5670 MHz	1.29	7.80	Complies
142	5710 MHz	4.73	7.80	Complies

Note:

Directional gain=GANT+10log(NANT/Nss) =9.2dBi >6dBi, so Band 1 limit=4-(9.2-6)=0.80dBm/MHz

Directional gain=GANT+10log(NANT/Nss) =9.2dBi >6dBi, so Band 2 limit=11-(9.2-6)=7.80dBm/MHz

Directional gain=GANT+10log(NANT/Nss) =9.2dBi >6dBi, so Band 3 limit=11-(9.2-6)=7.80dBm/MHz

Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
42	5210 MHz	-6.13	-3.97	Complies
58	5290 MHz	-5.63	3.03	Complies
106	5530 MHz	-6.74	3.03	Complies
138	5690 MHz	1.23	3.03	Complies

Note:

Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =13.97dBi >6dBi, so Band 1 limit=4-(13.97-6)=-3.97dBm/MHz

Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =13.97dBi >6dBi, so Band 2 limit=11-(13.97-6)=3.03dBm/MHz

Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =13.97dBi >6dBi, so Band 3 limit=11-(13.97-6)=3.03dBm/MHz

Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
42	5210 MHz	-5.50	0.80	Complies
58	5290 MHz	-5.36	7.80	Complies
106	5530 MHz	-5.67	7.80	Complies
138	5690 MHz	1.37	7.80	Complies

Note:

Directional gain=GANT+10log(NANT/Nss) =9.2dBi >6dBi, so Band 1 limit=4-(9.2-6)=0.80dBm/MHz

Directional gain=GANT+10log(NANT/Nss) =9.2dBi >6dBi, so Band 2 limit=11-(9.2-6)=7.80dBm/MHz

Directional gain=GANT+10log(NANT/Nss) =9.2dBi >6dBi, so Band 3 limit=11-(9.2-6)=7.80dBm/MHz

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

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	-3.99	-3.97	Complies
40	5200 MHz	-4.04	-3.97	Complies
48	5240 MHz	-4.03	-3.97	Complies
52	5260 MHz	2.96	3.03	Complies
60	5300 MHz	0.57	3.03	Complies
64	5320 MHz	0.03	3.03	Complies
100	5500 MHz	-2.12	3.03	Complies
116	5580 MHz	2.94	3.03	Complies
140	5700 MHz	-0.55	3.03	Complies
144	5720 MHz	2.88	3.03	Complies

Note:

Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =13.97dBi >6dBi, so Band 1 limit=4-(13.97-6)=-3.97dBm/MHz

Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =13.97dBi >6dBi, so Band 2 limit=11-(13.97-6)=3.03dBm/MHz

Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =13.97dBi >6dBi, so Band 3 limit=11-(13.97-6)=3.03dBm/MHz

Temperature	25°C	Humidity	56%
Test Engineer	Benson Peng	Configurations	IEEE 802.11a / ac
Test Date	Aug. 05, 2013	Test Mode	Mode 4 (Ant.5 PCB antenna / 5.74dBi)

Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	-0.63	-0.51	Complies
40	5200 MHz	-0.64	-0.51	Complies
48	5240 MHz	-0.67	-0.51	Complies
52	5260 MHz	6.34	6.49	Complies
60	5300 MHz	4.26	6.49	Complies
64	5320 MHz	3.63	6.49	Complies
100	5500 MHz	4.81	6.49	Complies
116	5580 MHz	6.48	6.49	Complies
140	5700 MHz	6.41	6.49	Complies
144	5720 MHz	6.35	6.49	Complies

Note:
Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =10.51dBi >6dBi, so Band 1 limit=4-(10.51-6)=-0.51dBm/MHz
Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =10.51dBi >6dBi, so Band 2 limit=11-(10.51-6)=6.49dBm/MHz
Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =10.51dBi >6dBi, so Band 3 limit=11-(10.51-6)=6.49dBm/MHz

Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	3.92	4.00	Complies
40	5200 MHz	3.91	4.00	Complies
48	5240 MHz	3.93	4.00	Complies
52	5260 MHz	10.95	11.00	Complies
60	5300 MHz	6.51	11.00	Complies
64	5320 MHz	7.32	11.00	Complies
100	5500 MHz	7.65	11.00	Complies
116	5580 MHz	10.85	11.00	Complies
140	5700 MHz	7.40	11.00	Complies
144	5720 MHz	10.33	11.00	Complies

Note: Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =5.74<6dBi, so the limit doesn't reduce.

Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
38	5190 MHz	-0.55	-0.51	Complies
46	5230 MHz	-0.56	-0.51	Complies
54	5270 MHz	4.68	6.49	Complies
62	5310 MHz	1.02	6.49	Complies
102	5510 MHz	0.33	6.49	Complies
110	5550 MHz	5.48	6.49	Complies
134	5670 MHz	4.41	6.49	Complies
142	5710 MHz	6.37	6.49	Complies

Note:
Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =10.51dBi >6dBi, so Band 1 limit=4-(10.51-6)=-0.51dBm/MHz
Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =10.51dBi >6dBi, so Band 2 limit=11-(10.51-6)=6.49dBm/MHz
Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =10.51dBi >6dBi, so Band 3 limit=11-(10.51-6)=6.49dBm/MHz

Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
38	5190 MHz	1.27	4.00	Complies
46	5230 MHz	1.44	4.00	Complies
54	5270 MHz	8.32	11.00	Complies
62	5310 MHz	2.38	11.00	Complies
102	5510 MHz	1.08	11.00	Complies
110	5550 MHz	8.08	11.00	Complies
134	5670 MHz	6.39	11.00	Complies
142	5710 MHz	7.33	11.00	Complies

Note: Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =5.74<6dBi, so the limit doesn't reduce.

Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
42	5210 MHz	-1.84	-0.51	Complies
58	5290 MHz	-3.19	6.49	Complies
106	5530 MHz	-3.57	6.49	Complies
138	5690 MHz	4.15	6.49	Complies

Note:
Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =10.51dBi >6dBi, so Band 1 limit=4-(10.51-6)=-0.51dBm/MHz
Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =10.51dBi >6dBi, so Band 2 limit=11-(10.51-6)=6.49dBm/MHz
Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =10.51dBi >6dBi, so Band 3 limit=11-(10.51-6)=6.49dBm/MHz

Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
42	5210 MHz	-0.76	4.00	Complies
58	5290 MHz	-1.86	11.00	Complies
106	5530 MHz	-2.47	11.00	Complies
138	5690 MHz	4.47	11.00	Complies

Note: Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =5.74<6dBi, so the limit doesn't reduce.

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

Channel	Frequency	Total Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
36	5180 MHz	-0.74	-0.51	Complies
40	5200 MHz	-0.57	-0.51	Complies
48	5240 MHz	-0.67	-0.51	Complies
52	5260 MHz	6.31	6.49	Complies
60	5300 MHz	5.22	6.49	Complies
64	5320 MHz	5.02	6.49	Complies
100	5500 MHz	5.24	6.49	Complies
116	5580 MHz	6.37	6.49	Complies
140	5700 MHz	6.40	6.49	Complies
144	5720 MHz	6.42	6.49	Complies

Note:

Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =10.51dBi >6dBi, so Band 1 limit=4-(10.51-6)=-0.51dBm/MHz

Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =10.51dBi >6dBi, so Band 2 limit=11-(10.51-6)=6.49dBm/MHz

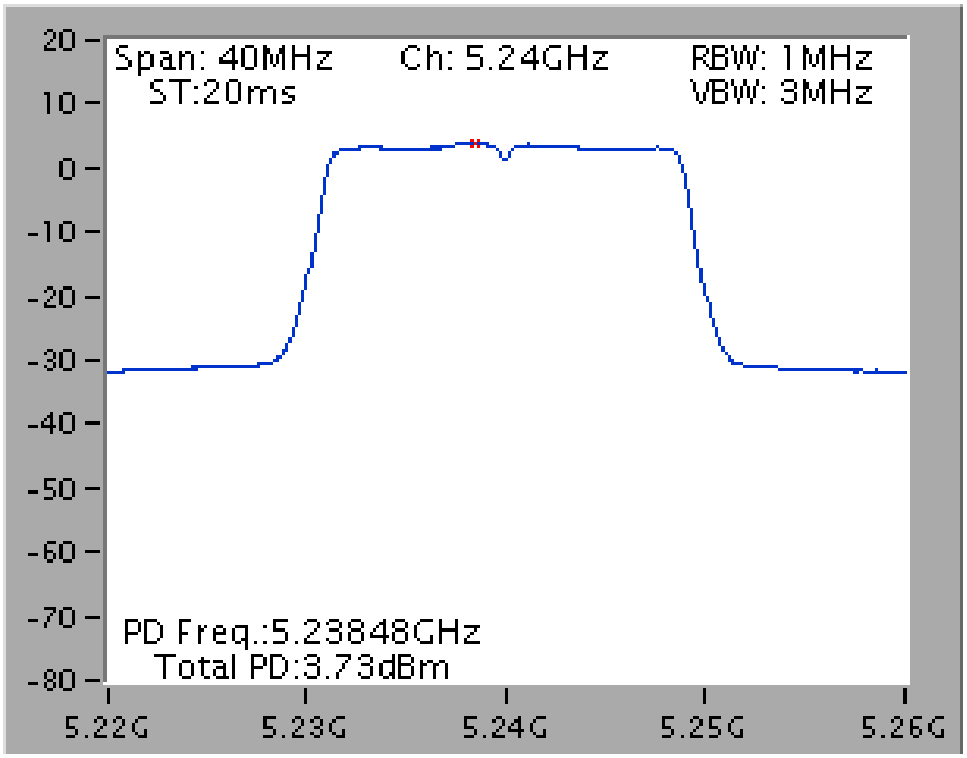
Directional gain=G_{ANT}+10log(N_{ANT}/Nss) =10.51dBi >6dBi, so Band 3 limit=11-(10.51-6)=6.49dBm/MHz

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

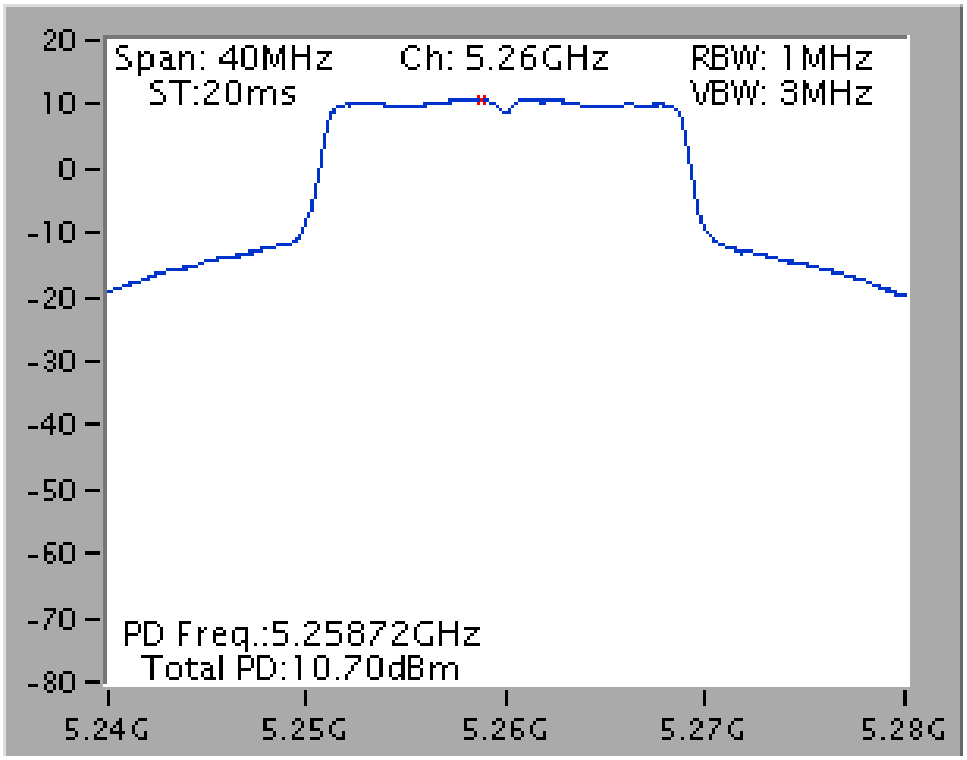
For plots, only the channel with worse result was shown.

Test Mode: Mode 1 (Ant.1 Dipole antenna / 1dBi)

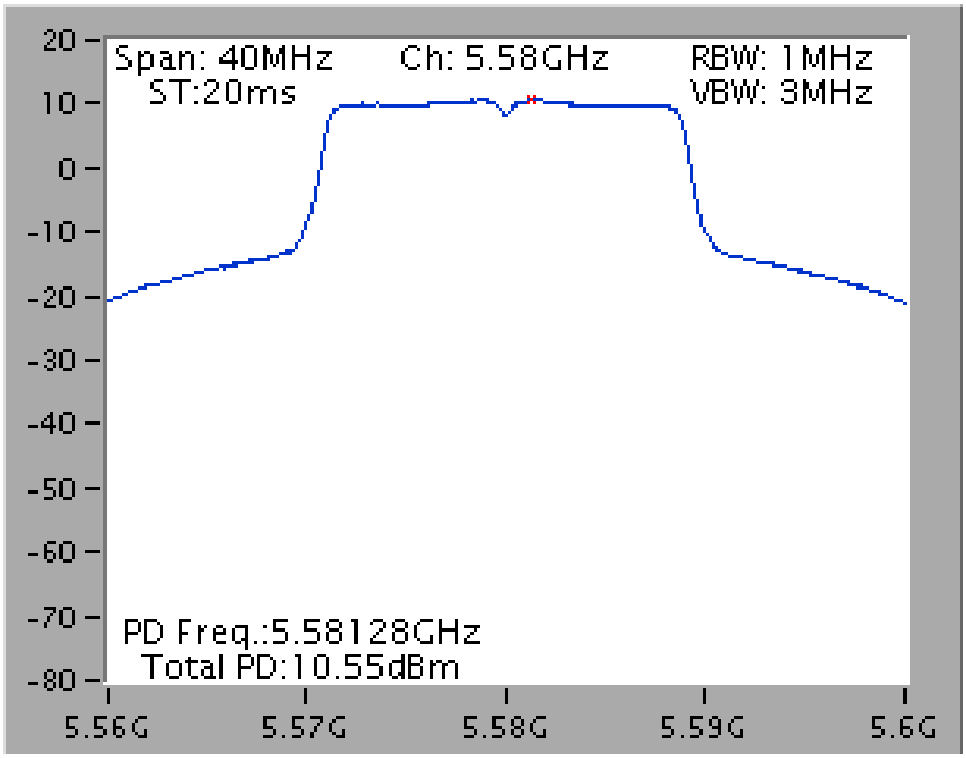
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



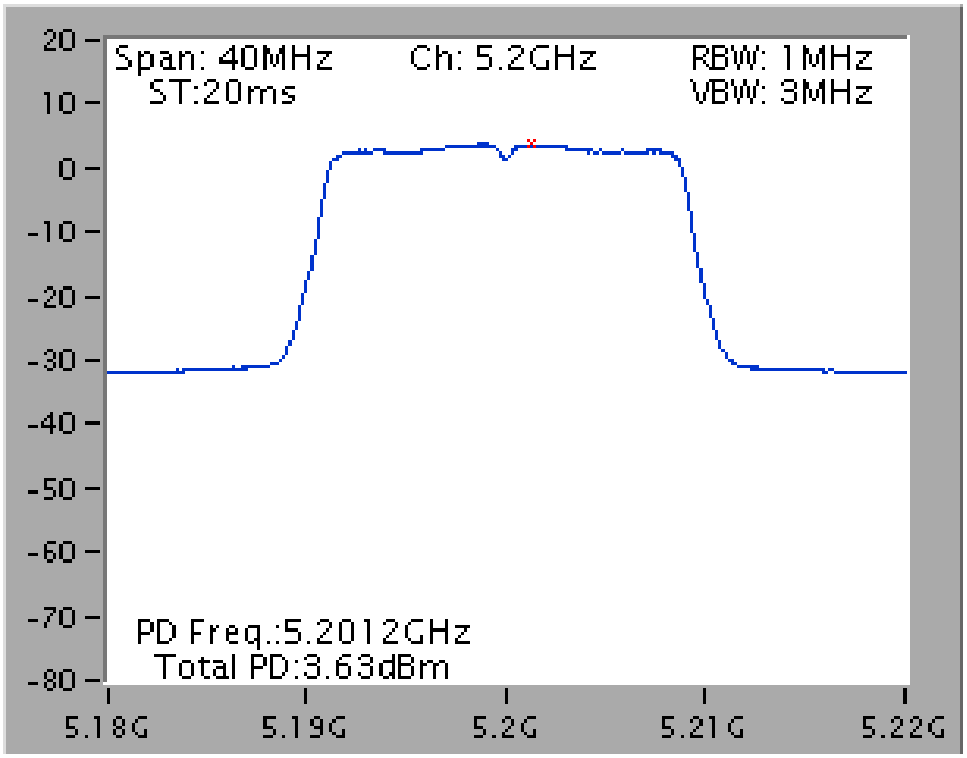
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz



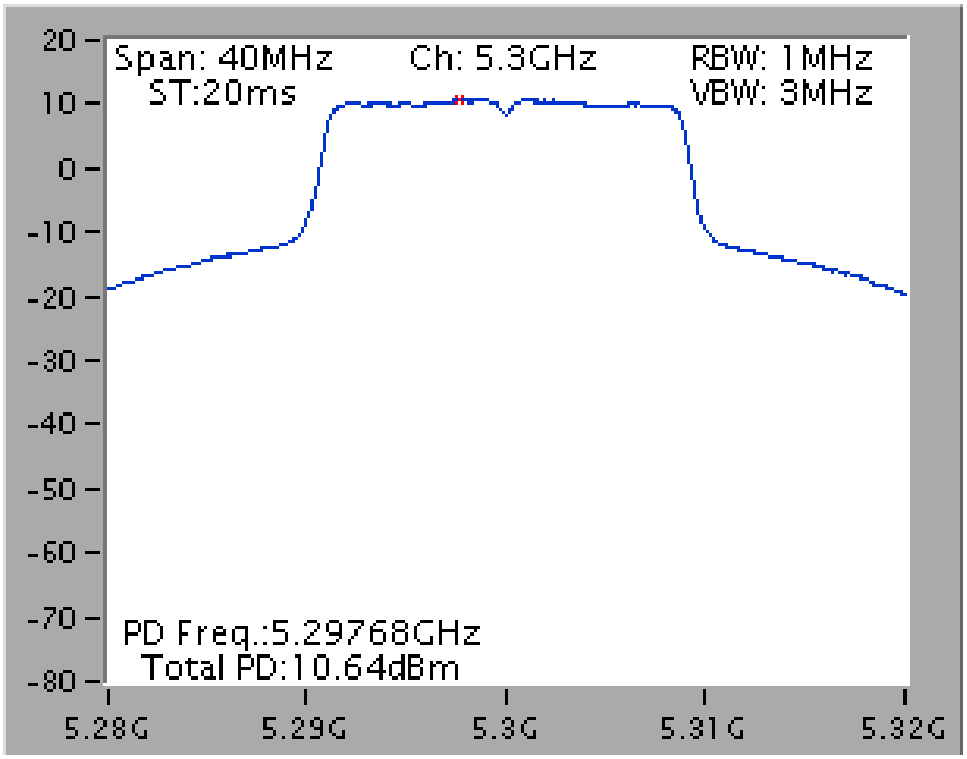
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz



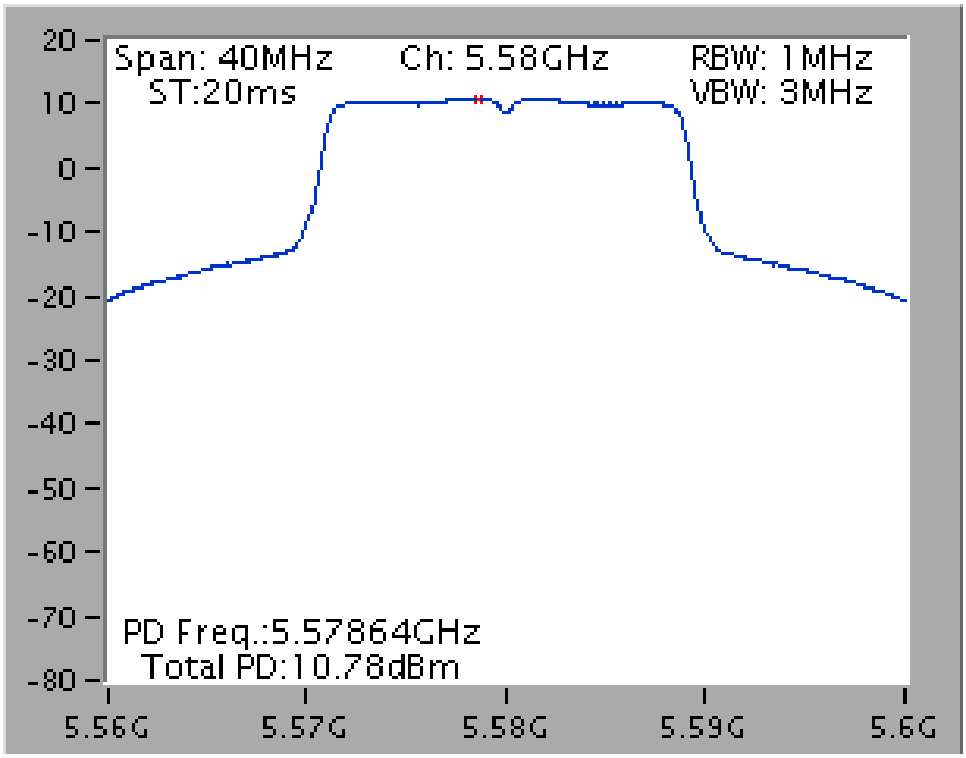
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5200 MHz



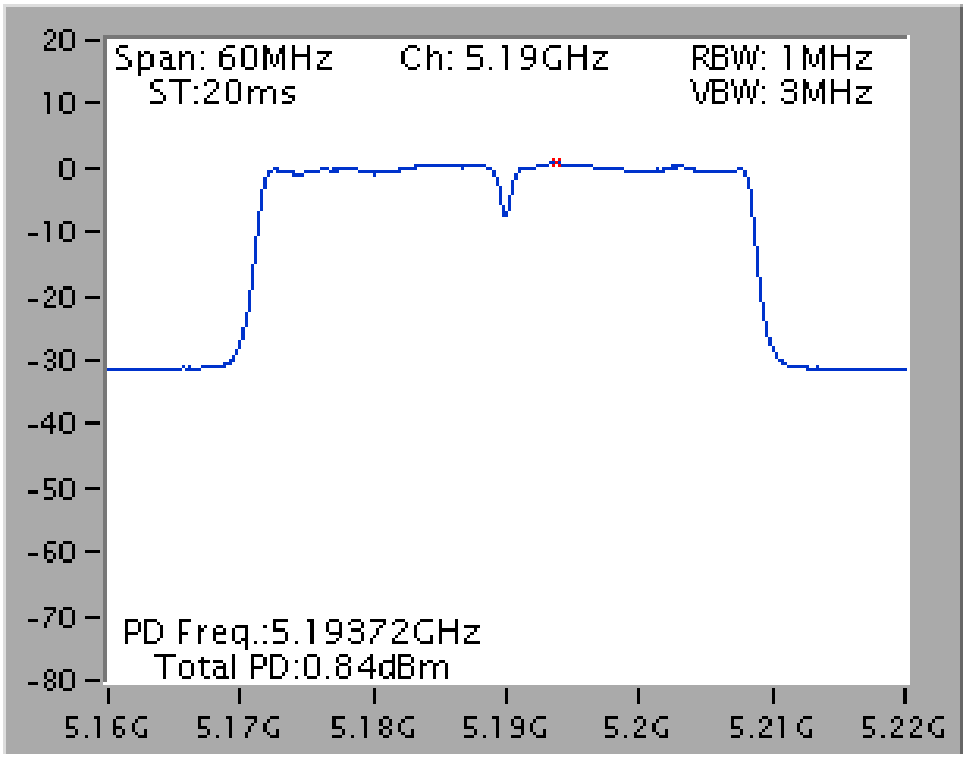
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5300 MHz



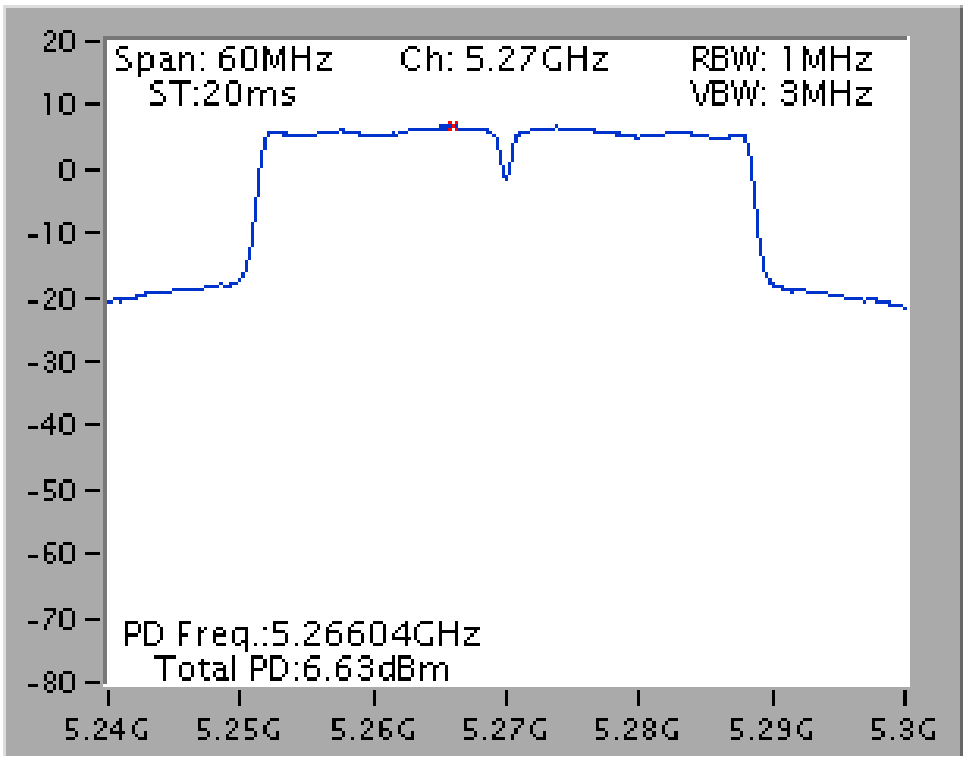
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz



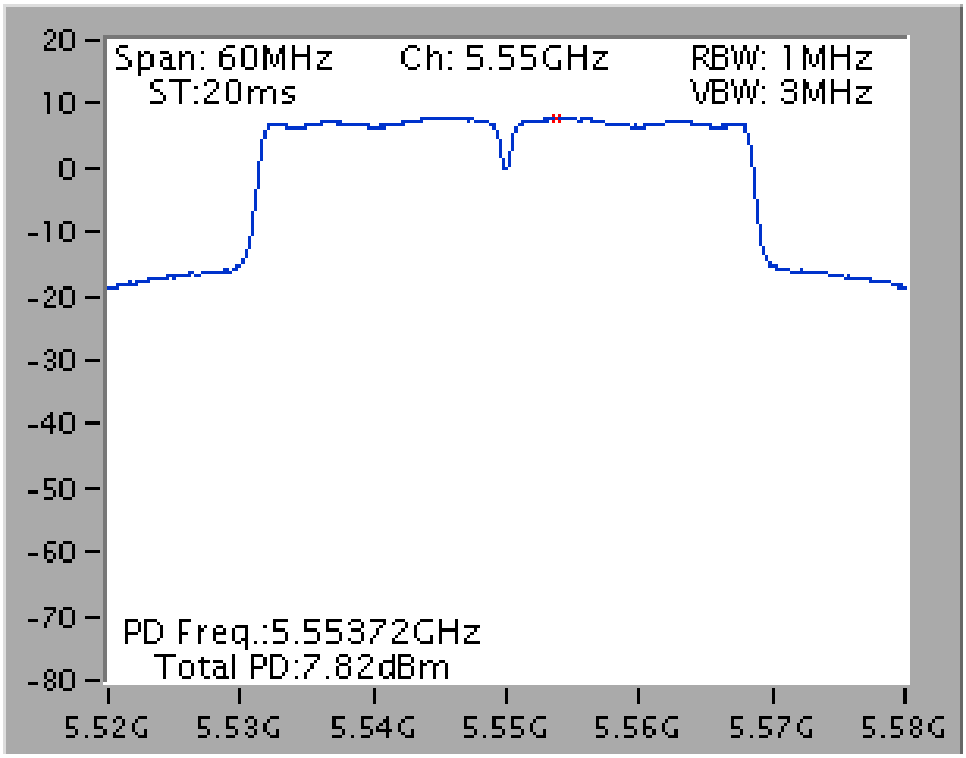
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5190 MHz



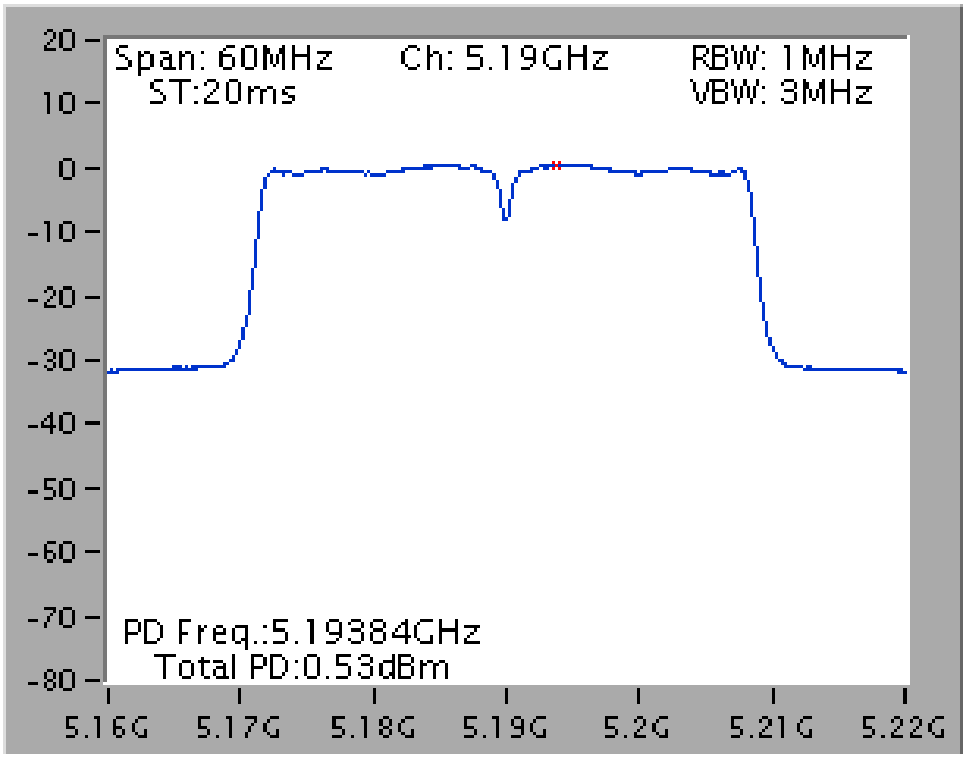
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz



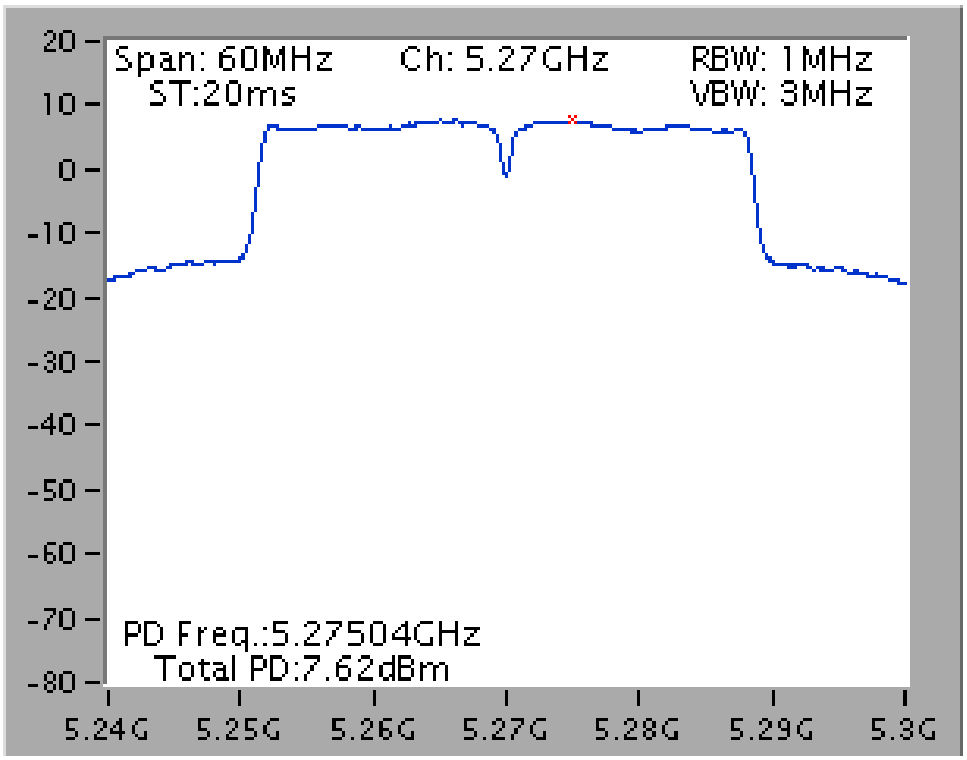
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5550 MHz



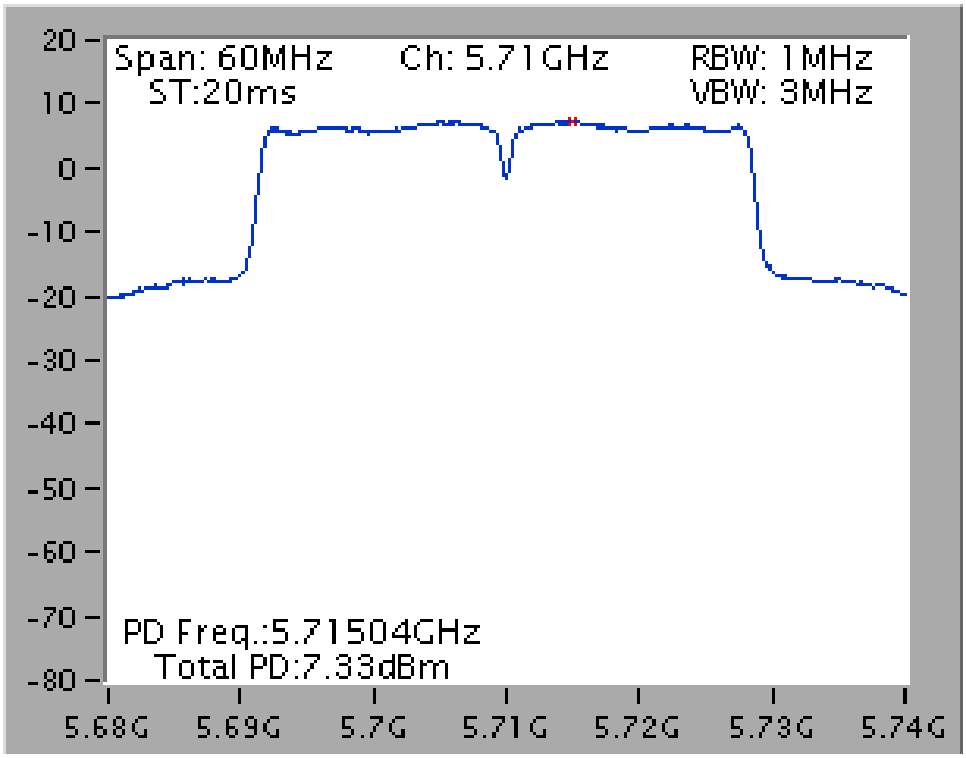
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5190 MHz



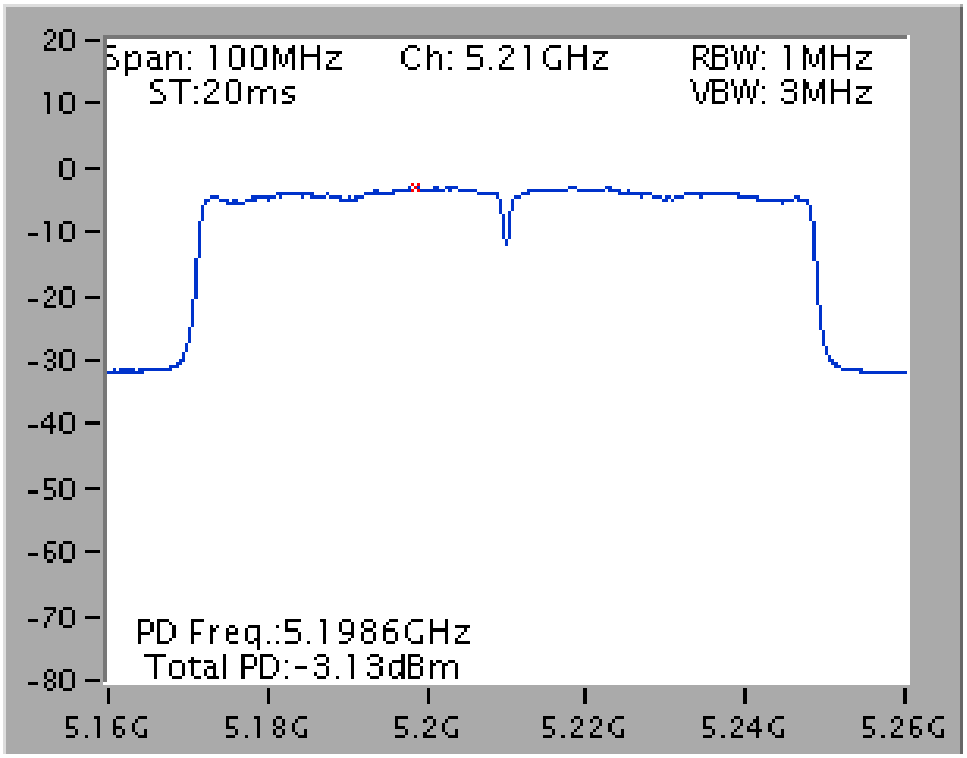
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz



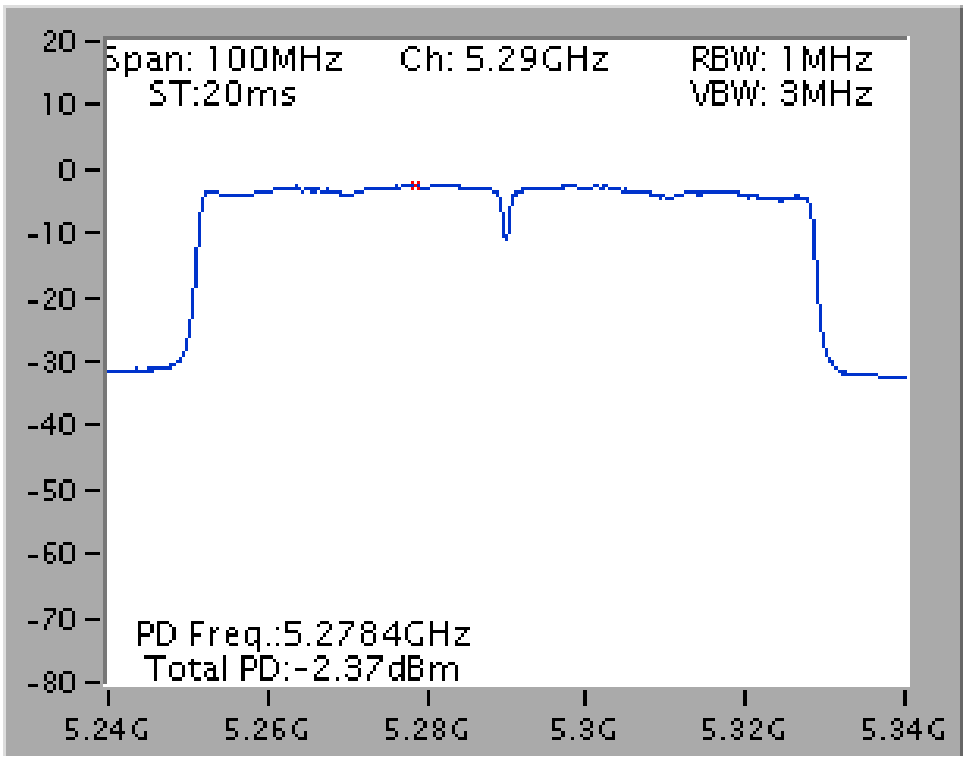
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5710 MHz



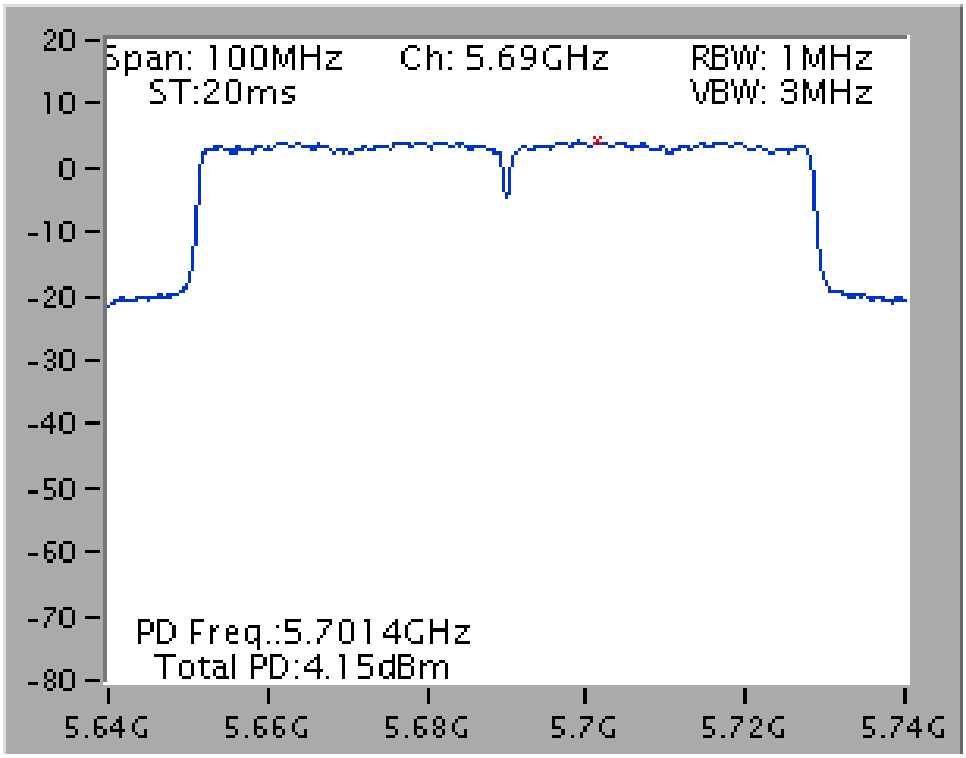
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



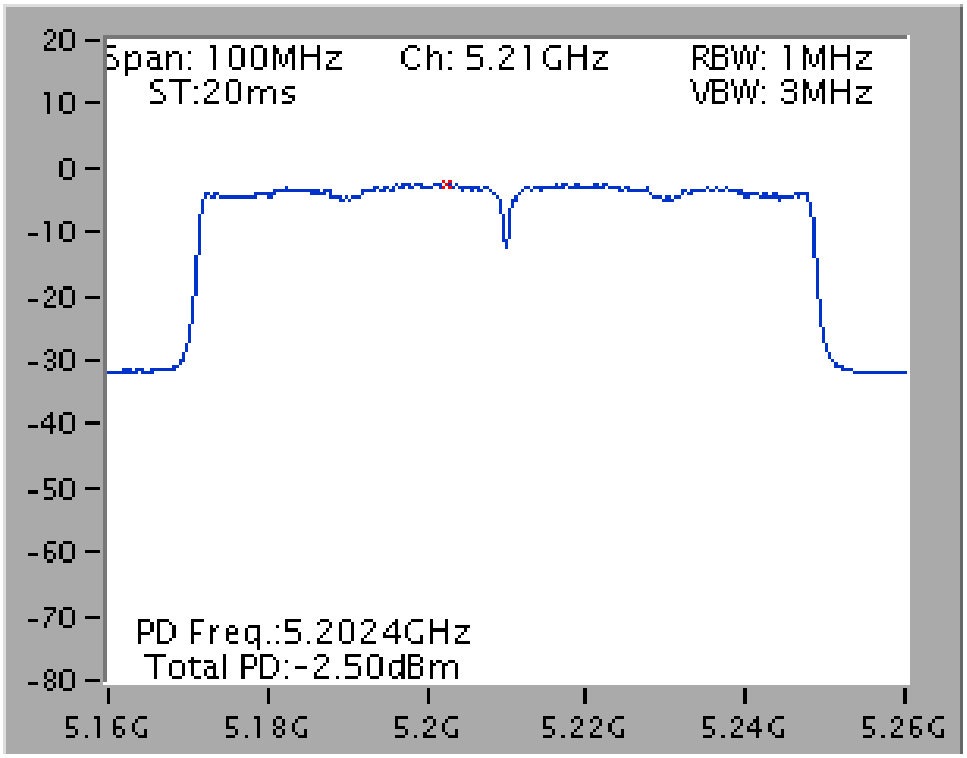
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5290 MHz



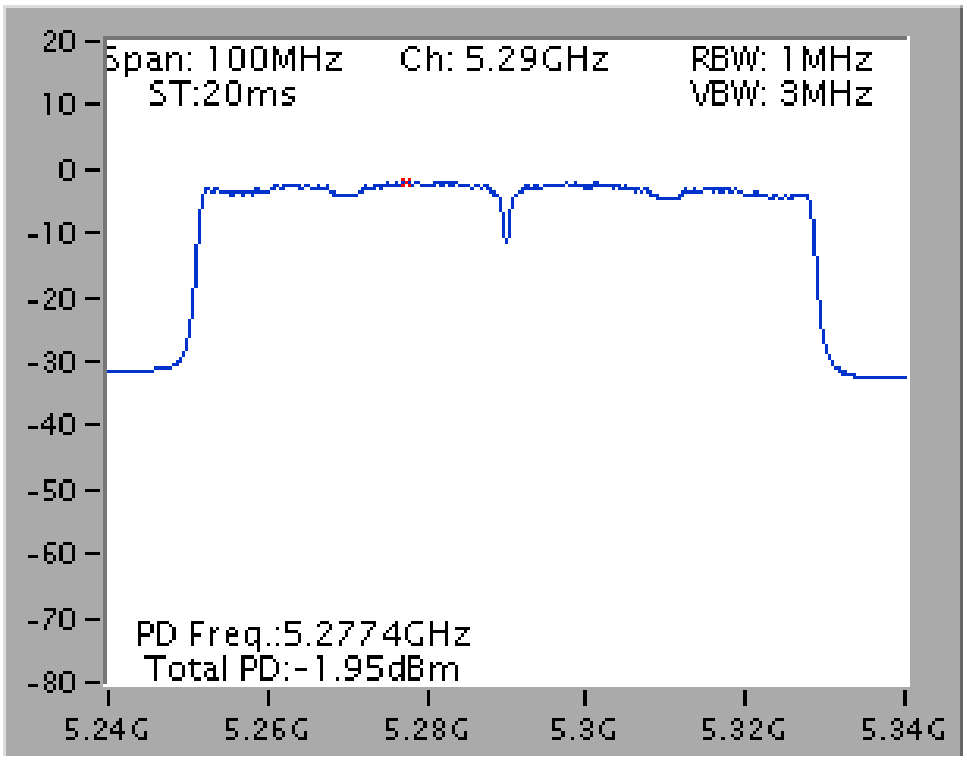
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5690 MHz



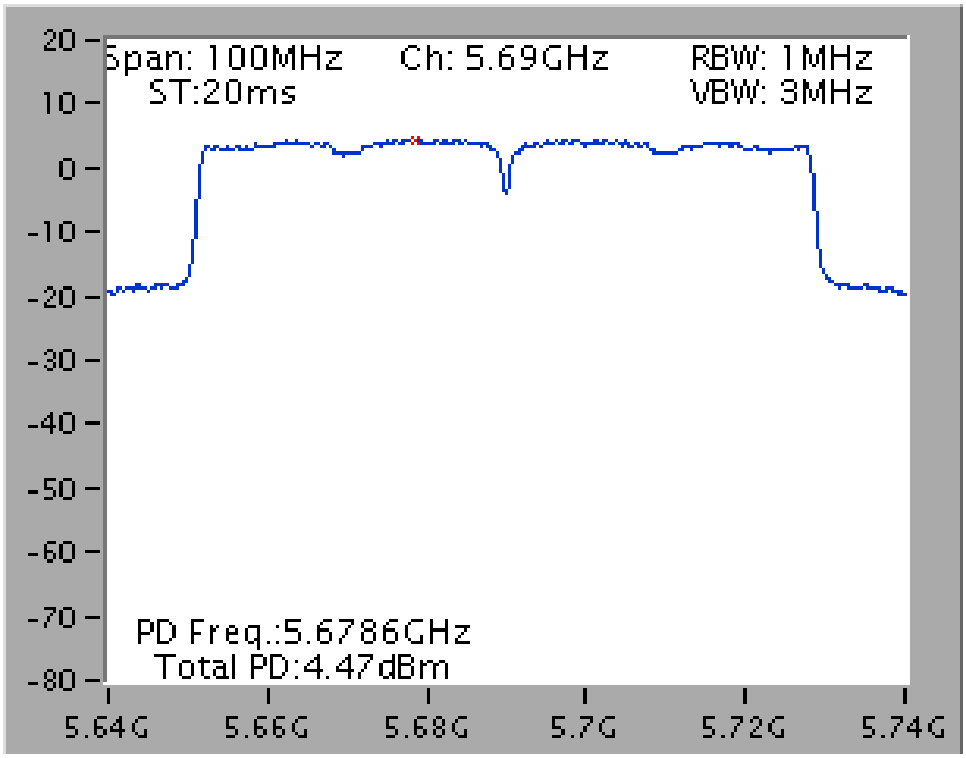
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



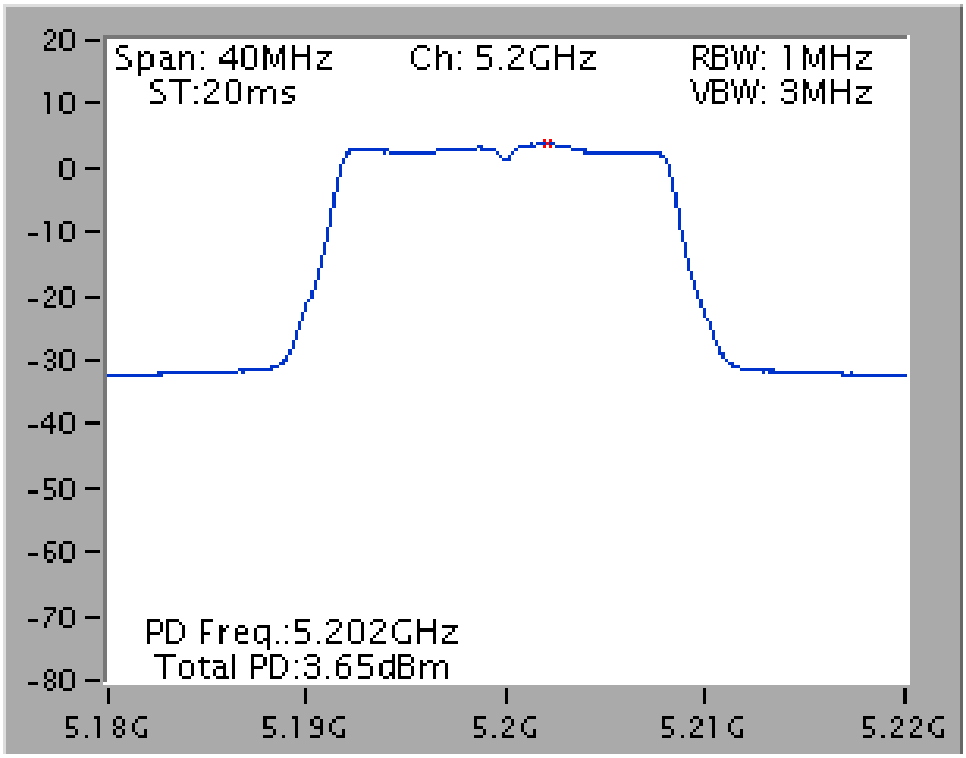
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5290 MHz



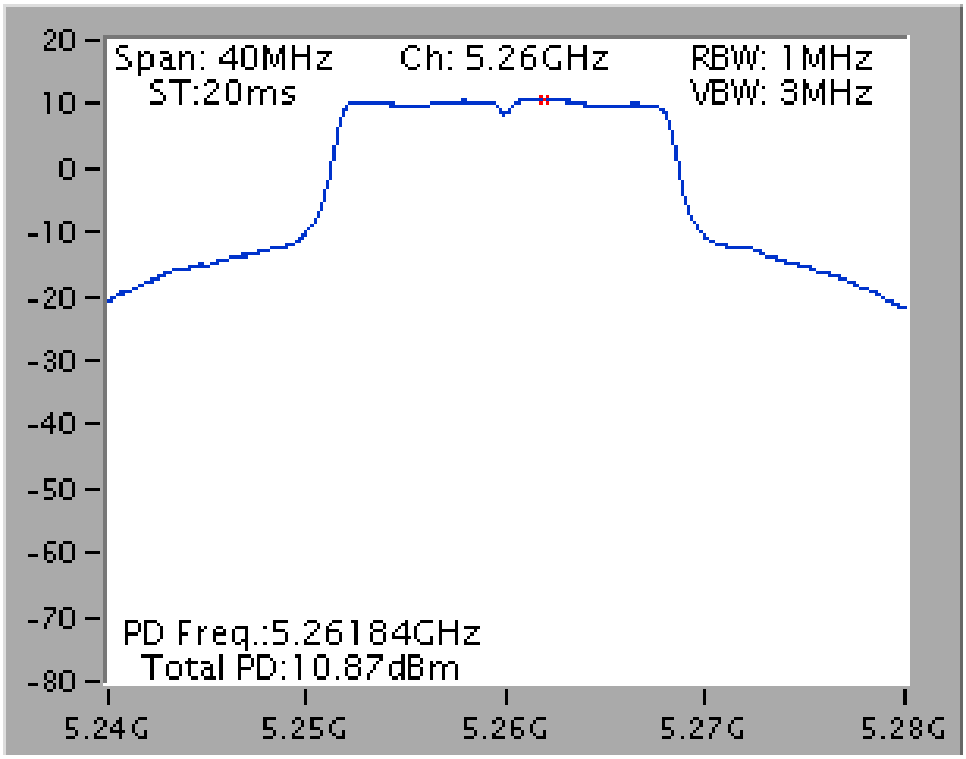
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5690 MHz



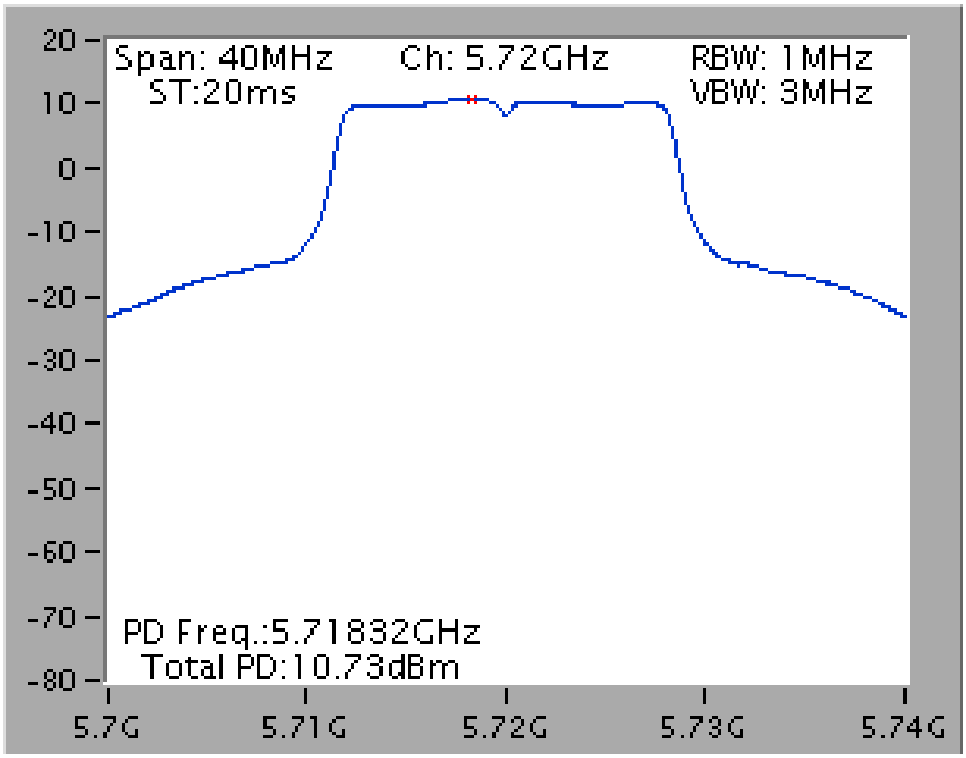
Power Density Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5200 MHz



Power Density Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5260 MHz

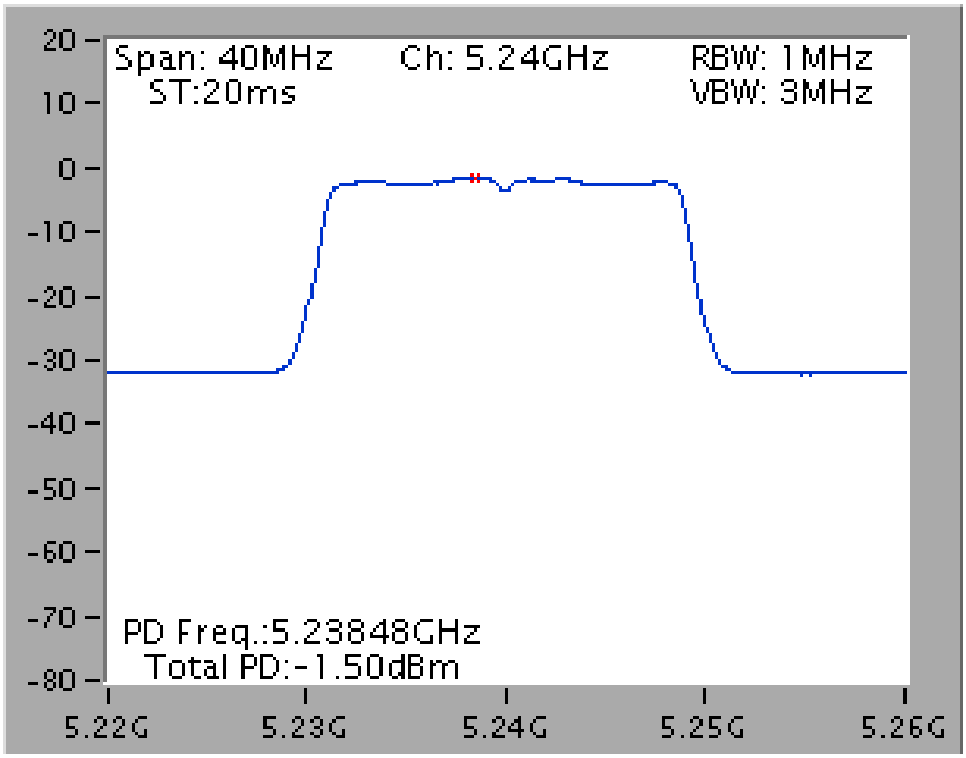


Power Density Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5720 MHz

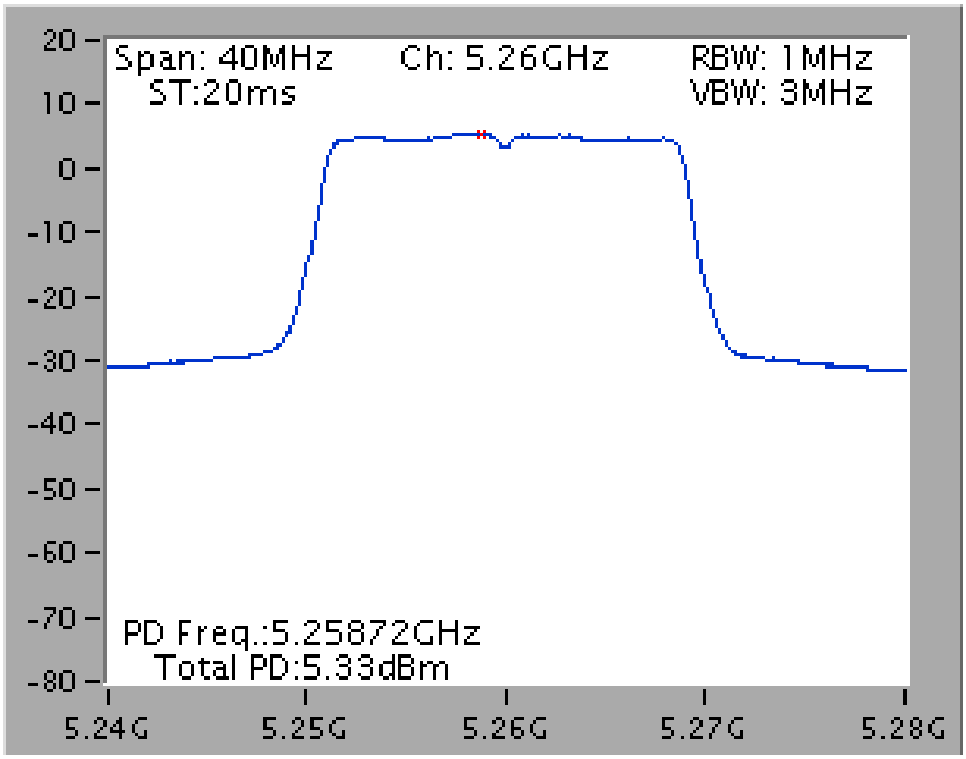


Test Mode: Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)

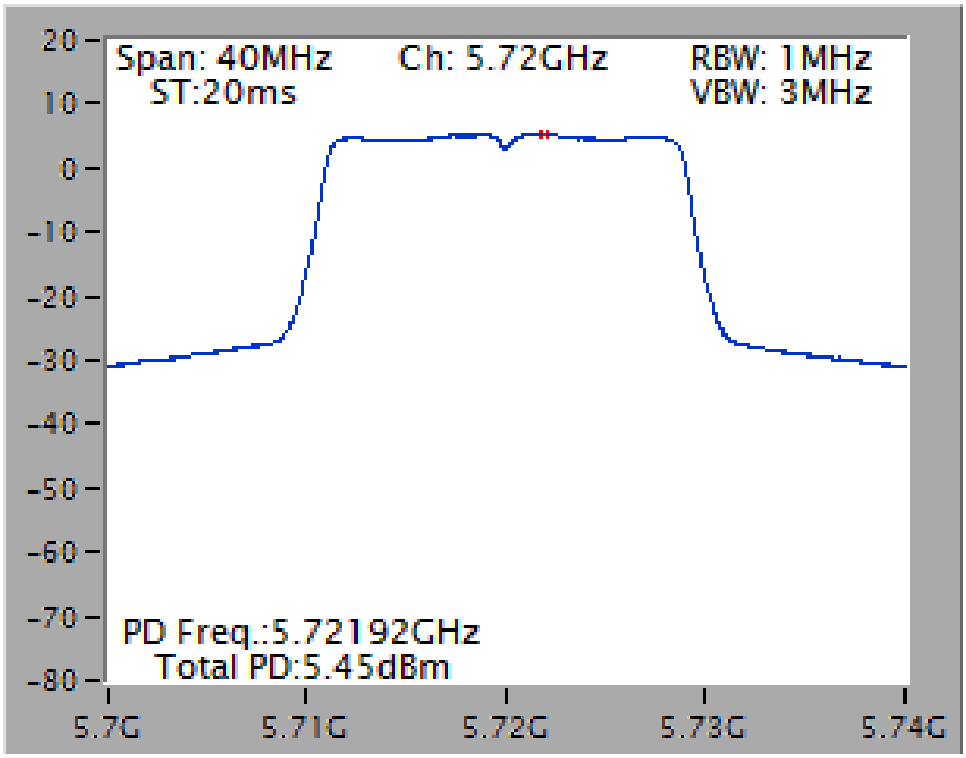
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



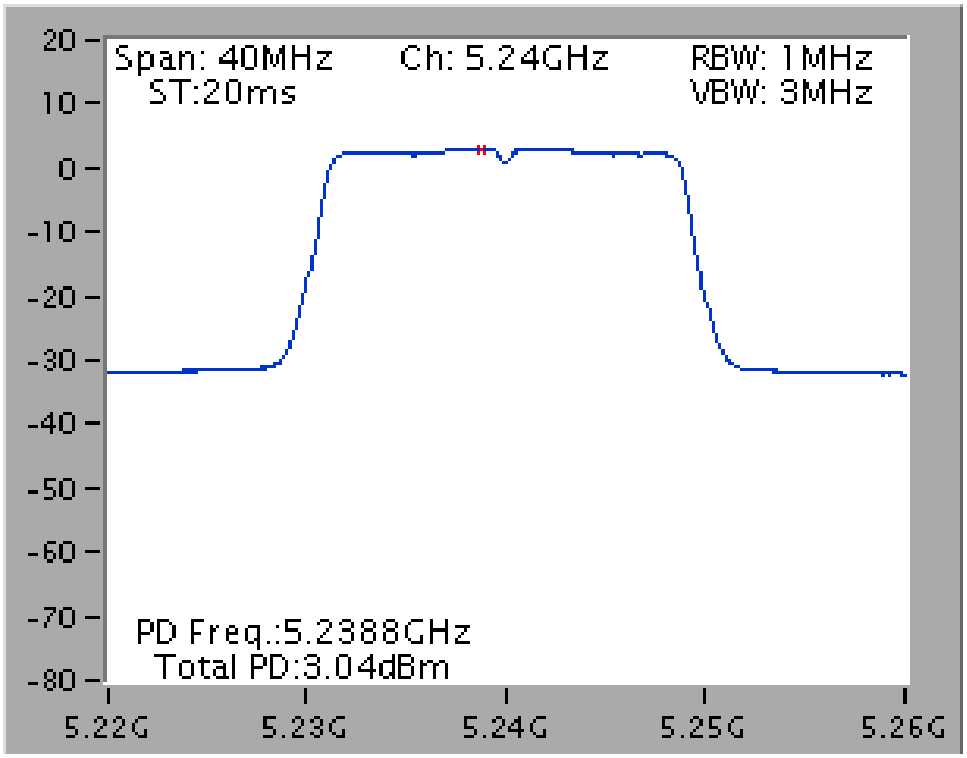
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz



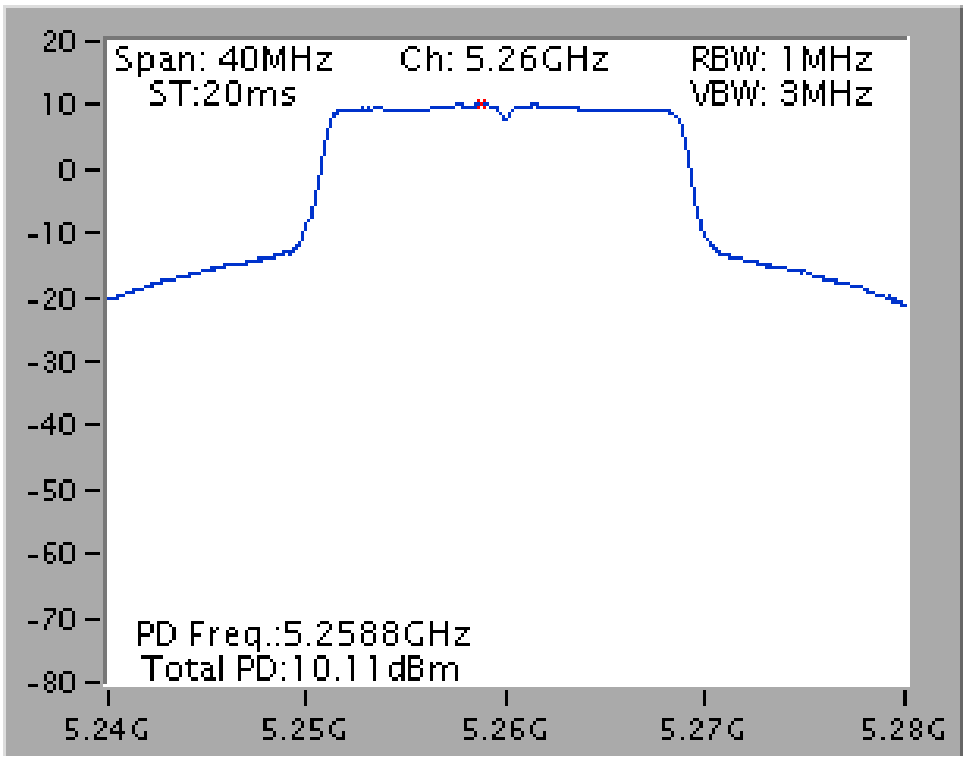
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5720 MHz



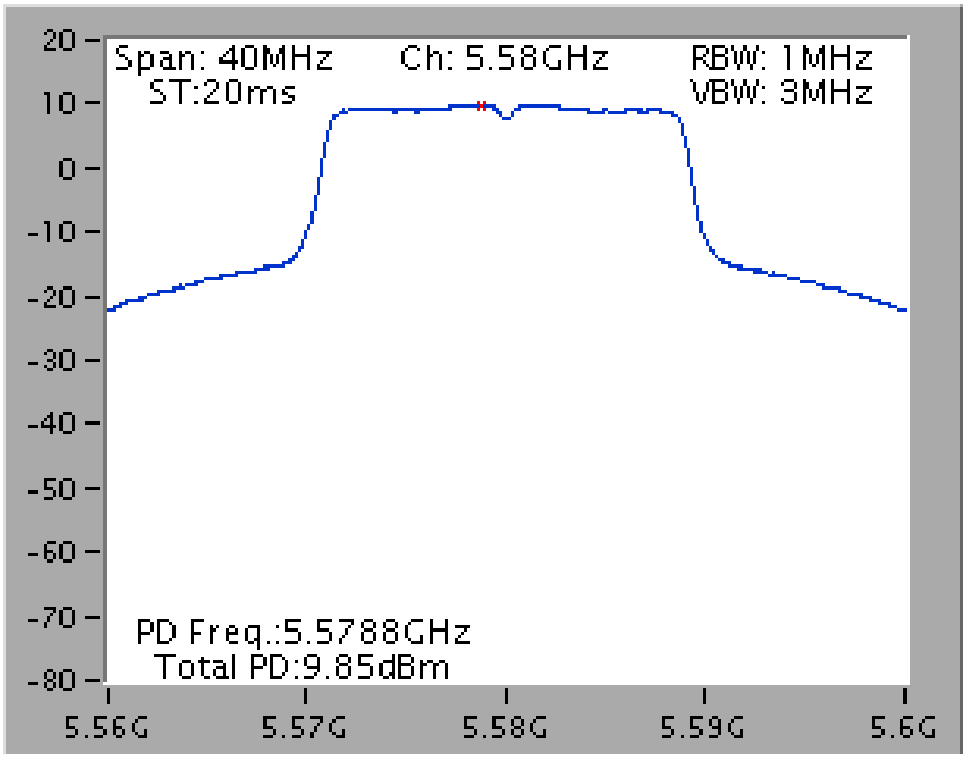
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



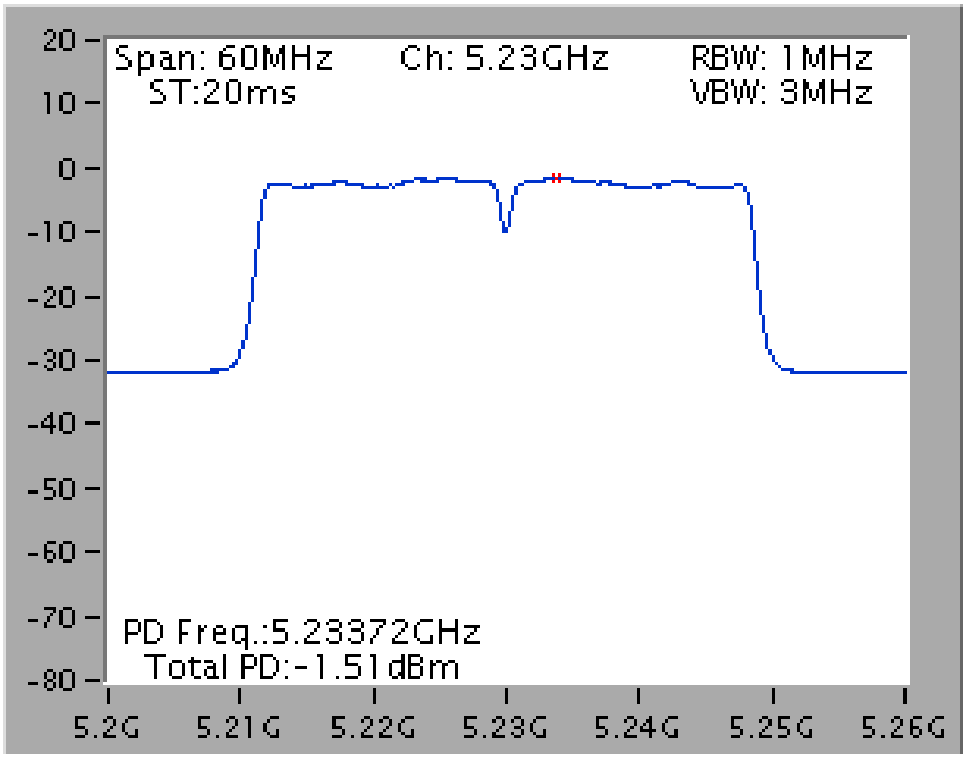
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz



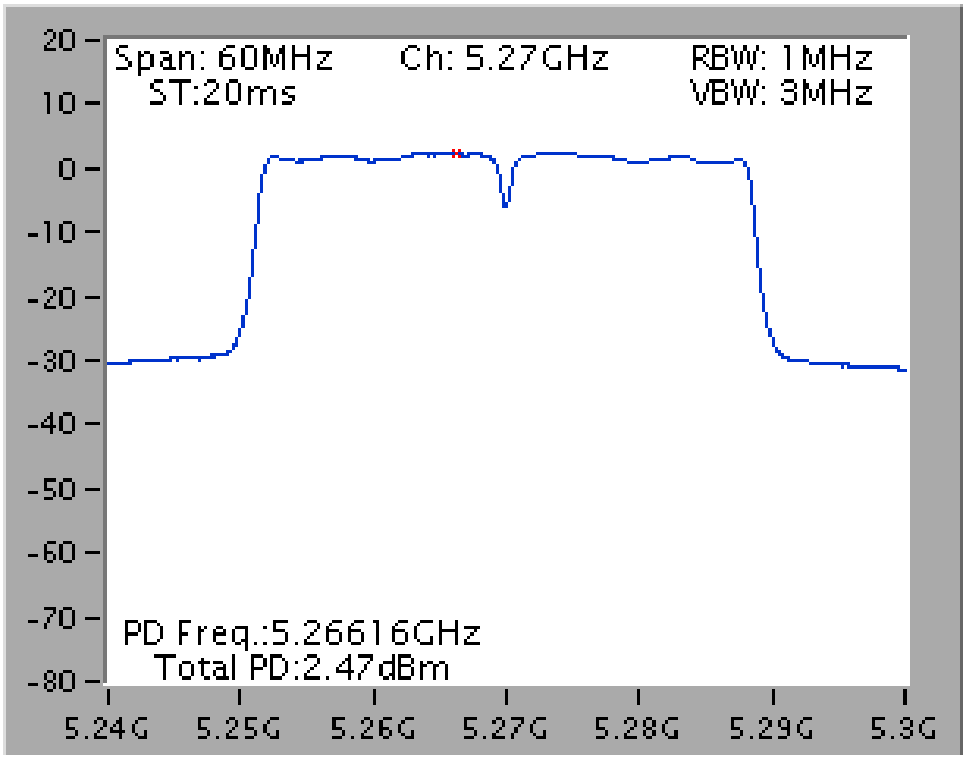
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz



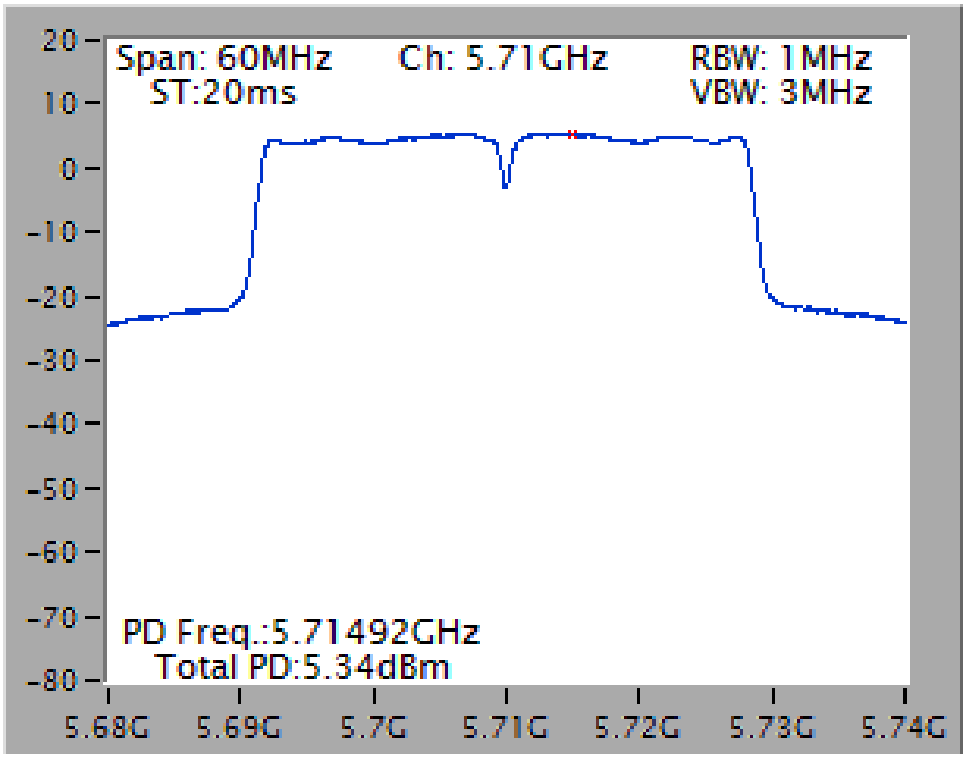
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5230 MHz



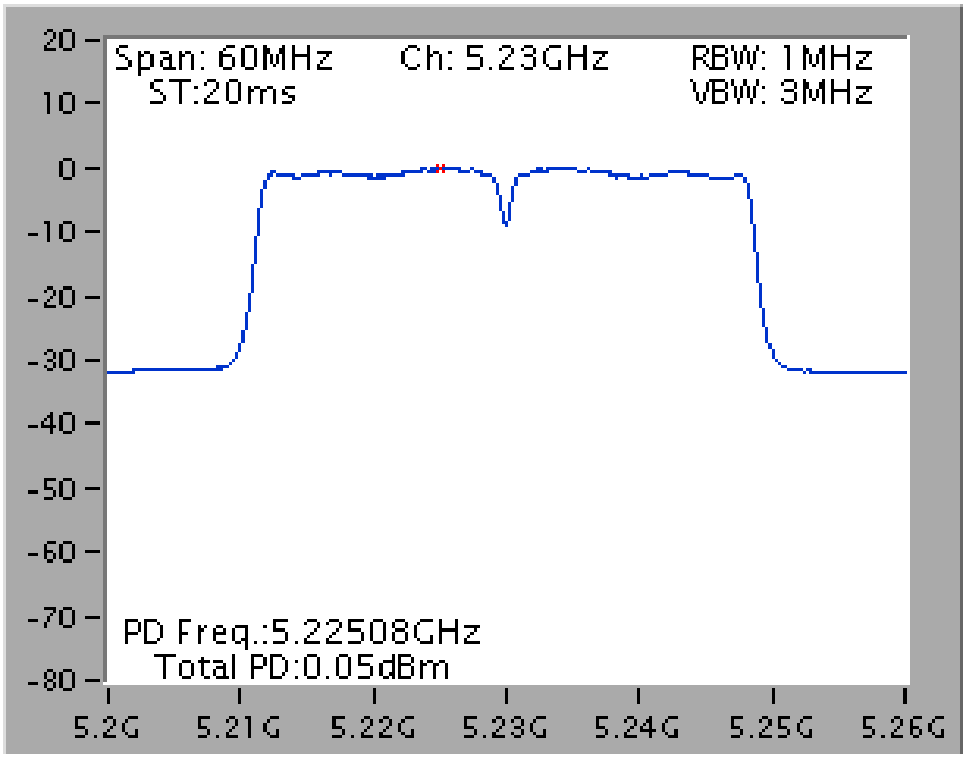
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz



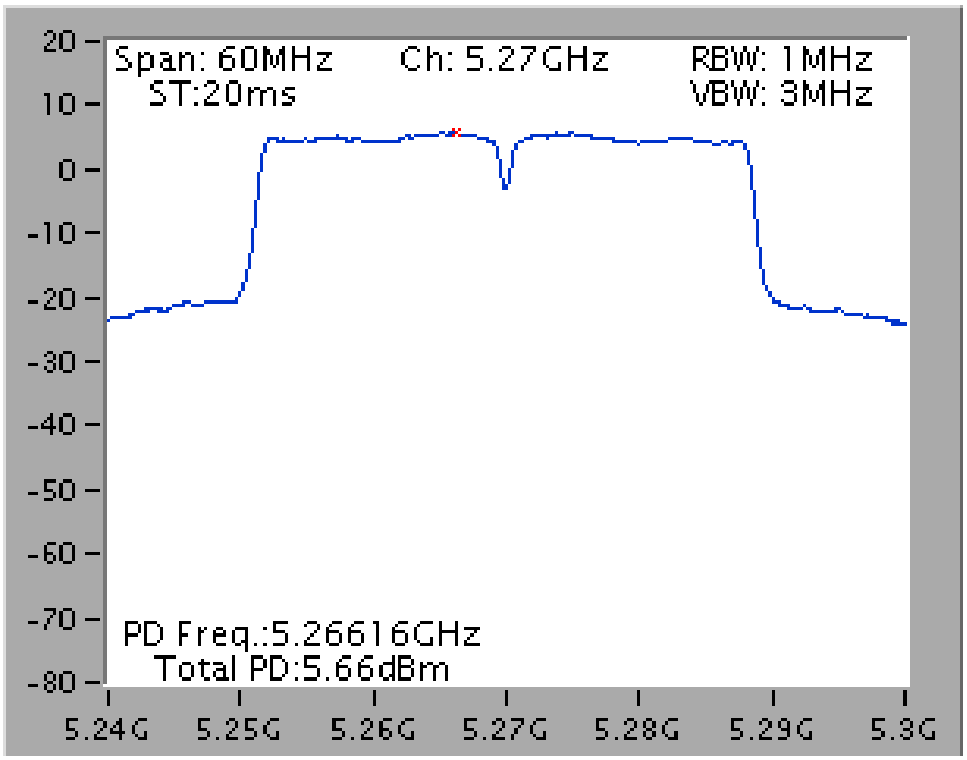
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5710 MHz



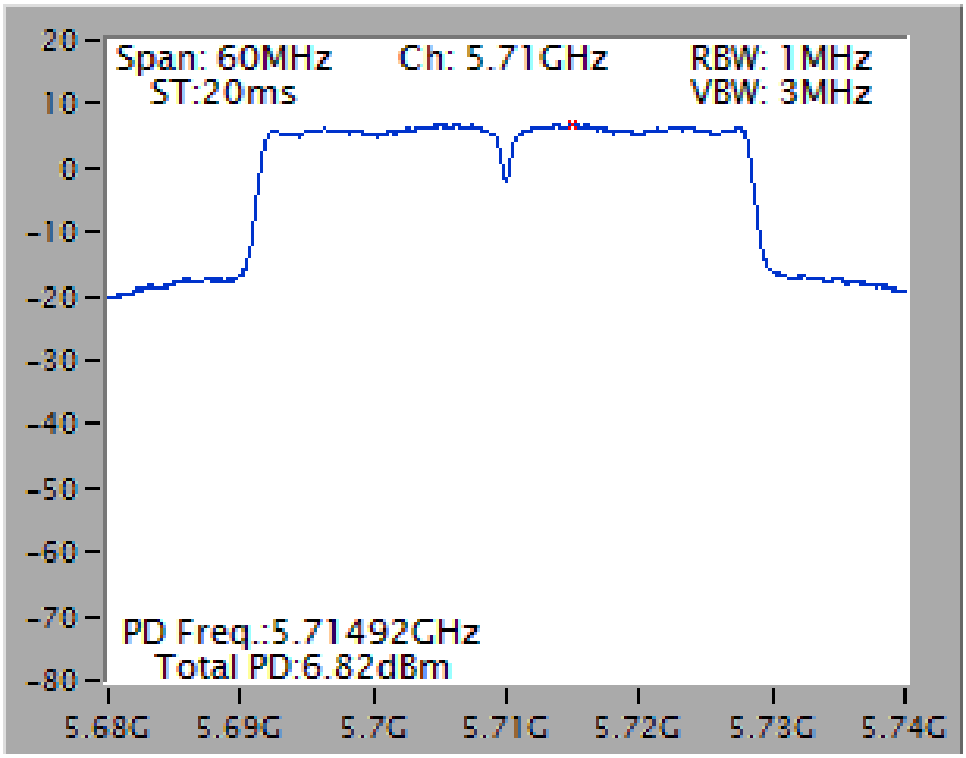
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5230 MHz



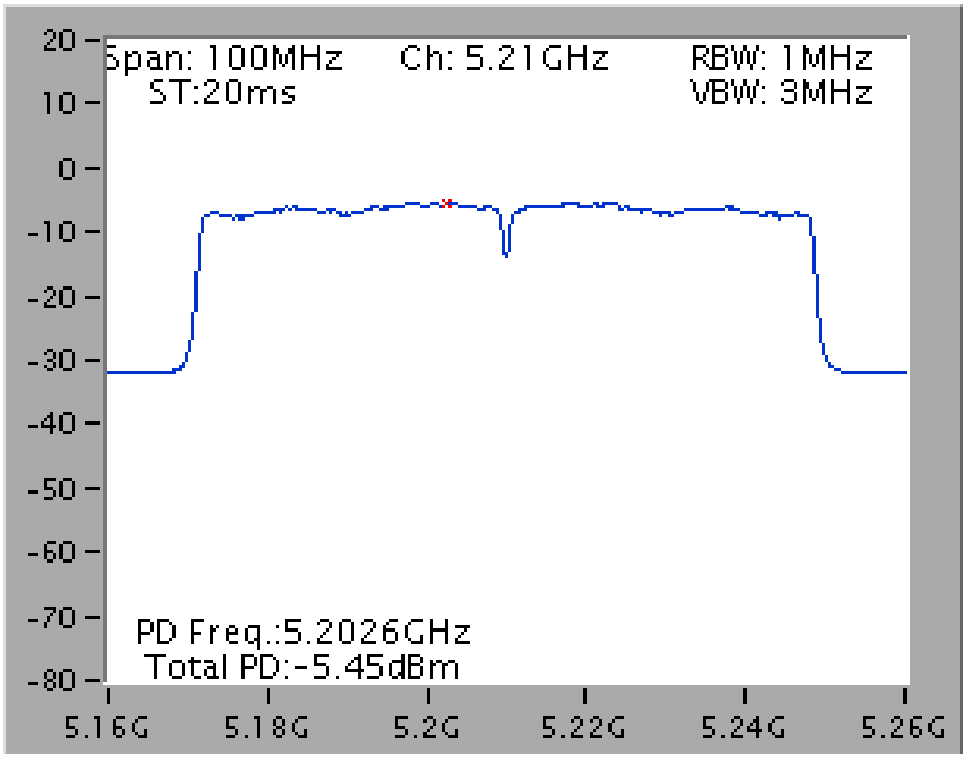
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz



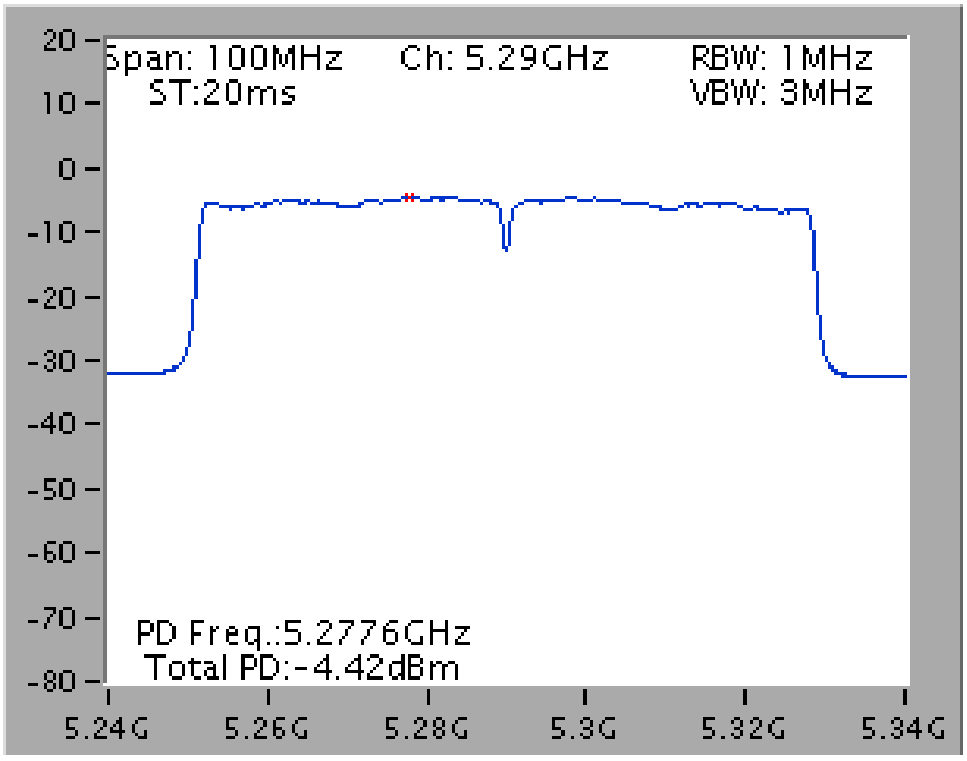
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5710 MHz



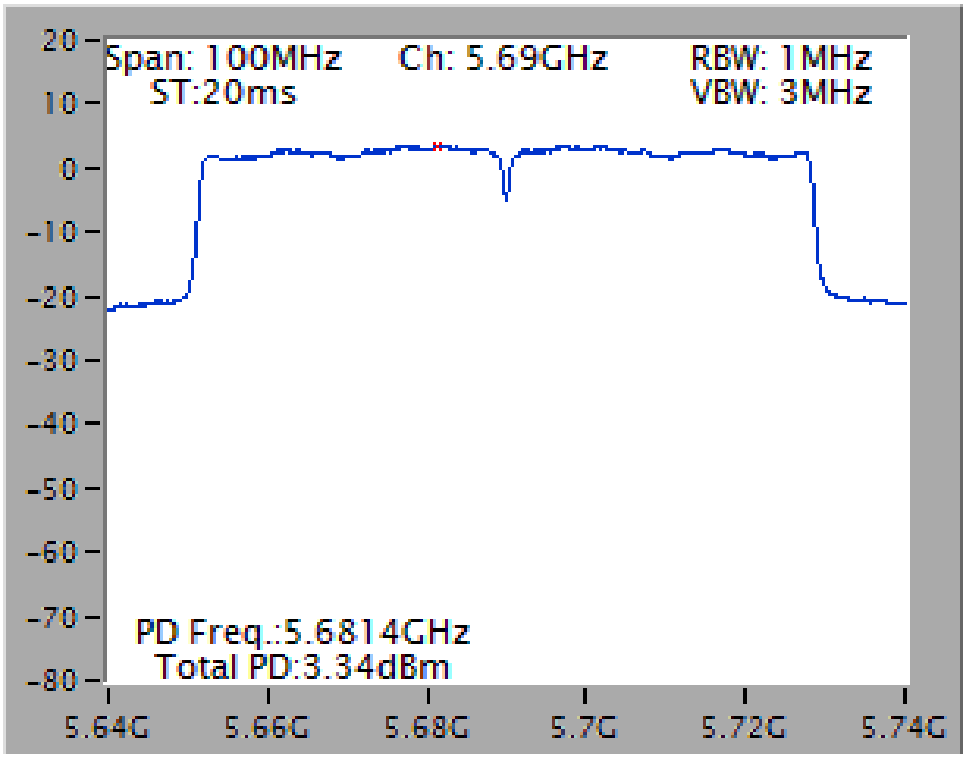
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



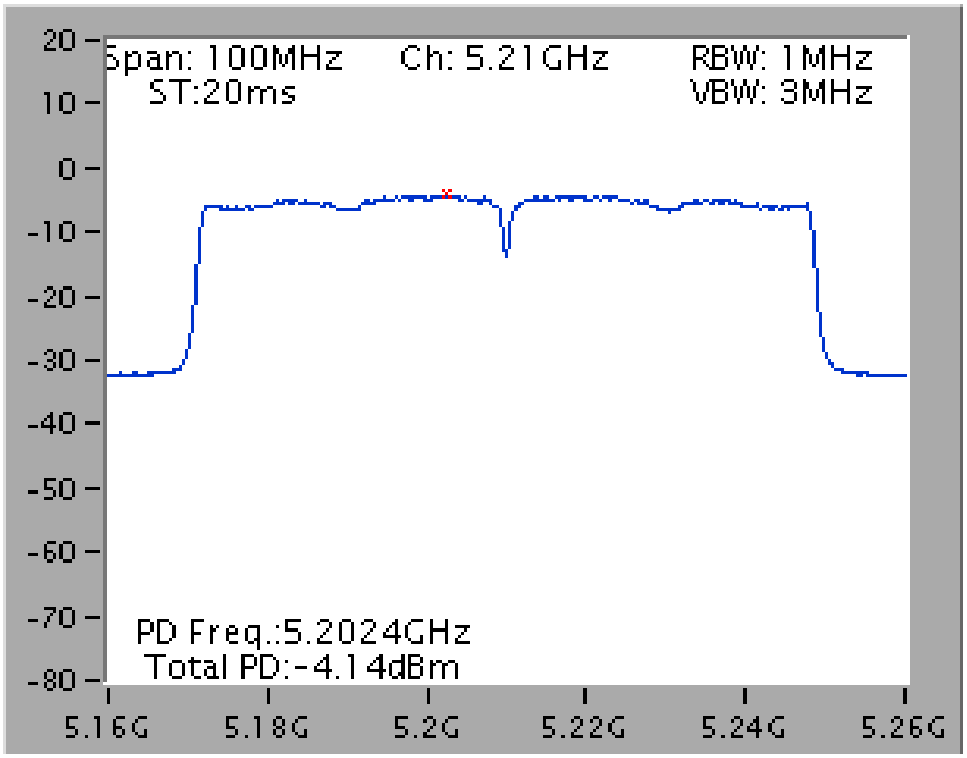
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5290 MHz



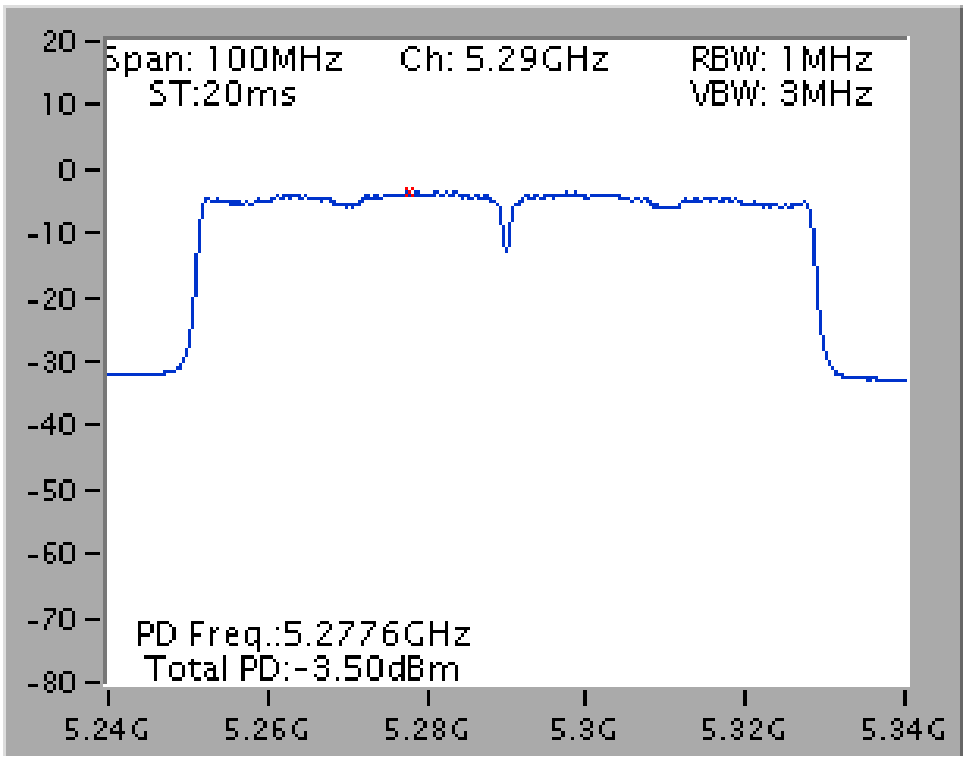
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5690 MHz



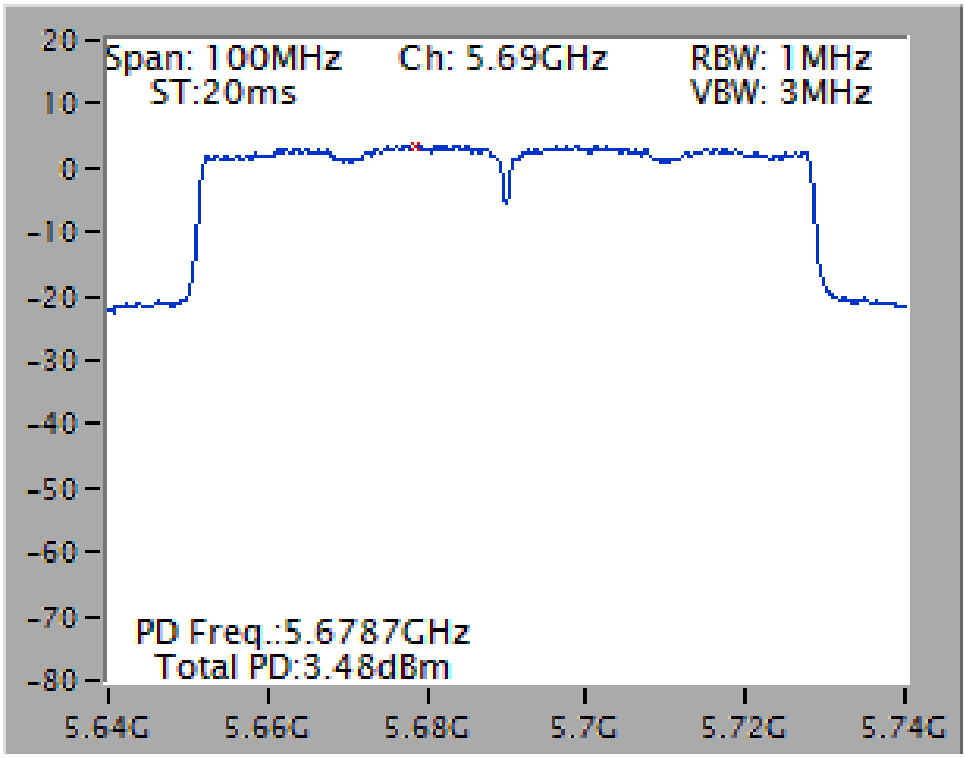
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



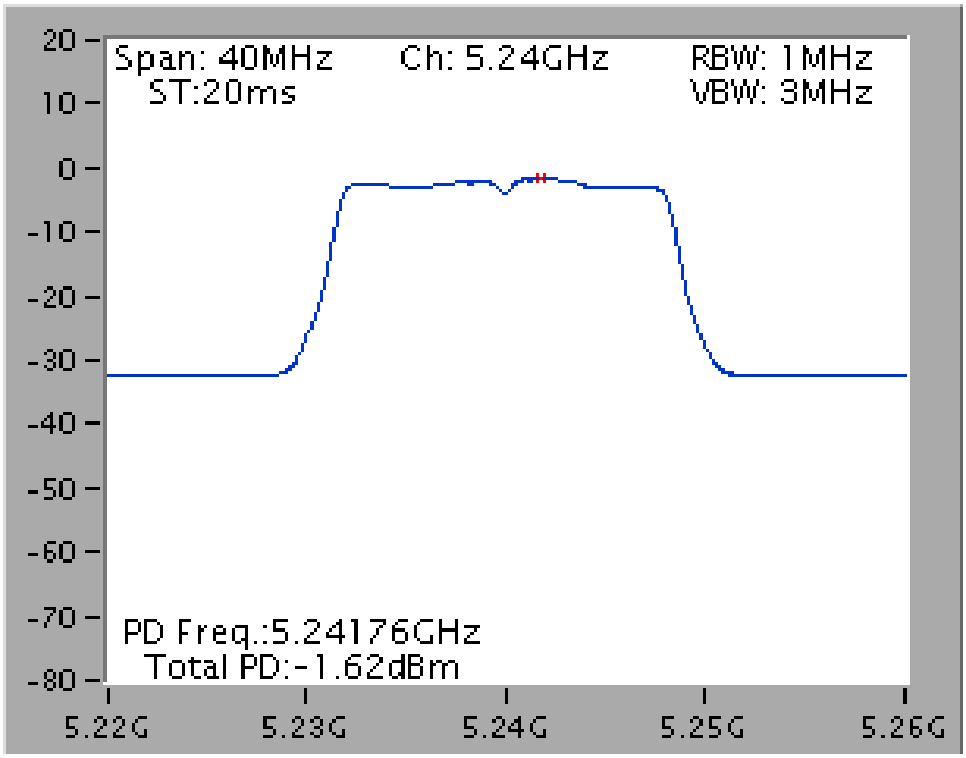
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5290 MHz



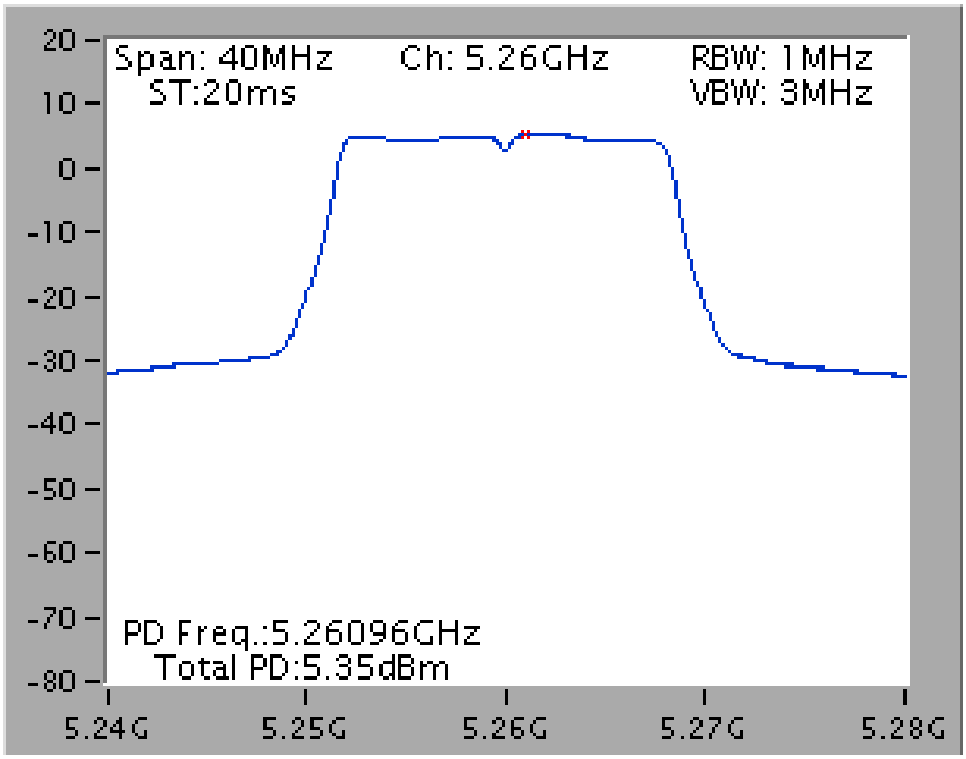
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5690 MHz



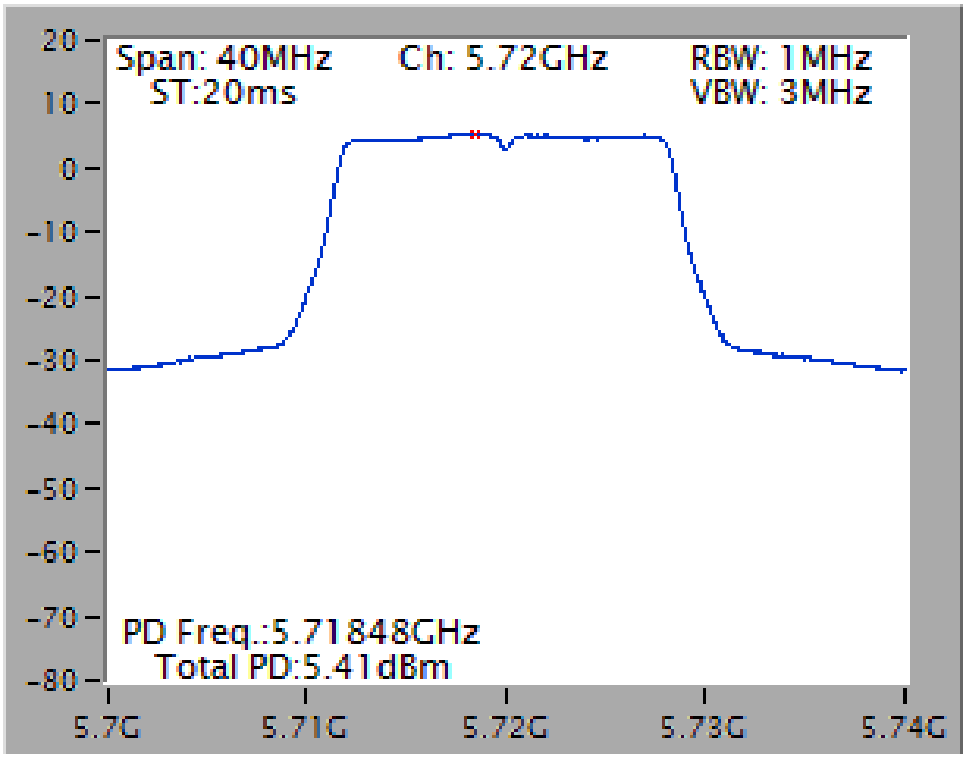
Power Density Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



Power Density Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5260 MHz

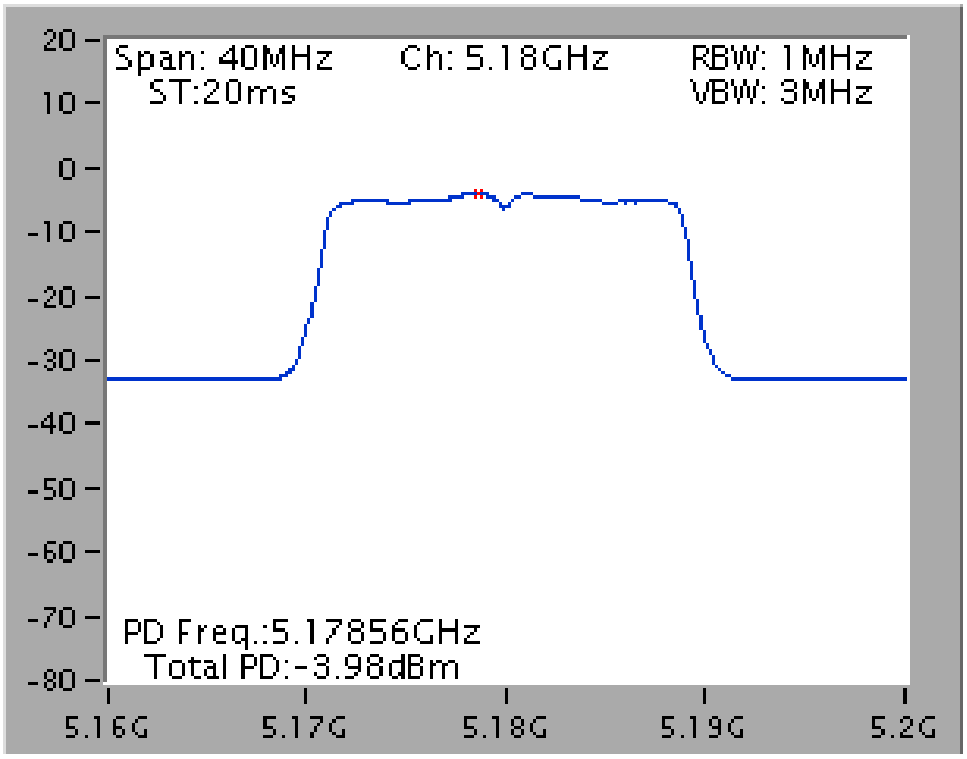


Power Density Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5720 MHz

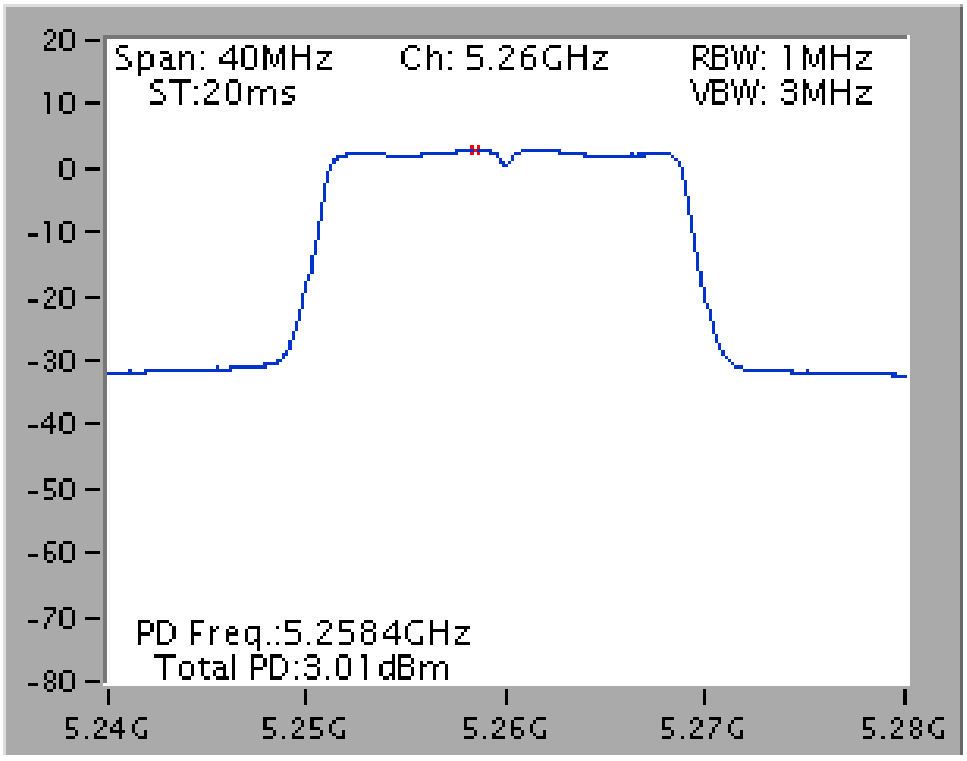


Test Mode: Mode 3 (Ant.4 Panel antenna / 9.2dBi)

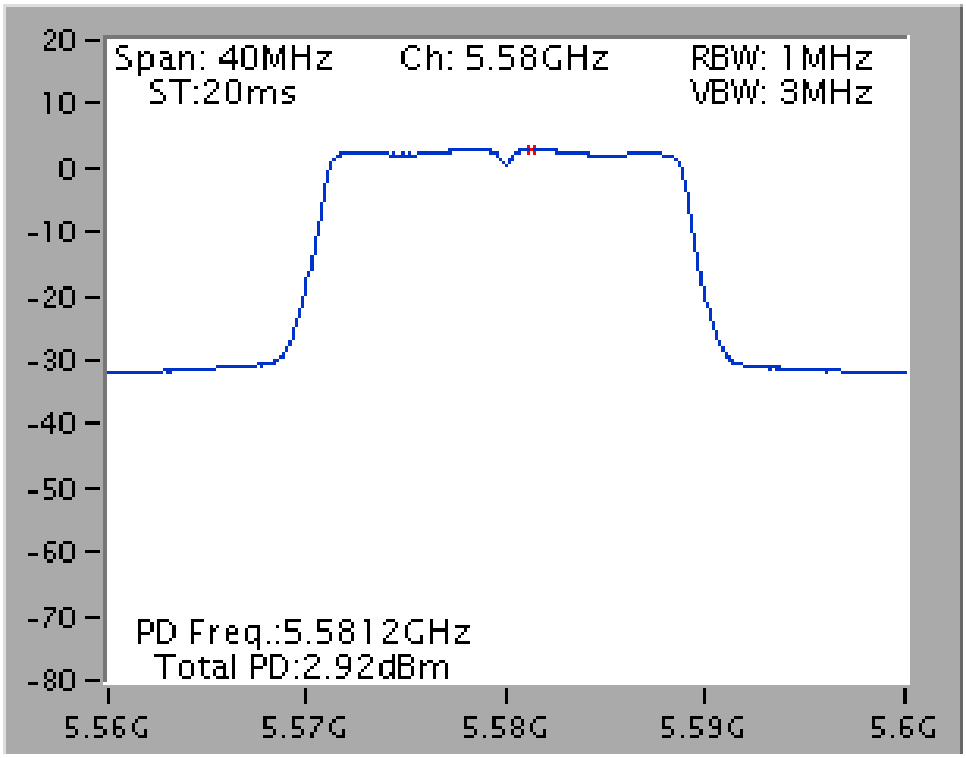
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



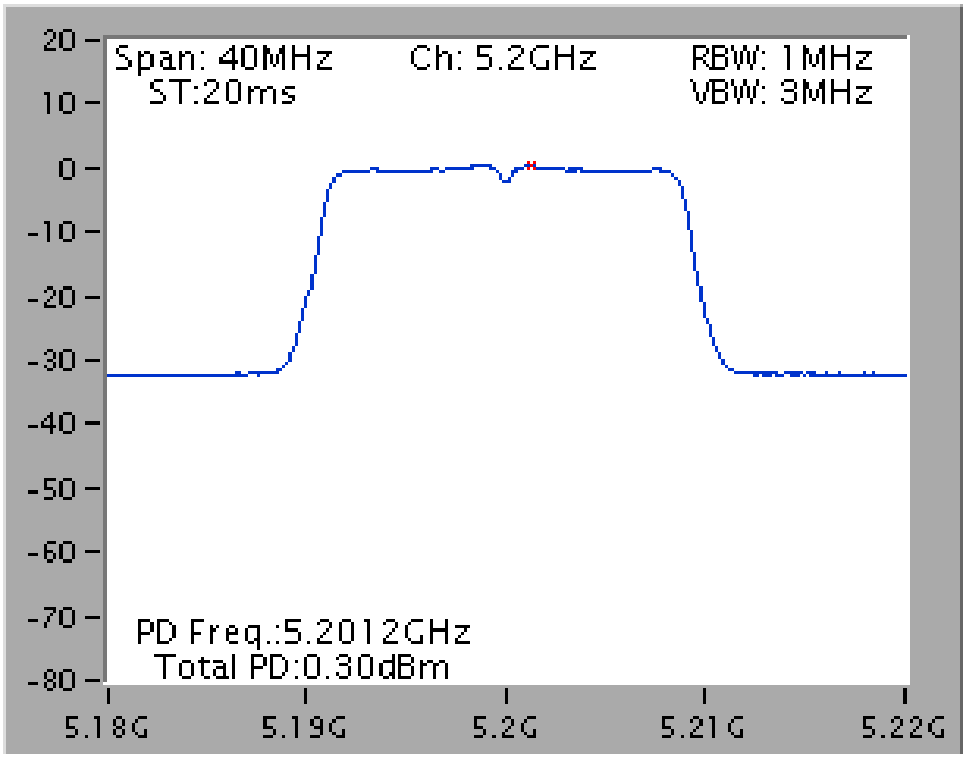
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz



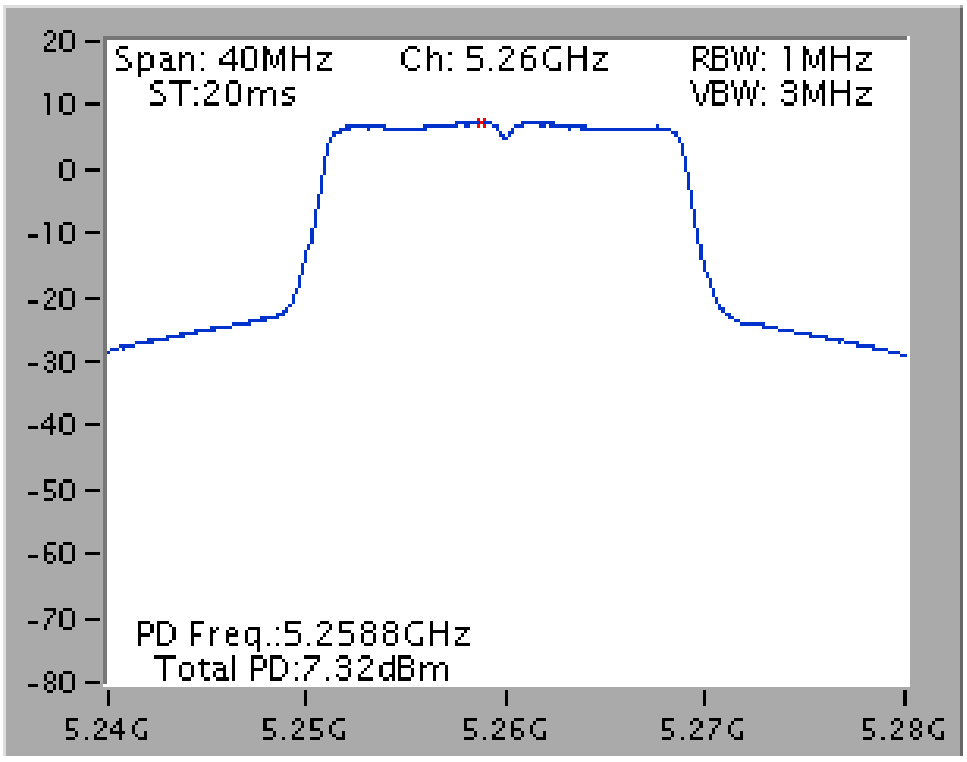
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz



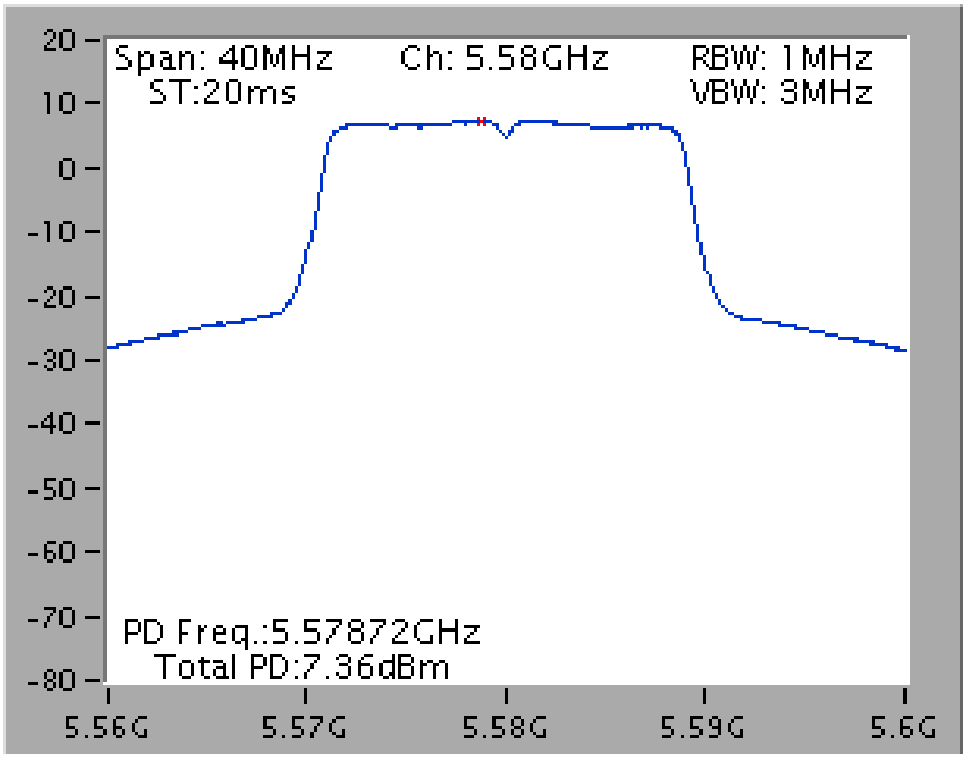
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5200 MHz



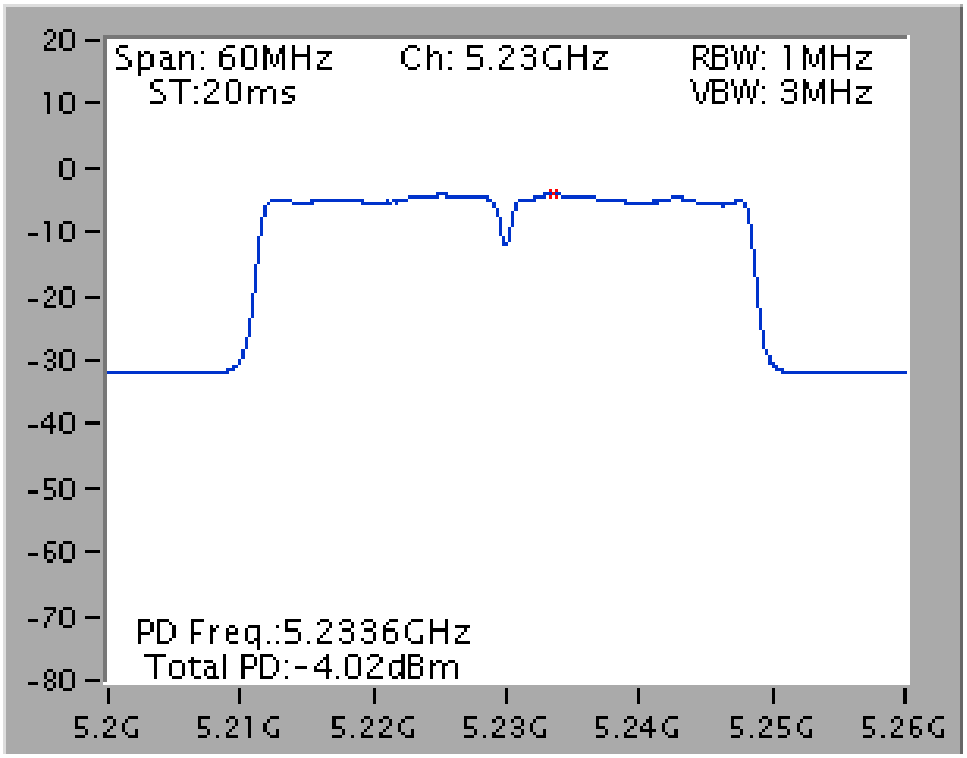
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz



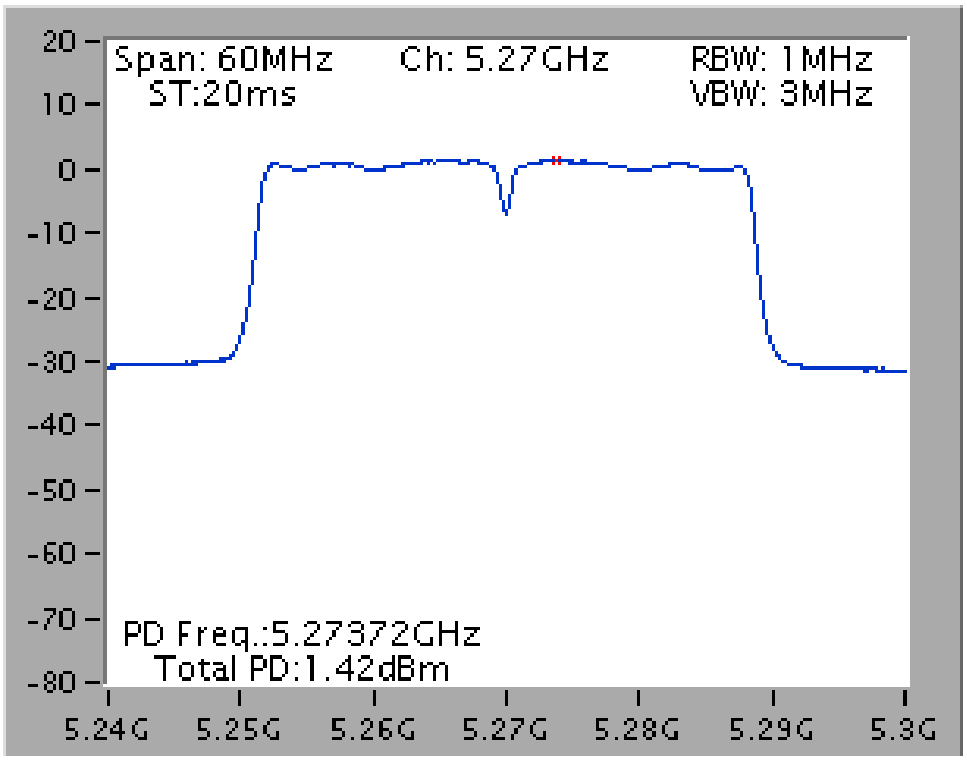
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz



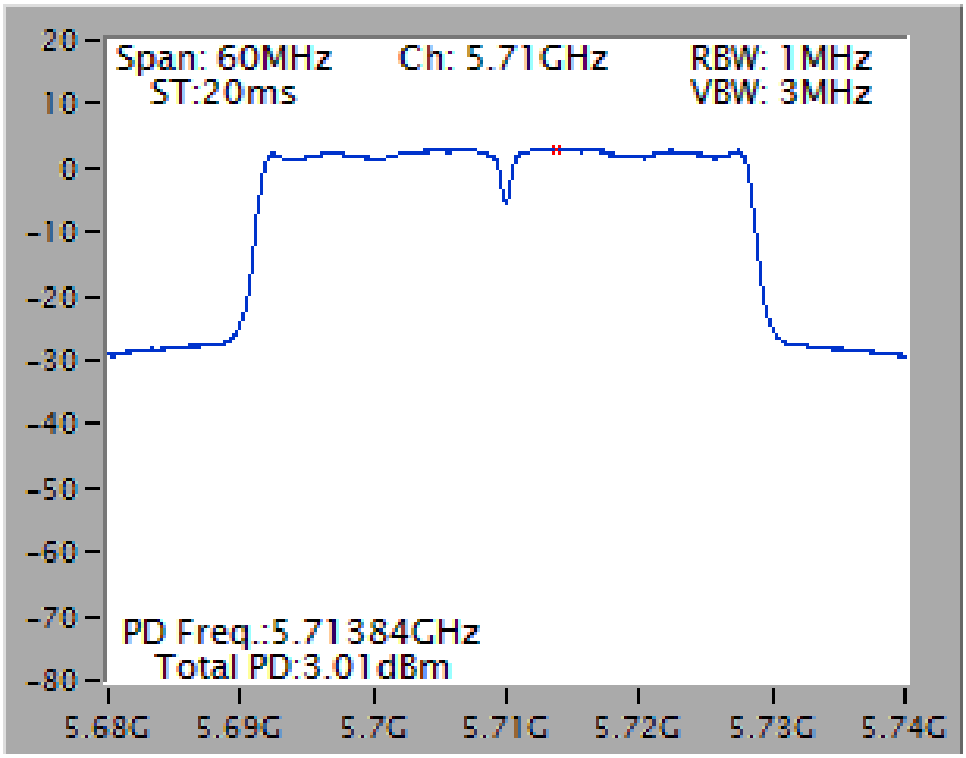
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5230 MHz



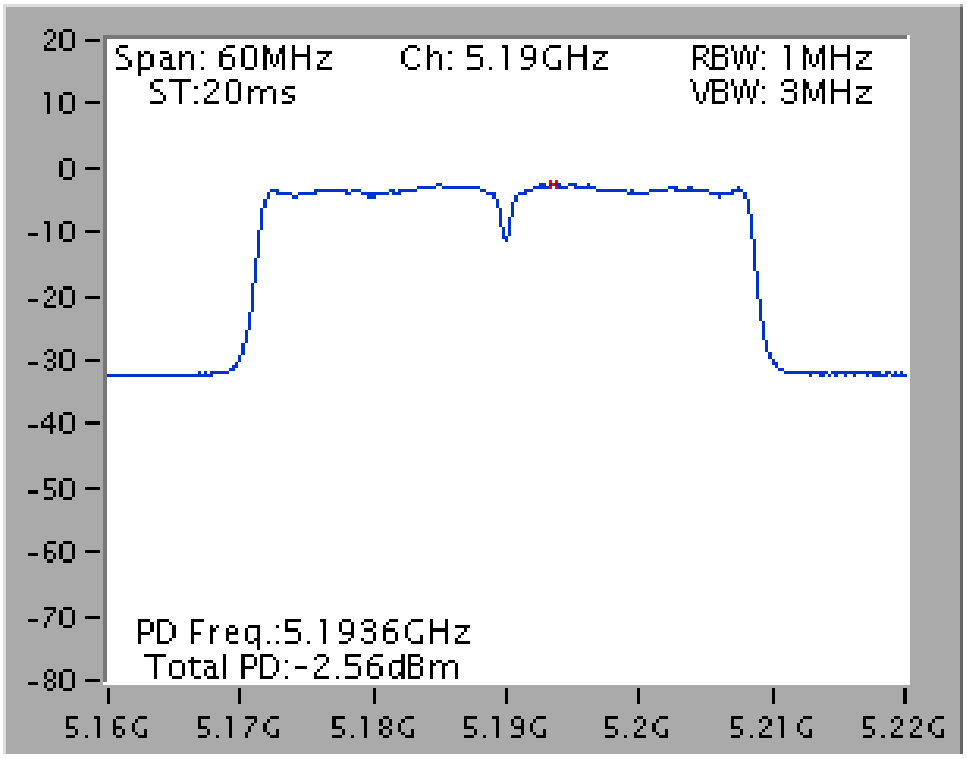
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz



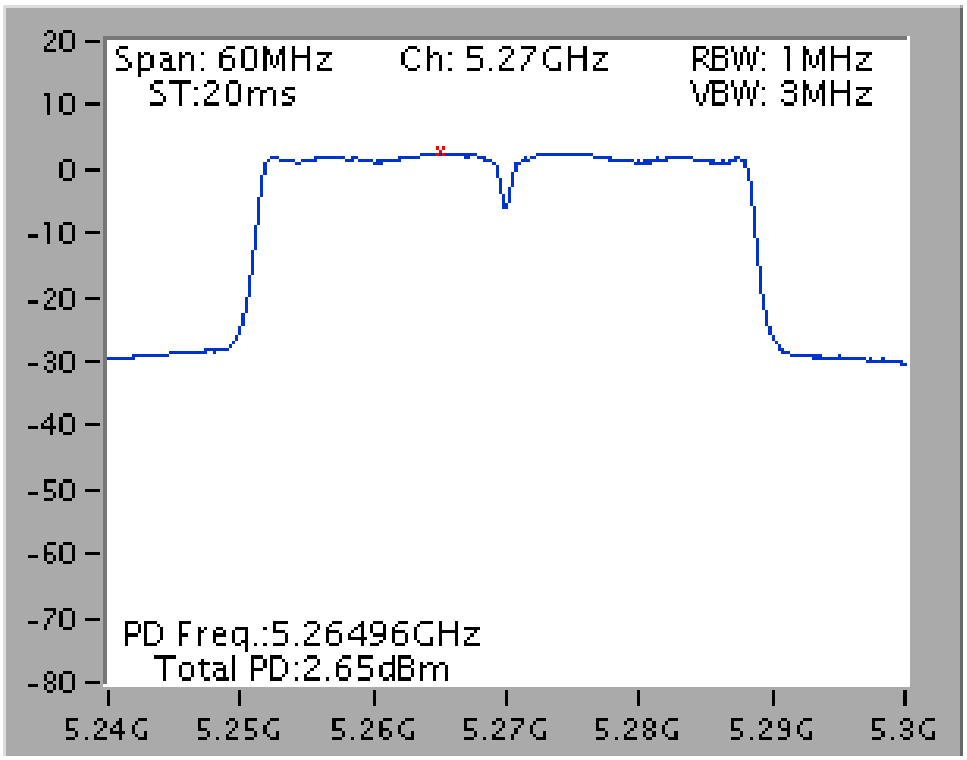
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5710 MHz



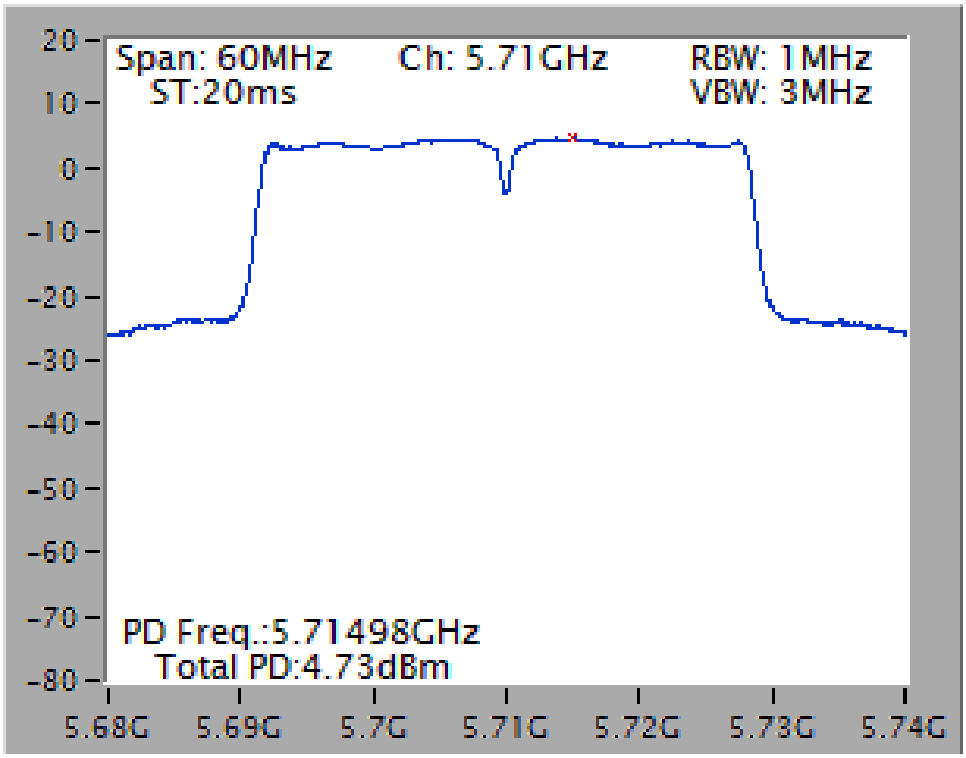
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5190 MHz



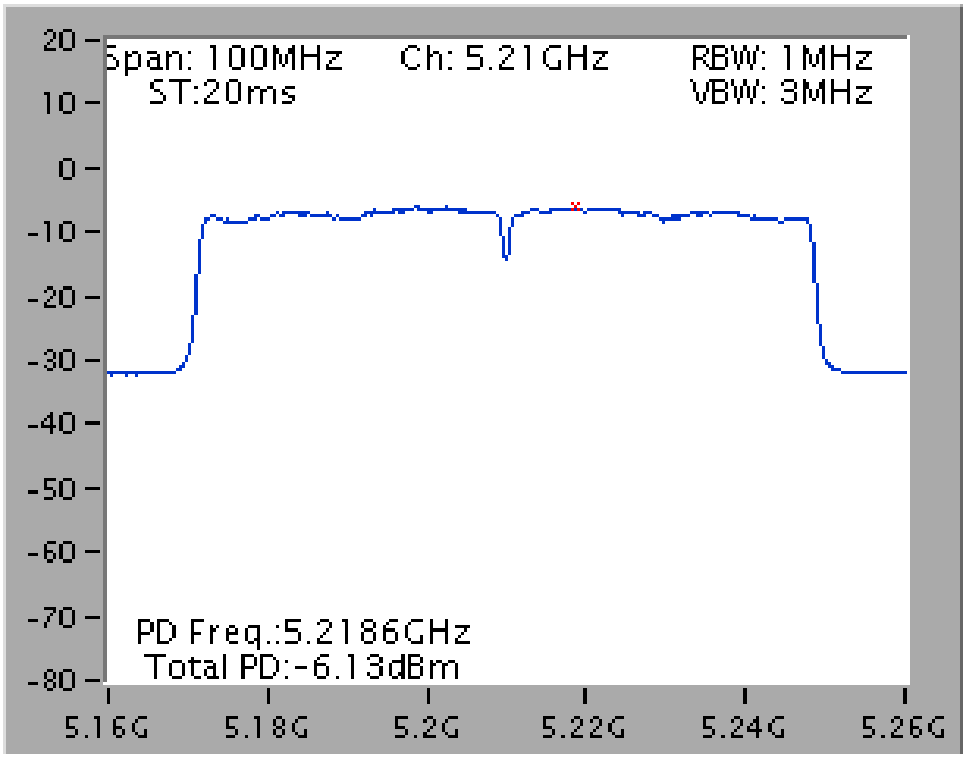
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz



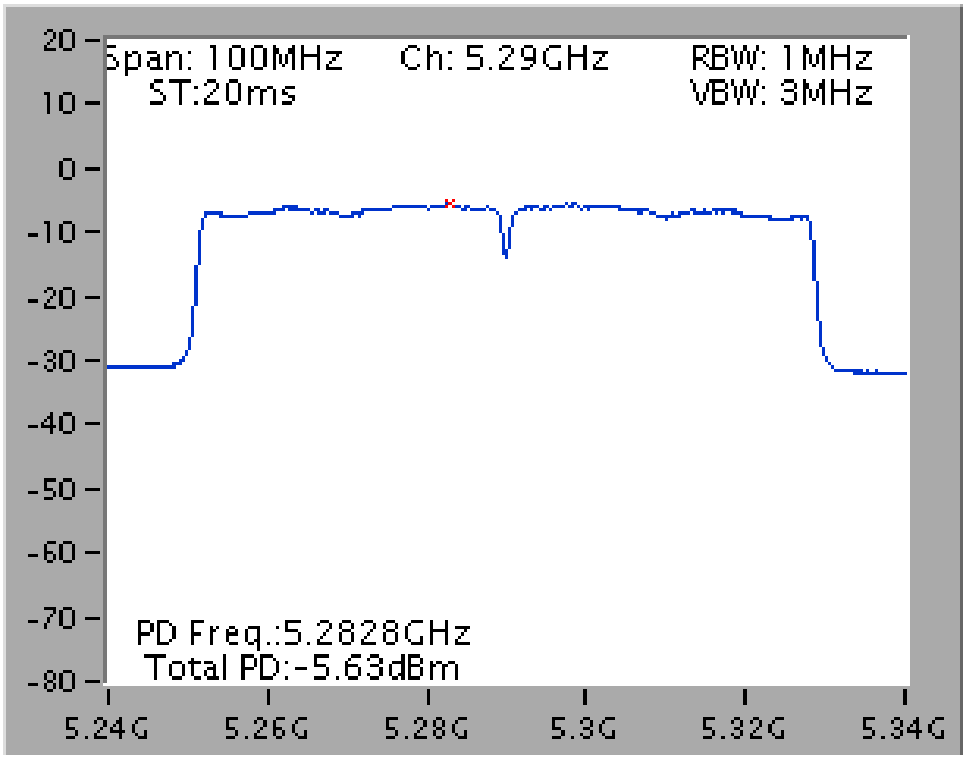
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5710 MHz



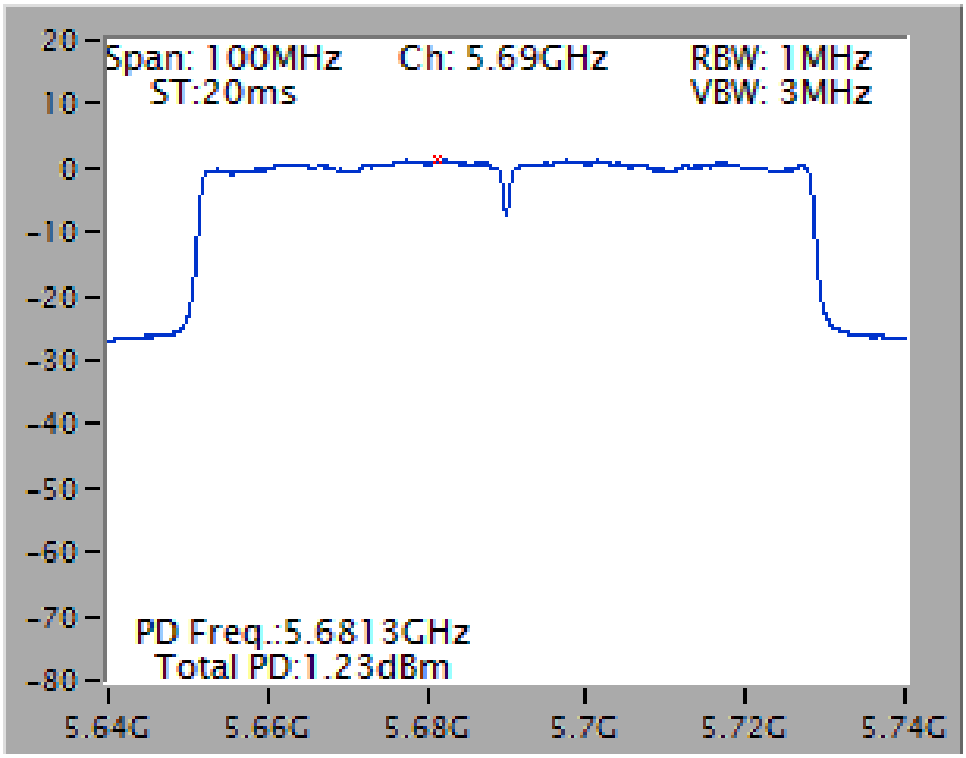
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



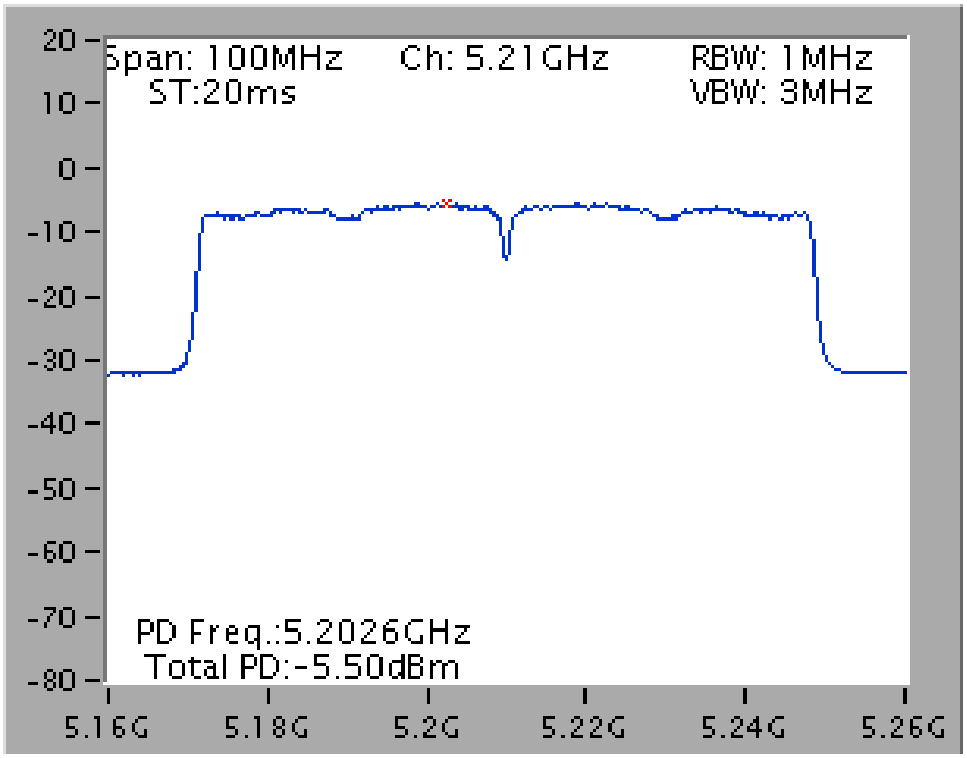
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5290 MHz



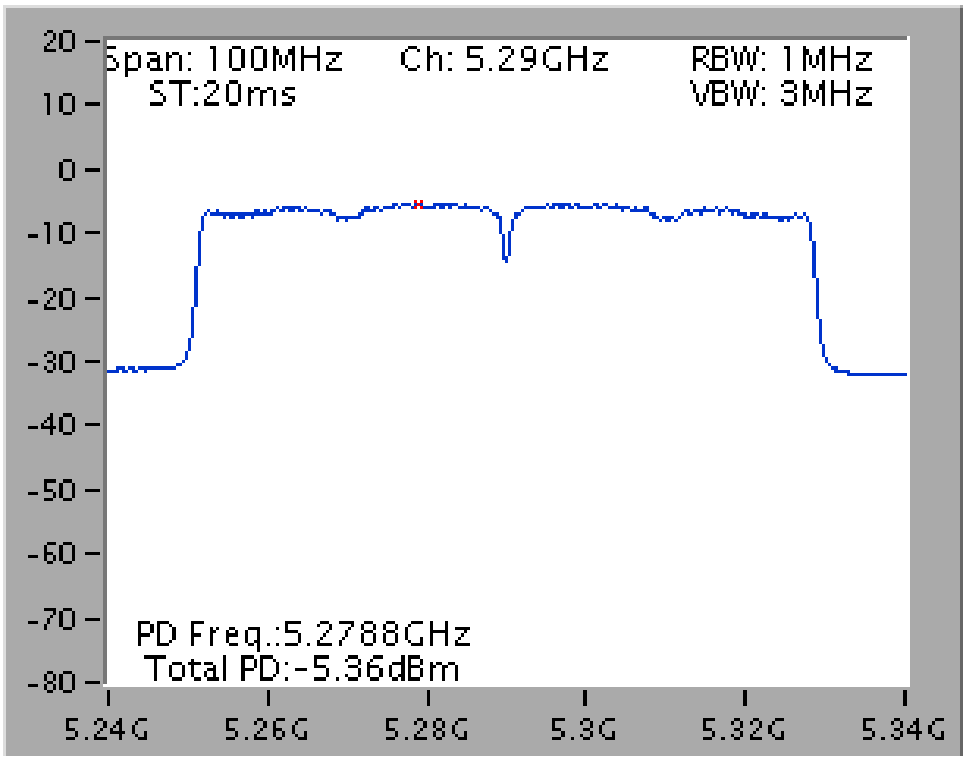
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5690 MHz



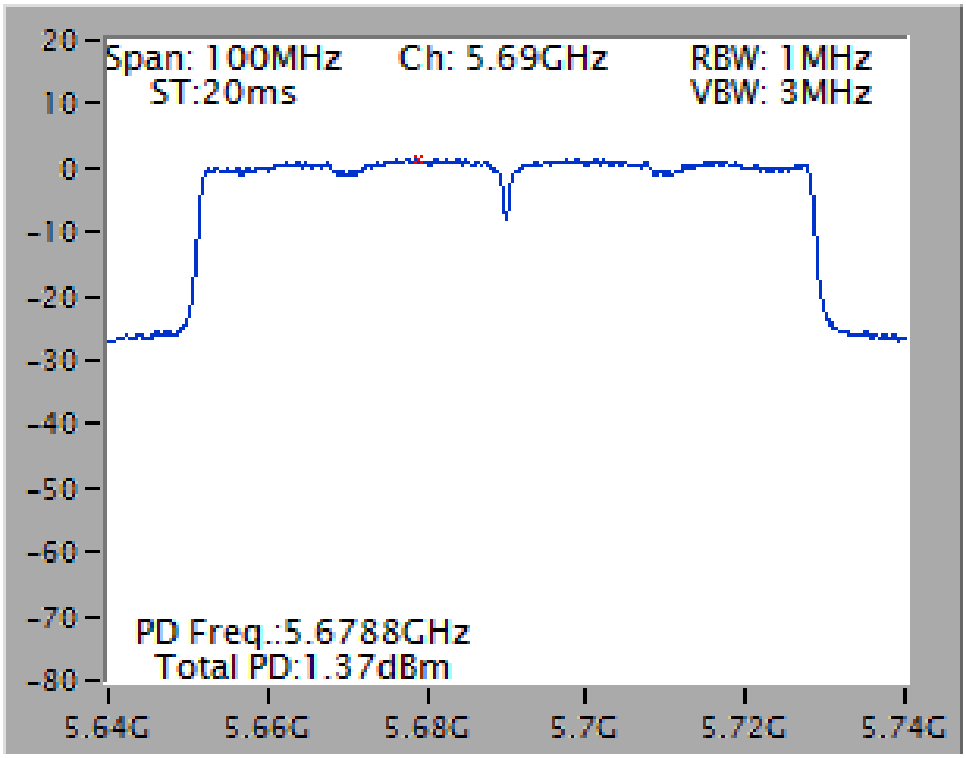
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



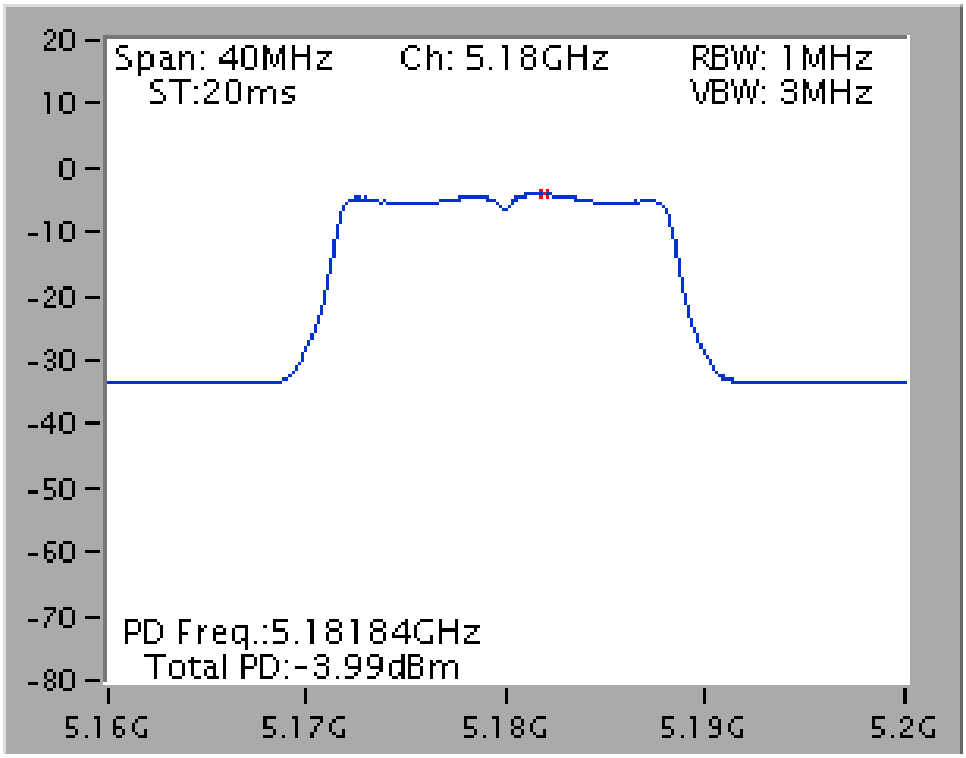
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5290 MHz



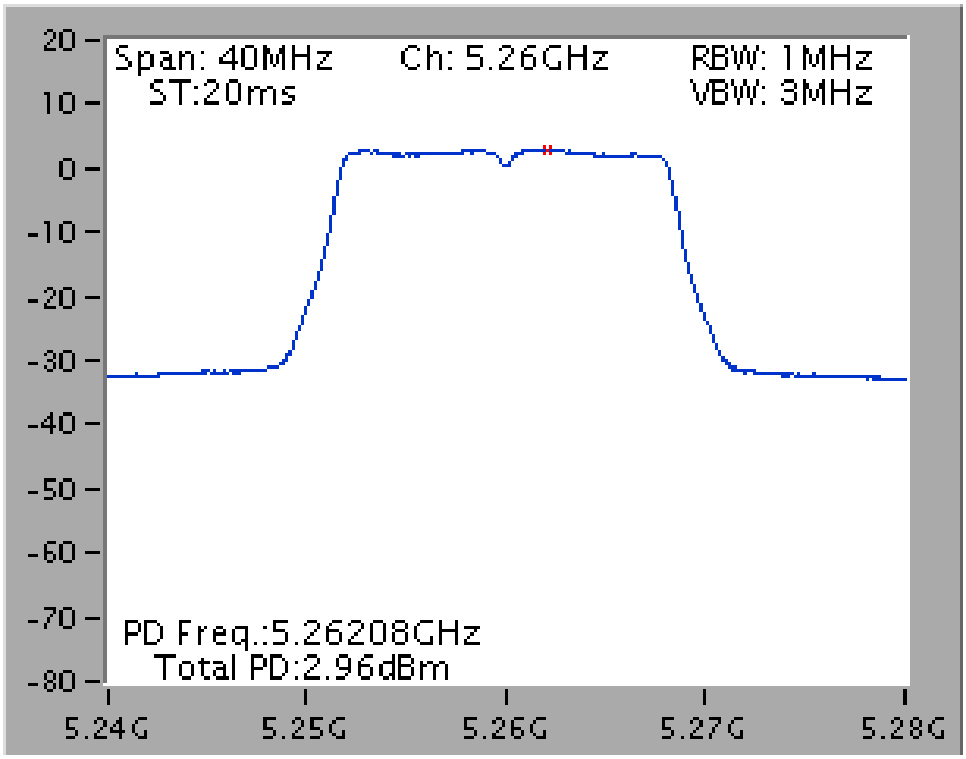
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5690 MHz



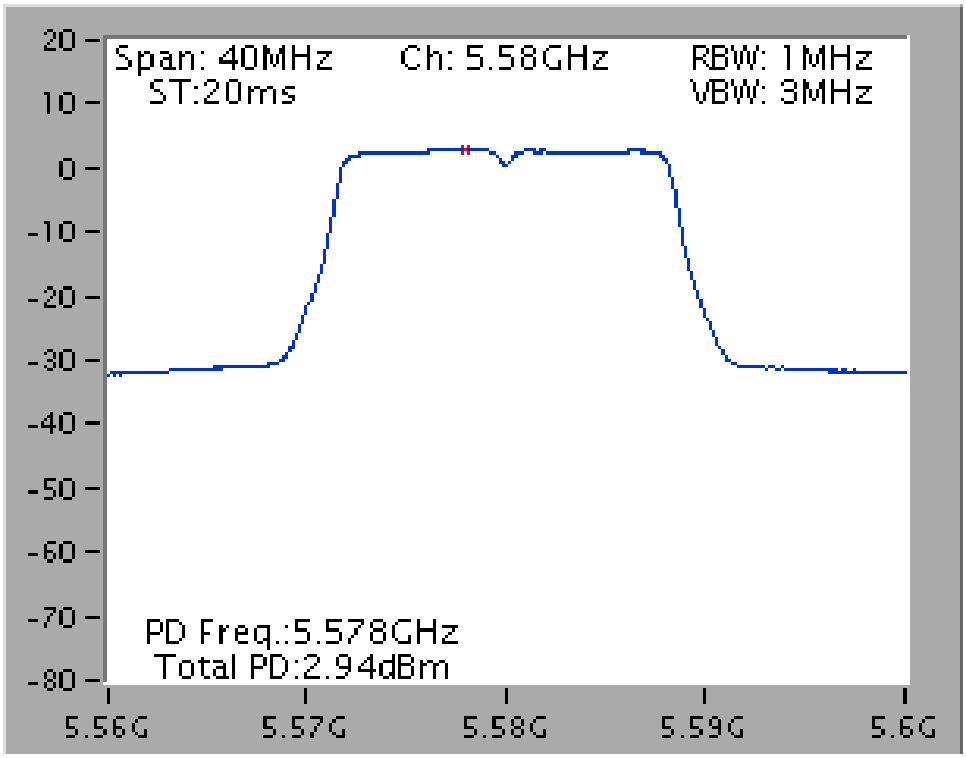
Power Density Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



Power Density Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5260 MHz

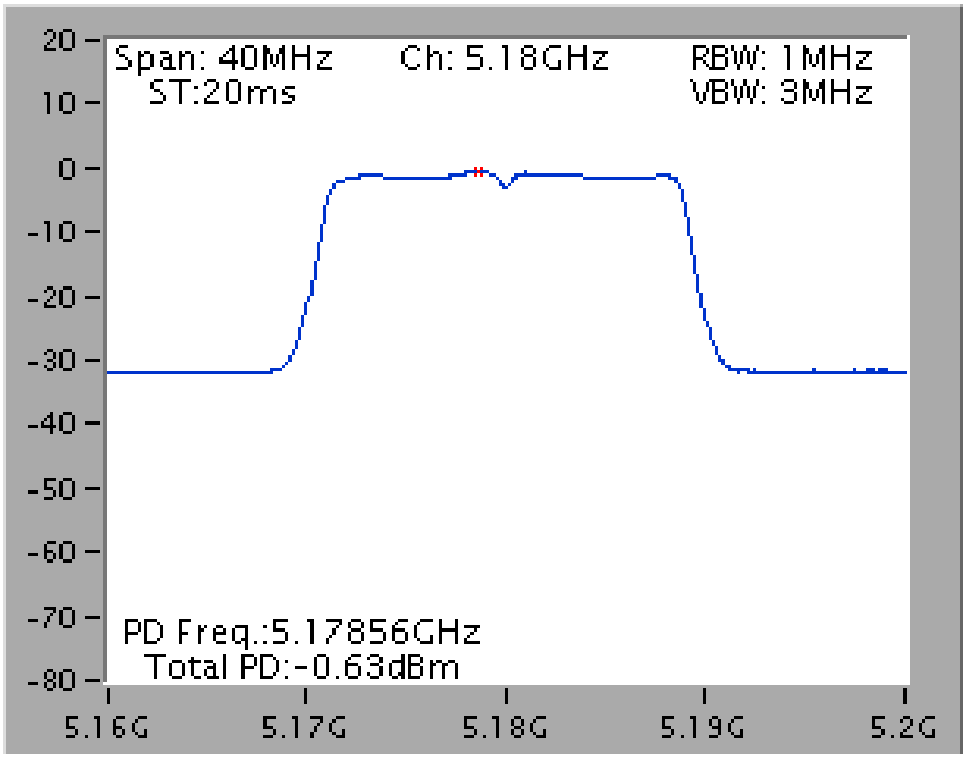


Power Density Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5580 MHz

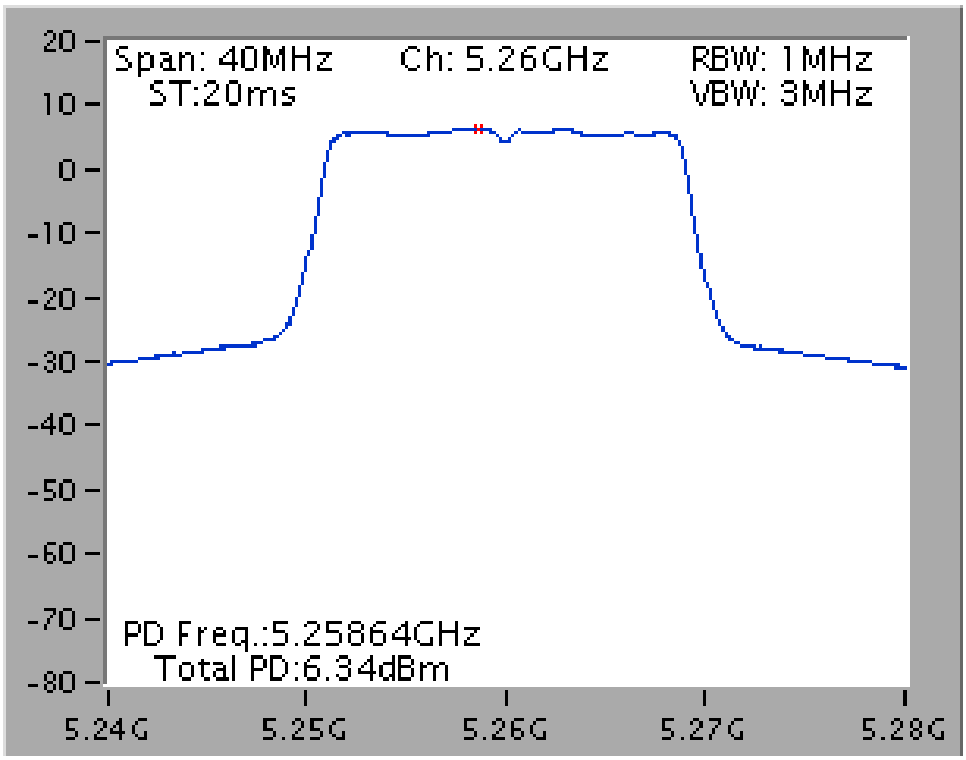


Test Mode: Mode 4 (Ant.5 PCB antenna / 5.74dBi)

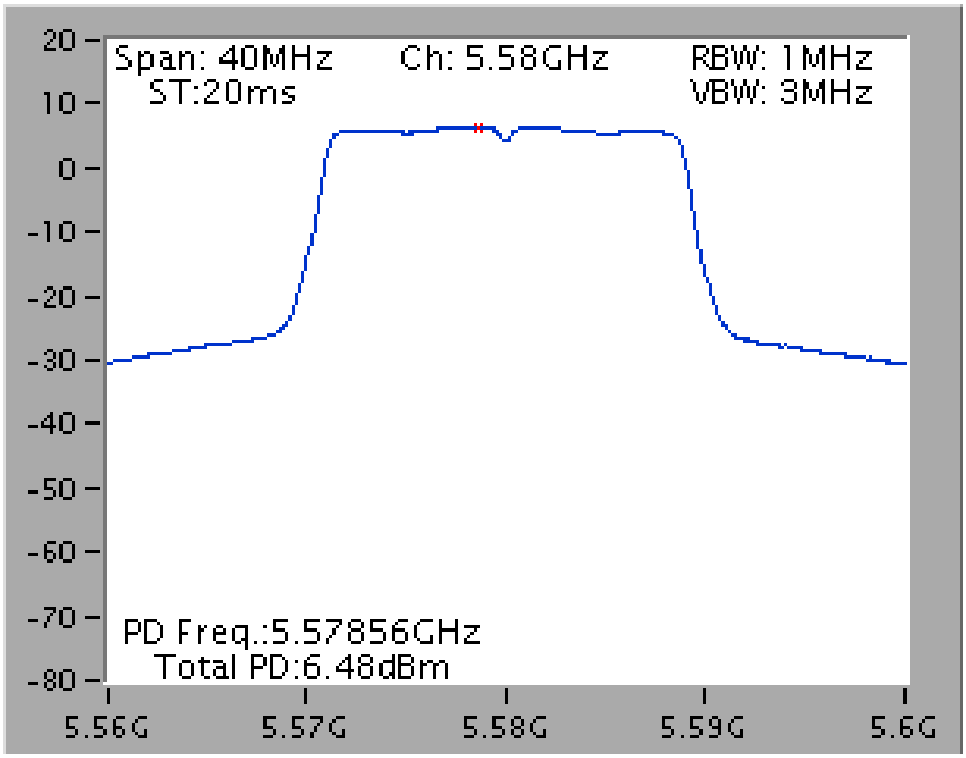
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5180 MHz



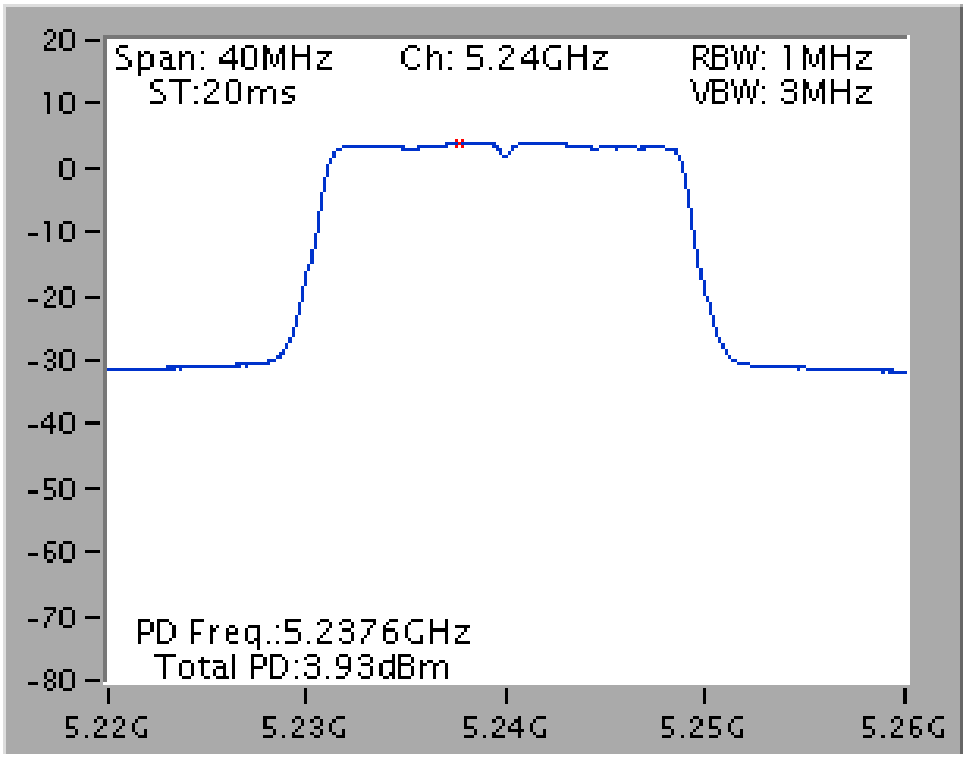
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz



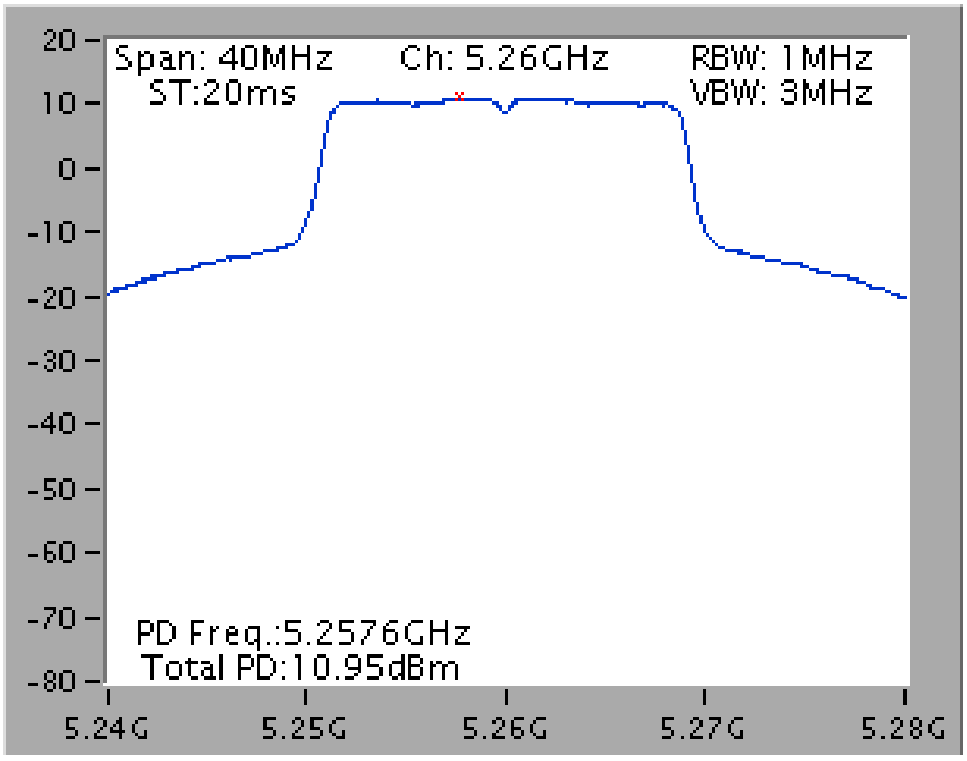
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz



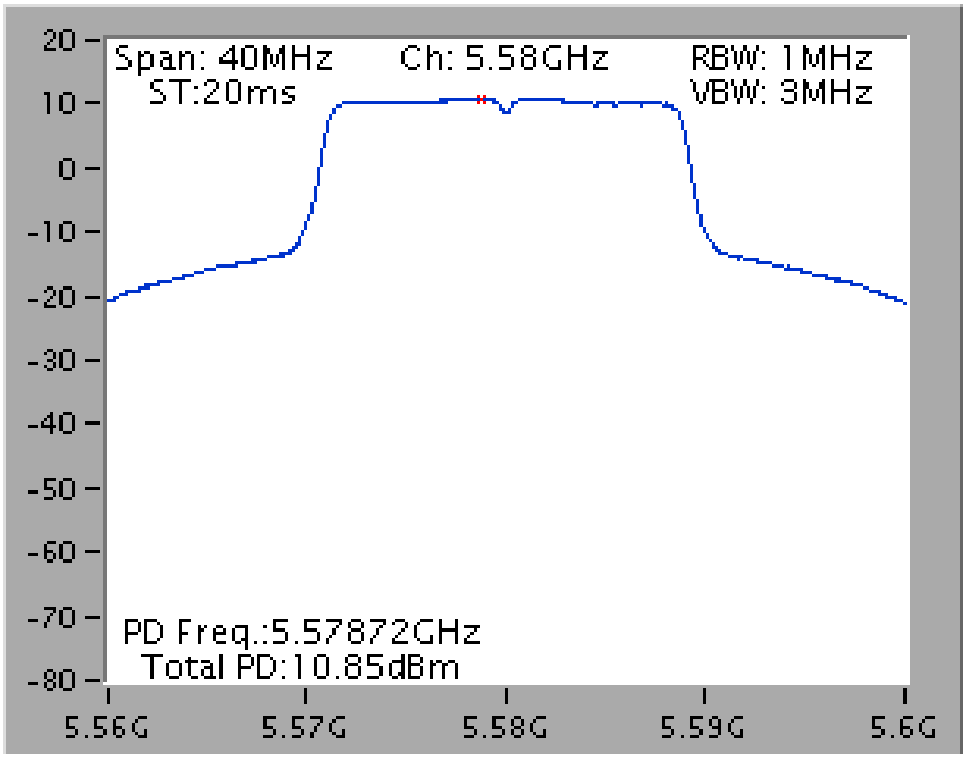
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5240 MHz



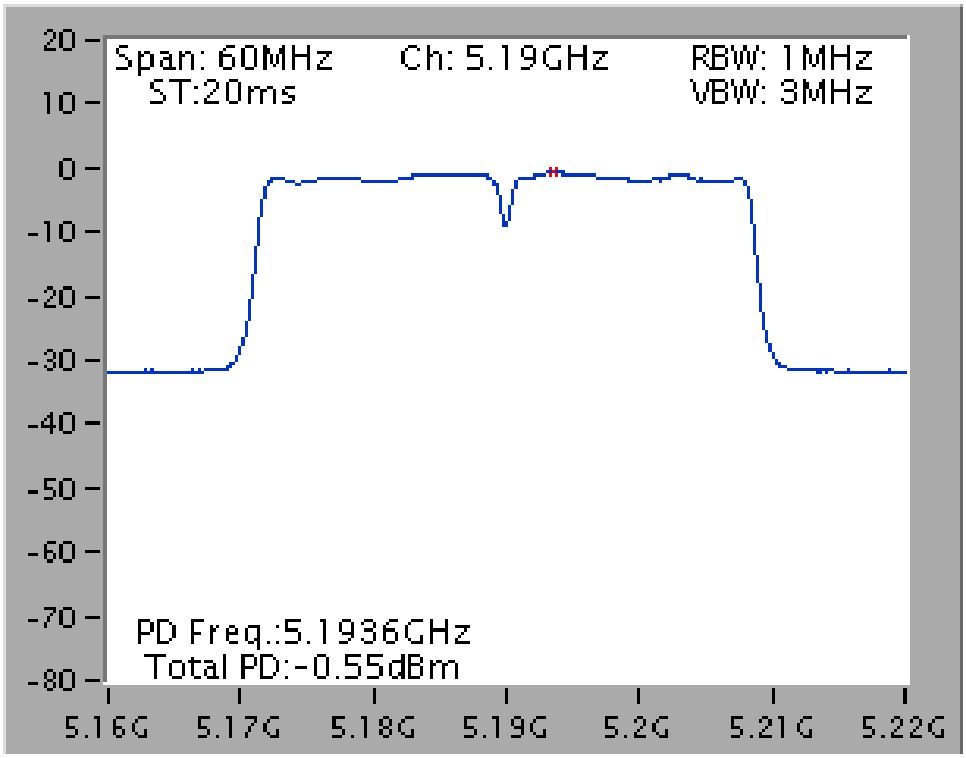
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5260 MHz



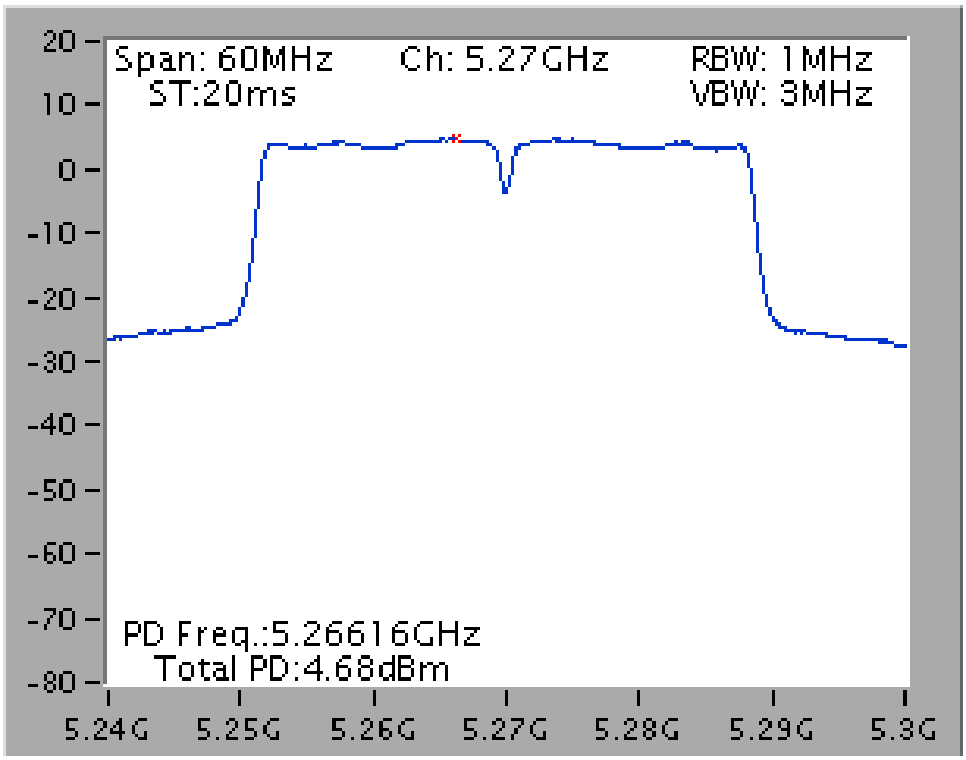
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 20MHz / Chain 1 + Chain 2 + Chain 3 / 5580 MHz



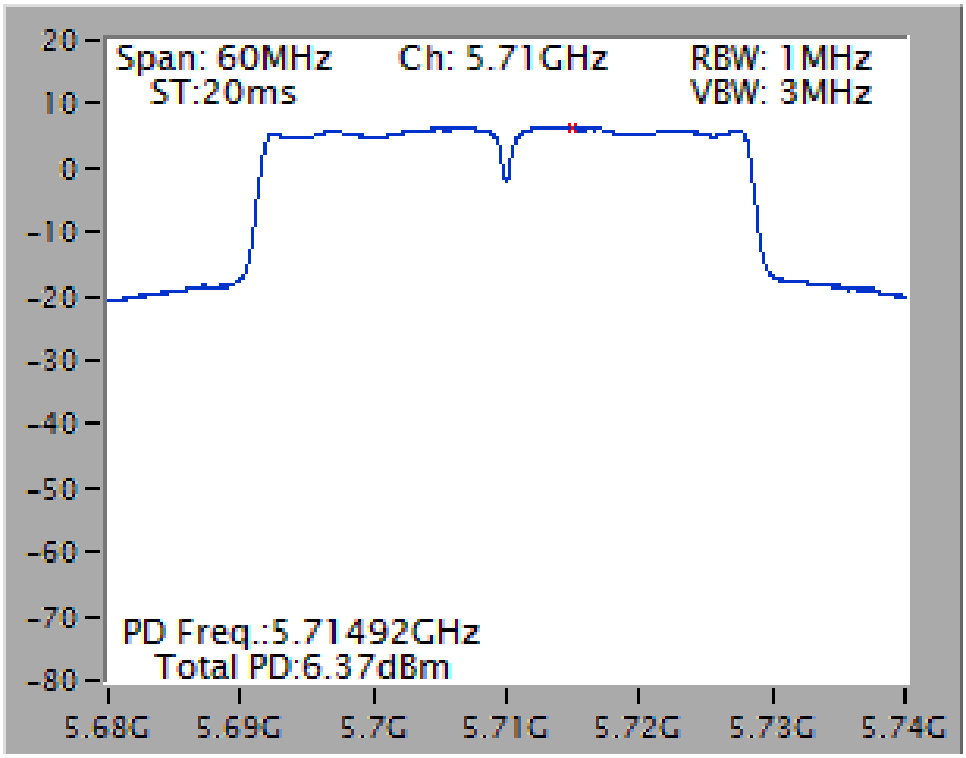
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5190 MHz



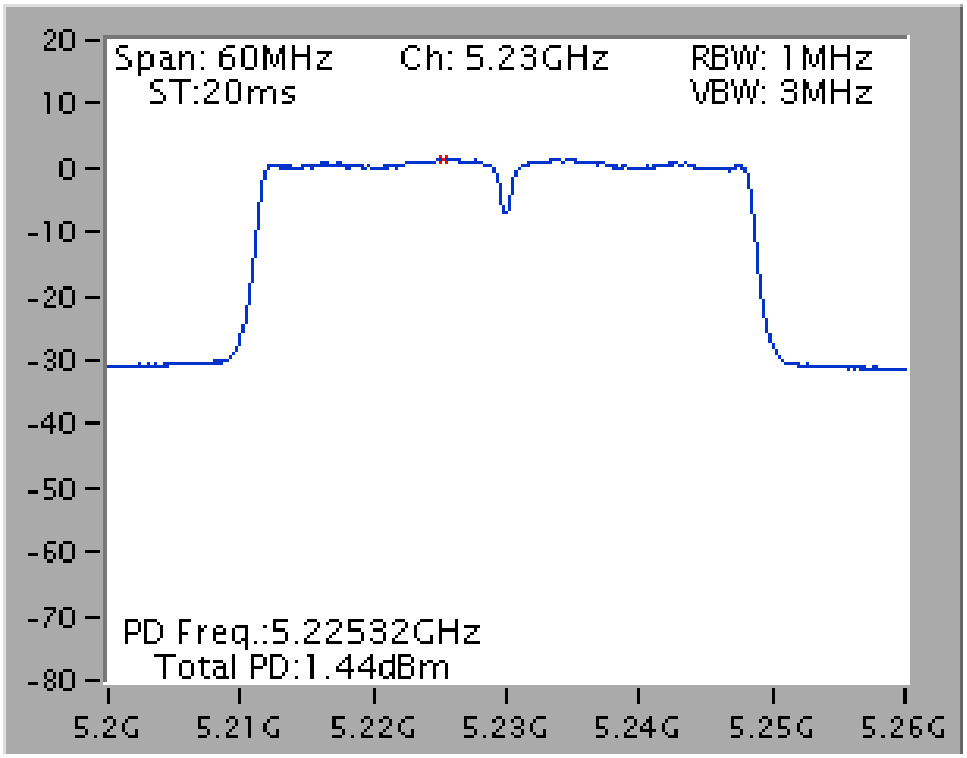
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz



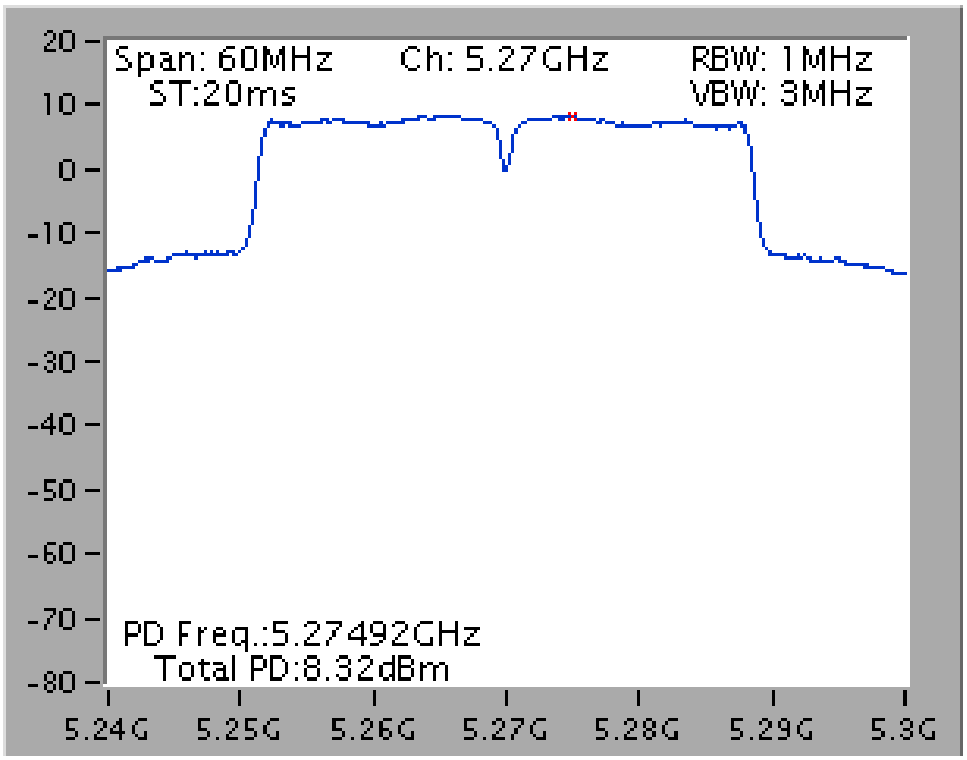
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 40MHz / Chain 1 + Chain 2 + Chain 3 / 5710 MHz



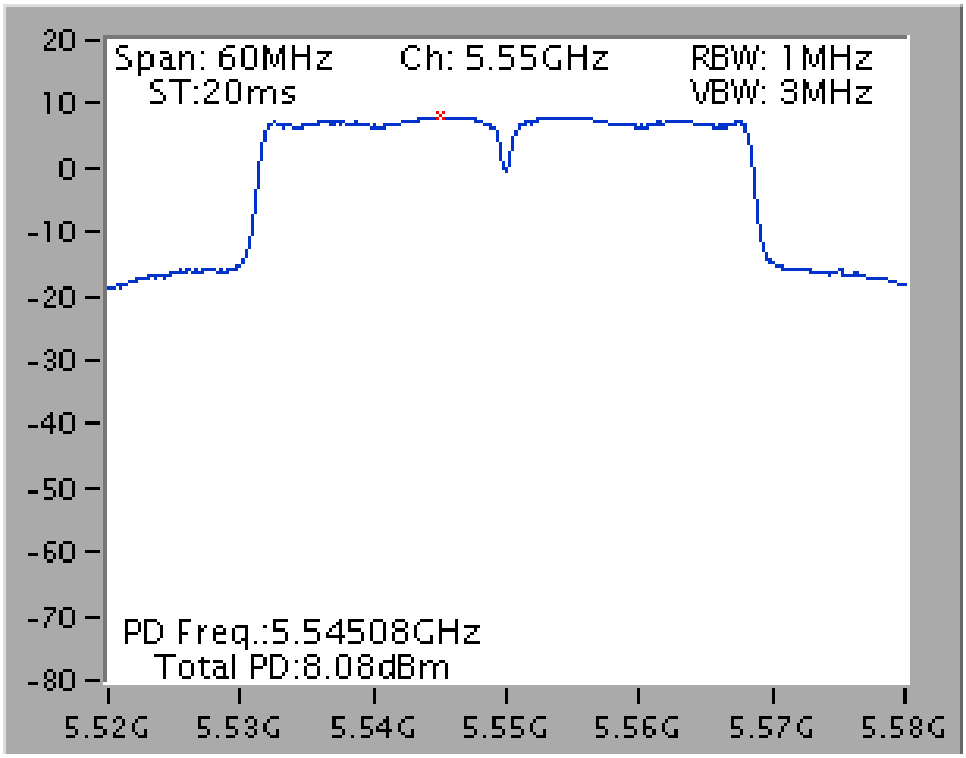
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5230 MHz



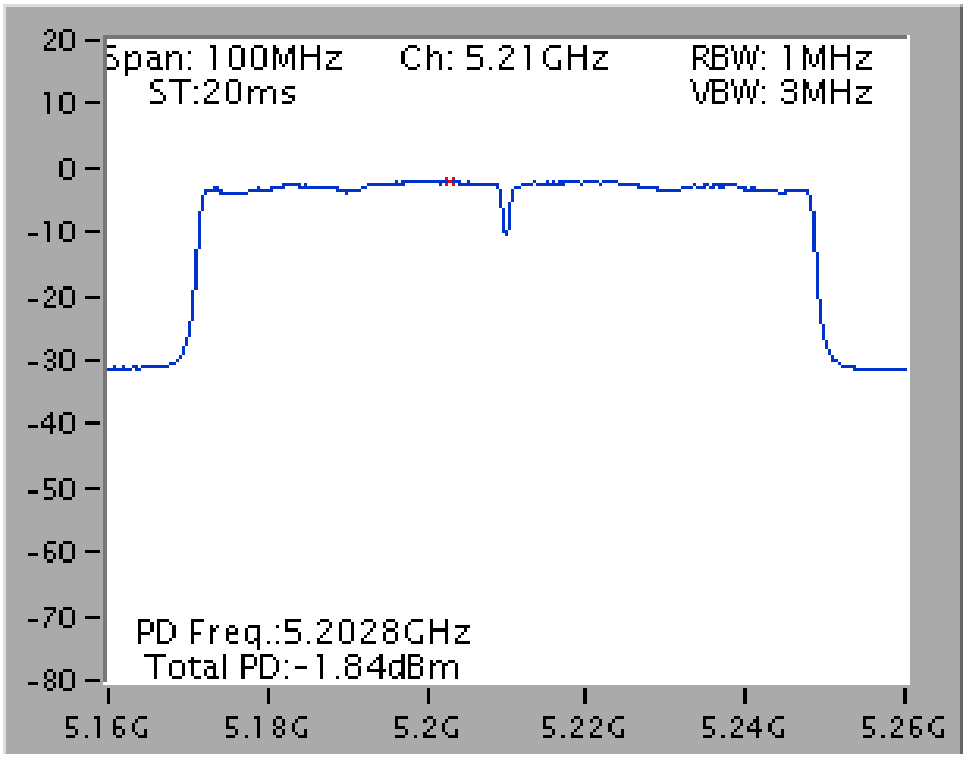
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5270 MHz



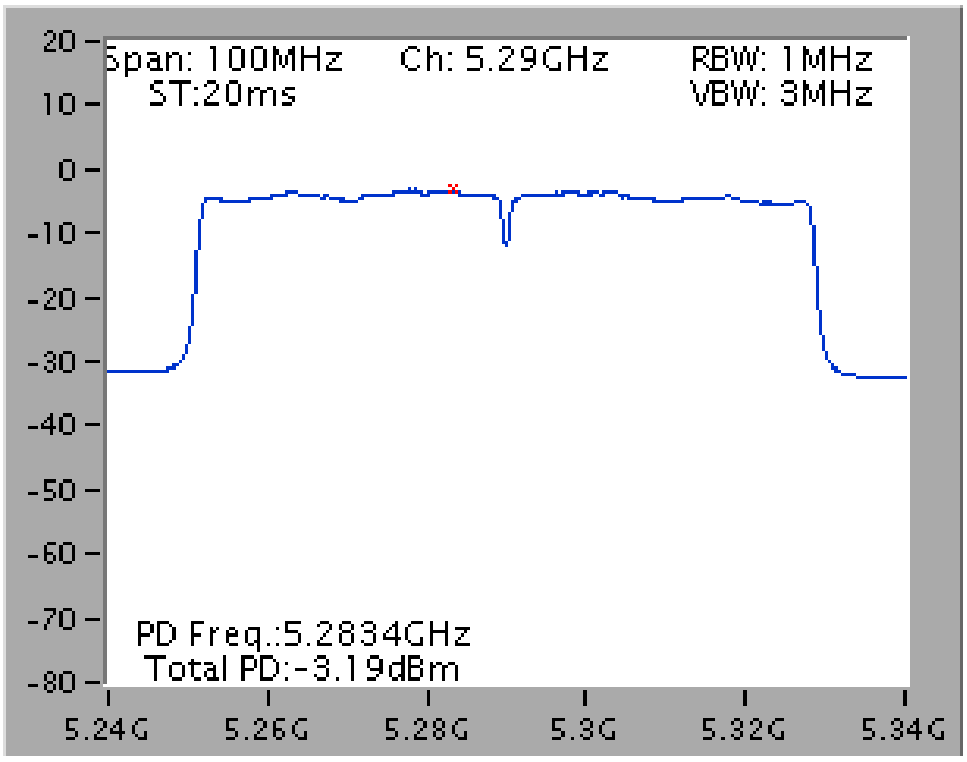
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 40MHz / Chain 1 + Chain 2 + Chain 3 / 5550 MHz



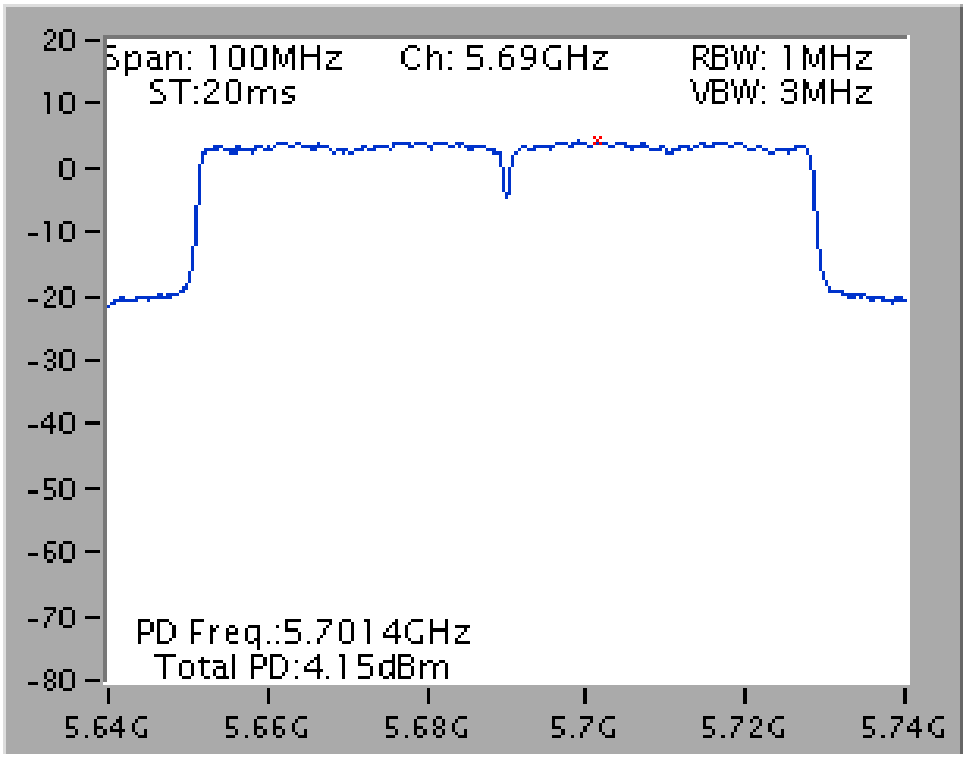
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



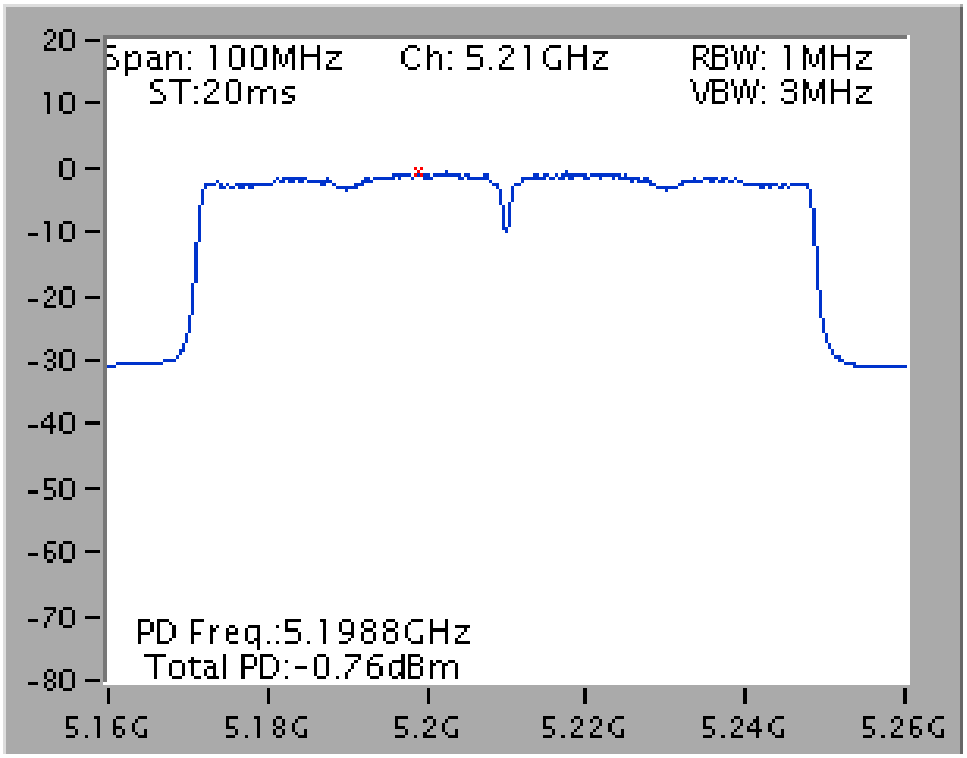
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5290 MHz



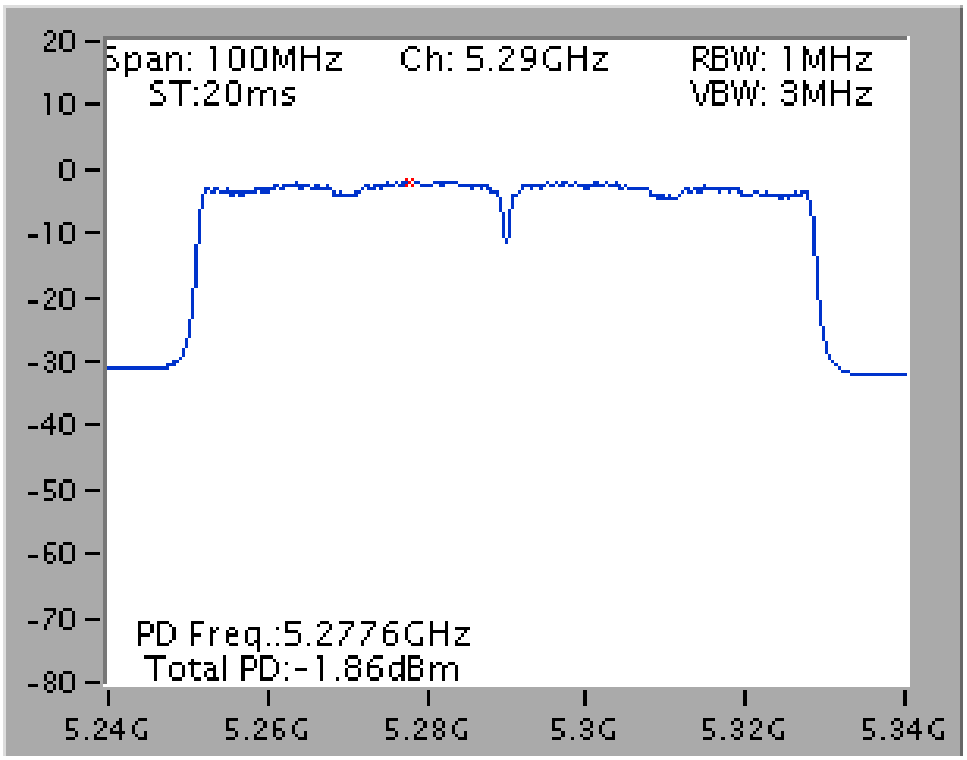
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 80MHz / Chain 1 + Chain 2 + Chain 3 / 5690 MHz



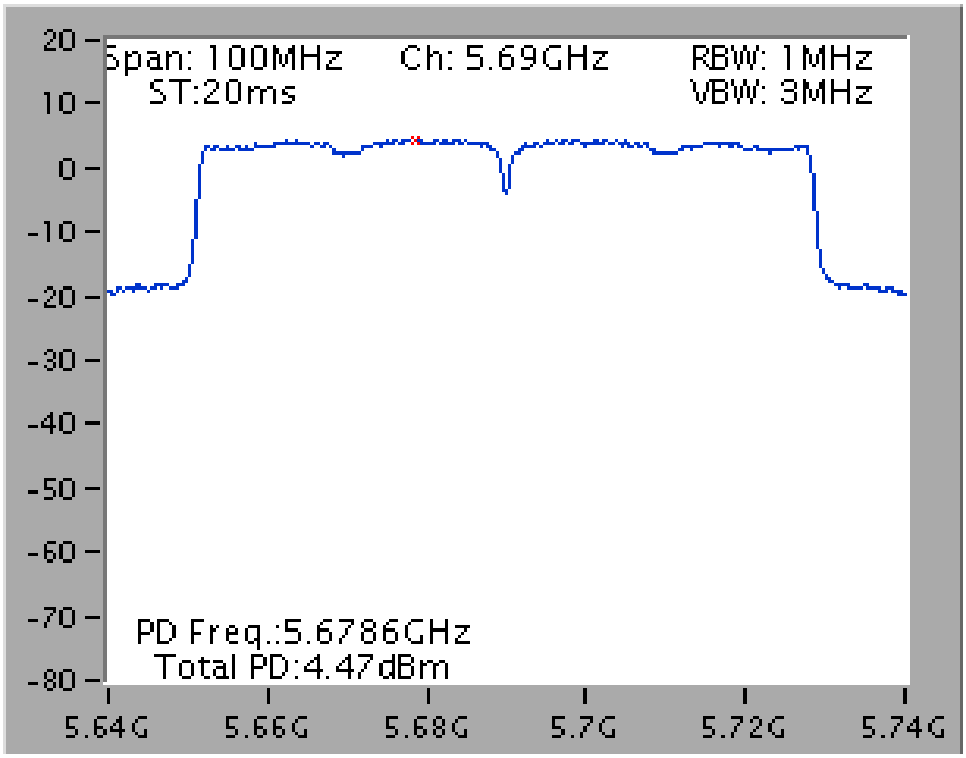
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5210 MHz



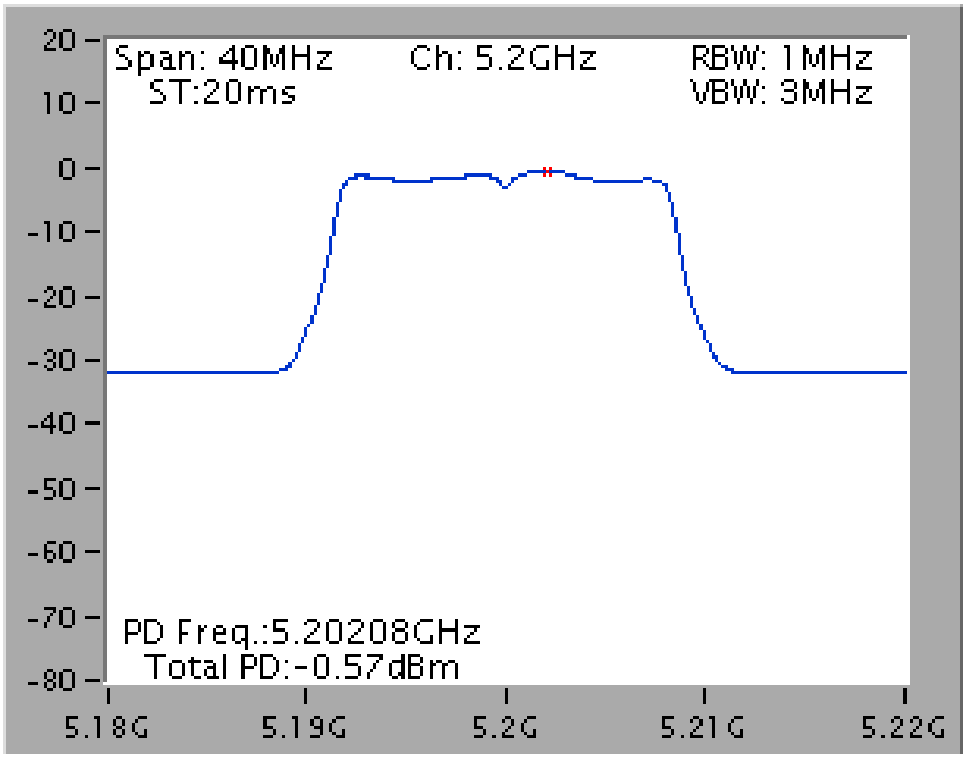
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5290 MHz



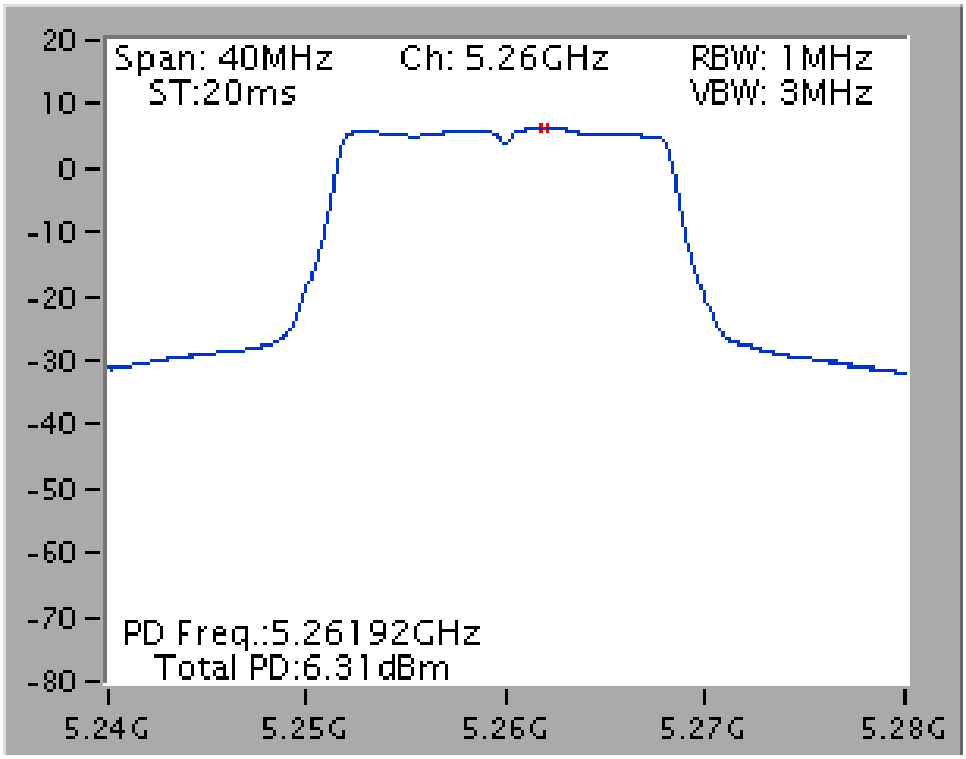
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 80MHz / Chain 1 + Chain 2 + Chain 3 / 5690 MHz



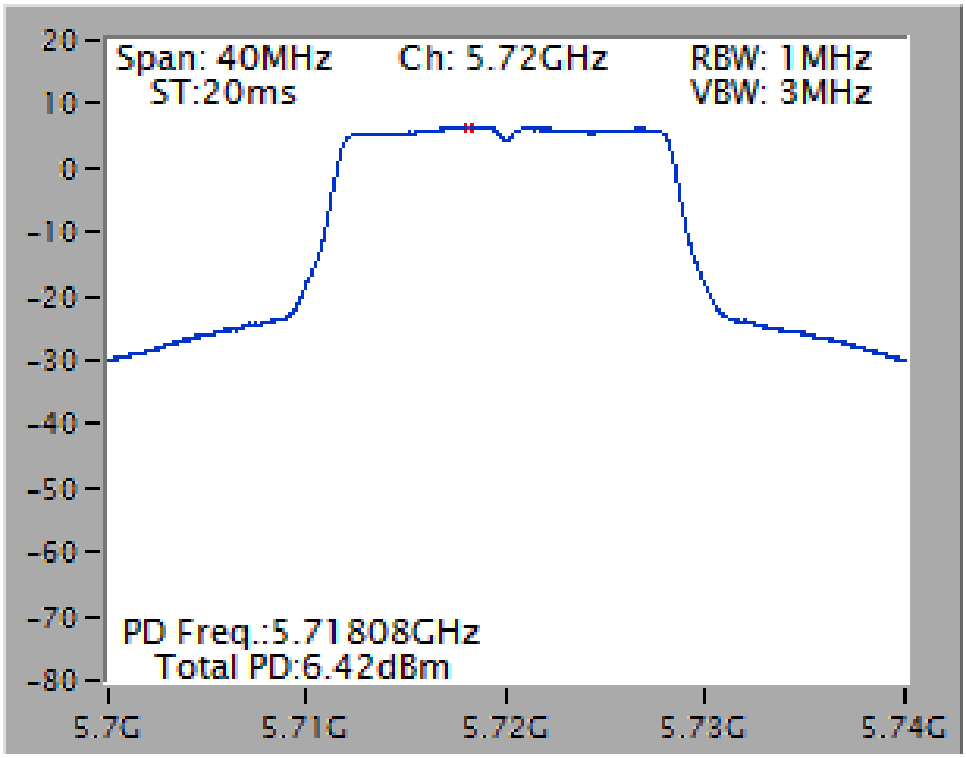
Power Density Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5200 MHz



Power Density Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5260 MHz



Power Density Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 5720 MHz



4.5. Peak Excursion Measurement

4.5.1. Limit

The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the maximum conducted output power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emissions bandwidth whichever is less.

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	Encompass the entire emissions bandwidth (EBW) of the signal
RBW	1MHz (Peak Trace) / 1MHz (Average Trace)
VBW	≥ 3MHz (Peak Trace) / ≥ 3MHz (Average Trace)
Detector	Peak (Peak Trace) / RMS (Average Trace)
Trace	Trace: Max hold (Peak Trace) / Trace Average Sweep Count 100 (Average Trace)
Sweep Time	AUTO

4.5.3. Test Procedures

1. Trace A, Set RBW =1MHz, VBW = 3MHz, Span >26dB bandwidth, Max. hold.
2. Delta Mark trace A Maximum frequency and trace B same frequency.
3. Repeat the above procedure until measurements for all frequencies were complete.
4. Testing each modulation mode on a single channel in single operating band at single output port. All signal types need test (DSSS, OFDM). All modulation types need test (BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM). All bandwidth modes need test.

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 Peak Excursion

Temperature	25°C	Humidity	56%
Test Engineer	Benson Peng	Configurations	IEEE 802.11a / ac
Test Mode	Mode 1 (Ant.1 Dipole antenna / 1dBi)		

Configuration IEEE 802.11ac 20MHz MCS0-9/Nss1 / Chain 1 + Chain 2 + Chain 3

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (MCS0)	5240MHz	9.62	13	Complies
QPSK (MCS1)	5240MHz	10.44	13	Complies
16QAM (MCS3)	5240MHz	10.13	13	Complies
64QAM (MCS5)	5240MHz	9.85	13	Complies
256QAM (MCS8)	5240MHz	10.98	13	Complies
BPSK (MCS0)	5260MHz	8.83	13	Complies
QPSK (MCS1)	5260MHz	8.51	13	Complies
16QAM (MCS3)	5260MHz	9.01	13	Complies
64QAM (MCS5)	5260MHz	8.68	13	Complies
256QAM (MCS8)	5260MHz	9.33	13	Complies
BPSK (MCS0)	5580MHz	9.25	13	Complies
QPSK (MCS1)	5580MHz	8.76	13	Complies
16QAM (MCS3)	5580MHz	8.87	13	Complies
64QAM (MCS5)	5580MHz	9.30	13	Complies
256QAM (MCS8)	5580MHz	9.52	13	Complies

Configuration IEEE 802.11ac 20MHz MCS0-9/Nss3 / Chain 1 + Chain 2 + Chain 3

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (MCS0)	5200MHz	10.16	13	Complies
QPSK (MCS1)	5200MHz	10.24	13	Complies
16QAM (MCS3)	5200MHz	9.95	13	Complies
64QAM (MCS5)	5200MHz	10.49	13	Complies
256QAM (MCS8)	5200MHz	10.17	13	Complies
BPSK (MCS0)	5260MHz	8.86	13	Complies
QPSK (MCS1)	5260MHz	8.58	13	Complies
16QAM (MCS3)	5260MHz	9.19	13	Complies
64QAM (MCS5)	5260MHz	8.74	13	Complies
256QAM (MCS8)	5260MHz	9.02	13	Complies
BPSK (MCS0)	5500MHz	9.13	13	Complies
QPSK (MCS1)	5500MHz	8.44	13	Complies
16QAM (MCS3)	5500MHz	9.01	13	Complies
64QAM (MCS5)	5500MHz	8.73	13	Complies
256QAM (MCS8)	5500MHz	8.80	13	Complies

Configuration IEEE 802.11ac 40MHz MCS0-9/Nss1 / Chain 1 + Chain 2 + Chain 3

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (MCS0)	5190MHz	10.04	13	Complies
QPSK (MCS1)	5190MHz	10.24	13	Complies
16QAM (MCS3)	5190MHz	10.30	13	Complies
64QAM (MCS5)	5190MHz	11.07	13	Complies
256QAM (MCS8)	5190MHz	11.31	13	Complies
BPSK (MCS0)	5270MHz	9.41	13	Complies
QPSK (MCS1)	5270MHz	8.88	13	Complies
16QAM (MCS3)	5270MHz	9.92	13	Complies
64QAM (MCS5)	5270MHz	9.09	13	Complies
256QAM (MCS8)	5270MHz	9.36	13	Complies
BPSK (MCS0)	5550MHz	9.47	13	Complies
QPSK (MCS1)	5550MHz	9.25	13	Complies
16QAM (MCS3)	5550MHz	9.17	13	Complies
64QAM (MCS5)	5550MHz	9.79	13	Complies
256QAM (MCS8)	5550MHz	9.62	13	Complies

Configuration IEEE 802.11ac 40MHz MCS0-9/Nss3 / Chain 1 + Chain 2 + Chain 3

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (MCS0)	5190MHz	9.86	13	Complies
QPSK (MCS1)	5190MHz	9.97	13	Complies
16QAM (MCS3)	5190MHz	10.08	13	Complies
64QAM (MCS5)	5190MHz	10.86	13	Complies
256QAM (MCS8)	5190MHz	10.45	13	Complies
BPSK (MCS0)	5270MHz	9.64	13	Complies
QPSK (MCS1)	5270MHz	9.55	13	Complies
16QAM (MCS3)	5270MHz	9.44	13	Complies
64QAM (MCS5)	5270MHz	9.73	13	Complies
256QAM (MCS8)	5270MHz	9.09	13	Complies
BPSK (MCS0)	5710MHz	8.78	13	Complies
QPSK (MCS1)	5710MHz	8.80	13	Complies
16QAM (MCS3)	5710MHz	9.19	13	Complies
64QAM (MCS5)	5710MHz	9.40	13	Complies
256QAM (MCS8)	5710MHz	10.14	13	Complies

Configuration IEEE 802.11ac 80MHz MCS0-9/Nss1 / Chain 1 + Chain 2 + Chain 3

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (MCS0)	5210MHz	9.98	13	Complies
QPSK (MCS1)	5210MHz	10.23	13	Complies
16QAM (MCS3)	5210MHz	10.48	13	Complies
64QAM (MCS5)	5210MHz	10.90	13	Complies
256QAM (MCS8)	5210MHz	10.67	13	Complies
BPSK (MCS0)	5290MHz	9.35	13	Complies
QPSK (MCS1)	5290MHz	9.37	13	Complies
16QAM (MCS3)	5290MHz	9.83	13	Complies
64QAM (MCS5)	5290MHz	9.45	13	Complies
256QAM (MCS8)	5290MHz	9.37	13	Complies
BPSK (MCS0)	5690MHz	8.99	13	Complies
QPSK (MCS1)	5690MHz	9.26	13	Complies
16QAM (MCS3)	5690MHz	10.44	13	Complies
64QAM (MCS5)	5690MHz	9.34	13	Complies
256QAM (MCS8)	5690MHz	10.80	13	Complies

Configuration IEEE 802.11ac 80MHz MCS0-9/Nss3 / Chain 1 + Chain 2 + Chain 3

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (MCS0)	5210MHz	9.93	13	Complies
QPSK (MCS1)	5210MHz	10.61	13	Complies
16QAM (MCS3)	5210MHz	10.12	13	Complies
64QAM (MCS5)	5210MHz	10.64	13	Complies
256QAM (MCS8)	5210MHz	10.74	13	Complies
BPSK (MCS0)	5290MHz	9.44	13	Complies
QPSK (MCS1)	5290MHz	8.66	13	Complies
16QAM (MCS3)	5290MHz	9.41	13	Complies
64QAM (MCS5)	5290MHz	9.01	13	Complies
256QAM (MCS8)	5290MHz	8.80	13	Complies
BPSK (MCS0)	5690MHz	8.88	13	Complies
QPSK (MCS1)	5690MHz	9.07	13	Complies
16QAM (MCS3)	5690MHz	9.49	13	Complies
64QAM (MCS5)	5690MHz	9.58	13	Complies
256QAM (MCS8)	5690MHz	9.32	13	Complies

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

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (6Mbps)	5180MHz	8.50	13	Complies
QPSK (12Mbps)	5180MHz	8.19	13	Complies
16QAM (24Mbps)	5180MHz	8.97	13	Complies
64QAM (48Mbps)	5180MHz	9.12	13	Complies
BPSK (6Mbps)	5260MHz	8.56	13	Complies
QPSK (12Mbps)	5260MHz	7.79	13	Complies
16QAM (24Mbps)	5260MHz	8.37	13	Complies
64QAM (48Mbps)	5260MHz	8.68	13	Complies
BPSK (6Mbps)	5720 MHz	8.36	13	Complies
QPSK (12Mbps)	5720 MHz	8.28	13	Complies
16QAM (24Mbps)	5720 MHz	8.23	13	Complies
64QAM (48Mbps)	5720 MHz	8.40	13	Complies

Temperature	25°C	Humidity	56%
Test Engineer	Benson Peng	Configurations	IEEE 802.11a / ac
Test Mode	Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)		

Configuration IEEE 802.11ac 20MHz MCS0-9/Nss1 / Chain 1 + Chain 2 + Chain 3

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (MCS0)	5180MHz	9.66	13	Complies
QPSK (MCS1)	5180MHz	10.06	13	Complies
16QAM (MCS3)	5180MHz	10.28	13	Complies
64QAM (MCS5)	5180MHz	10.64	13	Complies
256QAM (MCS8)	5180MHz	10.20	13	Complies
BPSK (MCS0)	5260MHz	8.94	13	Complies
QPSK (MCS1)	5260MHz	8.68	13	Complies
16QAM (MCS3)	5260MHz	9.26	13	Complies
64QAM (MCS5)	5260MHz	8.99	13	Complies
256QAM (MCS8)	5260MHz	9.28	13	Complies
BPSK (MCS0)	5720 MHz	9.26	13	Complies
QPSK (MCS1)	5720 MHz	9.02	13	Complies
16QAM (MCS3)	5720 MHz	9.06	13	Complies
64QAM (MCS5)	5720 MHz	8.95	13	Complies
256QAM (MCS8)	5720 MHz	9.54	13	Complies

Configuration IEEE 802.11ac 20MHz MCS0-9/Nss3 / Chain 1 + Chain 2 + Chain 3

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (MCS0)	5240MHz	9.45	13	Complies
QPSK (MCS1)	5240MHz	10.29	13	Complies
16QAM (MCS3)	5240MHz	10.10	13	Complies
64QAM (MCS5)	5240MHz	10.18	13	Complies
256QAM (MCS8)	5240MHz	10.60	13	Complies
BPSK (MCS0)	5260MHz	9.31	13	Complies
QPSK (MCS1)	5260MHz	8.71	13	Complies
16QAM (MCS3)	5260MHz	8.94	13	Complies
64QAM (MCS5)	5260MHz	8.92	13	Complies
256QAM (MCS8)	5260MHz	9.34	13	Complies
BPSK (MCS0)	5720MHz	8.29	13	Complies
QPSK (MCS1)	5720MHz	9.14	13	Complies
16QAM (MCS3)	5720MHz	9.34	13	Complies
64QAM (MCS5)	5720MHz	11.00	13	Complies
256QAM (MCS8)	5720MHz	10.24	13	Complies

Configuration IEEE 802.11ac 40MHz MCS0-9/Nss1 / Chain 1 + Chain 2 + Chain 3

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (MCS0)	5190MHz	9.84	13	Complies
QPSK (MCS1)	5190MHz	9.86	13	Complies
16QAM (MCS3)	5190MHz	10.32	13	Complies
64QAM (MCS5)	5190MHz	10.89	13	Complies
256QAM (MCS8)	5190MHz	10.78	13	Complies
BPSK (MCS0)	5270MHz	9.82	13	Complies
QPSK (MCS1)	5270MHz	8.73	13	Complies
16QAM (MCS3)	5270MHz	9.48	13	Complies
64QAM (MCS5)	5270MHz	9.19	13	Complies
256QAM (MCS8)	5270MHz	9.73	13	Complies
BPSK (MCS0)	5710MHz	10.17	13	Complies
QPSK (MCS1)	5710MHz	9.43	13	Complies
16QAM (MCS3)	5710MHz	10.12	13	Complies
64QAM (MCS5)	5710MHz	10.06	13	Complies
256QAM (MCS8)	5710MHz	9.36	13	Complies

Configuration IEEE 802.11ac 40MHz MCS0-9/Nss3 / Chain 1 + Chain 2 + Chain 3

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (MCS0)	5230MHz	9.85	13	Complies
QPSK (MCS1)	5230MHz	9.71	13	Complies
16QAM (MCS3)	5230MHz	10.71	13	Complies
64QAM (MCS5)	5230MHz	10.89	13	Complies
256QAM (MCS8)	5230MHz	10.14	13	Complies
BPSK (MCS0)	5270MHz	9.83	13	Complies
QPSK (MCS1)	5270MHz	9.50	13	Complies
16QAM (MCS3)	5270MHz	9.17	13	Complies
64QAM (MCS5)	5270MHz	9.73	13	Complies
256QAM (MCS8)	5270MHz	9.40	13	Complies
BPSK (MCS0)	5710MHz	8.47	13	Complies
QPSK (MCS1)	5710MHz	8.83	13	Complies
16QAM (MCS3)	5710MHz	9.92	13	Complies
64QAM (MCS5)	5710MHz	9.62	13	Complies
256QAM (MCS8)	5710MHz	9.49	13	Complies

Configuration IEEE 802.11ac 80MHz MCS0-9/Nss1 / Chain 1 + Chain 2 + Chain 3

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (MCS0)	5210MHz	9.66	13	Complies
QPSK (MCS1)	5210MHz	10.09	13	Complies
16QAM (MCS3)	5210MHz	10.51	13	Complies
64QAM (MCS5)	5210MHz	11.03	13	Complies
256QAM (MCS8)	5210MHz	10.90	13	Complies
BPSK (MCS0)	5290MHz	8.74	13	Complies
QPSK (MCS1)	5290MHz	9.24	13	Complies
16QAM (MCS3)	5290MHz	9.02	13	Complies
64QAM (MCS5)	5290MHz	9.84	13	Complies
256QAM (MCS8)	5290MHz	9.98	13	Complies
BPSK (MCS0)	5690MHz	9.85	13	Complies
QPSK (MCS1)	5690MHz	9.56	13	Complies
16QAM (MCS3)	5690MHz	9.37	13	Complies
64QAM (MCS5)	5690MHz	9.89	13	Complies
256QAM (MCS8)	5690MHz	9.34	13	Complies

Configuration IEEE 802.11ac 80MHz MCS0-9/Nss3 / Chain 1 + Chain 2 + Chain 3

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (MCS0)	5210MHz	10.13	13	Complies
QPSK (MCS1)	5210MHz	10.01	13	Complies
16QAM (MCS3)	5210MHz	10.49	13	Complies
64QAM (MCS5)	5210MHz	10.81	13	Complies
256QAM (MCS8)	5210MHz	11.30	13	Complies
BPSK (MCS0)	5290MHz	9.35	13	Complies
QPSK (MCS1)	5290MHz	9.36	13	Complies
16QAM (MCS3)	5290MHz	9.91	13	Complies
64QAM (MCS5)	5290MHz	9.84	13	Complies
256QAM (MCS8)	5290MHz	9.30	13	Complies
BPSK (MCS0)	5690MHz	9.80	13	Complies
QPSK (MCS1)	5690MHz	8.80	13	Complies
16QAM (MCS3)	5690MHz	9.25	13	Complies
64QAM (MCS5)	5690MHz	9.74	13	Complies
256QAM (MCS8)	5690MHz	9.21	13	Complies

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

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (6Mbps)	5240MHz	8.55	13	Complies
QPSK (12Mbps)	5240MHz	8.13	13	Complies
16QAM (24Mbps)	5240MHz	8.98	13	Complies
64QAM (48Mbps)	5240MHz	8.88	13	Complies
BPSK (6Mbps)	5260MHz	8.45	13	Complies
QPSK (12Mbps)	5260MHz	7.76	13	Complies
16QAM (24Mbps)	5260MHz	8.81	13	Complies
64QAM (48Mbps)	5260MHz	8.71	13	Complies
BPSK (6Mbps)	5580MHz	8.42	13	Complies
QPSK (12Mbps)	5580MHz	8.51	13	Complies
16QAM (24Mbps)	5580MHz	8.61	13	Complies
64QAM (48Mbps)	5580MHz	8.55	13	Complies

Temperature	25°C	Humidity	56%
Test Engineer	Benson Peng	Configurations	IEEE 802.11a / ac
Test Mode	Mode 3 (Ant.4 Panel antenna / 9.2dBi)		

Configuration IEEE 802.11ac 20MHz MCS0-9/Nss1 / Chain 1 + Chain 2 + Chain 3

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (MCS0)	5180MHz	8.90	13	Complies
QPSK (MCS1)	5180MHz	8.75	13	Complies
16QAM (MCS3)	5180MHz	8.94	13	Complies
64QAM (MCS5)	5180MHz	9.41	13	Complies
256QAM (MCS8)	5180MHz	9.88	13	Complies
BPSK (MCS0)	5260MHz	9.48	13	Complies
QPSK (MCS1)	5260MHz	9.20	13	Complies
16QAM (MCS3)	5260MHz	9.60	13	Complies
64QAM (MCS5)	5260MHz	9.29	13	Complies
256QAM (MCS8)	5260MHz	9.40	13	Complies
BPSK (MCS0)	5580MHz	9.31	13	Complies
QPSK (MCS1)	5580MHz	8.84	13	Complies
16QAM (MCS3)	5580MHz	9.12	13	Complies
64QAM (MCS5)	5580MHz	9.07	13	Complies
256QAM (MCS8)	5580MHz	9.78	13	Complies

Configuration IEEE 802.11ac 20MHz MCS0-9/Nss3 / Chain 1 + Chain 2 + Chain 3

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (MCS0)	5200MHz	9.48	13	Complies
QPSK (MCS1)	5200MHz	9.81	13	Complies
16QAM (MCS3)	5200MHz	9.55	13	Complies
64QAM (MCS5)	5200MHz	9.52	13	Complies
256QAM (MCS8)	5200MHz	9.40	13	Complies
BPSK (MCS0)	5260MHz	9.68	13	Complies
QPSK (MCS1)	5260MHz	8.82	13	Complies
16QAM (MCS3)	5260MHz	9.86	13	Complies
64QAM (MCS5)	5260MHz	9.67	13	Complies
256QAM (MCS8)	5260MHz	9.74	13	Complies
BPSK (MCS0)	5580MHz	9.47	13	Complies
QPSK (MCS1)	5580MHz	9.00	13	Complies
16QAM (MCS3)	5580MHz	9.25	13	Complies
64QAM (MCS5)	5580MHz	9.06	13	Complies
256QAM (MCS8)	5580MHz	8.91	13	Complies

Configuration IEEE 802.11ac 40MHz MCS0-9/Nss1 / Chain 1 + Chain 2 + Chain 3

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (MCS0)	5190MHz	9.22	13	Complies
QPSK (MCS1)	5190MHz	8.29	13	Complies
16QAM (MCS3)	5190MHz	9.14	13	Complies
64QAM (MCS5)	5190MHz	8.94	13	Complies
256QAM (MCS8)	5190MHz	10.38	13	Complies
BPSK (MCS0)	5270MHz	9.04	13	Complies
QPSK (MCS1)	5270MHz	8.65	13	Complies
16QAM (MCS3)	5270MHz	8.66	13	Complies
64QAM (MCS5)	5270MHz	9.98	13	Complies
256QAM (MCS8)	5270MHz	10.06	13	Complies
BPSK (MCS0)	5710MHz	9.67	13	Complies
QPSK (MCS1)	5710MHz	9.63	13	Complies
16QAM (MCS3)	5710MHz	9.39	13	Complies
64QAM (MCS5)	5710MHz	10.28	13	Complies
256QAM (MCS8)	5710MHz	9.61	13	Complies

Configuration IEEE 802.11ac 40MHz MCS0-9/Nss3 / Chain 1 + Chain 2 + Chain 3

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (MCS0)	5190MHz	9.36	13	Complies
QPSK (MCS1)	5190MHz	8.64	13	Complies
16QAM (MCS3)	5190MHz	9.54	13	Complies
64QAM (MCS5)	5190MHz	9.38	13	Complies
256QAM (MCS8)	5190MHz	9.94	13	Complies
BPSK (MCS0)	5270MHz	9.66	13	Complies
QPSK (MCS1)	5270MHz	8.50	13	Complies
16QAM (MCS3)	5270MHz	10.41	13	Complies
64QAM (MCS5)	5270MHz	9.95	13	Complies
256QAM (MCS8)	5270MHz	9.08	13	Complies
BPSK (MCS0)	5710MHz	9.55	13	Complies
QPSK (MCS1)	5710MHz	9.48	13	Complies
16QAM (MCS3)	5710MHz	9.70	13	Complies
64QAM (MCS5)	5710MHz	10.17	13	Complies
256QAM (MCS8)	5710MHz	9.34	13	Complies

Configuration IEEE 802.11ac 80MHz MCS0-9/Nss1 / Chain 1 + Chain 2 + Chain 3

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (MCS0)	5210MHz	9.26	13	Complies
QPSK (MCS1)	5210MHz	8.82	13	Complies
16QAM (MCS3)	5210MHz	9.23	13	Complies
64QAM (MCS5)	5210MHz	10.04	13	Complies
256QAM (MCS8)	5210MHz	9.69	13	Complies
BPSK (MCS0)	5290MHz	9.23	13	Complies
QPSK (MCS1)	5290MHz	9.80	13	Complies
16QAM (MCS3)	5290MHz	9.23	13	Complies
64QAM (MCS5)	5290MHz	9.81	13	Complies
256QAM (MCS8)	5290MHz	9.89	13	Complies
BPSK (MCS0)	5690MHz	9.64	13	Complies
QPSK (MCS1)	5690MHz	9.70	13	Complies
16QAM (MCS3)	5690MHz	9.69	13	Complies
64QAM (MCS5)	5690MHz	9.30	13	Complies
256QAM (MCS8)	5690MHz	9.83	13	Complies

Configuration IEEE 802.11ac 80MHz MCS0-9/Nss3 / Chain 1 + Chain 2 + Chain 3

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (MCS0)	5210MHz	8.98	13	Complies
QPSK (MCS1)	5210MHz	8.97	13	Complies
16QAM (MCS3)	5210MHz	9.20	13	Complies
64QAM (MCS5)	5210MHz	9.50	13	Complies
256QAM (MCS8)	5210MHz	9.26	13	Complies
BPSK (MCS0)	5290MHz	9.63	13	Complies
QPSK (MCS1)	5290MHz	8.92	13	Complies
16QAM (MCS3)	5290MHz	8.97	13	Complies
64QAM (MCS5)	5290MHz	9.42	13	Complies
256QAM (MCS8)	5290MHz	9.30	13	Complies
BPSK (MCS0)	5690MHz	9.25	13	Complies
QPSK (MCS1)	5690MHz	9.12	13	Complies
16QAM (MCS3)	5690MHz	9.42	13	Complies
64QAM (MCS5)	5690MHz	10.21	13	Complies
256QAM (MCS8)	5690MHz	9.00	13	Complies

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

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (6Mbps)	5180MHz	8.29	13	Complies
QPSK (12Mbps)	5180MHz	8.02	13	Complies
16QAM (24Mbps)	5180MHz	8.69	13	Complies
64QAM (48Mbps)	5180MHz	8.68	13	Complies
BPSK (6Mbps)	5260MHz	8.43	13	Complies
QPSK (12Mbps)	5260MHz	7.81	13	Complies
16QAM (24Mbps)	5260MHz	8.85	13	Complies
64QAM (48Mbps)	5260MHz	8.70	13	Complies
BPSK (6Mbps)	5580MHz	8.69	13	Complies
QPSK (12Mbps)	5580MHz	8.47	13	Complies
16QAM (24Mbps)	5580MHz	8.78	13	Complies
64QAM (48Mbps)	5580MHz	8.77	13	Complies

Temperature	25°C	Humidity	56%
Test Engineer	Benson Peng	Configurations	IEEE 802.11a / ac
Test Mode	Mode 4 (Ant.5 PCB antenna / 5.74dBi)		

Configuration IEEE 802.11ac 20MHz MCS0-9/Nss1 / Chain 1 + Chain 2 + Chain 3

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (MCS0)	5200MHz	10.10	13	Complies
QPSK (MCS1)	5200MHz	9.54	13	Complies
16QAM (MCS3)	5200MHz	10.24	13	Complies
64QAM (MCS5)	5200MHz	9.87	13	Complies
256QAM (MCS8)	5200MHz	10.85	13	Complies
BPSK (MCS0)	5260MHz	8.73	13	Complies
QPSK (MCS1)	5260MHz	8.76	13	Complies
16QAM (MCS3)	5260MHz	9.00	13	Complies
64QAM (MCS5)	5260MHz	9.93	13	Complies
256QAM (MCS8)	5260MHz	9.64	13	Complies
BPSK (MCS0)	5720MHz	9.47	13	Complies
QPSK (MCS1)	5720MHz	8.56	13	Complies
16QAM (MCS3)	5720MHz	8.96	13	Complies
64QAM (MCS5)	5720MHz	9.35	13	Complies
256QAM (MCS8)	5720MHz	8.93	13	Complies

Configuration IEEE 802.11ac 20MHz MCS0-9/Nss3 / Chain 1 + Chain 2 + Chain 3

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (MCS0)	5180MHz	9.64	13	Complies
QPSK (MCS1)	5180MHz	9.93	13	Complies
16QAM (MCS3)	5180MHz	9.98	13	Complies
64QAM (MCS5)	5180MHz	10.31	13	Complies
256QAM (MCS8)	5180MHz	10.65	13	Complies
BPSK (MCS0)	5260MHz	9.33	13	Complies
QPSK (MCS1)	5260MHz	8.70	13	Complies
16QAM (MCS3)	5260MHz	9.32	13	Complies
64QAM (MCS5)	5260MHz	9.24	13	Complies
256QAM (MCS8)	5260MHz	9.09	13	Complies
BPSK (MCS0)	5720MHz	9.03	13	Complies
QPSK (MCS1)	5720MHz	9.20	13	Complies
16QAM (MCS3)	5720MHz	8.69	13	Complies
64QAM (MCS5)	5720MHz	9.01	13	Complies
256QAM (MCS8)	5720MHz	9.17	13	Complies

Configuration IEEE 802.11ac 40MHz MCS0-9/Nss1 / Chain 1 + Chain 2 + Chain 3

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (MCS0)	5190MHz	9.64	13	Complies
QPSK (MCS1)	5190MHz	9.54	13	Complies
16QAM (MCS3)	5190MHz	10.20	13	Complies
64QAM (MCS5)	5190MHz	10.05	13	Complies
256QAM (MCS8)	5190MHz	11.27	13	Complies
BPSK (MCS0)	5270MHz	9.65	13	Complies
QPSK (MCS1)	5270MHz	9.00	13	Complies
16QAM (MCS3)	5270MHz	9.75	13	Complies
64QAM (MCS5)	5270MHz	9.75	13	Complies
256QAM (MCS8)	5270MHz	9.70	13	Complies
BPSK (MCS0)	5710MHz	9.96	13	Complies
QPSK (MCS1)	5710MHz	9.35	13	Complies
16QAM (MCS3)	5710MHz	8.58	13	Complies
64QAM (MCS5)	5710MHz	10.18	13	Complies
256QAM (MCS8)	5710MHz	9.54	13	Complies

Configuration IEEE 802.11ac 40MHz MCS0-9/Nss3 / Chain 1 + Chain 2 + Chain 3

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (MCS0)	5190MHz	10.35	13	Complies
QPSK (MCS1)	5190MHz	10.12	13	Complies
16QAM (MCS3)	5190MHz	9.88	13	Complies
64QAM (MCS5)	5190MHz	10.39	13	Complies
256QAM (MCS8)	5190MHz	10.54	13	Complies
BPSK (MCS0)	5270MHz	9.18	13	Complies
QPSK (MCS1)	5270MHz	9.04	13	Complies
16QAM (MCS3)	5270MHz	9.45	13	Complies
64QAM (MCS5)	5270MHz	9.69	13	Complies
256QAM (MCS8)	5270MHz	9.51	13	Complies
BPSK (MCS0)	5710MHz	9.83	13	Complies
QPSK (MCS1)	5710MHz	9.22	13	Complies
16QAM (MCS3)	5710MHz	9.10	13	Complies
64QAM (MCS5)	5710MHz	9.79	13	Complies
256QAM (MCS8)	5710MHz	10.31	13	Complies

Configuration IEEE 802.11ac 80MHz MCS0-9/Nss1 / Chain 1 + Chain 2 + Chain 3

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (MCS0)	5210MHz	9.88	13	Complies
QPSK (MCS1)	5210MHz	9.92	13	Complies
16QAM (MCS3)	5210MHz	10.10	13	Complies
64QAM (MCS5)	5210MHz	11.14	13	Complies
256QAM (MCS8)	5210MHz	10.85	13	Complies
BPSK (MCS0)	5290MHz	9.01	13	Complies
QPSK (MCS1)	5290MHz	9.07	13	Complies
16QAM (MCS3)	5290MHz	9.89	13	Complies
64QAM (MCS5)	5290MHz	9.65	13	Complies
256QAM (MCS8)	5290MHz	9.75	13	Complies
BPSK (MCS0)	5690MHz	10.93	13	Complies
QPSK (MCS1)	5690MHz	9.58	13	Complies
16QAM (MCS3)	5690MHz	10.11	13	Complies
64QAM (MCS5)	5690MHz	9.37	13	Complies
256QAM (MCS8)	5690MHz	9.94	13	Complies

Configuration IEEE 802.11ac 80MHz MCS0-9/Nss3 / Chain 1 + Chain 2 + Chain 3

Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (MCS0)	5210MHz	10.52	13	Complies
QPSK (MCS1)	5210MHz	10.80	13	Complies
16QAM (MCS3)	5210MHz	10.72	13	Complies
64QAM (MCS5)	5210MHz	10.70	13	Complies
256QAM (MCS8)	5210MHz	11.16	13	Complies
BPSK (MCS0)	5290MHz	9.38	13	Complies
QPSK (MCS1)	5290MHz	9.44	13	Complies
16QAM (MCS3)	5290MHz	9.35	13	Complies
64QAM (MCS5)	5290MHz	9.25	13	Complies
256QAM (MCS8)	5290MHz	9.43	13	Complies
BPSK (MCS0)	5690MHz	9.56	13	Complies
QPSK (MCS1)	5690MHz	9.04	13	Complies
16QAM (MCS3)	5690MHz	9.82	13	Complies
64QAM (MCS5)	5690MHz	9.28	13	Complies
256QAM (MCS8)	5690MHz	9.14	13	Complies

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

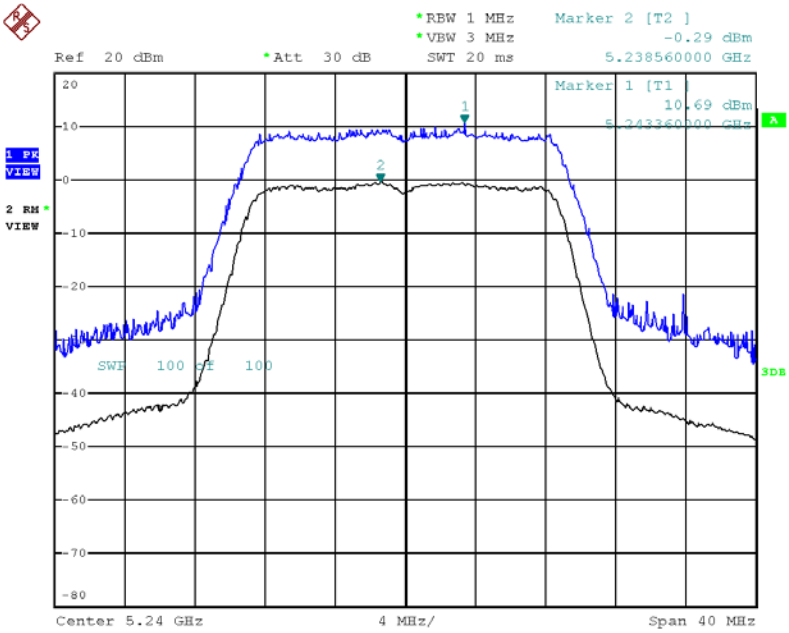
Modulation	Frequency	Peak Excursion (dB)	Max. Limit (dB)	Result
BPSK (6Mbps)	5200MHz	8.60	13	Complies
QPSK (12Mbps)	5200MHz	8.15	13	Complies
16QAM (24Mbps)	5200MHz	8.92	13	Complies
64QAM (48Mbps)	5200MHz	9.02	13	Complies
BPSK(6Mbps)	5260MHz	8.33	13	Complies
QPSK (12Mbps)	5260MHz	7.78	13	Complies
16QAM (24Mbps)	5260MHz	8.65	13	Complies
64QAM (48Mbps)	5260MHz	8.68	13	Complies
BPSK (6Mbps)	5720MHz	9.18	13	Complies
QPSK (12Mbps)	5720MHz	8.70	13	Complies
16QAM (24Mbps)	5720MHz	8.83	13	Complies
64QAM (48Mbps)	5720MHz	8.58	13	Complies

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

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

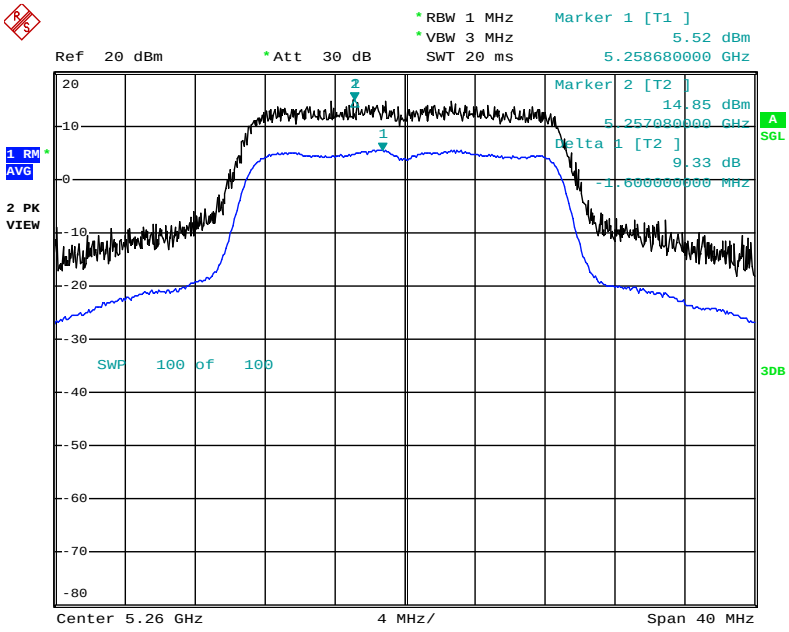
Test Mode: Mode 1 (Ant.1 Dipole antenna / 1dBi)

Peak Excursion Plot on Configuration IEEE 802.11ac 20MHz MCS0-9/Nss1 / Chain 1 + Chain 2 + Chain 3 / 256QAM (MCS8) / 5240 MHz



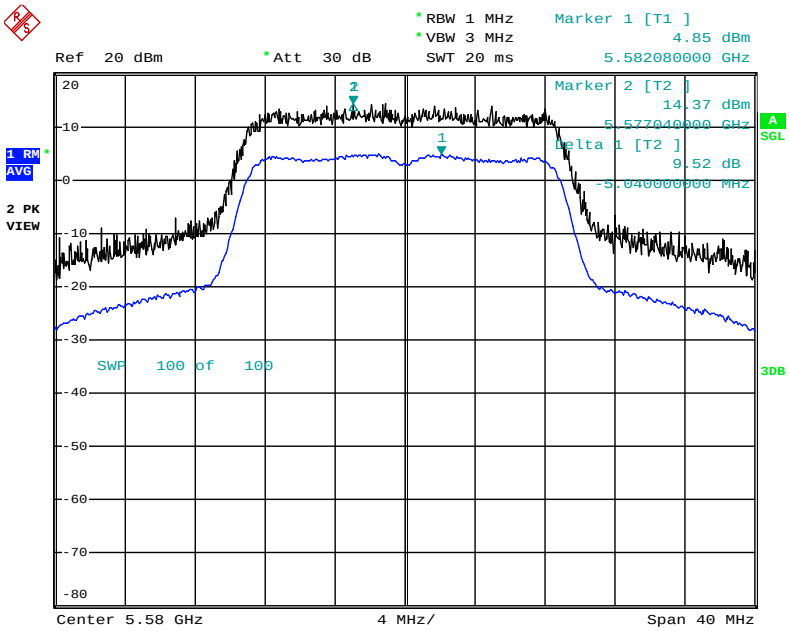
Date: 6.AUG.2013 16:48:06

Peak Excursion Plot on Configuration IEEE 802.11ac 20MHz MCS0-9/Nss1 / Chain 1 + Chain 2 + Chain 3 / 256QAM (MCS8) / 5260 MHz



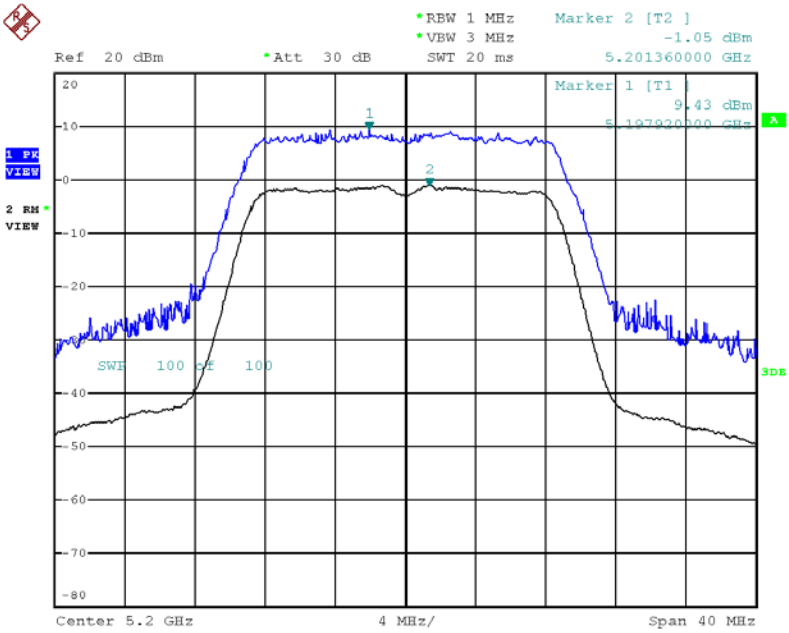
Date: 10.AUG.2013 06:50:44

Peak Excursion Plot on Configuration IEEE 802.11ac 20MHz MCS0-9/Nss1 / Chain 1 + Chain 2 + Chain 3 / 256QAM (MCS8) / 5580 MHz



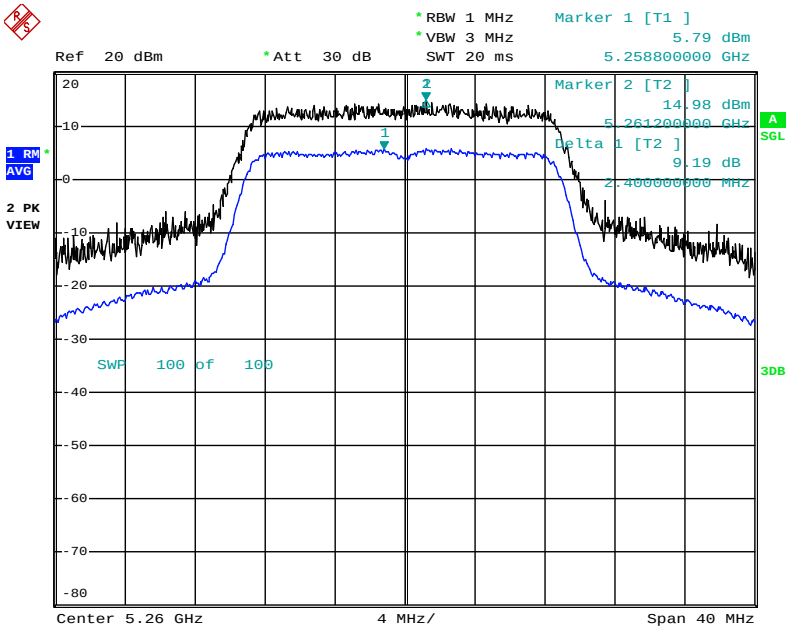
Date: 10.AUG.2013 06:49:49

Peak Excursion Plot on Configuration IEEE 802.11ac 20MHz MCS0-9/Nss3 / Chain 1 + Chain 2 + Chain 3 / 64QAM (MCS5) / 5200 MHz



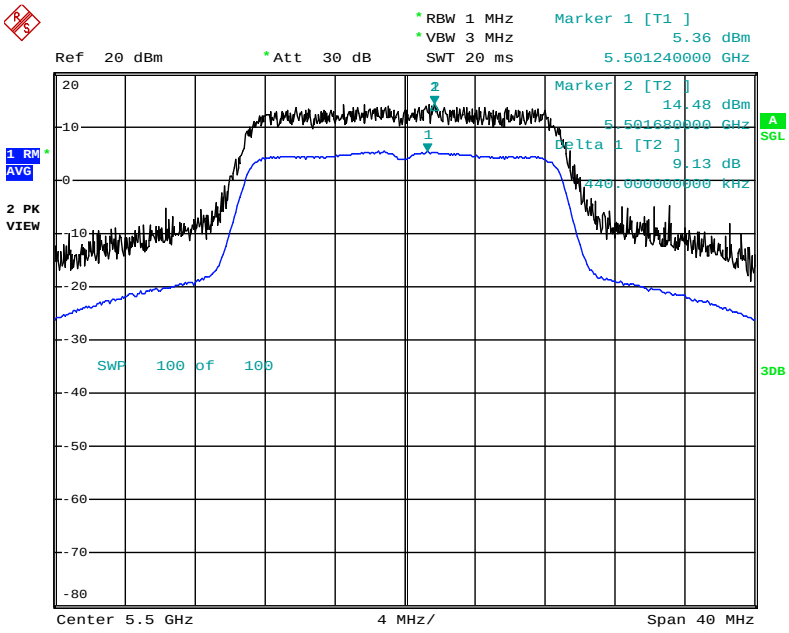
Date: 6.AUG.2013 17:02:08

Peak Excursion Plot on Configuration IEEE 802.11ac 20MHz MCS0-9/Nss3 / Chain 1 + Chain 2 + Chain 3 / 16QAM (MCS3) / 5260 MHz



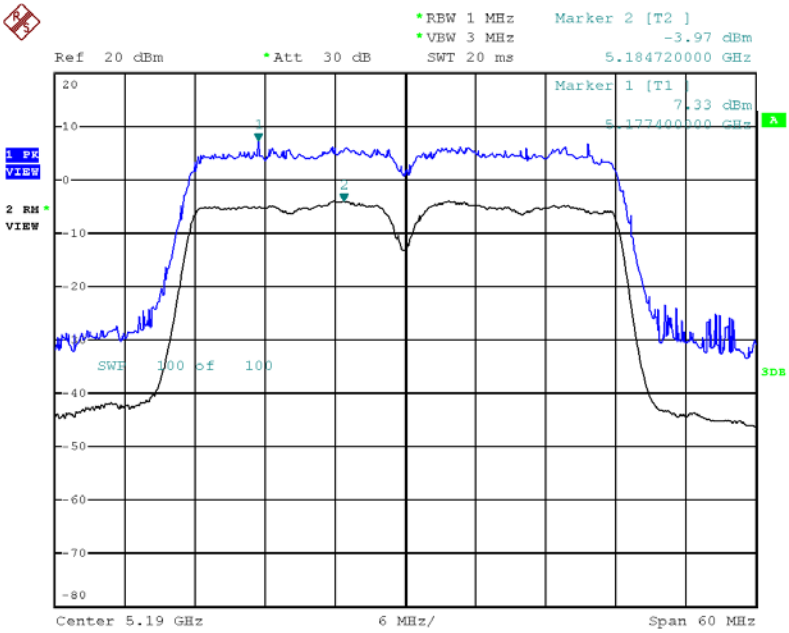
Date: 10.AUG.2013 06:55:45

Peak Excursion Plot on Configuration IEEE 802.11ac 20MHz MCS0-9/Nss3 / Chain 1 + Chain 2 + Chain 3 / BPSK (MCS0) / 5500 MHz



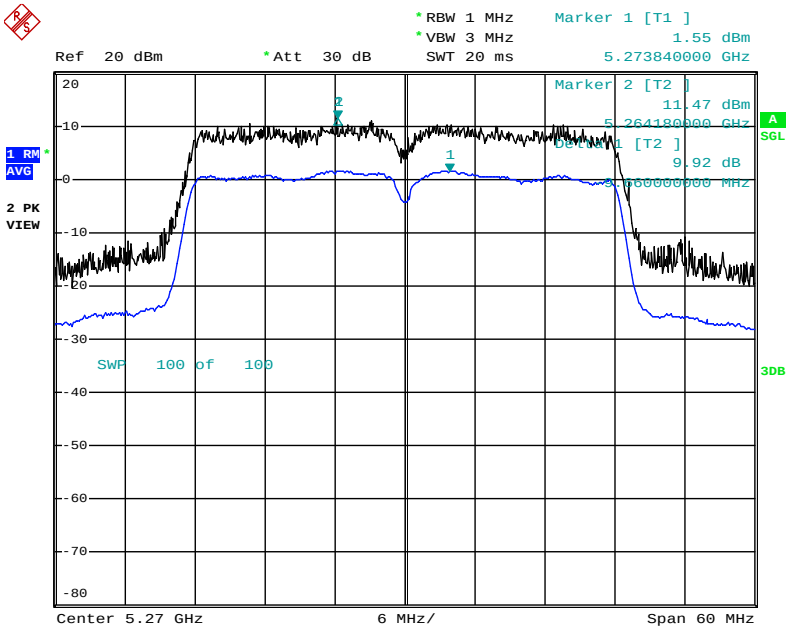
Date: 10.AUG.2013 06:59:28

Peak Excursion Plot on Configuration IEEE 802.11ac 40MHz MCS0-9/Nss1 / Chain 1 + Chain 2 + Chain 3 / 256QAM (MCS8) / 5190 MHz



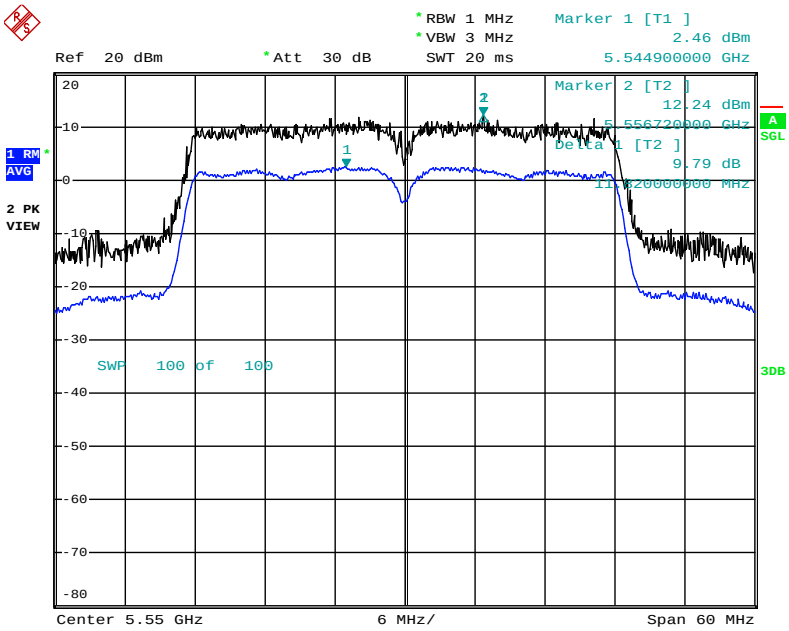
Date: 6.AUG.2013 16:53:21

Peak Excursion Plot on Configuration IEEE 802.11ac 40MHz MCS0-9/Nss1 / Chain 1 + Chain 2 + Chain 3 / 16QAM (MCS3) / 5270 MHz



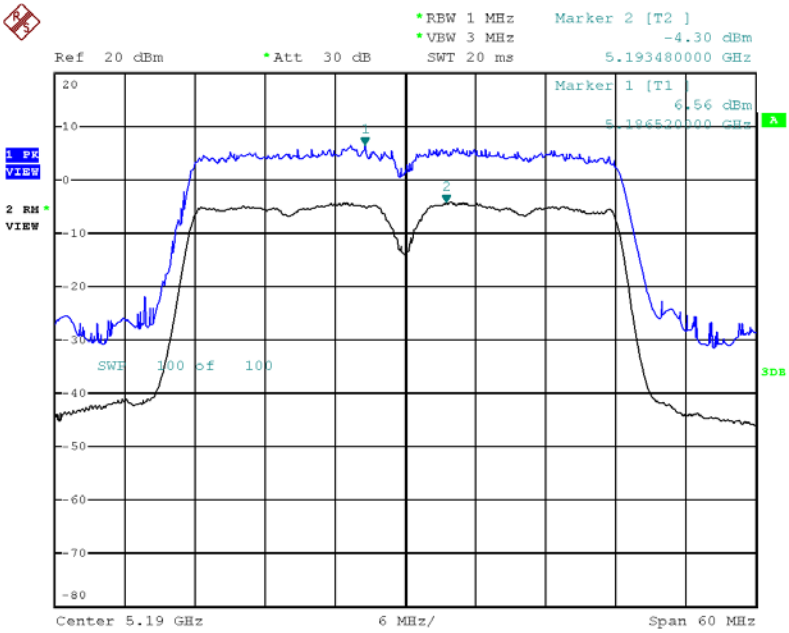
Date: 10.AUG.2013 07:07:17

Peak Excursion Plot on Configuration IEEE 802.11ac 40MHz MCS0-9/Nss1 / Chain 1 + Chain 2 + Chain 3 / 64QAM (MCS5) / 5550 MHz



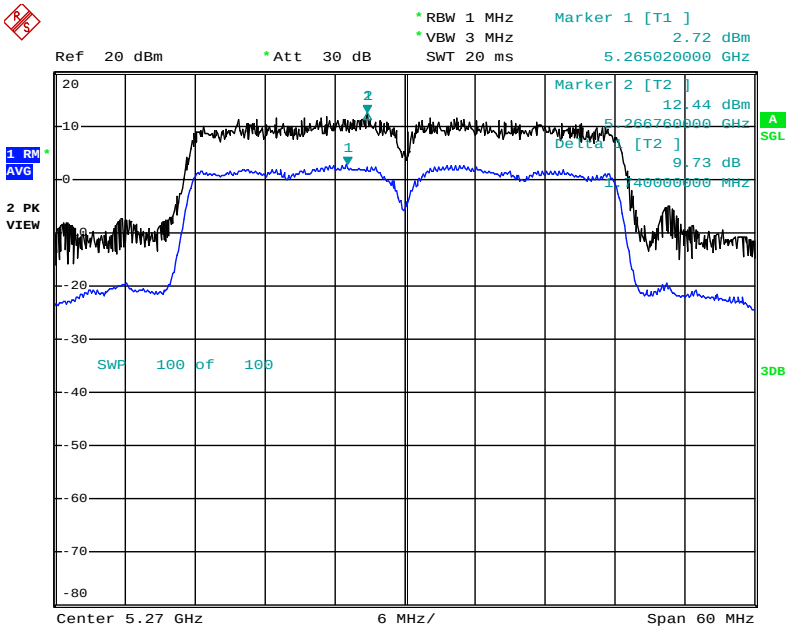
Date: 10.AUG.2013 07:09:43

Peak Excursion Plot on Configuration IEEE 802.11ac 40MHz MCS0-9/Nss3 / Chain 1 + Chain 2 + Chain 3 / 64QAM (MCS5) / 5190 MHz



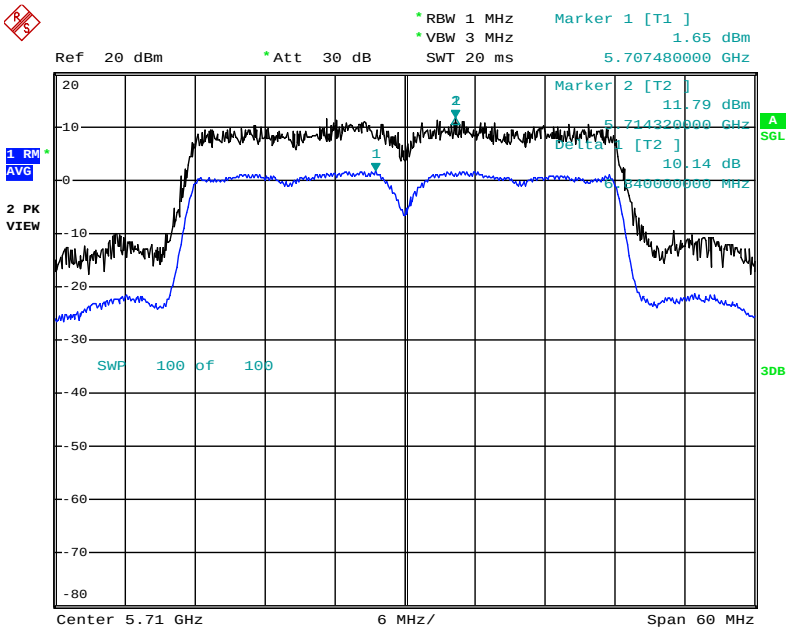
Date: 6.AUG.2013 17:06:19

Peak Excursion Plot on Configuration IEEE 802.11ac 40MHz MCS0-9/Nss3 / Chain 1 + Chain 2 + Chain 3 / 64QAM (MCS5) / 5270 MHz



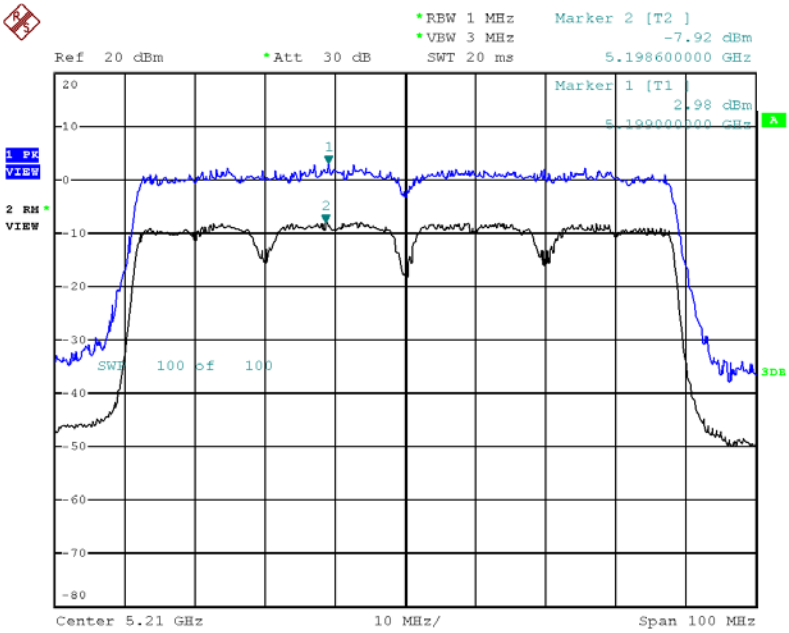
Date: 10.AUG.2013 07:04:00

Peak Excursion Plot on Configuration IEEE 802.11ac 40MHz MCS0-9/Nss3 / Chain 1 + Chain 2 + Chain 3 / 256QAM (MCS8) / 5710 MHz



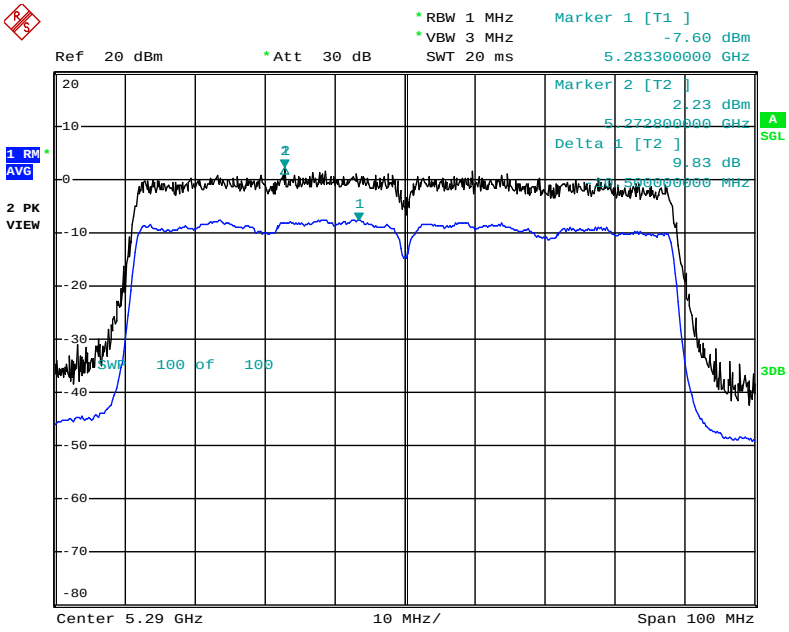
Date: 22.AUG.2013 20:48:31

Peak Excursion Plot on Configuration IEEE 802.11ac 80MHz MCS0-9/Nss1 / Chain 1 + Chain 2 + Chain 3 / 64QAM (MCS5) / 5210 MHz



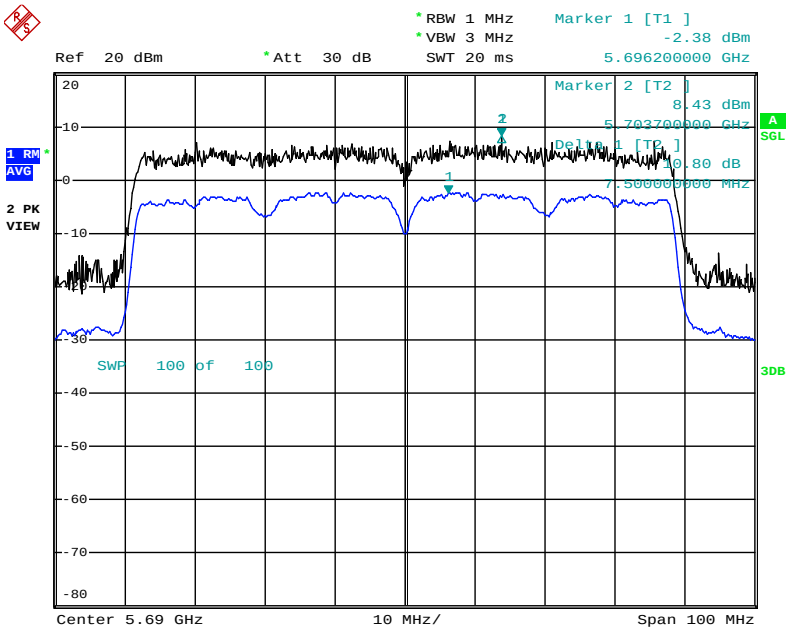
Date: 6.AUG.2013 16:56:51

Peak Excursion Plot on Configuration IEEE 802.11ac 80MHz MCS0-9/Nss1 / Chain 1 + Chain 2 + Chain 3 / 16QAM (MCS3) / 5290 MHz



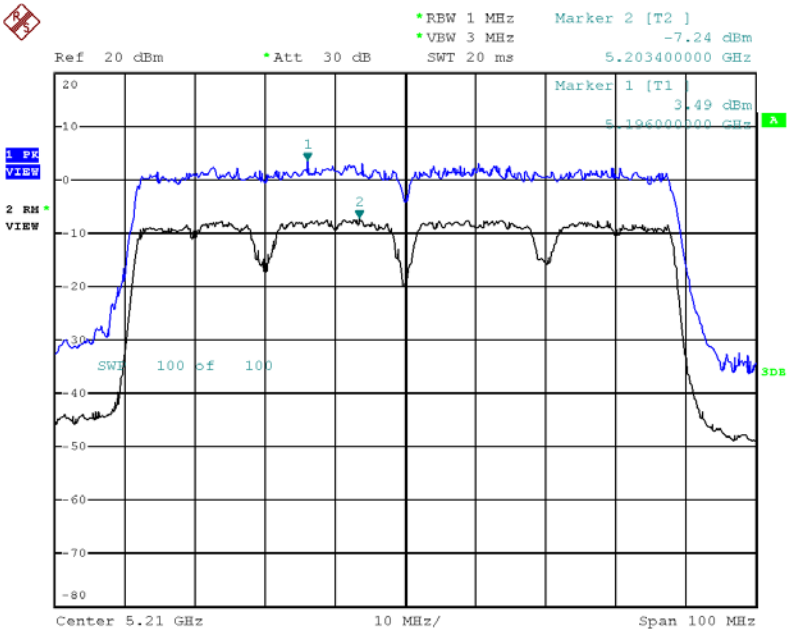
Date: 10.AUG.2013 07:15:53

Peak Excursion Plot on Configuration IEEE 802.11ac 80MHz MCS0-9/Nss1 / Chain 1 + Chain 2 + Chain 3 / 256QAM (MCS8) / 5690 MHz



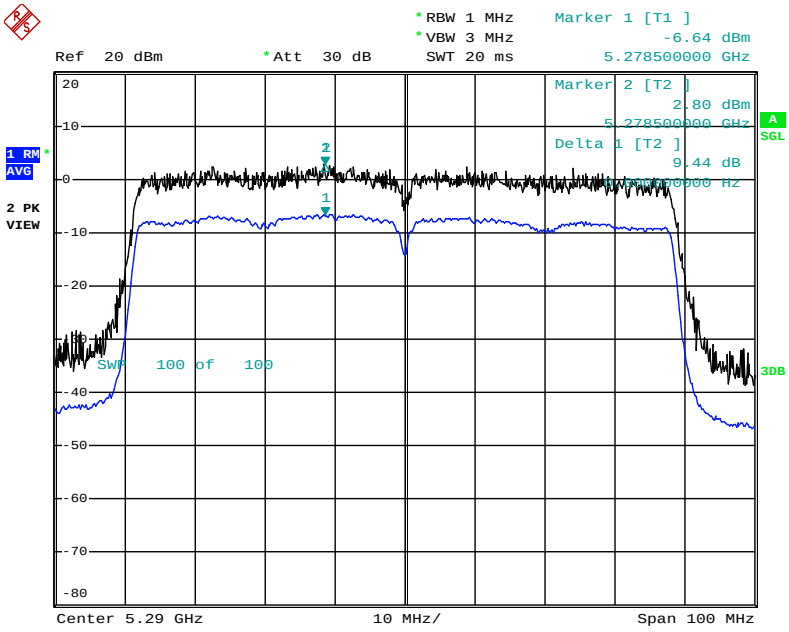
Date: 22.AUG.2013 20:40:48

Peak Excursion Plot on Configuration IEEE 802.11ac 80MHz MCS0-9/Nss3 / Chain 1 + Chain 2 + Chain 3 / 256QAM (MCS8) / 5210 MHz



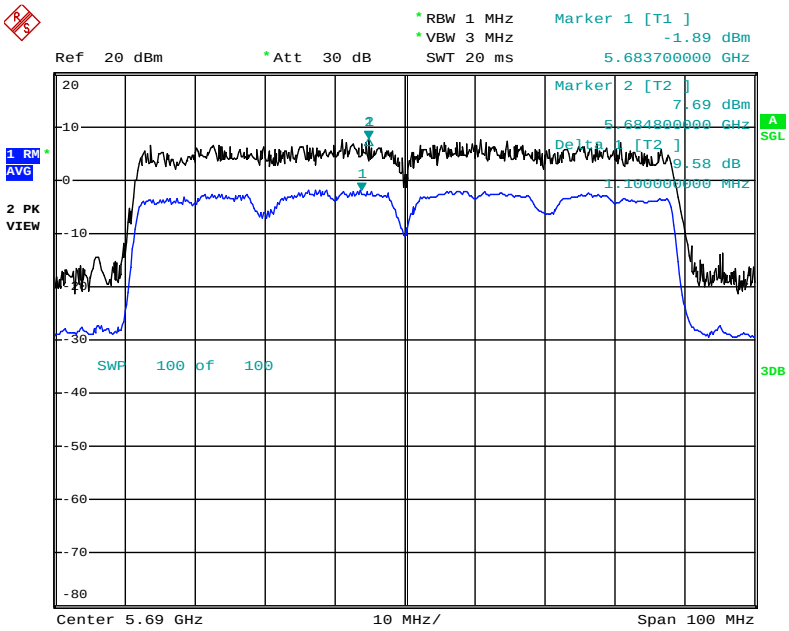
Date: 6.AUG.2013 17:12:10

Peak Excursion Plot on Configuration IEEE 802.11ac 80MHz MCS0-9/Nss3 / Chain 1 + Chain 2 + Chain 3 / BPSK (MCS0) / 5290 MHz



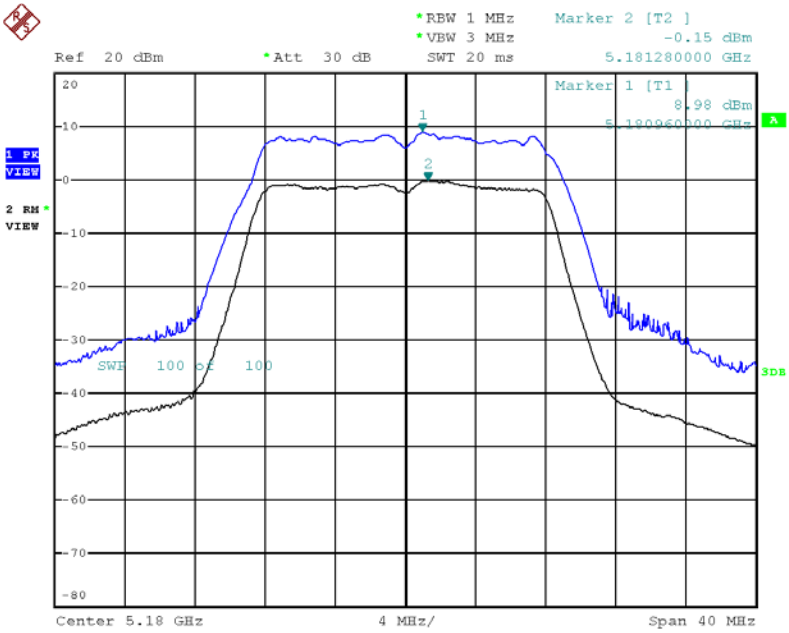
Date: 10.AUG.2013 07:17:38

Peak Excursion Plot on Configuration IEEE 802.11ac 80MHz MCS0-9/Nss3 / Chain 1 + Chain 2 + Chain 3 / 64QAM (MCS5) / 5690 MHz



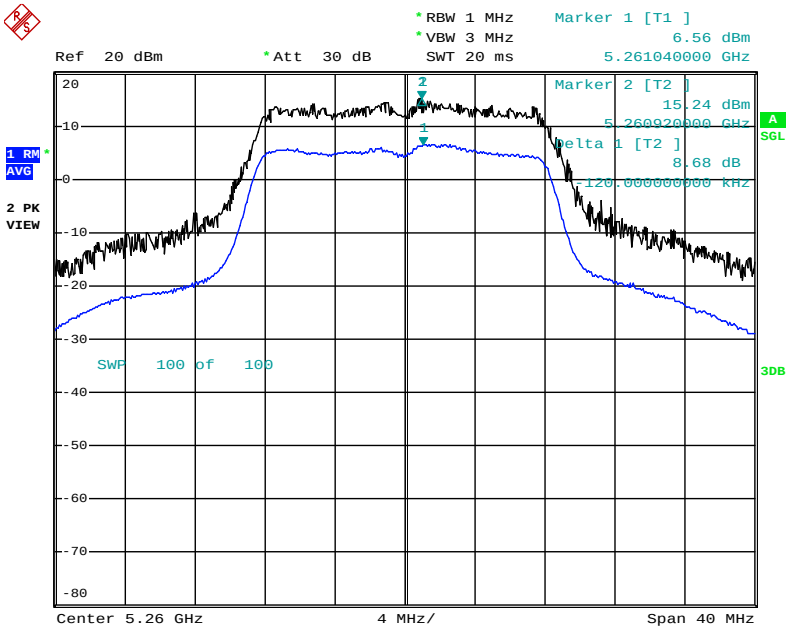
Date: 22.AUG.2013 20:53:34

Peak Excursion Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 64QAM (48Mbps) / 5180 MHz



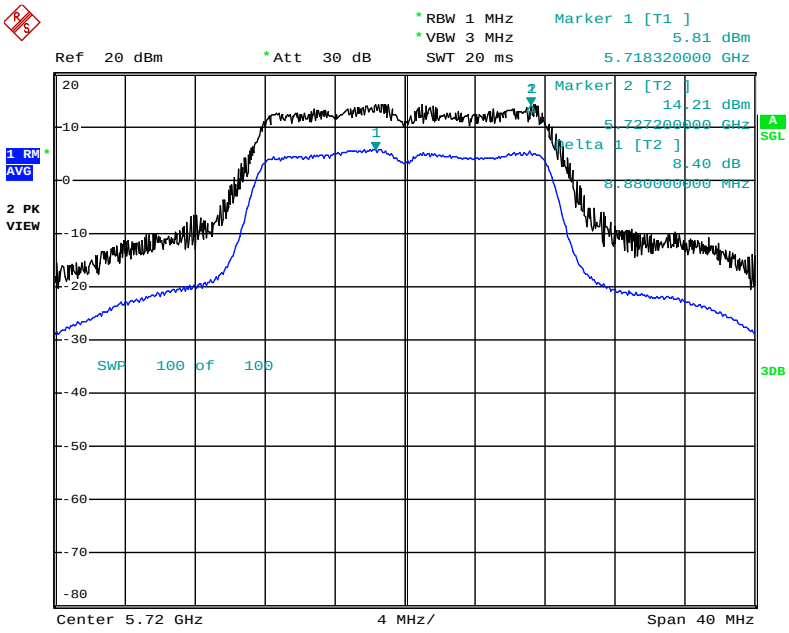
Date: 6.AUG.2013 16:42:03

Peak Excursion Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 64QAM (48Mbps) / 5260 MHz



Date: 10.AUG.2013 06:39:40

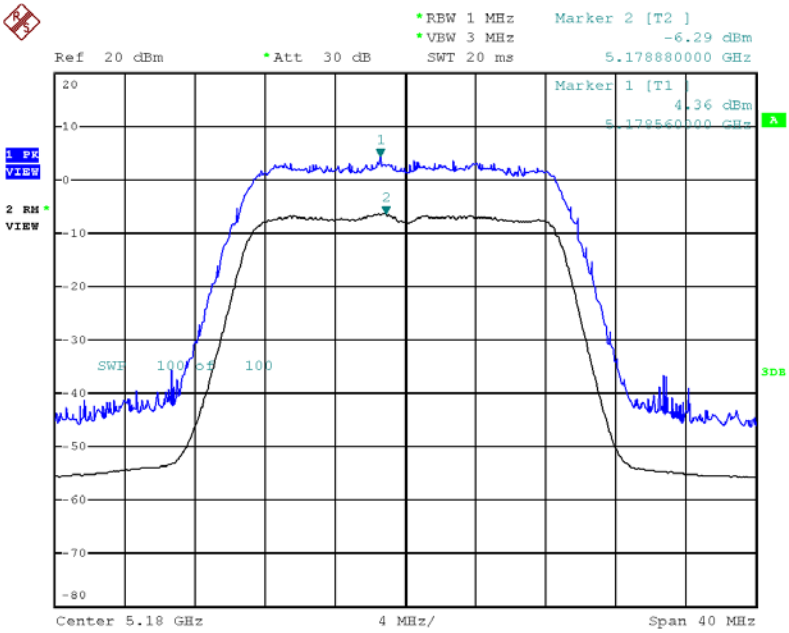
Peak Excursion Plot on Configuration IEEE 802.11a / Chain 1 + Chain 2 + Chain 3 / 64QAM (48Mbps) / 5720 MHz



Date: 22.AUG.2013 20:23:33

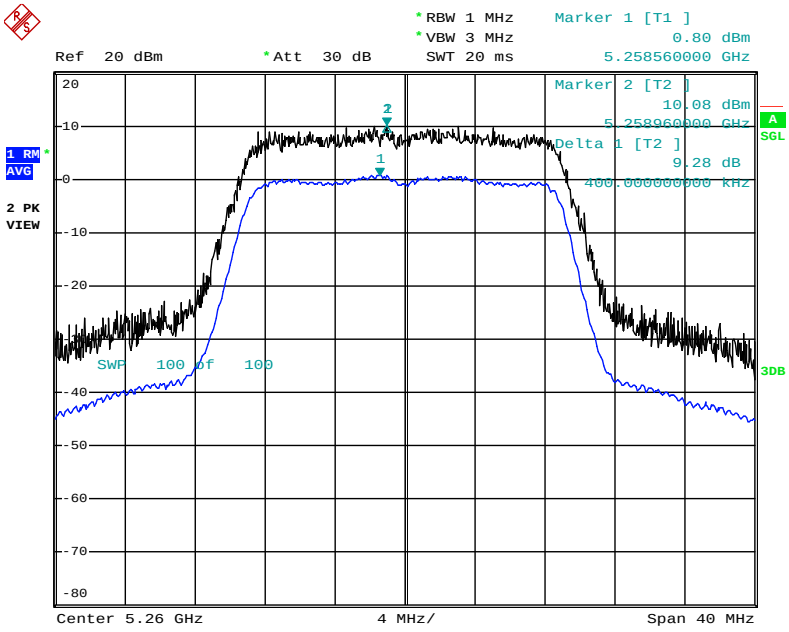
Test Mode: Mode 2 (Ant.3 Omnidirectional antenna / 6.7dBi)

Peak Excursion Plot on Configuration IEEE 802.11ac 20MHz MCS0-9/Nss1 / Chain 1 + Chain 2 + Chain 3 / 64QAM (MCS5) / 5180 MHz



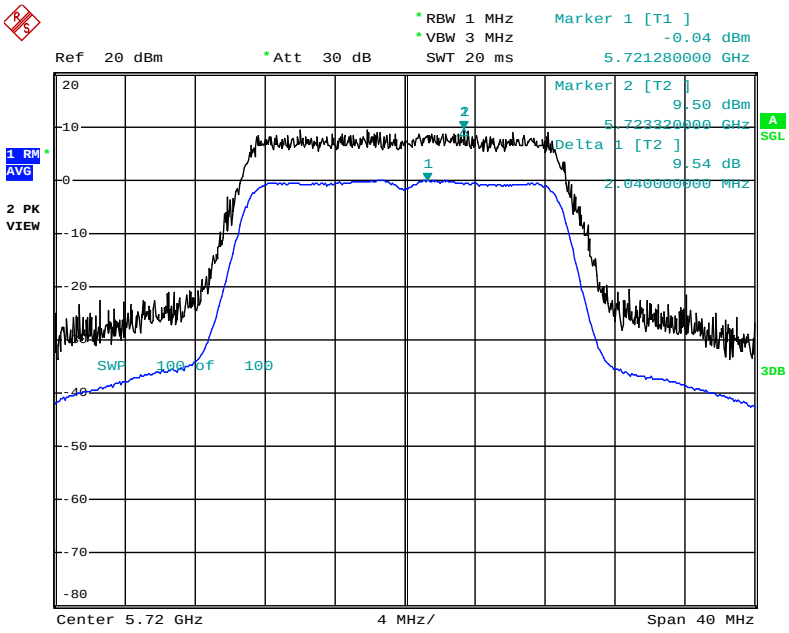
Date: 6.AUG.2013 17:32:46

Peak Excursion Plot on Configuration IEEE 802.11ac 20MHz MCS0-9/Nss1 / Chain 1 + Chain 2 + Chain 3 / 256QAM (MCS8) / 5260 MHz



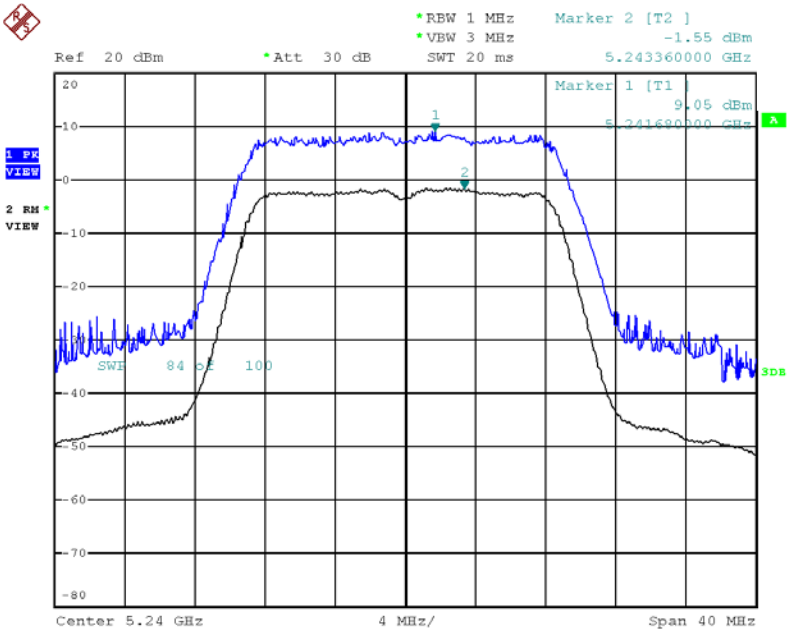
Date: 10.AUG.2013 07:38:48

Peak Excursion Plot on Configuration IEEE 802.11ac 20MHz MCS0-9/Nss1 / Chain 1 + Chain 2 + Chain 3 / 256QAM (MCS8) / 5720 MHz



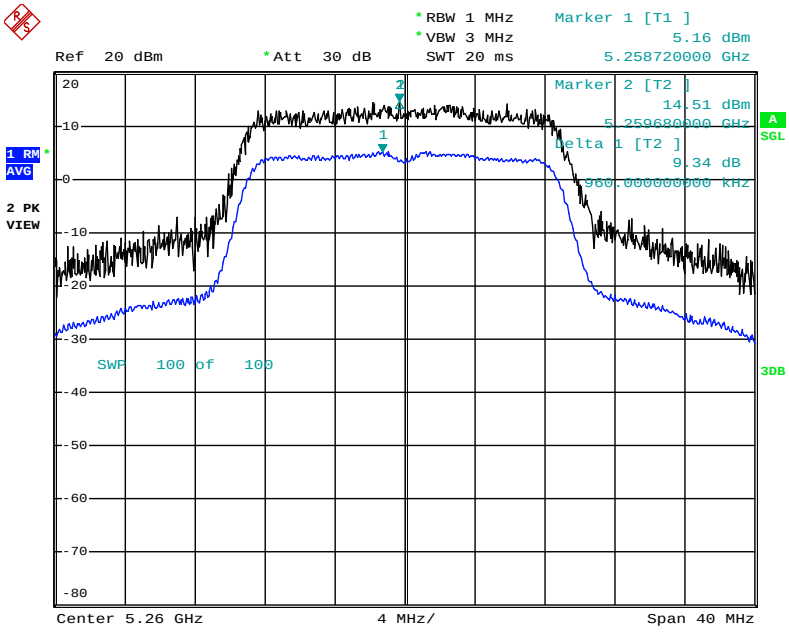
Date: 22.AUG.2013 22:19:47

Peak Excursion Plot on Configuration IEEE 802.11ac 20MHz MCS0-9/Nss3 / Chain 1 + Chain 2 + Chain 3 / 256QAM (MCS8) / 5240 MHz



Date: 6.AUG.2013 17:44:08

Peak Excursion Plot on Configuration IEEE 802.11ac 20MHz MCS0-9/Nss3 / Chain 1 + Chain 2 + Chain 3 / 256QAM (MCS8) / 5260 MHz



Date: 10.AUG.2013 07:43:46