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

FCC RADIO TEST REPORT

Applicant's company	**Cisco Systems, Inc.**
Applicant Address	170 West Tasman Drive, San Jose, CA 95134 USA
FCC ID	**UDX-60039010**
Manufacturer's company	**Cisco Systems, Inc.**
Manufacturer Address	170 West Tasman Drive, San Jose, CA 95134 USA

Product Name	Wireless 802.11 abgn/ac AP
Brand Name	CISCO
Model No.	MR42-HW
Test Rule Part(s)	47 CFR FCC Part 15 Subpart E § 15.407
Test Freq. Range	5250 ~ 5350MHz / 5470 ~ 5725MHz
Received Date	Jun. 24, 2015
Final Test Date	Jul. 30, 2015
Submission Type	Original Equipment

Statement

Test result included is for the IEEE 802.11n and IEEE 802.11a/ac 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 C63.10-2013**, **47 CFR FCC Part 15 Subpart E, KDB789033 D02 v01, KDB662911 D01 v02r01, KDB644545 D03 v01.**

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
FR561822AC	Rev. 01	Initial issue of report	Aug. 17, 2015

1. VERIFICATION OF COMPLIANCE

Product Name	:	Wireless 802.11 abgn/ac AP
Brand Name	:	CISCO
Model No.	:	MR42-HW
Applicant	:	Cisco Systems, Inc.
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. 24, 2015 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	7.42 dB
4.2	15.407(a)	26dB Spectrum Bandwidth and 99% Occupied Bandwidth	Complies	-
4.3	15.407(e)	6dB Spectrum Bandwidth	Complies	-
4.4	15.407(a)	Maximum Conducted Output Power	Complies	0.01 dB
4.5	15.407(a)	Power Spectral Density	Complies	0.01 dB
4.6	15.407(b)	Radiated Emissions	Complies	3.25 dB
4.7	15.407(b)	Band Edge Emissions	Complies	0.03 dB
4.8	15.407(g)	Frequency Stability	Complies	-
4.9	15.203	Antenna Requirements	Complies	-

3. GENERAL INFORMATION

3.1. Product Details

Items	Description
Product Type	For Radio 2: WLAN (1TX/2TX/3TX, 3RX) For Radio 3: WLAN (1TX, 1RX)
Radio Type	Intentional Transceiver
Power Type	From power adapter or PoE
Modulation	IEEE 802.11a: OFDM IEEE 802.11n/ac: see the below table
Data Modulation	IEEE 802.11a/n: OFDM (BPSK / QPSK / 16QAM / 64QAM) IEEE 802.11ac: OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)
Data Rate (Mbps)	IEEE 802.11a: OFDM (6/9/12/18/24/36/48/54) IEEE 802.11n/ac: see the below table
Frequency Range	5250 ~ 5350MHz / 5470 ~ 5725MHz
Channel Number	16 for 20MHz bandwidth ; 8 for 40MHz bandwidth 4 for 80MHz bandwidth

Channel Band Width (99%)	**For Radio 2** **Non-beamforming Mode** **1TX** Band 2: IEEE 802.11a: 16.67 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.71 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.47 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 75.83 MHz Band 3: IEEE 802.11a: 16.58 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.71 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.47 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 75.83 MHz **2TX** Band 2: IEEE 802.11a: 16.50 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 16.15 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.90 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.12 MHz IEEE 802.11ac MCS0/Nss2 (VHT20): 17.71 MHz IEEE 802.11ac MCS0/Nss2 (VHT40): 36.47 MHz IEEE 802.11ac MCS0/Nss2 (VHT80): 75.83 MHz Band 3: IEEE 802.11a: 16.76 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.89 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.90 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.12 MHz IEEE 802.11ac MCS0/Nss2 (VHT20): 17.63 MHz IEEE 802.11ac MCS0/Nss2 (VHT40): 36.47 MHz IEEE 802.11ac MCS0/Nss2 (VHT80): 75.83 MHz **3TX** Band 2: IEEE 802.11a: 16.58 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.54 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.18 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.54MHz IEEE 802.11ac MCS0/Nss2 (VHT20): 17.71 MHz

	IEEE 802.11ac MCS0/Nss2 (VHT40): 36.32 MHz IEEE 802.11ac MCS0/Nss2 (VHT80): 75.83 MHz IEEE 802.11ac MCS0/Nss3 (VHT20): 17.97 MHz IEEE 802.11ac MCS0/Nss3 (VHT40): 37.34 MHz IEEE 802.11ac MCS0/Nss3 (VHT80): 76.12 MHz Band 3: IEEE 802.11a: 16.58 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 17.71 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.32 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 75.83 MHz IEEE 802.11ac MCS0/Nss2 (VHT20): 17.71 MHz IEEE 802.11ac MCS0/Nss2 (VHT40): 36.32 MHz IEEE 802.11ac MCS0/Nss2 (VHT80): 75.83 MHz IEEE 802.11ac MCS0/Nss3 (VHT20): 17.97 MHz IEEE 802.11ac MCS0/Nss3 (VHT40): 37.19 MHz IEEE 802.11ac MCS0/Nss3 (VHT80): 76.41 MHz **Radio 2 Beamforming Mode** **2TX** Band 2: IEEE 802.11ac MCS0/Nss1 (VHT20): 17.63 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.32 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 75.83 MHz Band 3: IEEE 802.11ac MCS0/Nss1 (VHT20): 17.63 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.32 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.12 MHz **3TX** Band 2: IEEE 802.11ac MCS0/Nss1 (VHT20): 17.71 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.47 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 75.83 MHz IEEE 802.11ac MCS0/Nss2 (VHT20): 17.71 MHz IEEE 802.11ac MCS0/Nss2 (VHT40): 36.32 MHz IEEE 802.11ac MCS0/Nss2 (VHT80): 75.83 MHz Band 3: IEEE 802.11ac MCS0/Nss1 (VHT20): 17.71 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 36.32 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.41 MHz

	IEEE 802.11ac MCS0/Nss2 (VHT20): 17.71 MHz IEEE 802.11ac MCS0/Nss2 (VHT40): 36.32 MHz IEEE 802.11ac MCS0/Nss2 (VHT80): 76.41 MHz **For Radio 3** Band 2: IEEE 802.11a: 17.71 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.76 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.77 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 76.70 MHz Band 3: IEEE 802.11a: 17.19 MHz IEEE 802.11ac MCS0/Nss1 (VHT20): 18.23 MHz IEEE 802.11ac MCS0/Nss1 (VHT40): 37.63 MHz IEEE 802.11ac MCS0/Nss1 (VHT80): 89.78MHz

Maximum Conducted Output Power	**For Radio 2** **Non-beamforming Mode** **1TX** Band 2: IEEE 802.11a: 21.76 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 21.95 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 21.48 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 17.52 dBm Band 3: IEEE 802.11a: 21.92 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 21.95 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 21.59 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 20.91 dBm **2TX** Band 2: IEEE 802.11a: 23.11 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 23.13 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.76 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 17.44 dBm IEEE 802.11ac MCS0/Nss2 (VHT20): 23.92 dBm IEEE 802.11ac MCS0/Nss2 (VHT40): 23.80 dBm IEEE 802.11ac MCS0/Nss2 (VHT80): 18.98 dBm Band 3: IEEE 802.11a: 23.15 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 23.11 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.97 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 22.46 dBm IEEE 802.11ac MCS0/Nss2 (VHT20): 23.76 dBm IEEE 802.11ac MCS0/Nss2 (VHT40): 23.73 dBm IEEE 802.11ac MCS0/Nss2 (VHT80): 23.82 dBm **3TX** Band 2: IEEE 802.11a: 21.92 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 21.89 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.63 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 17.11 dBm IEEE 802.11ac MCS0/Nss2 (VHT20): 23.91 dBm

	IEEE 802.11ac MCS0/Nss2 (VHT40): 23.97 dBm IEEE 802.11ac MCS0/Nss2 (VHT80): 16.99 dBm IEEE 802.11ac MCS0/Nss3 (VHT20): 23.97 dBm IEEE 802.11ac MCS0/Nss3 (VHT40): 23.97 dBm IEEE 802.11ac MCS0/Nss3 (VHT80): 17.06 dBm Band 3: IEEE 802.11a: 21.85 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 21.91 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 23.81 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 23.93 dBm IEEE 802.11ac MCS0/Nss2 (VHT20): 23.97 dBm IEEE 802.11ac MCS0/Nss2 (VHT40): 23.95 dBm IEEE 802.11ac MCS0/Nss2 (VHT80): 22.05 dBm IEEE 802.11ac MCS0/Nss3 (VHT20): 23.93 dBm IEEE 802.11ac MCS0/Nss3 (VHT40): 23.93 dBm IEEE 802.11ac MCS0/Nss3 (VHT80): 22.49 dBm **For Radio 2 Beamforming Mode** **2TX** Band 2: IEEE 802.11ac MCS0/Nss1 (VHT20): 22.72 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 22.72 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 19.70 dBm Band 3: IEEE 802.11ac MCS0/Nss1 (VHT20): 22.81 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 22.89 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 22.75 dBm **3TX** Band 2: IEEE 802.11ac MCS0/Nss1 (VHT20): 21.40 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 21.44 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 19.93 dBm IEEE 802.11ac MCS0/Nss2 (VHT20): 23.84 dBm IEEE 802.11ac MCS0/Nss2 (VHT40): 23.85 dBm IEEE 802.11ac MCS0/Nss2 (VHT80): 20.27 dBm Band 3: IEEE 802.11ac MCS0/Nss1 (VHT20): 21.42 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 21.24 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 21.39 dBm

	IEEE 802.11ac MCS0/Nss2 (VHT20): 23.89 dBm IEEE 802.11ac MCS0/Nss2 (VHT40): 23.97 dBm IEEE 802.11ac MCS0/Nss2 (VHT80): 23.35 dBm **For Radio 3** Band 2: IEEE 802.11a:13.81 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 13.85 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 13.57 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 10.04 dBm Band 3: IEEE 802.11a: 13.98 dBm IEEE 802.11ac MCS0/Nss1 (VHT20): 13.79 dBm IEEE 802.11ac MCS0/Nss1 (VHT40): 13.71 dBm IEEE 802.11ac MCS0/Nss1 (VHT80): 13.84 dBm
Carrier Frequencies	Please refer to section 3.3
Antenna	Please refer to section 3.2

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 For 802.11n/ac in 2.4GHz /5GHz.	☐ Without beamforming
Operating Mode	☐ Outdoor access point	
	☒ Indoor access point	
	☐ Fixed point-to-point access points	
	☐ Mobile and portable client devices	

Antenna and Band width

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

IEEE 802.11n/ac Spec.

Protocol		Number of Transmit Chains (NTX)	Data Rate / MCS
Radio 2	802.11n (HT20)	1, 2, 3	MCS0-23
	802.11n (HT40)	1, 2, 3	MCS0-23
	802.11ac (VHT20)	1, 2, 3	MCS 0-9/Nss1-3
	802.11ac (VHT40)	1, 2, 3	MCS 0-9/Nss1-3
	802.11ac (VHT80)	1, 2, 3	MCS 0-9/Nss1-3
Radio 3	802.11n (HT20)	1	MCS0-7
	802.11n (HT40)	1	MCS0-7
	802.11ac (VHT20)	1	MCS 0-9/Nss1
	802.11ac (VHT40)	1	MCS 0-9/Nss1
	802.11ac (VHT80)	1	MCS 0-9/Nss1

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

Note 2: IEEE Std. 802.11ac modulation consists of VHT20, VHT40, VHT80 and VHT160 (VHT: Very High Throughput). Then EUT supports VHT20, VHT40, VHT80 in 5GHz.

Note 3: Modulation modes consist of below configuration:
HT20/HT40: IEEE 802.11n, VHT20/VHT40: IEEE 802.11ac

3.2. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector
1	Cisco-Meraki	610-3910	PIFA Antenna	I-PEX
2	Cisco-Meraki	610-3910	PIFA Antenna	I-PEX
3	Cisco-Meraki	610-3910	PIFA Antenna	I-PEX
4	Cisco-Meraki	610-3910	PIFA Antenna	I-PEX
5	Cisco-Meraki	610-3910	PIFA Antenna	I-PEX
6	Cisco-Meraki	610-3910	PIFA Antenna	I-PEX
7	Cisco-Meraki	EAAJ-53 (Scanning)	PIFA Antenna	I-PEX
8	Cisco-Meraki	EAAH-53 (BLE)	PIFA Antenna	I-PEX

Radio	TX Function	Antenna	Chain	Antenna Gain (dBi)		
				2.4GHz	5GHz	Bluetooth
1	1	Ant. 6	1	3.73	-	-
	2	Ant. 6 + 5	1 + 2	1.69	-	-
	3	Ant. 6 + 5 + 4	1 + 2 + 3	2.41	-	-
2	1	Ant. 3	4	-	5.52	-
	2	Ant. 3 + 2	4 + 5	-	4.03	-
	3	Ant. 3 + 2 + 1	4 + 5 + 6	-	3.77	-
3	1	Ant. 7	7	3.33	5.59	-
4	1	Ant. 8	8	-	-	3.48

Note: The EUT has eight antennas.

The EUT has four radios, Radio 1 supports WLAN 2.4GHz, Radio 2 supports WLAN 5GHz, Radio 3 supports WLAN 2.4GHz + 5GHz (scanning radio) and Radio 4 supports Bluetooth function.

<For Radio 1 / 2.4GHz Function>

For IEEE 802.11b/g/n/ac mode (1TX/2TX/3TX, 3RX):

For 1TX (Ant. 6)

Only Chain 1 could transmit/receive.

For 2TX (Ant. 6 + 5)

Only Chain 1 and Chain 2 could transmit/receive simultaneously.

For 3TX (Ant. 6 + 5 + 4)

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

<For Radio 2 / 5GHz Function>

For IEEE 802.11a/n/ac mode (1TX/2TX/3TX, 3RX):

For 1TX (Ant. 3)

Only Chain 4 could transmit/receive.

For 2TX (Ant. 3 + 2)

Only Chain 4 and Chain 5 could transmit/receive simultaneously.

For 3TX (Ant. 3 + 2 + 1)

Chain 4, Chain 5 and Chain 6 could transmit/receive simultaneously.

<For Radio 3 / 2.4GHz + 5GHz Functions>

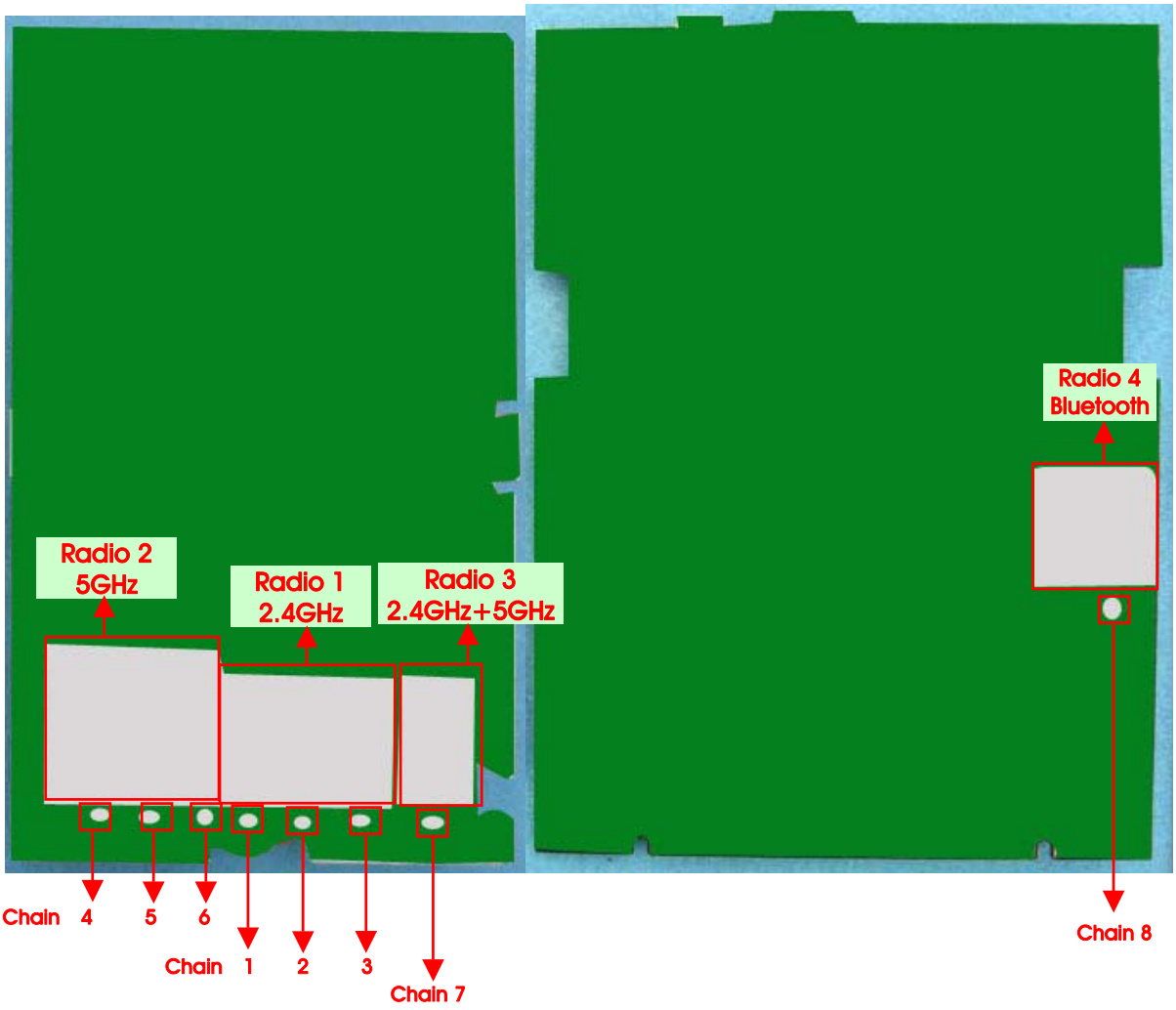
For IEEE 802.11a/b/g/n/ac mode (1TX/ 1RX):

Only Chain 7 could transmit/receive.

<For Radio 4 / Bluetooth Functions>

For Bluetooth function (1TX/1RX):

Only Chain 8 could transmit/receive.


Radio 2
5GHz
Radio 1
2.4GHz
Radio 3
2.4GHz+5GHz
Radio 4
Bluetooth
Chain 4
5
6
Chain 1
2
3
Chain 7
Chain 8

3.3. Table for Carrier Frequencies

There are three bandwidth systems.

For 20MHz bandwidth systems, use Channel 52, 56, 60, 64, 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140, 144.

For 40MHz bandwidth systems, use Channel 54, 62, 102, 110, 118, 126, 134, 142.

For 80MHz bandwidth systems, use Channel 58, 106, 122, 138.

Frequency Band	Channel No.	Frequency	Channel No.	Frequency
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	124	5620 MHz
	102	5510 MHz	126	5630 MHz
	104	5520 MHz	128	5640 MHz
	106	5530 MHz	132	5660 MHz
	108	5540 MHz	134	5670 MHz
	110	5550 MHz	136	5680 MHz
	112	5560 MHz	138	5690 MHz
	116	5580 MHz	140	5700 MHz
	118	5590 MHz	142	5710 MHz
	120	5600 MHz	144	5720 MHz
	122	5610 MHz	-	-

3.4. Accessories

Power	Brand	Model	Rating
Adapter	CISCO	KSAS03612002500HU	Input:100-240V~50/60Hz 1.0A Output:12V, 2.5A

3.5. Table for Test Modes

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

<For Radio 2>

Test Items	Mode		Data Rate	Channel	TX	Chain
AC Power Conducted Emission	Normal Link		-	-		-
Max. Conducted Output Power	For Non-Beamforming Mode					
	11a/BPSK	Band 2-3	6Mbps	52/60/64/100/ 116/140/144	1	4
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/ 116/140/144	1	4
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/134 /142	1	4
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	1	4
	11a/BPSK	Band 2-3	6Mbps	52/60/64/100/ 116/140/144	2	4+5
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/ 116/140/144	2	4+5
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/134 /142	2	4+5
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	2	4+5
	11ac VHT20	Band 2-3	MCS0/Nss2	52/60/64/100/ 116/140/144	2	4+5
	11ac VHT40	Band 2-3	MCS0/Nss2	54/62/102/110/134 /142	2	4+5
	11ac VHT80	Band 2-3	MCS0/Nss2	58/106/122/138	2	4+5
	11a/BPSK	Band 2-3	6Mbps	52/60/64/100/ 116/140/144	3	4+5+6
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/ 116/140/144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/134 /142	3	4+5+6
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	3	4+5+6

	11ac VHT20	Band 2-3	MCS0/Nss2	52/60/64/100/ 116/140/144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss2	54/62/102/110/134/ 142	3	4+5+6
	11ac VHT80	Band 2-3	MCS0/Nss2	58/106/122/138	3	4+5+6
	11ac VHT20	Band 2-3	MCS0/Nss3	52/60/64/100/ 116/140/144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss3	54/62/102/110/134/ 142	3	4+5+6
	11ac VHT80	Band 2-3	MCS0/Nss3	58/106/122/138	3	4+5+6
	For Beamforming Mode					
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/ 116/140/144	2	4+5
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/134 /142	2	4+5
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	2	4+5
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/ 116/140/144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/134 /142	3	4+5+6
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	3	4+5+6
	11ac VHT20	Band 2-3	MCS0/Nss2	52/60/64/100/ 116/140/144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss2	54/62/102/110/134 /142	3	4+5+6
	11ac VHT80	Band 2-3	MCS0/Nss2	58/106/122/138	3	4+5+6

Power Spectral Density	For Non-Beamforming Mode					
	11a/BPSK	Band 2-3	6Mbps	52/60/64/100/116/140/144	1	4
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/116/140/144	1	4
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/134/142	1	4
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	1	4
	11a/BPSK	Band 2-3	6Mbps	52/60/64/100/116/140/144	2	4+5
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/116/140/144	2	4+5
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/134/142	2	4+5
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	2	4+5
	11ac VHT20	Band 2-3	MCS0/Nss2	52/60/64/100/116/140/144	2	4+5
	11ac VHT40	Band 2-3	MCS0/Nss2	54/62/102/110/134/142	2	4+5
	11ac VHT80	Band 2-3	MCS0/Nss2	58/106/122/138	2	4+5
	11a/BPSK	Band 2-3	6Mbps	52/60/64/100/116/140/144	3	4+5+6
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/116/140/144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/134/142	3	4+5+6
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	3	4+5+6
	11ac VHT20	Band 2-3	MCS0/Nss2	52/60/64/100/116/140/144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss2	54/62/102/110/134/142	3	4+5+6
	11ac VHT80	Band 2-3	MCS0/Nss2	58/106/122/138	3	4+5+6
	11ac VHT20	Band 2-3	MCS0/Nss3	52/60/64/100/116/140/144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss3	54/62/102/110/134/142	3	4+5+6
	11ac VHT80	Band 2-3	MCS0/Nss3	58/106/122/138	3	4+5+6

	For Beamforming Mode					
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/ 116/140/144	2	4+5
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/134/ 142	2	4+5
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	2	4+5
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/ 116/140/144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/134/ 142	3	4+5+6
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	3	4+5+6
	11ac VHT20	Band 2-3	MCS0/Nss2	52/60/64/100/ 116/140/144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss2	54/62/102/110/134/ 142	3	4+5+6
	11ac VHT80	Band 2-3	MCS0/Nss2	58/106/122/138	3	4+5+6

26dB Spectrum Bandwidth 99% Occupied Bandwidth Measurement	For Non-Beamforming Mode					
	11a/BPSK	Band 2-3	6Mbps	52/60/64/100/ 116/140/144	1	4
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/ 116/140/144	1	4
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/1 34/142	1	4
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	2	4
	11a/BPSK	Band 2-3	6Mbps	52/60/64/100/ 116/140/144	2	4+5
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/ 116/140/144	2	4+5
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/1 34/142	2	4+5
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	2	4+5
	11ac VHT20	Band 2-3	MCS0/Nss2	52/60/64/100/ 116/140/144	2	4+5
	11ac VHT40	Band 2-3	MCS0/Nss2	54/62/102/110/1 34/142	2	4+5
	11ac VHT80	Band 2-3	MCS0/Nss2	58/106/122/138	2	4+5
	11a/BPSK	Band 2-3	6Mbps	52/60/64/100/ 116/140/144	3	4+5+6
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/ 116/140/144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/1 34/142	3	4+5+6
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	3	4+5+6
	11ac VHT20	Band 2-3	MCS0/Nss2	52/60/64/100/ 116/140/144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss2	54/62/102/110/1 34/142	3	4+5+6
	11ac VHT80	Band 2-3	MCS0/Nss2	58/106/122/138	3	4+5+6
	11ac VHT20	Band 2-3	MCS0/Nss3	52/60/64/100/ 116/140/144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss3	54/62/102/110/1 34/142	3	4+5+6
	11ac VHT80	Band 2-3	MCS0/Nss3	58/106/122/138	3	4+5+6

	For Beamforming Mode					
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/116/140/144	2	4+5
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/134/142	2	4+5
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	2	4+5
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/116/140/144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/134/142	3	4+5+6
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	3	4+5+6
	11ac VHT20	Band 2-3	MCS0/Nss2	52/60/64/100/116/140/144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss2	54/62/102/110/134/142	3	4+5+6
	11ac VHT80	Band 2-3	MCS0/Nss2	58/106/122/138	3	4+5+6
6dB Spectrum Bandwidth Measurement	For Non-Beamforming Mode					
	11a/BPSK	Band 2-3	6Mbps	144	1	4
	11ac VHT20	Band 2-3	MCS0/Nss1	144	1	4
	11ac VHT40	Band 2-3	MCS0/Nss1	142	1	4
	11ac VHT80	Band 2-3	MCS0/Nss1	138	2	4
	11a/BPSK	Band 2-3	6Mbps	144	2	4+5
	11ac VHT20	Band 2-3	MCS0/Nss1	144	2	4+5
	11ac VHT40	Band 2-3	MCS0/Nss1	142	2	4+5
	11ac VHT80	Band 2-3	MCS0/Nss1	138	2	4+5
	11ac VHT20	Band 2-3	MCS0/Nss2	144	2	4+5
	11ac VHT40	Band 2-3	MCS0/Nss2	142	2	4+5
	11ac VHT80	Band 2-3	MCS0/Nss2	138	2	4+5
	11a/BPSK	Band 2-3	6Mbps	144	3	4+5+6
	11ac VHT20	Band 2-3	MCS0/Nss1	144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss1	142	3	4+5+6

	11ac VHT80	Band 2-3	MCS0/Nss1	138	3	4+5+6
	11ac VHT20	Band 2-3	MCS0/Nss2	144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss2	142	3	4+5+6
	11ac VHT80	Band 2-3	MCS0/Nss2	138	3	4+5+6
	11ac VHT20	Band 2-3	MCS0/Nss3	144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss3	142	3	4+5+6
	11ac VHT80	Band 2-3	MCS0/Nss3	138	3	4+5+6
	For Beamforming Mode					
	11ac VHT20	Band 2-3	MCS0/Nss1	144	2	4+5
	11ac VHT40	Band 2-3	MCS0/Nss1	142	2	4+5
	11ac VHT80	Band 2-3	MCS0/Nss1	138	2	4+5
	11ac VHT20	Band 2-3	MCS0/Nss1	144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss1	142	3	4+5+6
	11ac VHT80	Band 2-3	MCS0/Nss1	138	3	4+5+6
	11ac VHT20	Band 2-3	MCS0/Nss2	144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss2	142	3	4+5+6
	11ac VHT80	Band 2-3	MCS0/Nss2	138	3	4+5+6

Radiated Emission Below 1GHz	Normal Link		-	-		-
Radiated Emission Above 1GHz	For Non-Beamforming Mode					
	11a/BPSK	Band 2-3	6Mbps	52/60/64/100/116/140/144	3	4+5+6
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/116/140/144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/134/142	3	4+5+6
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	3	4+5+6
	For Beamforming Mode					
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/116/140/144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/134/142	3	4+5+6
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	3	4+5+6

Band Edge Emission	For Non-Beamforming Mode					
	11a/BPSK	Band 2-3	6Mbps	52/60/64/100/116/140/144	1	4
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/116/140/144	1	4
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/134/142	1	4
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	1	4
	11a/BPSK	Band 2-3	6Mbps	52/60/64/100/116/140/144	2	4+5
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/116/140/144	2	4+5
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/134/142	2	4+5
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	2	4+5
	11ac VHT20	Band 2-3	MCS0/Nss2	52/60/64/100/116/140/144	2	4+5
	11ac VHT40	Band 2-3	MCS0/Nss2	54/62/102/110/134/142	2	4+5
	11ac VHT80	Band 2-3	MCS0/Nss2	58/106/122/138	2	4+5
	11a/BPSK	Band 2-3	6Mbps	52/60/64/100/116/140/144	3	4+5+6
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/116/140/144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/134/142	3	4+5+6
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	3	4+5+6
	11ac VHT20	Band 2-3	MCS0/Nss2	52/60/64/100/116/140/144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss2	54/62/102/110/134/142	3	4+5+6
	11ac VHT80	Band 2-3	MCS0/Nss2	58/106/122/138	3	4+5+6
	11ac VHT20	Band 2-3	MCS0/Nss3	52/60/64/100/116/140/144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss3	54/62/102/110/134/142	3	4+5+6
	11ac VHT80	Band 2-3	MCS0/Nss3	58/106/122/138	3	4+5+6

	For Beamforming Mode					
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/116/140/144	2	4+5
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/134/142	2	4+5
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	2	4+5
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/116/140/144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/134/142	3	4+5+6
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	3	4+5+6
	11ac VHT20	Band 2-3	MCS0/Nss2	52/60/64/100/116/140/144	3	4+5+6
	11ac VHT40	Band 2-3	MCS0/Nss2	54/62/102/110/134/142	3	4+5+6
	11ac VHT80	Band 2-3	MCS0/Nss2	58/106/122/138	3	4+5+6
Frequency Stability	20 MHz	Band 2-3	-	60/116		4+5+6
	40 MHz	Band 2-3	-	62/110		4+5+6
	80 MHz	Band 2-3	-	58/106		4+5+6

<For Radio 3>

Test Items	Mode		Data Rate	Channel	TX	Chain
AC Power Conducted Emission	Normal Link		-	-		-
Max. Conducted Output Power	11a/BPSK	Band 2-3	6Mbps	52/60/64/100/116/140/144	1	7
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/116/140/144	1	7
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/134/142	1	7
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	1	7
Power Spectral Density	11a/BPSK	Band 2-3	6Mbps	52/60/64/100/116/140/144	1	7
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/116/140/144	1	7
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/134/142	1	7
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	1	7
26dB Spectrum Bandwidth 99% Occupied Bandwidth Measurement	11a/BPSK	Band 2-3	6Mbps	52/60/64/100/116/140/144	1	7
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/116/140/144	1	7
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/134/142	1	7
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	1	7
6dB Spectrum Bandwidth Measurement	11a/BPSK	Band 2-3	6Mbps	144	1	7
	11ac VHT20	Band 2-3	MCS0/Nss1	144	1	7
	11ac VHT40	Band 2-3	MCS0/Nss1	142	1	7
	11ac VHT80	Band 2-3	MCS0/Nss1	138	1	7
Radiated Emission Below 1GHz	Normal Link		-	-	-	-
Radiated Emission Above 1GHz	11a/BPSK	Band 2-3	6Mbps	52/60/64/100/116/140/144	1	7
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/116/140/144	1	7
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/134/142	1	7
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	1	7

Band Edge Emission	11a/BPSK	Band 2-3	6Mbps	52/60/64/100/116/140/144	1	7
	11ac VHT20	Band 2-3	MCS0/Nss1	52/60/64/100/116/140/144	1	7
	11ac VHT40	Band 2-3	MCS0/Nss1	54/62/102/110/134/142	1	7
	11ac VHT80	Band 2-3	MCS0/Nss1	58/106/122/138	1	7
Frequency Stability	20 MHz	Band 2-3	-	60/116		7
	40 MHz	Band 2-3	-	62/110		7
	80 MHz	Band 2-3	-	58/106		7

Note 1: VHT20/VHT40 covers HT20/HT40, due to same modulation. The power setting for 802.11n HT20 and HT40 are the same or lower than 802.11ac VHT20 and VHT40.

Note 2: There are two modes of EUT, one is beamforming mode, and the other is non-beamforming mode for 802.11n/ac. All test results were recorded in the report.

Note 3: For radio 2, The directional gain of 2T2S & 3T3S are the same. Thus, Beamforming on and Beamforming off will have same power limit. As a result, Beamforming on is covered by Beamforming off.

Note 4: For Radio 2, Radiated Emission was covered by 3T1S because 3T1S was tested under max. power setting.

Note 5: The PoE is for measurement only, would not be marketed.

The PoE information as below:

Power	Brand	Model
PoE	Meraki	POE20U-560(G)

The following test modes were performed for all tests:

For Conducted Emission test:

Mode 1. Radio 1 (2.4GHz WLAN function) + Radio 2 (5GHz WLAN function) + Radio 3 (2.4GHz WLAN function) + Bluetooth with Adapter

Mode 2. Radio 1 (2.4GHz WLAN function) + Radio 2 (5GHz WLAN function) + Radio 3 (5GHz WLAN function) + Bluetooth with Adapter

Mode 1 is the worst case, so it was selected to record in this test report.

For Radiated Emission test (Below 1GHz):

Mode 1. Radio 1 (2.4GHz WLAN function) + Radio 2 (5GHz WLAN function) + Radio 3 (2.4GHz WLAN function) + Bluetooth with Adapter - X axis

Mode 2. Radio 1 (2.4GHz WLAN function) + Radio 2 (5GHz WLAN function) + Radio 3 (2.4GHz WLAN function) + Bluetooth with Adapter - Y axis

Mode 1 has been evaluated to be the worst case between Mode 1~2, thus measurement for Mode 3 will follow this same test mode.

Mode 3. Radio 1 (2.4GHz WLAN function) + Radio 2 (5GHz WLAN function) + Radio 3 (2.4GHz WLAN function) + Bluetooth with PoE - X axis

Mode 3 has been evaluated to be the worst case among Mode 1~3, thus measurement for Mode 4 will follow this same test mode.

Mode 4. Radio 1 (2.4GHz WLAN function) + Radio 2 (5GHz WLAN function) + Radio 3 (5GHz WLAN function)+ Bluetooth with PoE - X axis

Mode 3 is the worst case, so it was selected to record in this test report.

For Radiated Emission test (Above 1GHz):

The EUT was performed at X axis, Y axis and Z axis position for Radiated emission above 1GHz test, and the worst case was found at Y axis. So the measurement will follow this same test configuration.

Mode1. CTX - Y axis

For Co-location MPE and Radiated Emission Co-location Test:

Mode 1 Radio 1 (2.4GHz WLAN function) + Radio 2 (5GHz WLAN function) + Radio 3 (2.4GHz WLAN function) + Bluetooth

Mode 2. Radio 1 (2.4GHz WLAN function) + Radio 2 (5GHz WLAN function) + Radio 3 (5GHz WLAN function) + Bluetooth

Therefore Co-location Maximum Permissible Exposure (Please refer to Appendix B) and Radiated Emission Co-location (please refer to Appendix C) tests are added for simultaneously transmit.

3.6. Table for Testing Locations

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

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

3.7. Table for Supporting Units

For Test Site No: 03CH01-CB (Below 1GHz)

Support Unit	Brand	Model	FCC ID
Notebook*5	DELL	E4300	DoC
Device	CISCO	MR38-HW / RNAQ-MR1	N/A
PoE	Meraki	POE20U-560(G)	N/A

For Test Site No: 03CH01-CB (Above 1GHz)

<For Non-beamforming Mode>

Support Unit	Brand	Model	FCC ID
Notebook	DELL	E4300	DoC

<For Beamforming Mode>

Support Unit	Brand	Model	FCC ID
Notebook*2	DELL	E4300	DoC
Device	CISCO	MR38-HW / RNAQ-MR1	N/A

For Test Site No: CO01-CB

Support Unit	Brand	Model	FCC ID
Notebook*5	DELL	E6430	DoC
Device	CISCO	MR38-HW / RNAQ-MR1	N/A

For Test Site No: TH01-CB

Support Unit	Brand	Model	FCC ID
Notebook	DELL	E4300	DoC

3.8. 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.

For Conducted Test:

<For Radio 2 Non-beamforming Mode>: 1TX, 1S

Test Software Version	QCARCT 3.0.93.0						
Mode	Test Frequency (MHz)						
	NCB: 20MHz						
	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz	5720MHz
802.11a	21	21	21	21	21.5	20	21
802.11ac MCS0/Nss1 VHT20	21	21	21.5	21.5	21.5	20	21
Mode	NCB: 40MHz						
802.11ac MCS0/Nss1 VHT40	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	5710MHz	
	20.5	18.5	20	21	20.5	21	
Mode	NCB: 80MHz						
802.11ac MCS0/Nss1 VHT80	5290 MHz	5530 MHz	5610 MHz	5690 MHz			
	19.5	20.5	18	21			

<For Radio 2 Non-beamforming Mode>: 2TX, 1S

Test Software Version	QCARCT 3.0.93.0						
Mode	Test Frequency (MHz)						
	NCB: 20MHz						
	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz	5720MHz
802.11a	19.5	19.5	19.5	19.5	19.5	15.5	19
802.11ac MCS0/Nss1 VHT20	19.5	19.5	19.5	19.5	19.5	19	19
Mode	NCB: 40MHz						
802.11ac MCS0/Nss1 VHT40	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	5710MHz	
	20	17	20	20	20	20.5	
Mode	NCB: 80MHz						
802.11ac MCS0/Nss1 VHT80	5290 MHz	5530 MHz	5610 MHz	5690 MHz			
	18.5	19	15.5	20.5			

<For Radio 2 Non-beamforming Mode>: 2TX, 2S

Test Software Version	QCARCT 3.0.93.0						
Mode	Test Frequency (MHz)						
	NCB: 20MHz						
	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz	5720MHz
802.11ac MCS0/Nss2 VHT20	20	20.5	20.5	20	20	20	20
Mode	NCB: 40MHz						
802.11ac MCS0/Nss2 VHT40	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	5710MHz	
	20	17	19	20	19.5	20.5	
Mode	NCB: 80MHz						
802.11ac MCS0/Nss2 VHT80	5290 MHz		5530 MHz		5610 MHz	5690 MHz	
	15.5		18.5		19	20.5	

<For Radio 2 Non-beamforming Mode>: 3TX, 1S

Test Software Version	QCARCT 3.0.93.0						
Mode	Test Frequency (MHz)						
	NCB: 20MHz						
	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz	5720MHz
802.11a	16.5	16.5	16.5	16.5	16.5	15.5	16.5
802.11ac MCS0/Nss1 VHT20	16.5	16.5	16.5	16.5	16.5	16.5	16.5
Mode	NCB: 40MHz						
802.11ac MCS0/Nss1 VHT40	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	5710MHz	
	18.5	14	17	19	18.5	18.5	
Mode	NCB: 80MHz						
802.11ac MCS0/Nss1 VHT80	5290 MHz		5530 MHz		5610 MHz	5690 MHz	
	12		16.5		17.5	18.5	

<For Radio 2 Non-beamforming Mode>: 3TX, 2S

Test Software Version	QCARCT 3.0.93.0						
Mode	Test Frequency (MHz)						
	NCB: 20MHz						
	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz	5720MHz
802.11ac MCS0/Nss2 VHT20	18.5	18.5	18.5	18.5	18.5	17	18
Mode	NCB: 40MHz						
802.11ac MCS0/Nss2 VHT40	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	5710MHz	
	19	14	17	19	17.5	19	
Mode	NCB: 80MHz						
802.11ac MCS0/Nss2 VHT80	5290 MHz		5530 MHz		5610 MHz	5690 MHz	
	12		16.5		17	19	

<For Radio 2 Non-beamforming Mode>: 3TX, 3S

Test Software Version	QCARCT 3.0.93.0						
Mode	Test Frequency (MHz)						
	NCB: 20MHz						
	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz	5720MHz
802.11ac MCS0/Nss3 VHT20	18.5	18.5	18.5	18.5	18.5	17	18
Mode	NCB: 40MHz						
802.11ac MCS0/Nss3 VHT40	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	5710MHz	
	19	14	17	18.5	17.5	19	
Mode	NCB: 80MHz						
802.11ac MCS0/Nss3 VHT80	5290 MHz		5530 MHz		5610 MHz	5690 MHz	
	12		16.5		17.5	18.5	

<For Radio 2 Beamforming Mode>: 2TX, 1S

Test Software Version	QCARCT 3.0.93.0						
Mode	Test Frequency (MHz)						
	NCB: 20MHz						
	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz	5720MHz
802.11ac MCS0/Nss1 VHT20	18	18	18	18	18	18	18.5
Mode	NCB: 40MHz						
802.11ac MCS0/Nss1 VHT40	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	5710MHz	
	18	15.5	18	18	18	19.5	
Mode	NCB: 80MHz						
802.11ac MCS0/Nss1 VHT80	5290 MHz		5530 MHz		5610 MHz	5690 MHz	
	15		17		18	19.5	

<For Radio 2 Beamforming Mode>: 3TX, 1S

Test Software Version	QCARCT 3.0.93.0						
Mode	Test Frequency (MHz)						
	NCB: 20MHz						
	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz	5720MHz
802.11ac MCS0/Nss1 VHT20	15	15	15	15	14.5	15	15.5
Mode	NCB: 40MHz						
802.11ac MCS0/Nss1 VHT40	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	5710MHz	
	15	13.5	14.5	14.5	14.5	16.5	
Mode	NCB: 80MHz						
802.11ac MCS0/Nss1 VHT80	5290 MHz		5530 MHz		5610 MHz	5690 MHz	
	13.5		14.5		14.5	16.5	

<For Radio 2 Beamforming Mode>: 3TX, 2S

Test Software Version	QCARCT 3.0.93.0						
Mode	Test Frequency (MHz)						
	NCB: 20MHz						
	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz	5720MHz
802.11ac MCS0/Nss2 VHT20	17.5	17.5	17.5	17.5	17.5	16.5	17.5
Mode	NCB: 40MHz						
802.11ac MCS0/Nss2 VHT40	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	5710MHz	
	17.5	13.5	17.5	17.5	17	19	
Mode	NCB: 80MHz						
802.11ac MCS0/Nss2 VHT80	5290 MHz		5530 MHz		5610 MHz	5690 MHz	
	14		15.5		17	18	

<For Radio 3>

Test Software Version	QCARCT 3.0.93.0						
Mode	Test Frequency (MHz)						
	NCB: 20MHz						
	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz	5720MHz
802.11a	13	13	13	13	12.5	12.5	12.5
802.11ac MCS0/Nss1 VHT20	13	13	13	13	12.5	12.5	12.5
Mode	NCB: 40MHz						
802.11ac MCS0/Nss1 VHT40	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	5710MHz	
	13	12	13	13	13	12.5	
Mode	NCB: 80MHz						
802.11ac MCS0/Nss1 VHT80	5290 MHz		5530 MHz		5610 MHz	5690 MHz	
	9.5		11.5		13	13	

For Radiated Emission Test:

<For Radio 2 Non-beamforming Mode>: 3TX, 1S

Test Software Version	QCARCT 3.0.93.0						
Mode	Test Frequency (MHz)						
	NCB: 20MHz						
	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz	5720MHz
802.11a	20.5	20.5	20.5	20.5	20.5	20.5	20.5
802.11ac MCS0/Nss1 VHT20	20.5	20.5	20.5	20.5	20.5	20.5	20.5

Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	5710MHz
	20.5	20.5	20.5	20.5	20.5	20.5

Mode	NCB: 80MHz			
802.11ac MCS0/Nss1 VHT80	5290 MHz	5530 MHz	5610 MHz	5690 MHz
	21	21	21	21

<For Radio 2 Beamforming Mode>: 3TX, 1S

Test Software Version	QCARCT 3.0.93.0						
Mode	Test Frequency (MHz)						
	NCB: 20MHz						
	5260 MHz	5300 MHz	5320 MHz	5500 MHz	5580 MHz	5700 MHz	5720MHz
802.11ac MCS0/Nss1 VHT20	20.5	20	20.5	20.5	20.5	20.5	20.5

Mode	NCB: 40MHz					
802.11ac MCS0/Nss1 VHT40	5270 MHz	5310 MHz	5510 MHz	5550 MHz	5670 MHz	5710MHz
	20	20	20.5	20	20.5	20

Mode	NCB: 80MHz			
802.11ac MCS0/Nss1 VHT80	5290 MHz	5530 MHz	5610 MHz	5690 MHz
	20.5	20.5	20.5	20.5

3.9. EUT Operation during Test

For Non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

For Beamforming mode:

For Conducted Mode:

The EUT was programmed to be in continuously transmitting mode.

For Radiated Mode:

During the test, the following programs under WIN XP were executed.

The program was executed as follows:

1. During the test, the EUT operation to normal function.
2. Executed command fixed test channel under DOS.
3. Executed "Lantest.exe " to link with the remote workstation to receive and transmit packet by Device and transmit duty cycle no less 98%

3.10. Duty Cycle

<For Radio 2 Non-beamforming Mode>: 1TX, 1S

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.050	2.120	96.55%	0.15	0.49
802.11ac MCS0/Nss1 VHT20	4.980	5.069	98.24%	0.08	0.01
802.11ac MCS0/Nss1 VHT40	2.359	2.466	95.66%	0.19	0.42
802.11ac MCS0/Nss1 VHT80	1.100	1.205	91.29%	0.40	0.91

<For Radio 2 Non-beamforming Mode>: 2TX, 1S

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.060	2.134	96.53%	0.15	0.49
802.11ac MCS0/Nss1 VHT20	4.998	5.053	98.92%	0.05	0.01
802.11ac MCS0/Nss1 VHT40	2.410	2.474	97.41%	0.11	0.41
802.11ac MCS0/Nss1 VHT80	1.106	1.186	93.24%	0.30	0.90

<For Radio 2 Non-beamforming Mode>: 2TX, 2S

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ac MCS0/Nss2 VHT20	2.495	2.571	97.04%	0.13	0.40
802.11ac MCS0/Nss2 VHT40	1.201	1.304	92.10%	0.36	0.83
802.11ac MCS0/Nss2 VHT80	0.562	0.659	85.28%	0.69	1.78

<For Radio 2 Non-beamforming Mode>: 3TX, 1S

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.028	2.115	95.89%	0.18	0.49
802.11ac MCS0/Nss1 VHT20	2.046	2.135	95.83%	0.18	0.49
802.11ac MCS0/Nss1 VHT40	2.387	2.457	97.17%	0.12	0.42
802.11ac MCS0/Nss1 VHT80	1.118	1.211	92.32%	0.35	0.89

<For Radio 2 Non-beamforming Mode>: 3TX, 2S

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ac MCS0/Nss2 VHT20	2.520	2.610	96.55%	0.15	0.40
802.11ac MCS0/Nss2 VHT40	1.180	1.276	92.48%	0.34	0.85
802.11ac MCS0/Nss2 VHT80	0.548	0.644	85.09%	0.70	1.82

<For Radio 2 Non-beamforming Mode>: 3TX, 3S

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ac MCS0/Nss3 VHT20	1.710	1.780	96.07%	0.17	0.58
802.11ac MCS0/Nss3 VHT40	0.825	0.925	89.19%	0.50	1.21
802.11ac MCS0/Nss3 VHT80	0.390	0.490	79.59%	0.99	2.56

<For Radio 2 Beamforming Mode>: 2TX, 1S

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ac MCS0/Nss1 VHT20	1.746	1.951	89.49%	0.48	0.57
802.11ac MCS0/Nss1 VHT40	1.660	1.846	89.92%	0.46	0.60
802.11ac MCS0/Nss1 VHT80	1.522	1.714	88.80%	0.52	0.66

<For Radio 2 Beamforming Mode>: 3TX, 1S

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ac MCS0/Nss1 VHT20	1.740	1.920	90.63%	0.43	0.57
802.11ac MCS0/Nss1 VHT40	1.660	1.830	90.71%	0.42	0.60
802.11ac MCS0/Nss1 VHT80	1.521	1.709	89.00%	0.51	0.66

<For Radio 2 Beamforming Mode>: 3TX, 2S

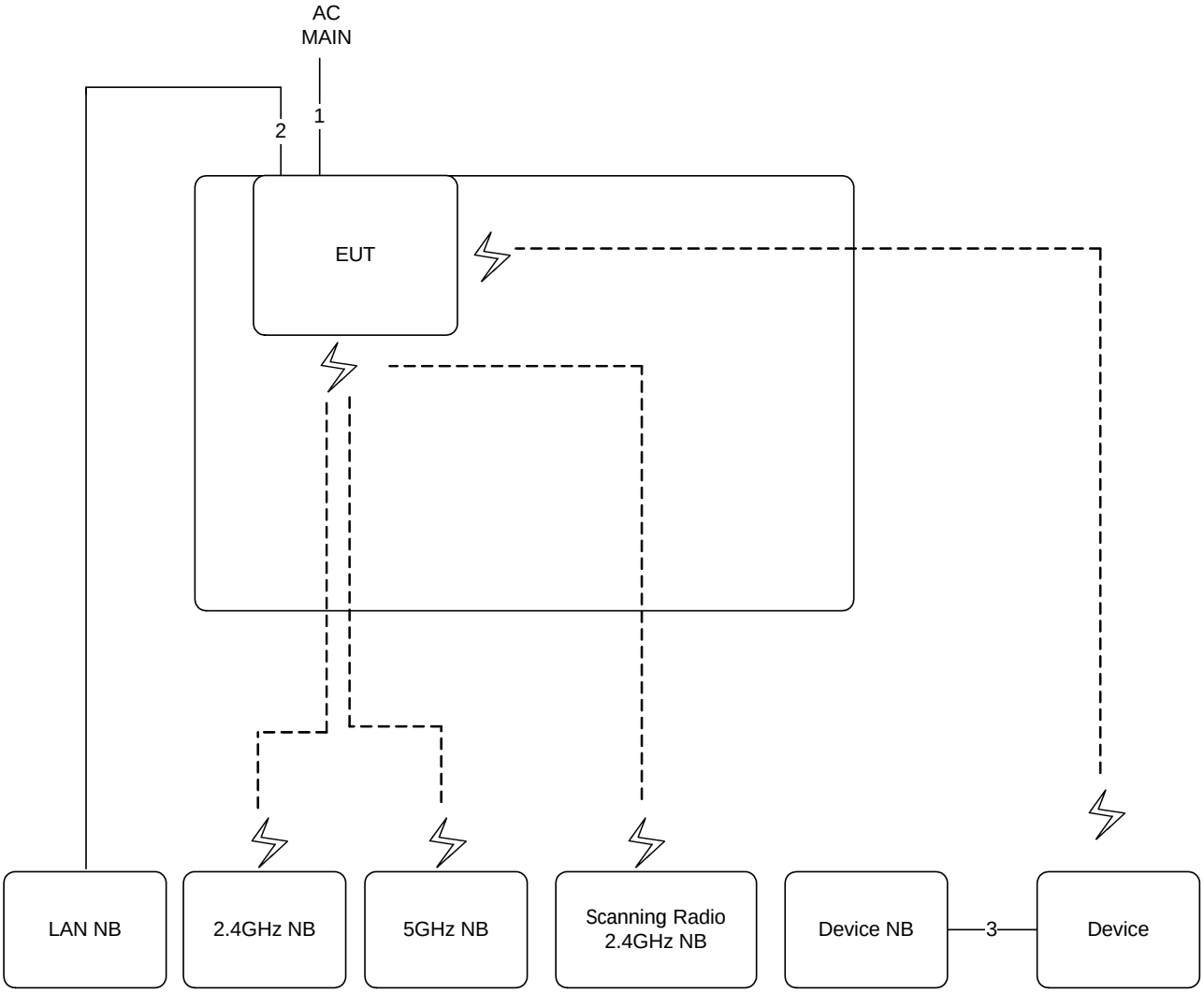
Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11ac MCS0/Nss2 VHT20	1.834	1.973	92.95%	0.32	0.55
802.11ac MCS0/Nss2 VHT40	1.785	1.941	91.99%	0.36	0.56
802.11ac MCS0/Nss2 VHT80	0.597	0.760	78.55%	1.05	1.68

<For Radio 3>

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11a	2.016	2.071	97.37%	0.12	0.50
802.11ac MCS0/Nss1 VHT20	1.917	1.997	95.99%	0.18	0.52
802.11ac MCS0/Nss1 VHT40	0.903	1.001	90.21%	0.45	1.11
802.11ac MCS0/Nss1 VHT80	0.464	0.534	86.89%	0.61	2.16

3.11. Test Configurations

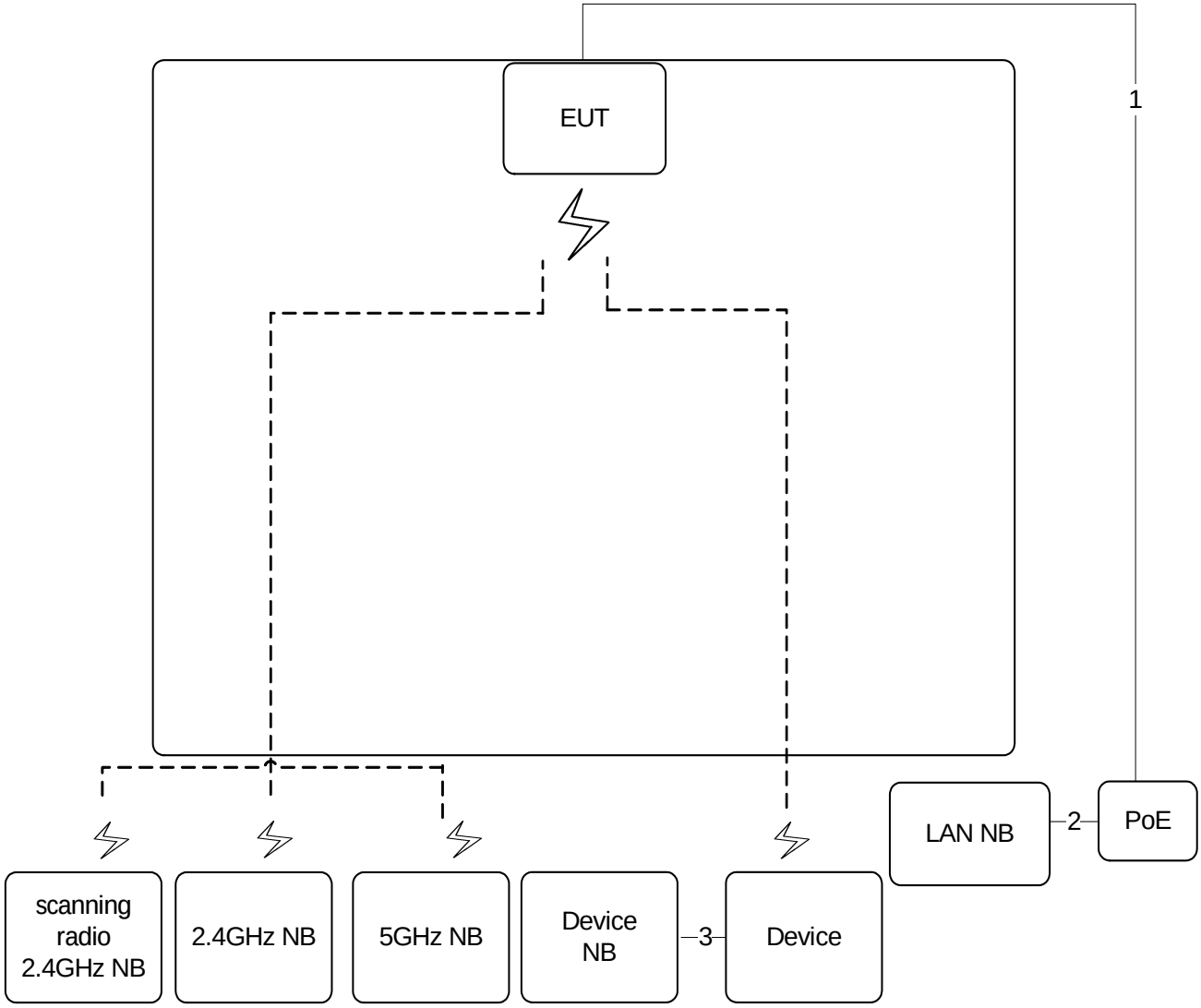
3.11.1. AC Power Line Conduction Emissions Test Configuration



Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable	No	10m
3	RJ-45 cable	No	1.5m

3.11.2. Radiation Emissions Test Configuration

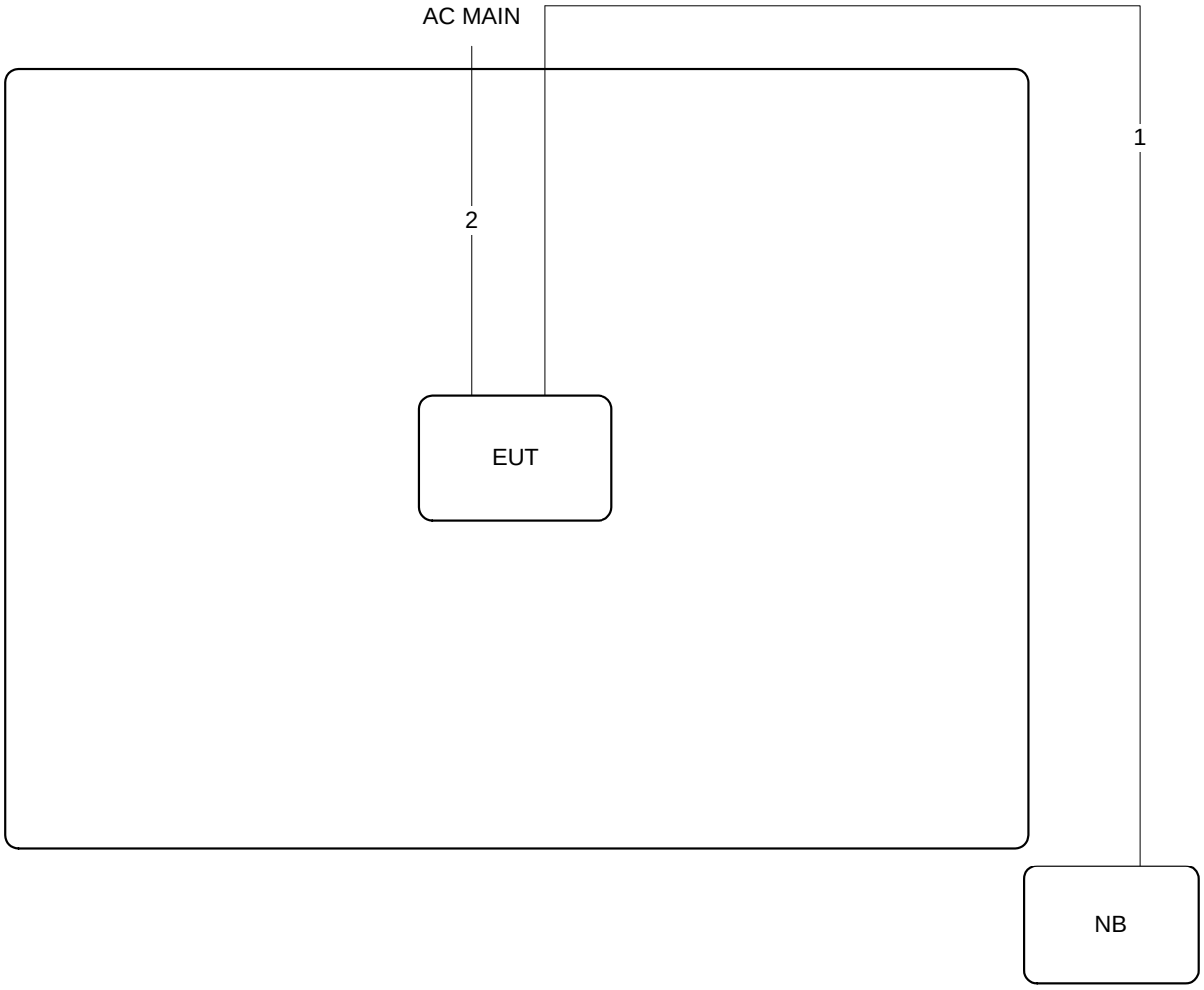
Test Configuration: 30MHz~1GHz



Item	Connection	Shielded	Length
1	Power cable	No	10m
2	RJ-45 cable	No	2m
3	RJ-45 cable	No	2m

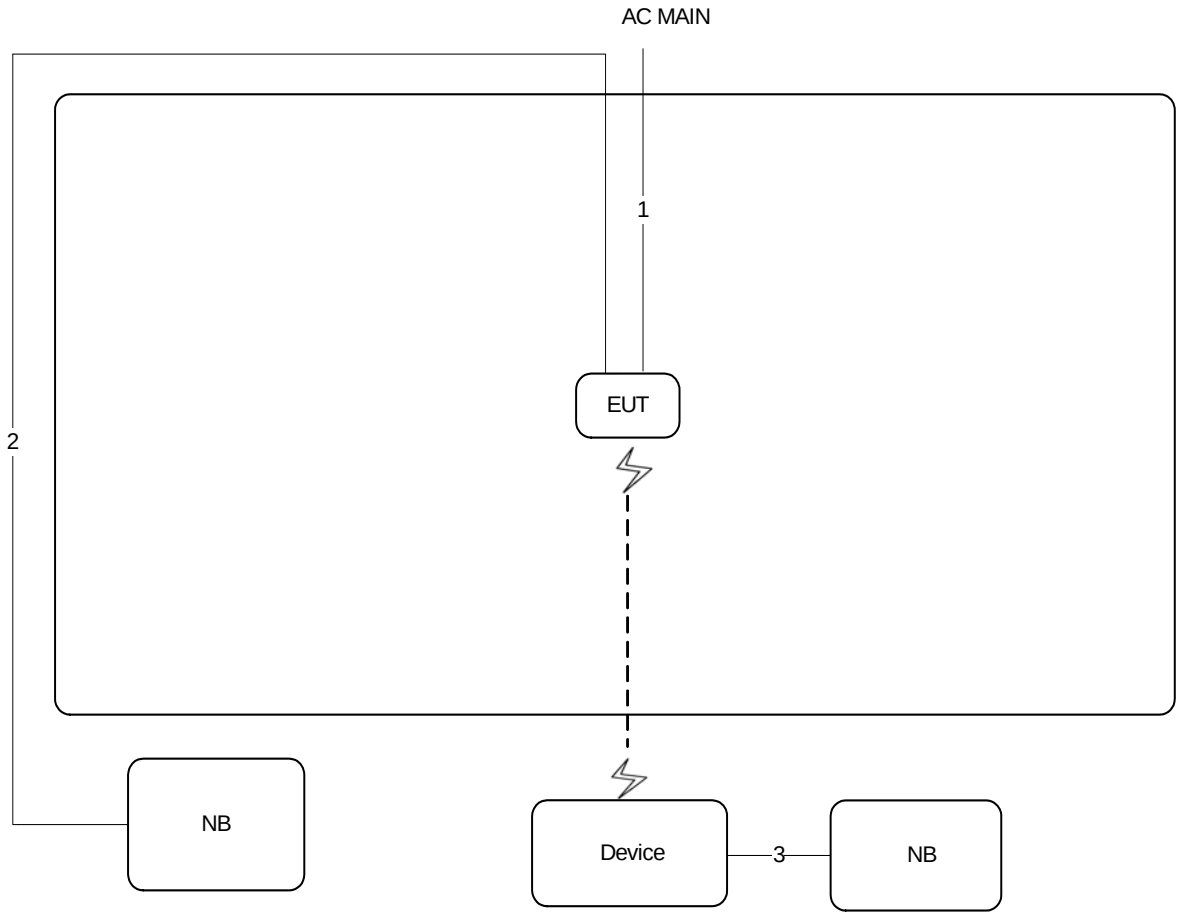
Test Configuration: above 1GHz

<For Non-beamforming Mode>



Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable	No	10m

<For Beamforming Mode>



Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable	No	10m
3	RJ-45 cable	No	1.5m

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

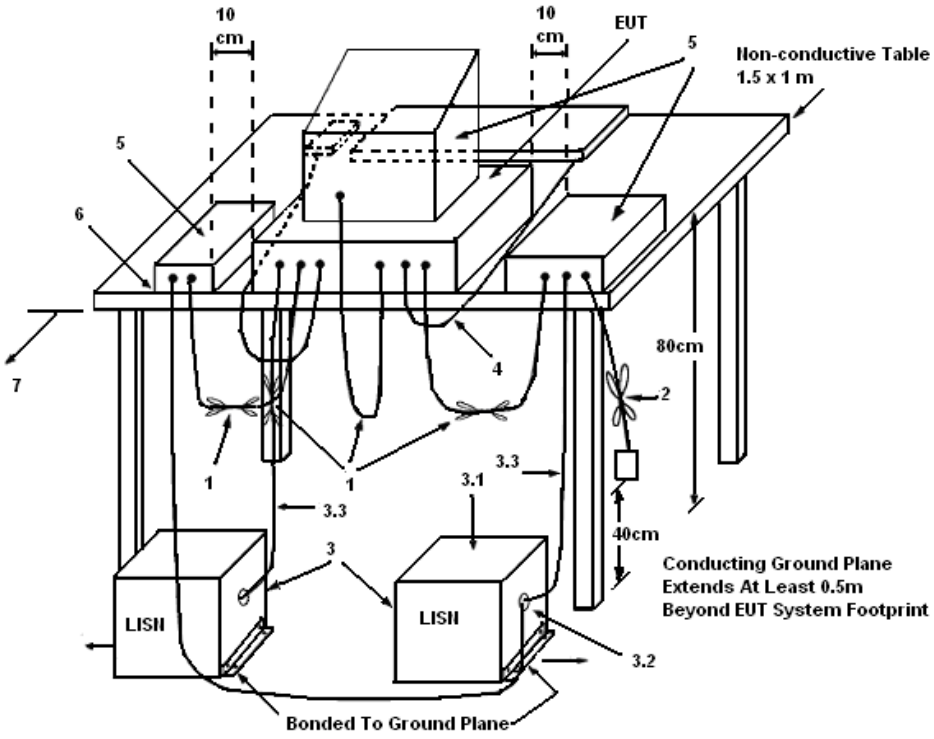
Please refer to section 5 of equipments list in this report. The following table is the setting of the receiver.

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

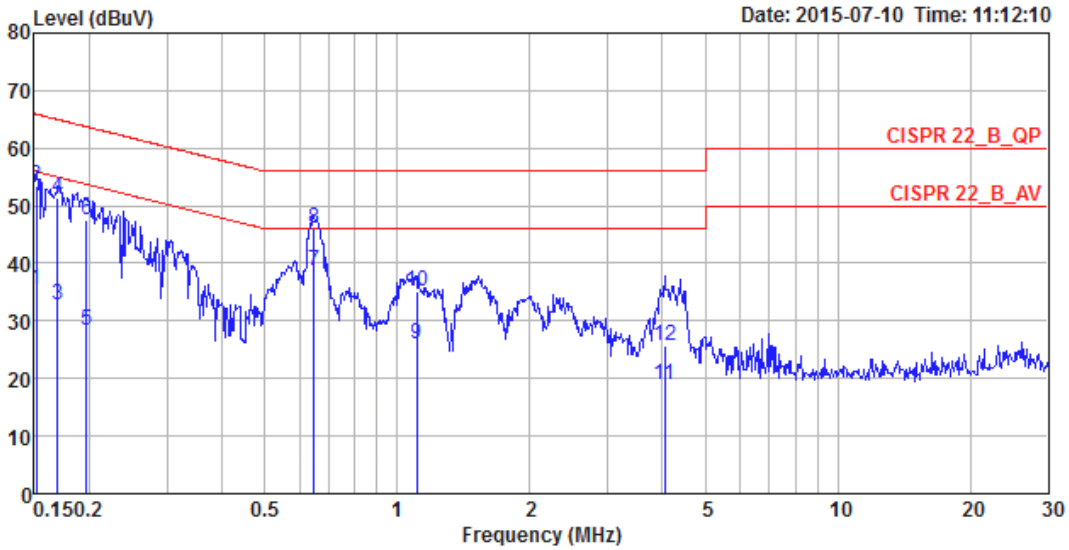
There is no deviation with the original standard.

4.1.6. EUT Operation during Test

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

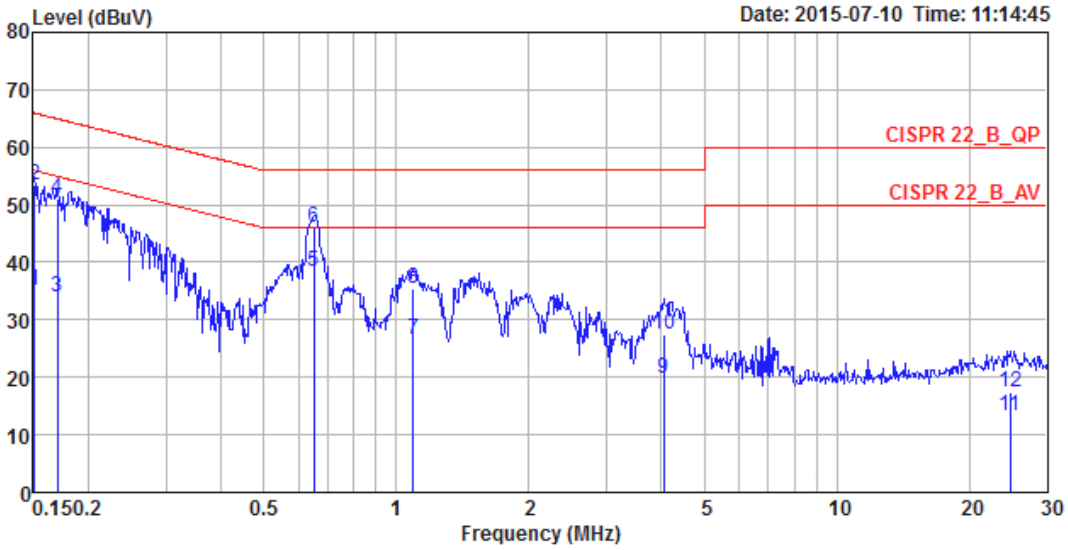
4.1.7. Results of AC Power Line Conducted Emissions Measurement

Temperature	24℃	Humidity	73%
Test Engineer	Deven Huang	Phase	Line
Configuration	Normal Link / Mode 1		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Pol/Phase	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.1516	35.57	-20.34	55.91	25.62	9.93	0.02	LINE	Average
2	0.1516	53.52	-12.39	65.91	43.57	9.93	0.02	LINE	QP
3	0.1694	32.76	-22.23	54.99	22.81	9.93	0.02	LINE	Average
4	0.1694	51.26	-13.73	64.99	41.31	9.93	0.02	LINE	QP
5	0.1965	28.41	-25.35	53.76	18.46	9.93	0.02	LINE	Average
6	0.1965	47.59	-16.17	63.76	37.64	9.93	0.02	LINE	QP
7	0.6474	38.58	-7.42	46.00	28.59	9.95	0.04	LINE	Average
8	0.6474	46.05	-9.95	56.00	36.06	9.95	0.04	LINE	QP
9	1.1056	26.04	-19.96	46.00	16.03	9.96	0.05	LINE	Average
10	1.1056	35.16	-20.84	56.00	25.15	9.96	0.05	LINE	QP
11	4.0489	18.87	-27.13	46.00	8.78	10.02	0.07	LINE	Average
12	4.0489	25.61	-30.39	56.00	15.52	10.02	0.07	LINE	QP

Temperature	24℃	Humidity	73%
Test Engineer	Deven Huang	Phase	Neutral
Configuration	Normal Link / Mode 1		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Pol/Phase	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.1508	35.04	-20.92	55.96	25.24	9.78	0.02	NEUTRAL	Average
2	0.1508	53.55	-12.41	65.96	43.75	9.78	0.02	NEUTRAL	QP
3	0.1703	33.86	-21.08	54.94	24.06	9.78	0.02	NEUTRAL	Average
4	0.1703	50.97	-13.97	64.94	41.17	9.78	0.02	NEUTRAL	QP
5	0.6508	38.43	-7.57	46.00	28.59	9.80	0.04	NEUTRAL	Average
6	0.6508	46.08	-9.92	56.00	36.24	9.80	0.04	NEUTRAL	QP
7	1.0939	26.48	-19.52	46.00	16.62	9.81	0.05	NEUTRAL	Average
8	1.0939	35.41	-20.59	56.00	25.55	9.81	0.05	NEUTRAL	QP
9	4.0489	19.64	-26.36	46.00	9.70	9.87	0.07	NEUTRAL	Average
10	4.0489	27.42	-28.58	56.00	17.48	9.87	0.07	NEUTRAL	QP
11	24.7904	13.20	-36.80	50.00	2.65	10.27	0.28	NEUTRAL	Average
12	24.7904	17.35	-42.65	60.00	6.80	10.27	0.28	NEUTRAL	QP

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

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

1.The transmitter was radiated to the spectrum analyzer in peak hold mode.

2. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

4.2.4. Test Setup Layout

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

This test setup layout is the same as that shown in section 4.6.4.

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

<For Radio 2 Non-beamforming Mode>: 1TX, 1S

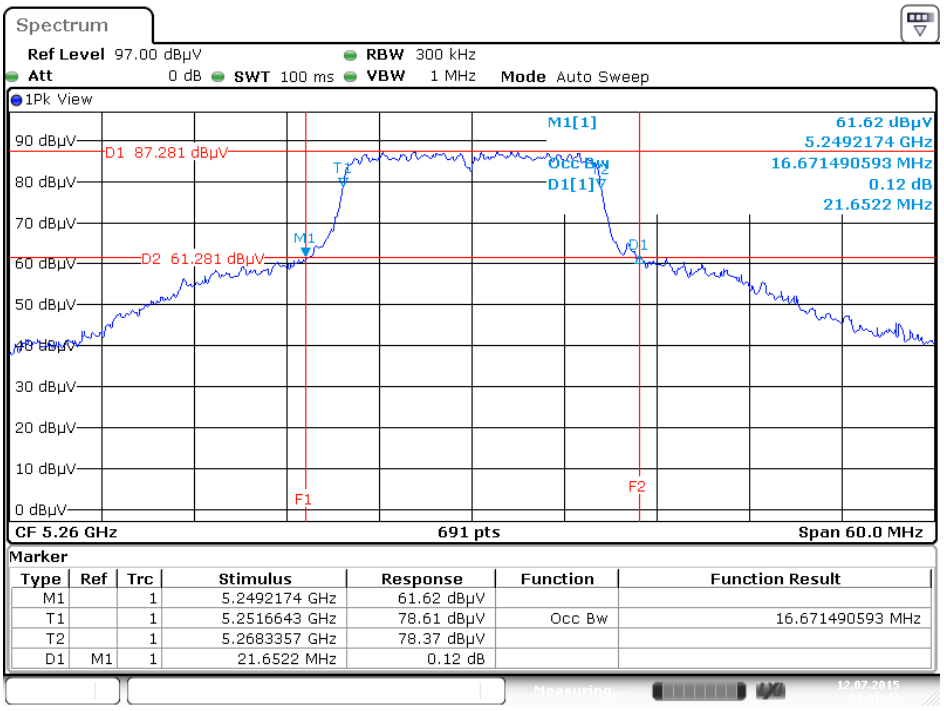
Temperature	25℃	Humidity	55%
Test Engineer	Lucas Huang		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5260 MHz	21.65	16.67
	5300 MHz	20.78	16.58
	5320 MHz	20.35	16.58
	5500 MHz	19.57	16.50
	5580 MHz	20.61	16.58
	5700 MHz	19.83	16.50
802.11ac MCS0/Nss1 VHT20	5260 MHz	21.65	17.71
	5300 MHz	20.96	17.71
	5320 MHz	20.96	17.71
	5500 MHz	20.78	17.71
	5580 MHz	20.78	17.71
	5700 MHz	20.87	17.71
802.11ac MCS0/Nss1 VHT40	5270 MHz	51.16	36.47
	5310 MHz	40.87	36.32
	5510 MHz	40.58	36.32
	5550 MHz	41.01	36.47
	5670 MHz	41.01	36.47
802.11ac MCS0/Nss1 VHT80	5290 MHz	85.22	75.83
	5530 MHz	89.57	75.54
	5610 MHz	84.64	75.83

Straddle Channel

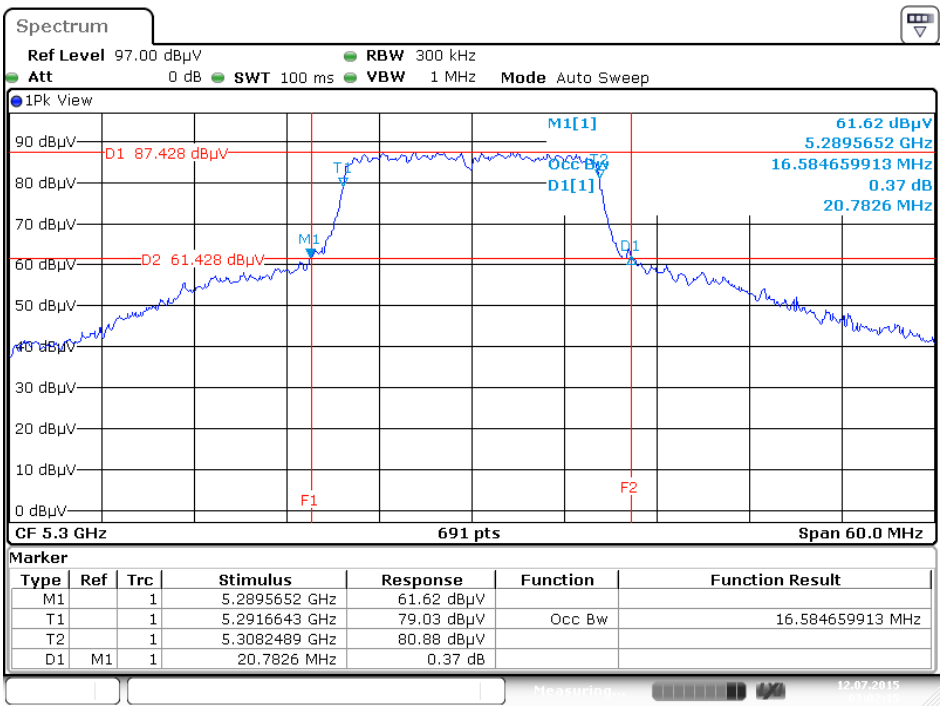
Mode	Frequency	26dB BW (MHz)	99% OBW (MHz)	26dB BW F1 (MHz)	99% OBW T1 (MHz)	UNII 2C 26dB BW (MHz)	UNII 3 26dB BW (MHz)	UNII 2C 99% BW (MHz)	UNII 3 99% BW (MHz)
802.11a	5720 MHz	20.96	16.58	5709.57	5711.66	15.44	5.52	13.34	3.25
802.11ac MCS0/Nss1 VHT20	5720 MHz	20.78	17.71	5709.74	5711.14	15.26	5.52	13.86	3.86
802.11ac MCS0/Nss1 VHT40	5710 MHz	51.45	36.47	5681.01	5691.77	43.99	7.46	33.23	3.23
802.11ac MCS0/Nss1 VHT80	5690 MHz	100.00	76.12	5641.88	5652.08	83.12	16.88	72.92	3.20

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 4 / 5260 MHz



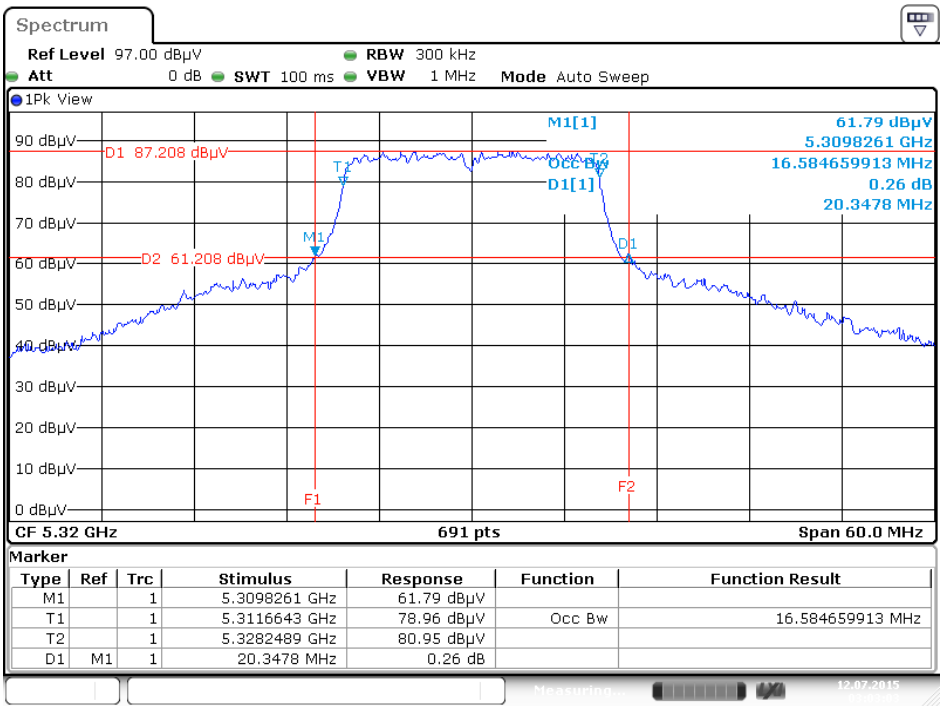
Date: 12.JUL.2015 03:01:47

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 4 / 5300 MHz



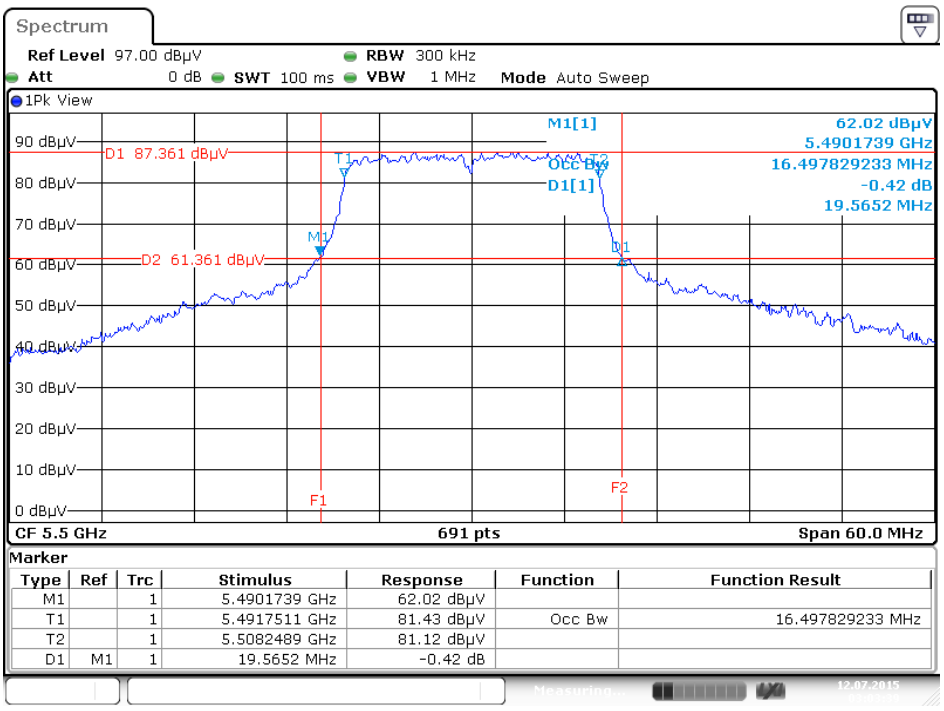
Date: 12.JUL.2015 03:02:16

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 4/ 5320 MHz



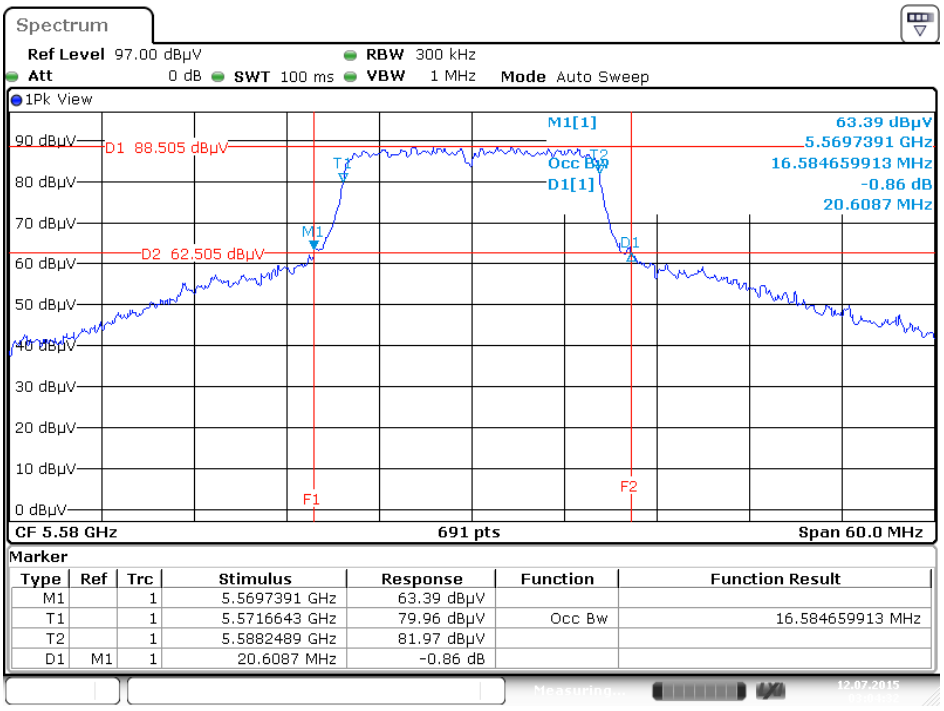
Date: 12.JUL.2015 03:03:03

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 4 / 5500 MHz



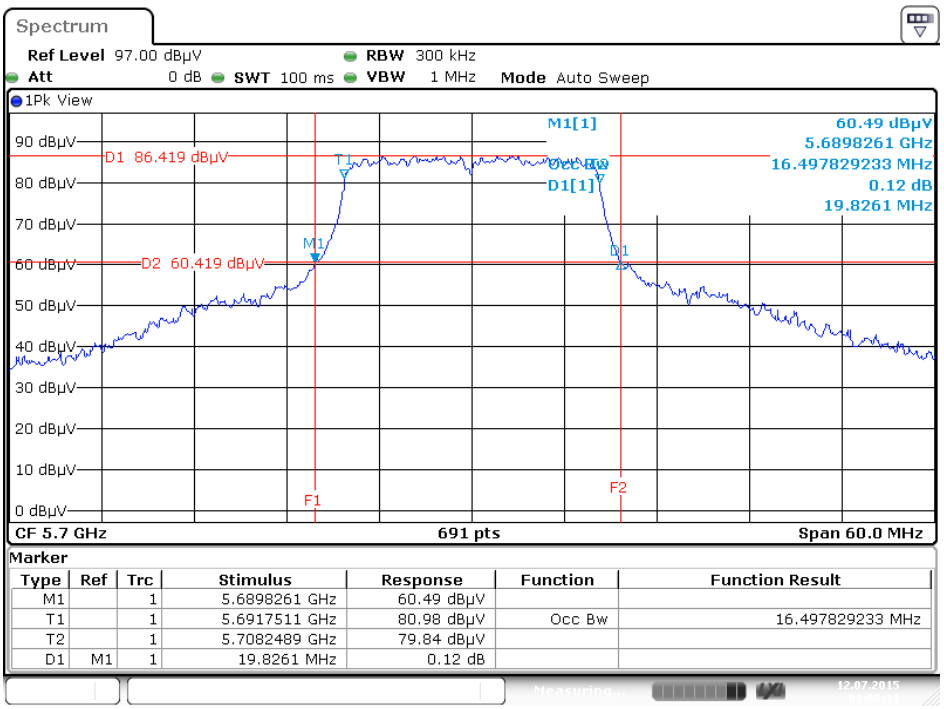
Date: 12.JUL.2015 03:03:39

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 4 / 5580 MHz



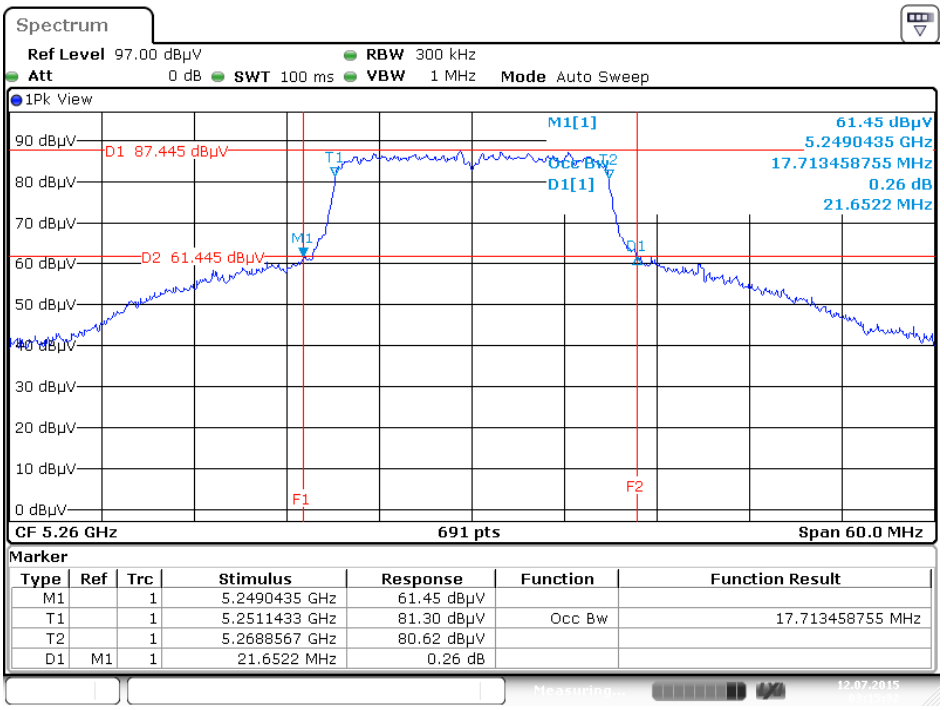
Date: 12.JUL.2015 03:04:32

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 4 / 5700 MHz



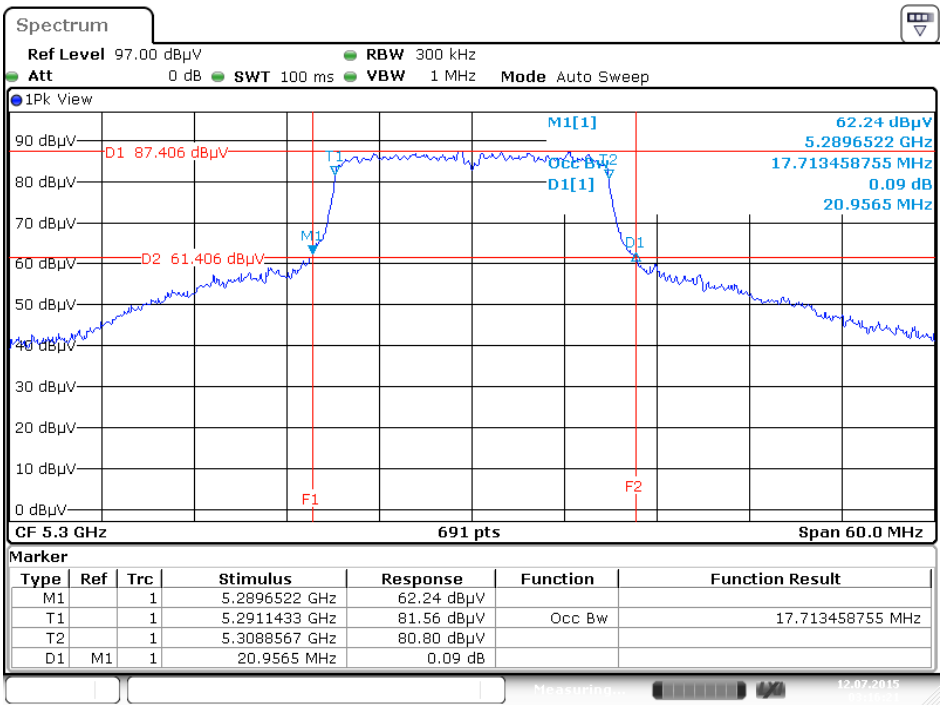
Date: 12.JUL.2015 03:06:11

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 / 5260 MHz



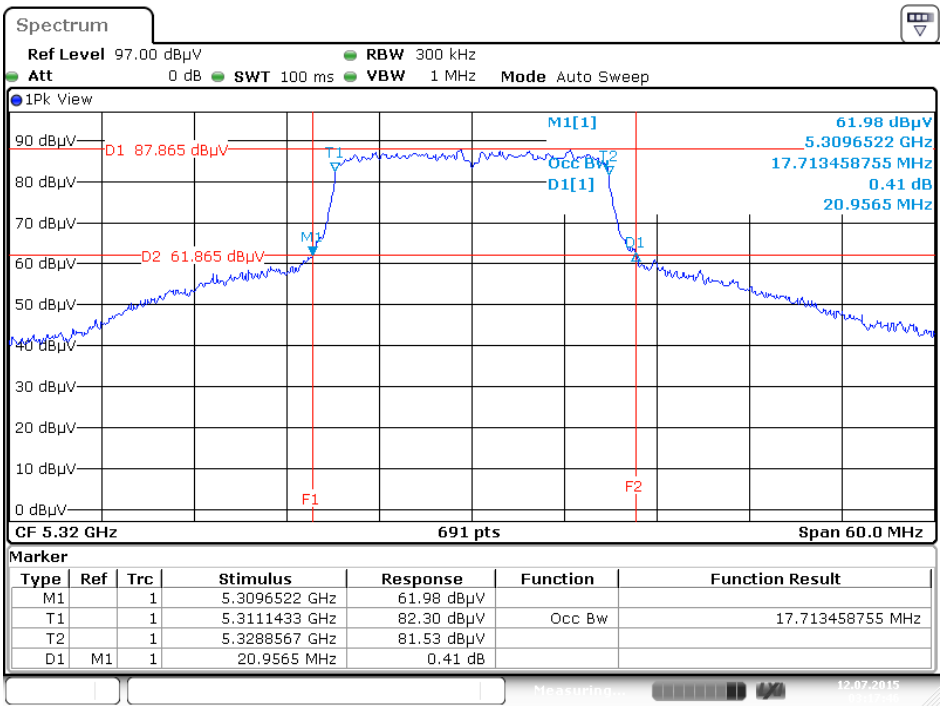
Date: 12.JUL.2015 03:15:33

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 / 5300 MHz



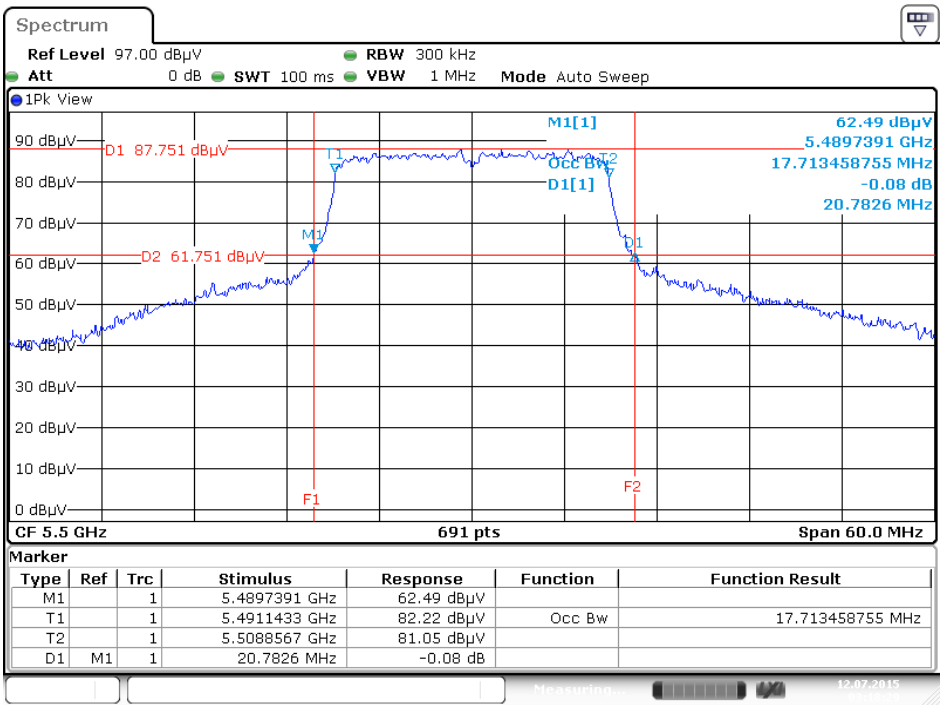
Date: 12.JUL.2015 03:16:21

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 / 5320 MHz



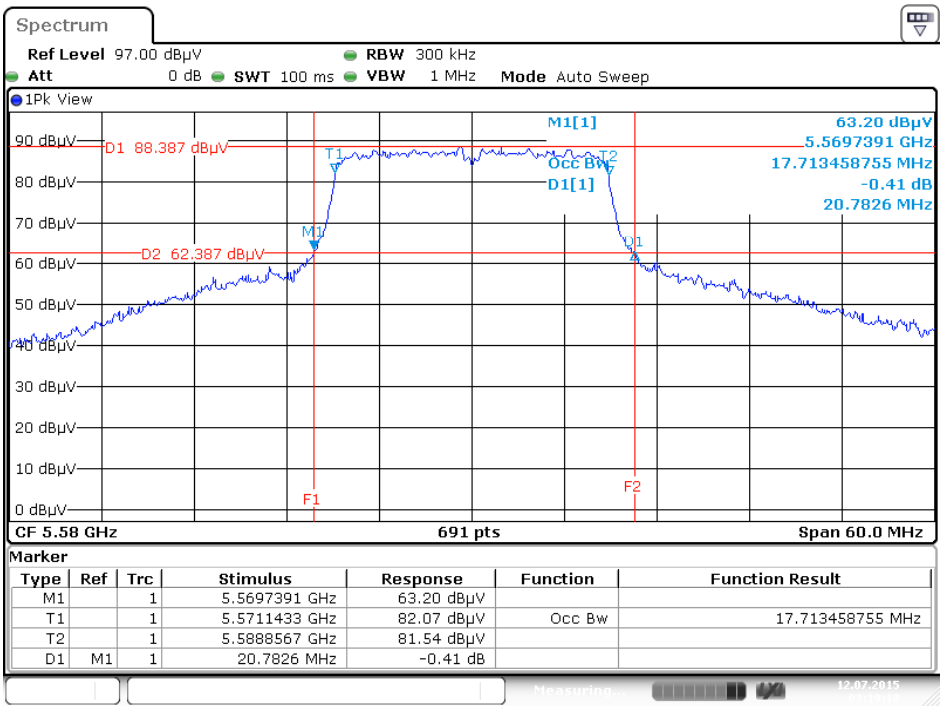
Date: 12.JUL.2015 03:17:46

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 / 5500 MHz



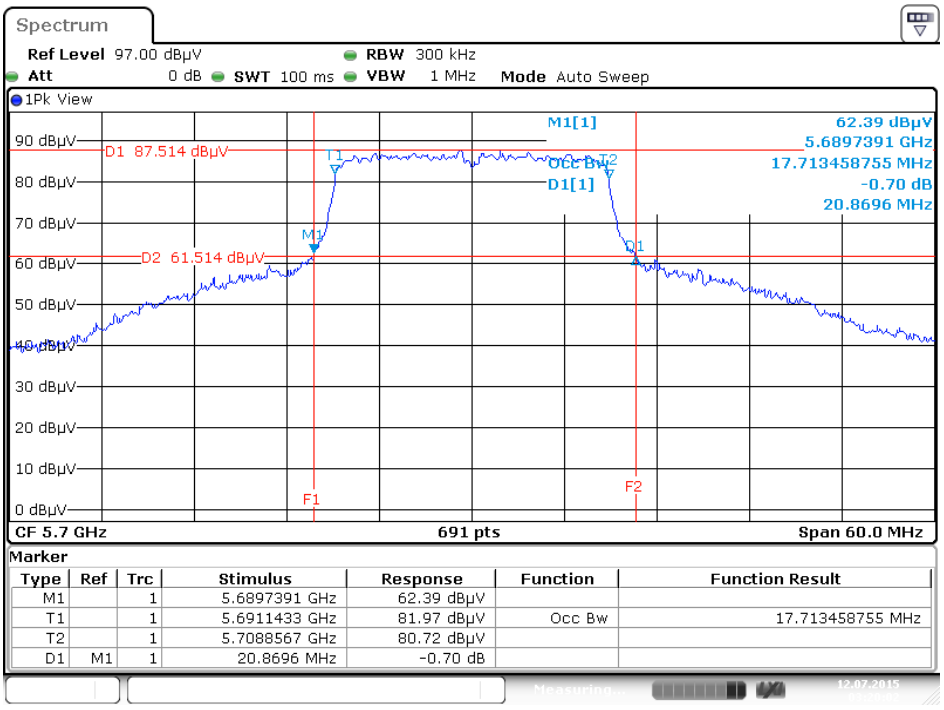
Date: 12.JUL.2015 03:18:30

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 / 5580 MHz



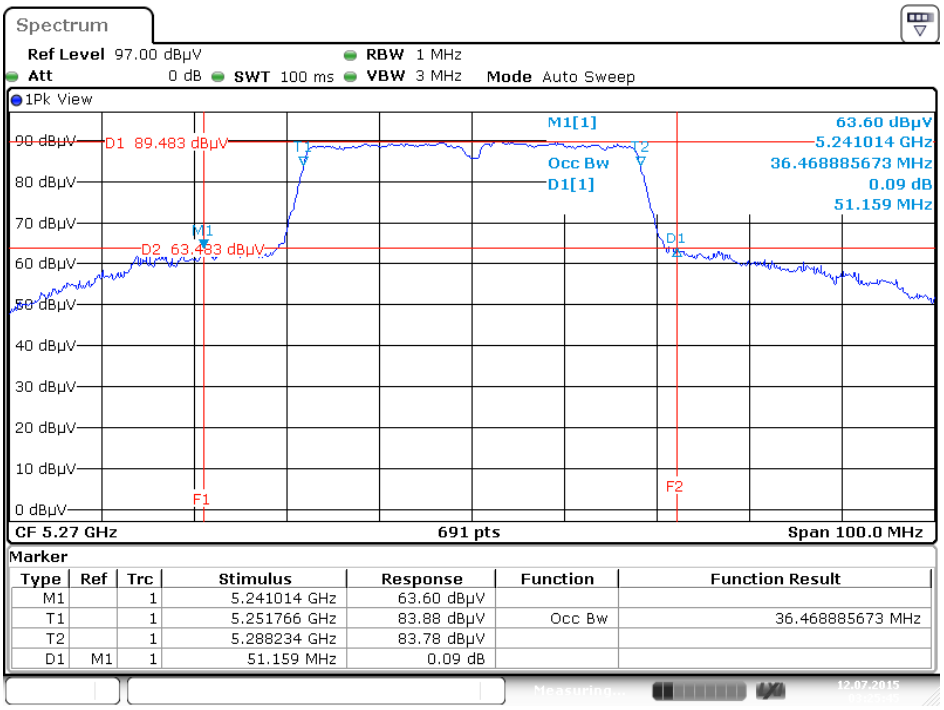
Date: 12.JUL.2015 03:19:18

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 / 5700 MHz



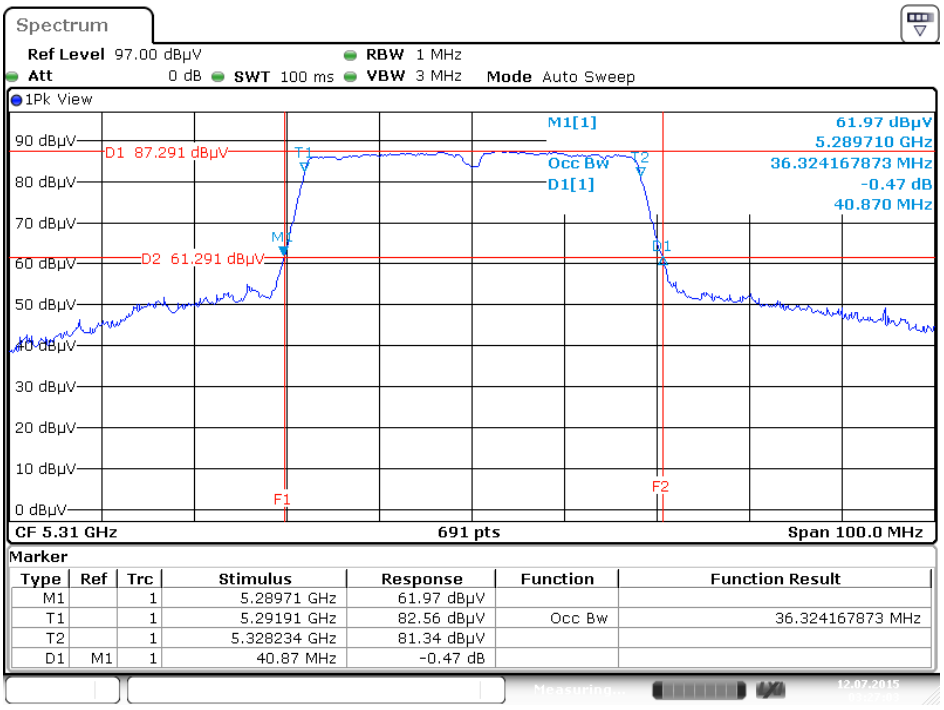
Date: 12.JUL.2015 03:20:02

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 / 5270 MHz



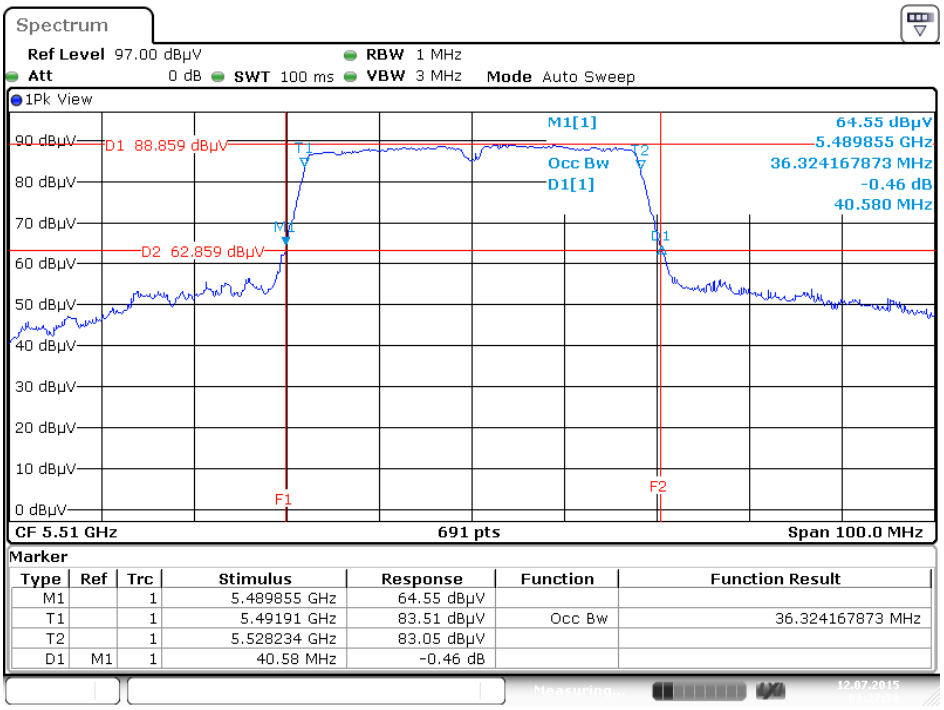
Date: 12.JUL.2015 03:25:45

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 / 5310 MHz



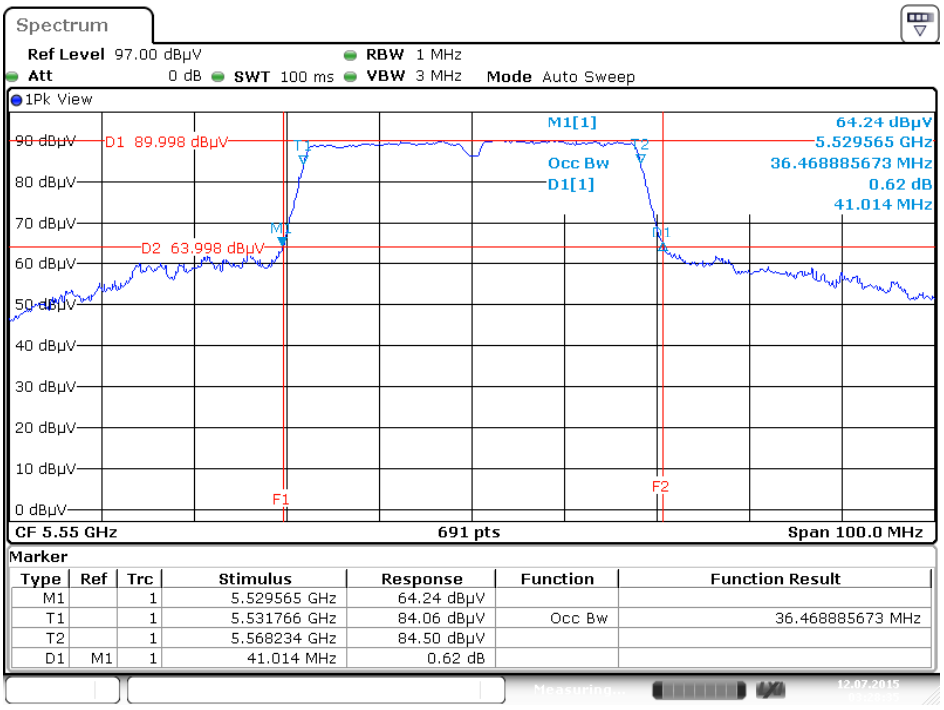
Date: 12.JUL.2015 03:27:03

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 / 5510 MHz



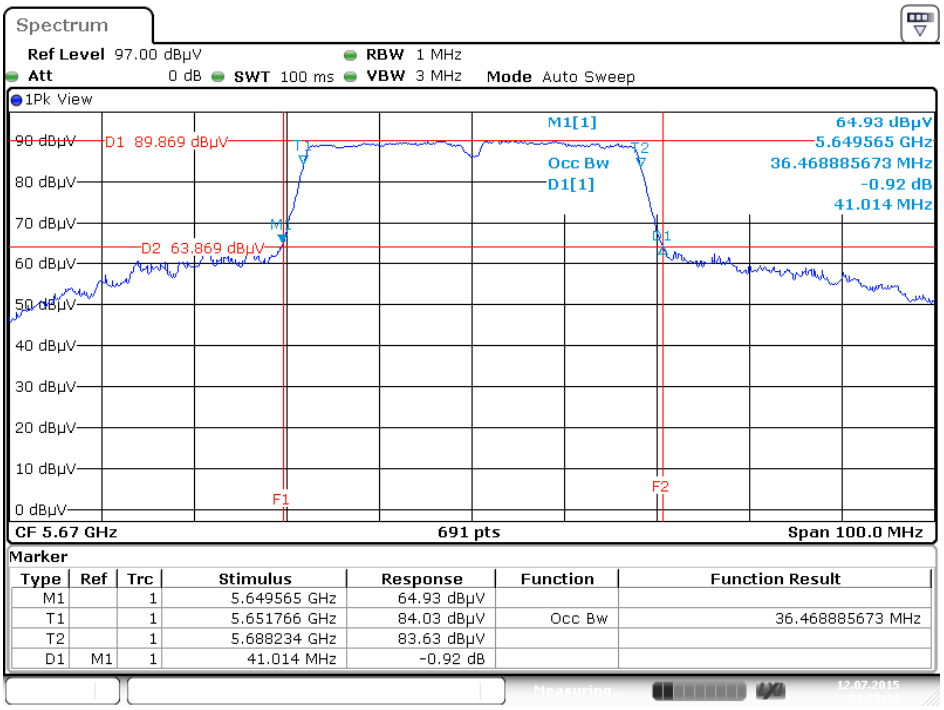
Date: 12.JUL.2015 03:27:50

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 / 5550 MHz



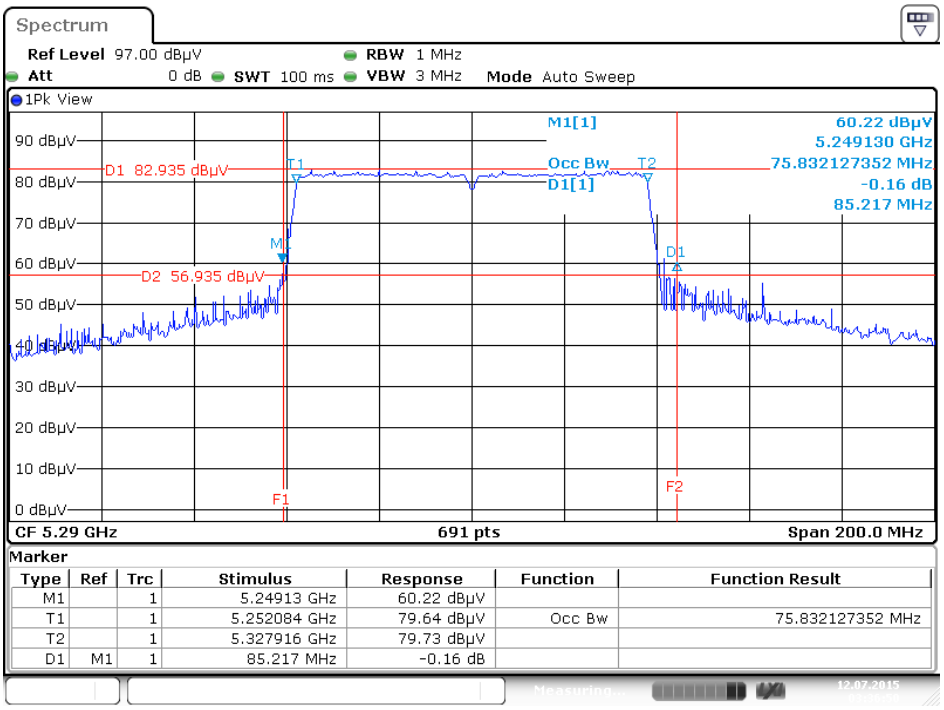
Date: 12.JUL.2015 03:28:35

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 / 5670 MHz



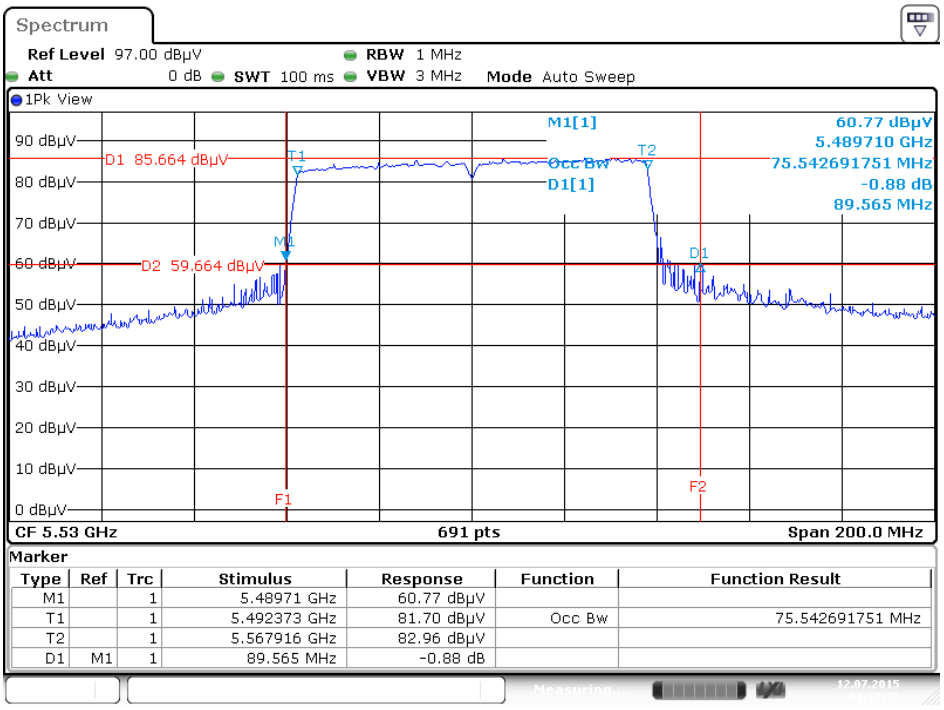
Date: 12.JUL.2015 03:29:34

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 / 5290 MHz



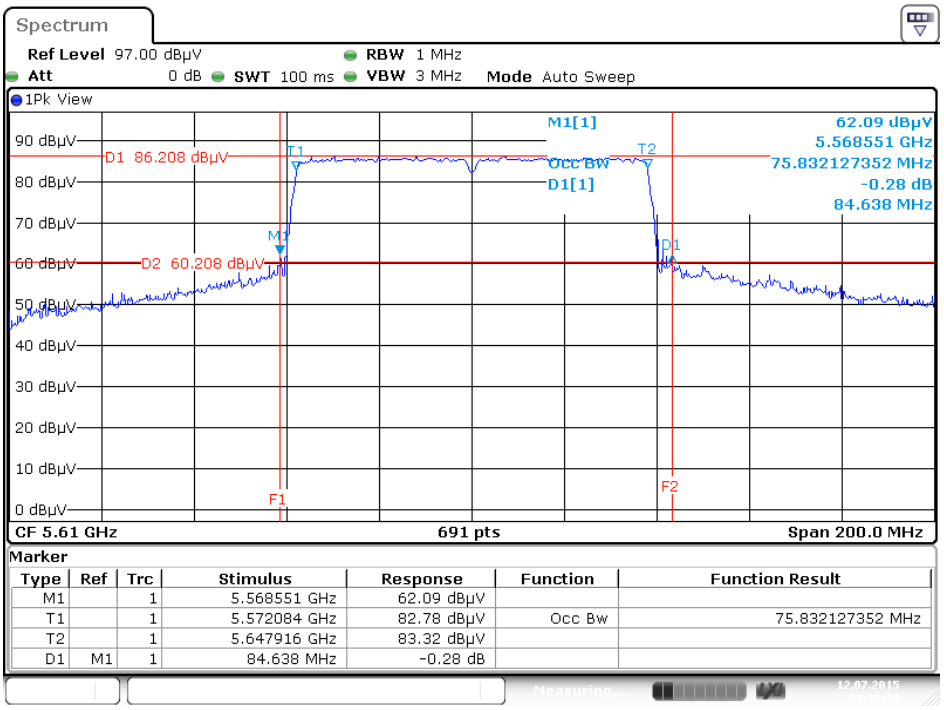
Date: 12.JUL.2015 03:36:51

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 / 5530 MHz



Date: 12.JUL.2015 03:37:37

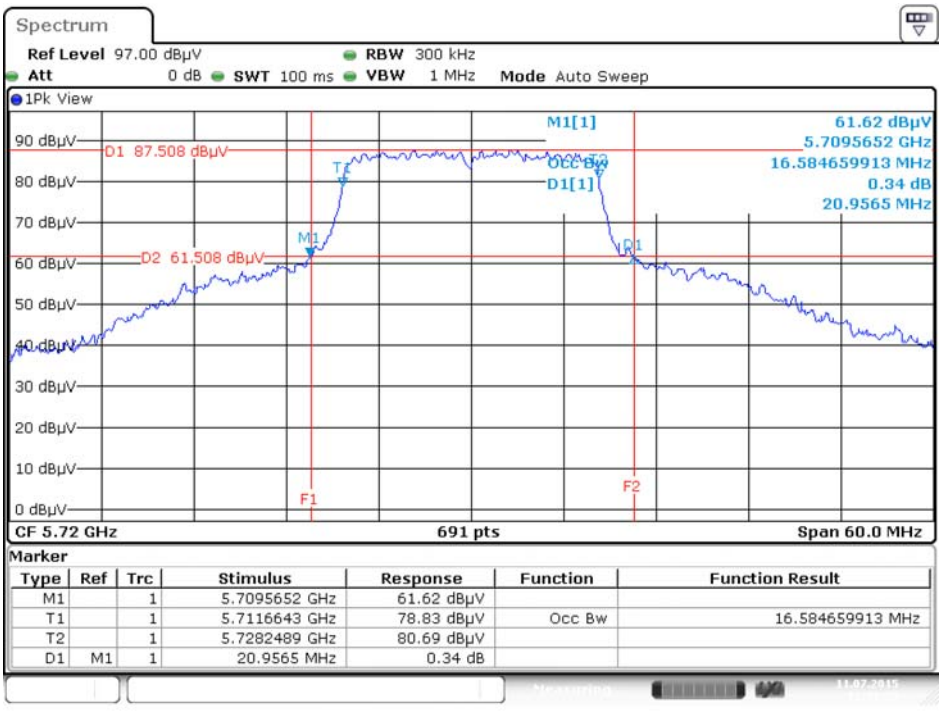
26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 / 5610 MHz



Date: 12.JUL.2015 03:38:24

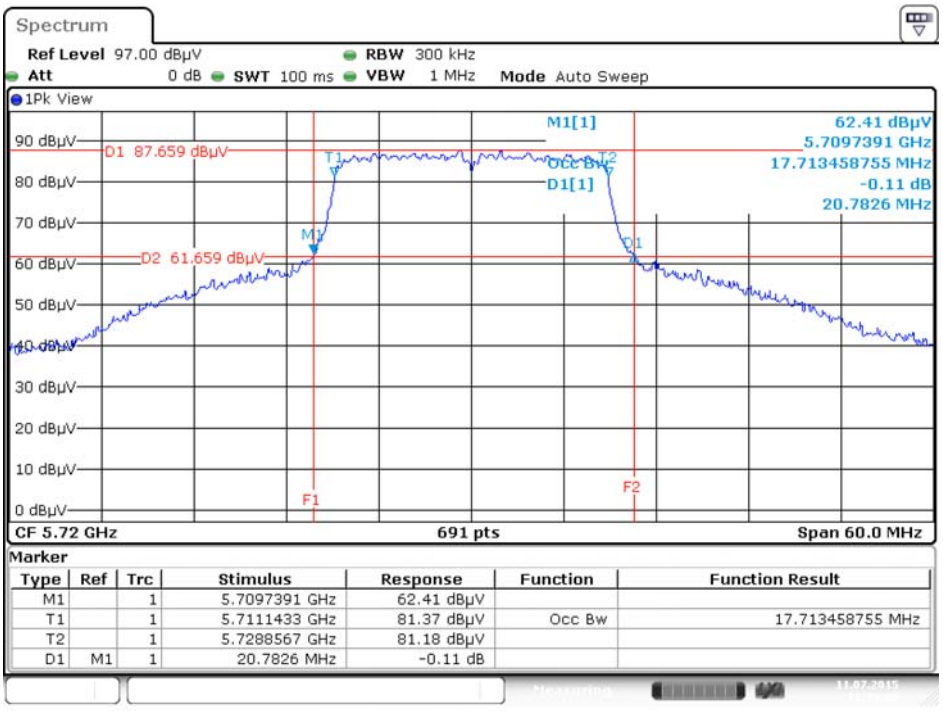
Straddle Channel

26 dB Bandwidth Plot on Configuration IEEE 802.11a / Chain 3 / 5720 MHz



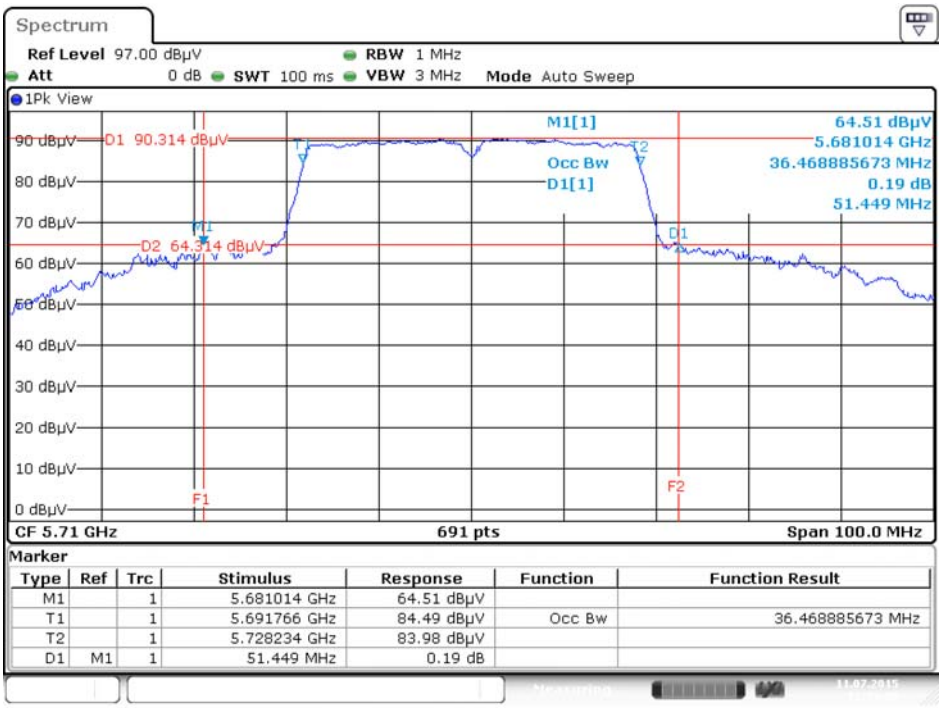
Date: 11.JUL.2015 12:52:23

26 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 / 5720 MHz



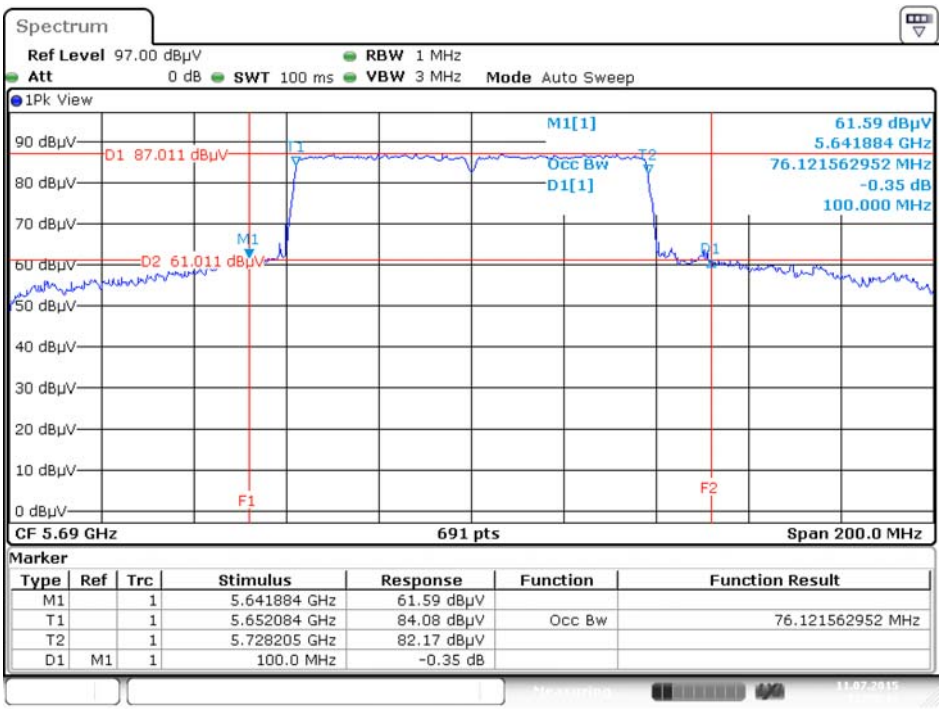
Date: 11.JUL.2015 12:53:30

26 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 / 5710 MHz



Date: 11.JUL.2015 12:54:28

6 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 / 5690 MHz



Date: 11.JUL.2015 12:55:41

<For Radio 2 Non-beamforming Mode>: 2TX, 1S

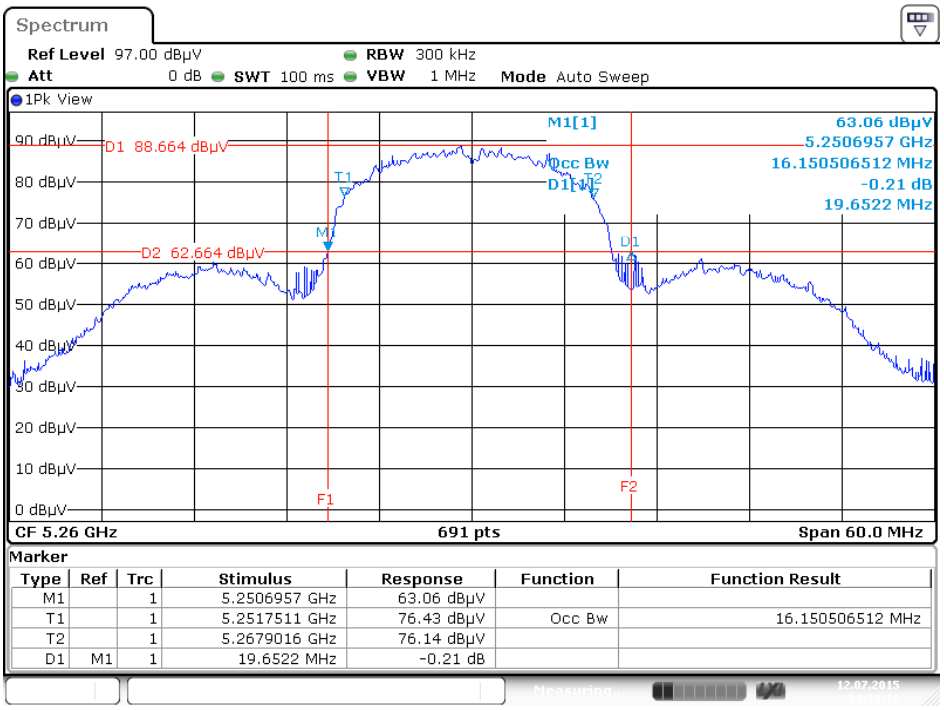
Temperature	25℃	Humidity	55%
Test Engineer	Lucas Huang		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5260 MHz	30.09	16.50
	5300 MHz	26.35	16.24
	5320 MHz	21.83	16.15
	5500 MHz	21.04	15.80
	5580 MHz	21.65	16.41
	5700 MHz	30.87	16.76
802.11ac MCS0/Nss1 VHT20	5260 MHz	19.65	16.15
	5300 MHz	18.87	15.11
	5320 MHz	18.96	15.37
	5500 MHz	18.00	15.89
	5580 MHz	19.74	17.54
	5700 MHz	26.70	17.89
802.11ac MCS0/Nss1 VHT40	5270 MHz	41.30	36.90
	5310 MHz	40.44	36.61
	5510 MHz	40.73	36.76
	5550 MHz	40.87	36.90
	5670 MHz	40.29	36.47
802.11ac MCS0/Nss1 VHT80	5290 MHz	81.45	76.12
	5530 MHz	81.45	76.12
	5610 MHz	89.57	75.83

Straddle Channel

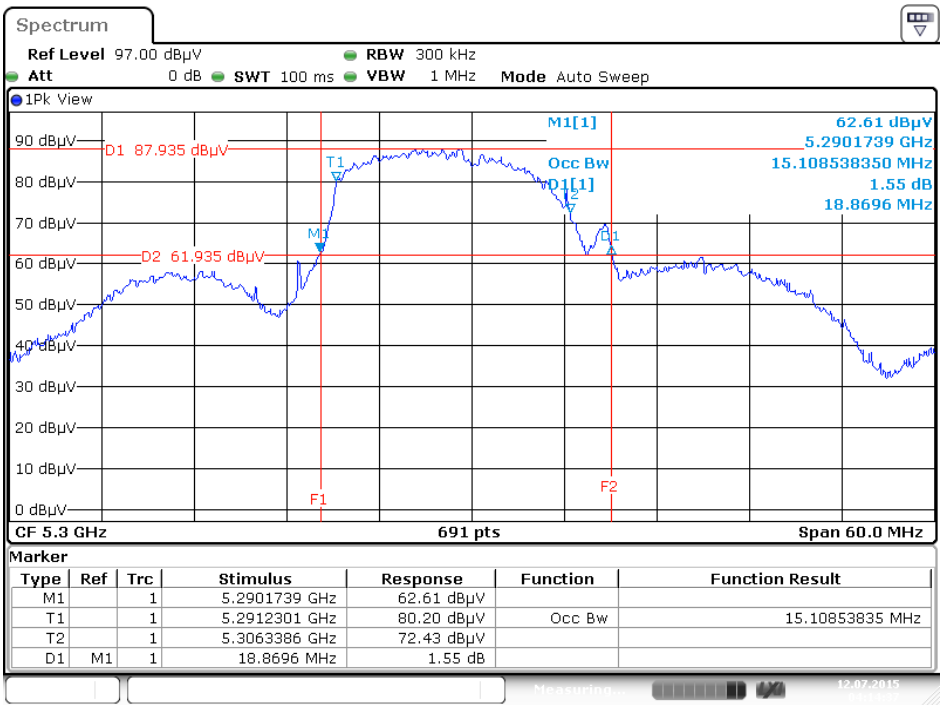
Mode	Frequency	26dB BW (MHz)	99% OBW (MHz)	26dB BW F1 (MHz)	99% OBW T1 (MHz)	UNII 2C 26dB BW (MHz)	UNII 3 26dB BW (MHz)	UNII 2C 99% BW (MHz)	UNII 3 99% BW (MHz)
802.11a	5720 MHz	17.91	15.80	5711.30	5712.36	13.70	4.22	12.64	3.16
802.11ac MCS0/Nss1 VHT20	5720 MHz	18.78	16.50	5710.26	5711.32	14.74	4.04	13.68	2.81
802.11ac MCS0/Nss1 VHT40	5710 MHz	40.87	36.76	5689.71	5691.77	35.29	5.58	33.23	3.52
802.11ac MCS0/Nss1 VHT80	5690 MHz	84.06	76.12	5650.00	5652.84	75.00	9.06	72.16	3.96

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 4 + Chain 5 / 5260 MHz



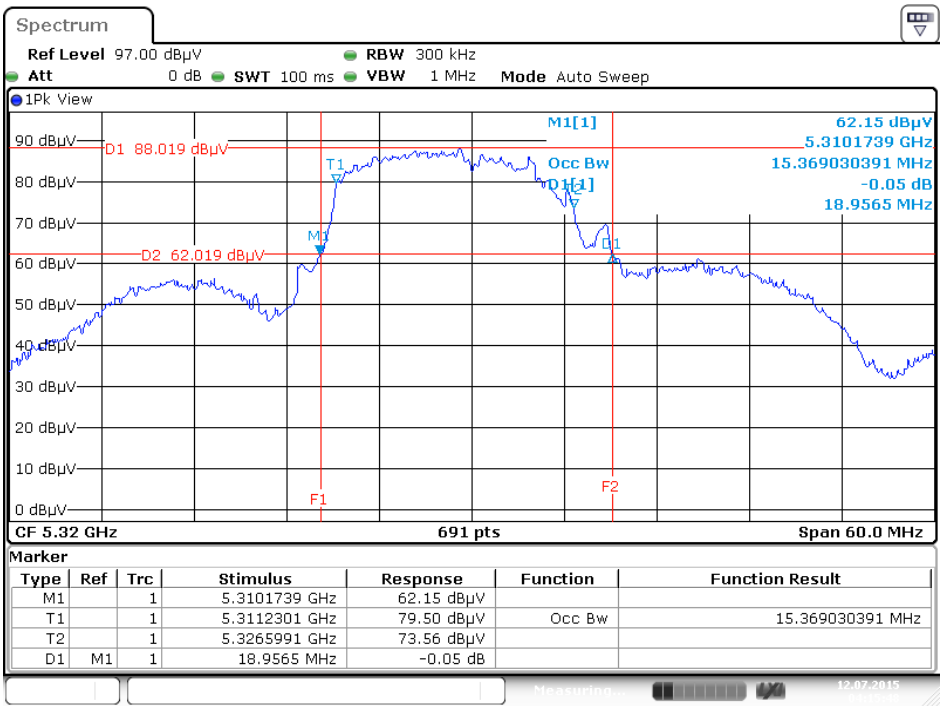
Date: 12.JUL.2015 04:13:10

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 4 + Chain 5 / 5300 MHz



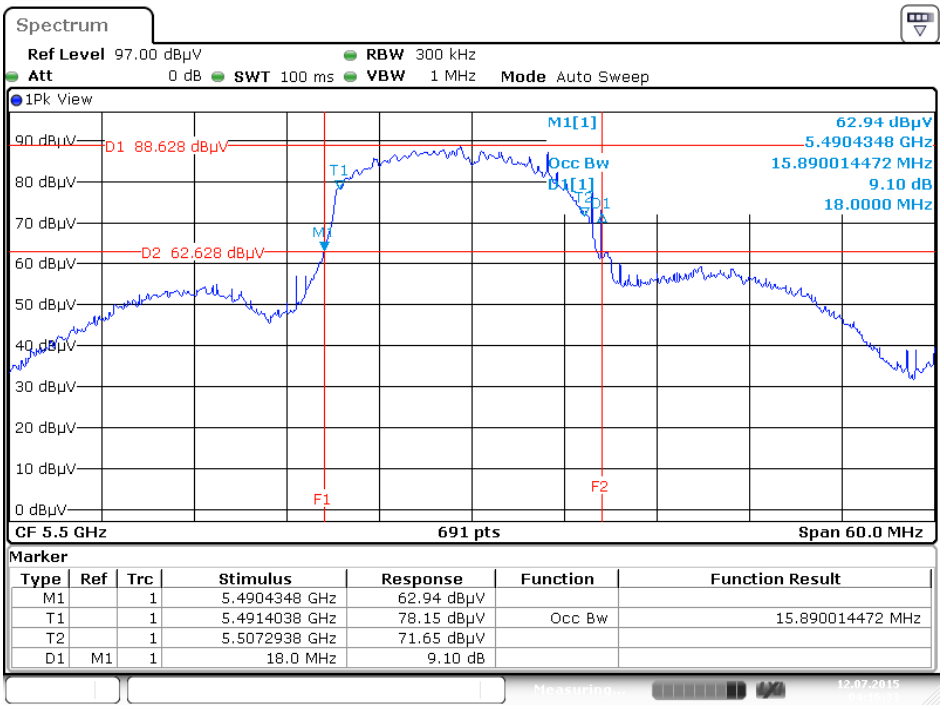
Date: 12.JUL.2015 04:14:37

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 4 + Chain 5 / 5320 MHz



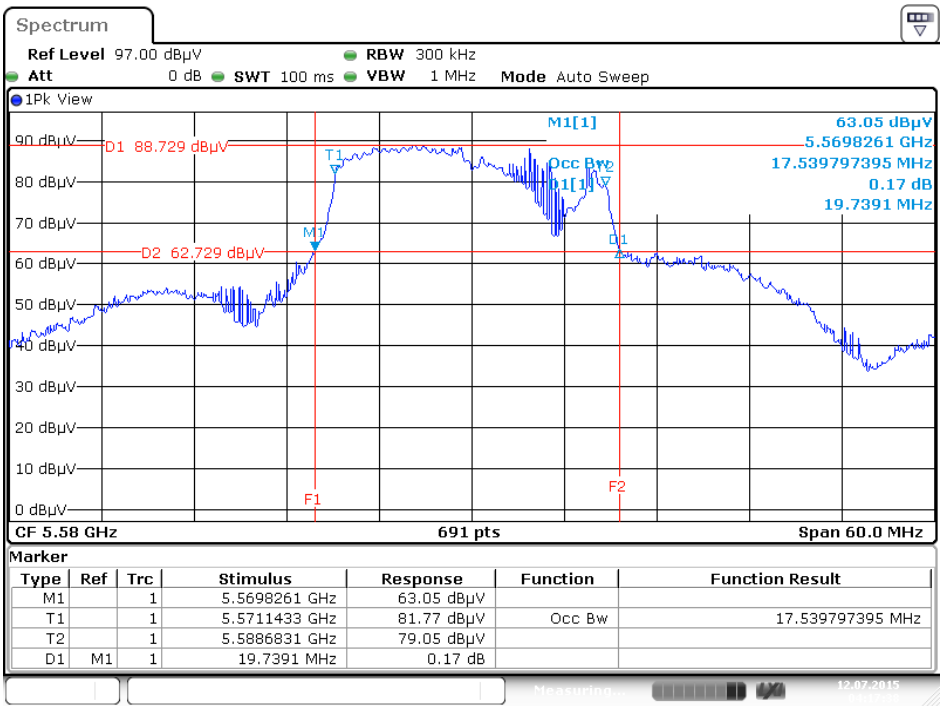
Date: 12.JUL.2015 04:15:48

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 4 + Chain 5 / 5500 MHz



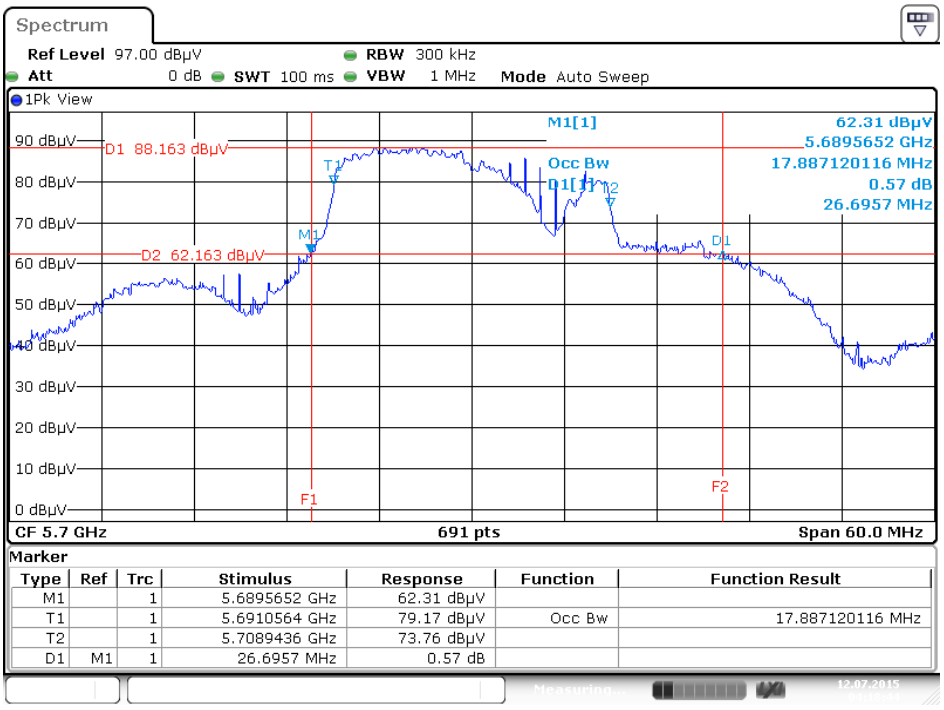
Date: 12.JUL.2015 04:16:34

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 4 + Chain 5 / 5580 MHz



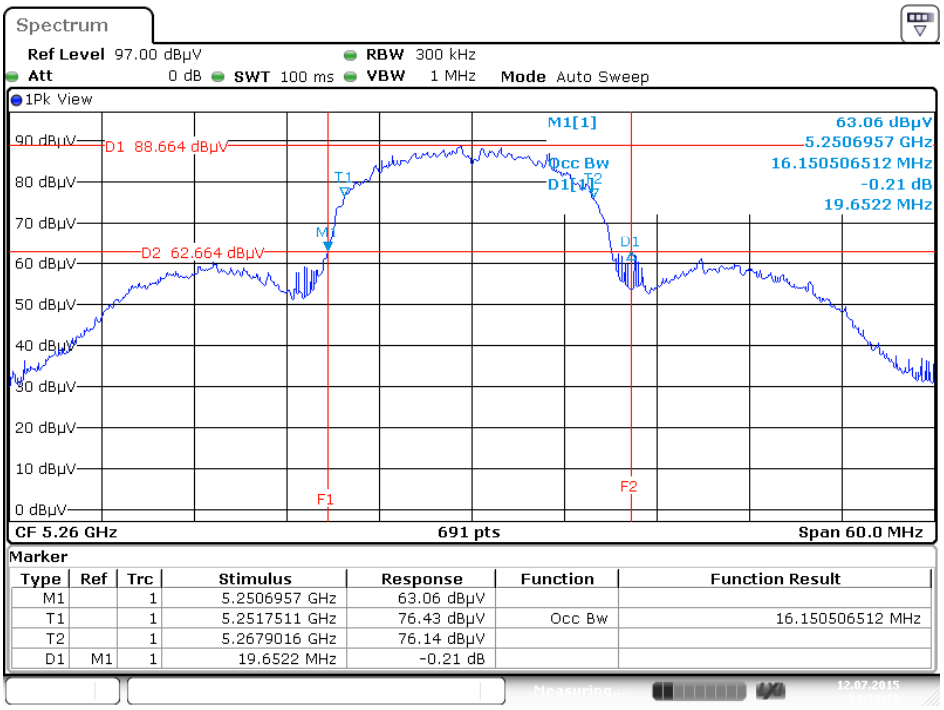
Date: 12.JUL.2015 04:17:38

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 4 + Chain 5 / 5700 MHz



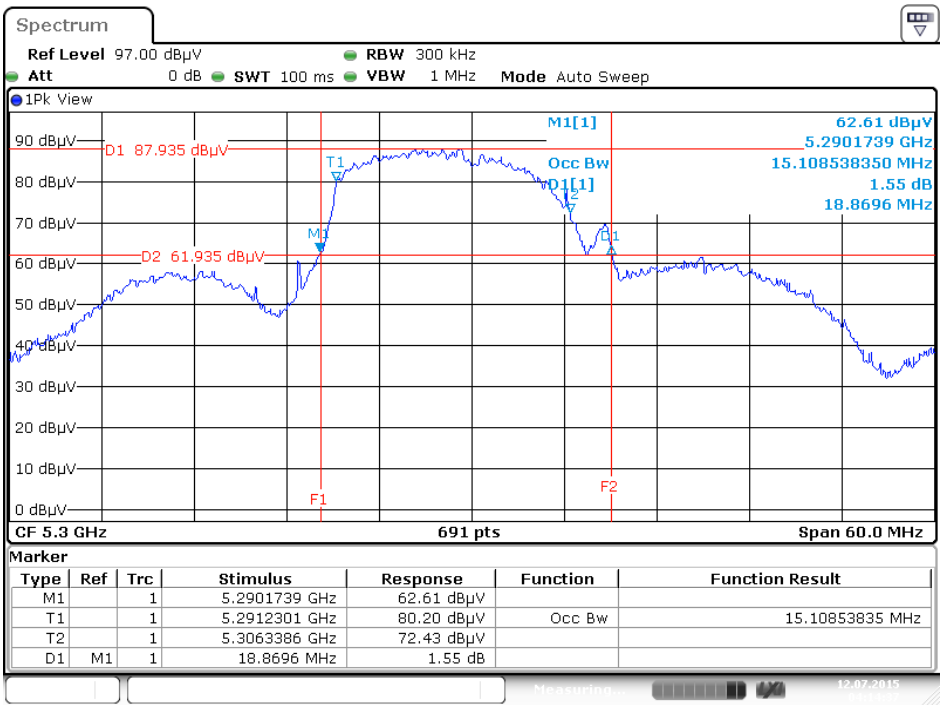
Date: 12.JUL.2015 04:18:44

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 / 5260 MHz



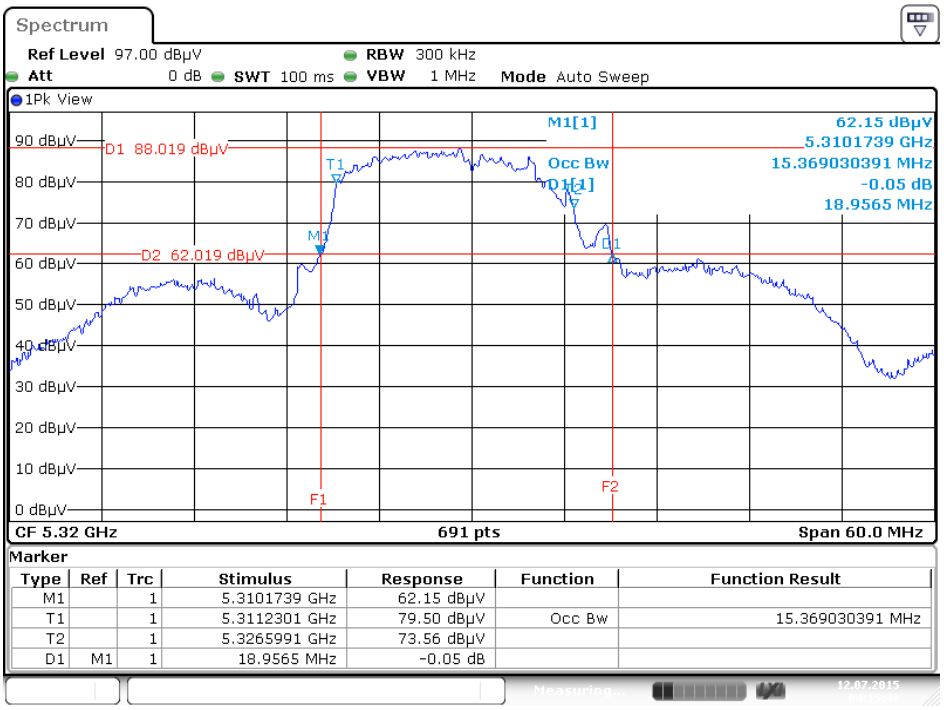
Date: 12.JUL.2015 04:13:10

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 / 5300 MHz



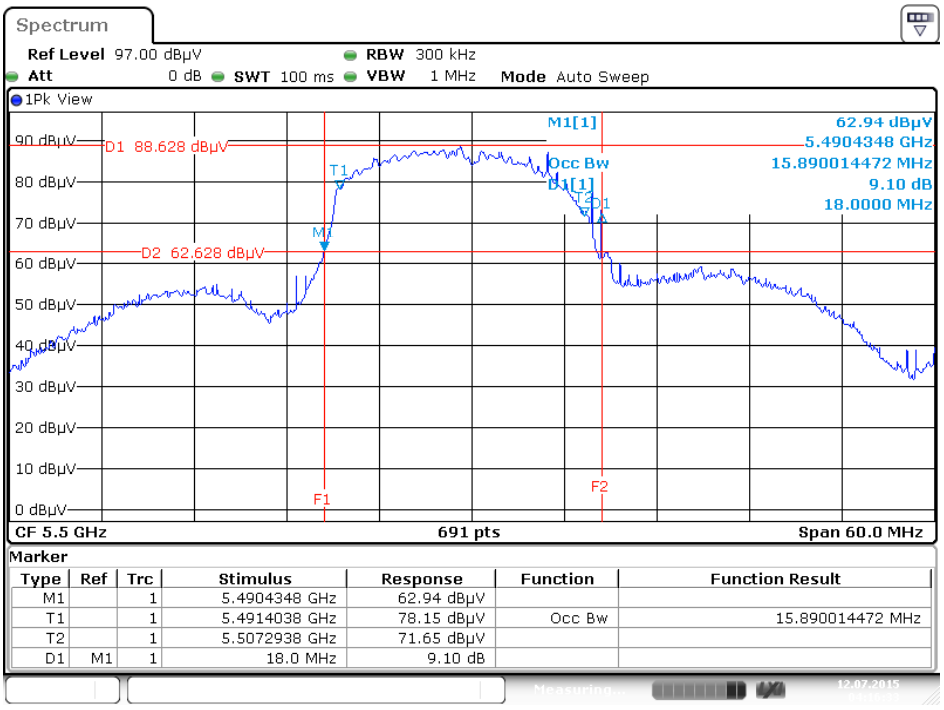
Date: 12.JUL.2015 04:14:37

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5/ 5320 MHz



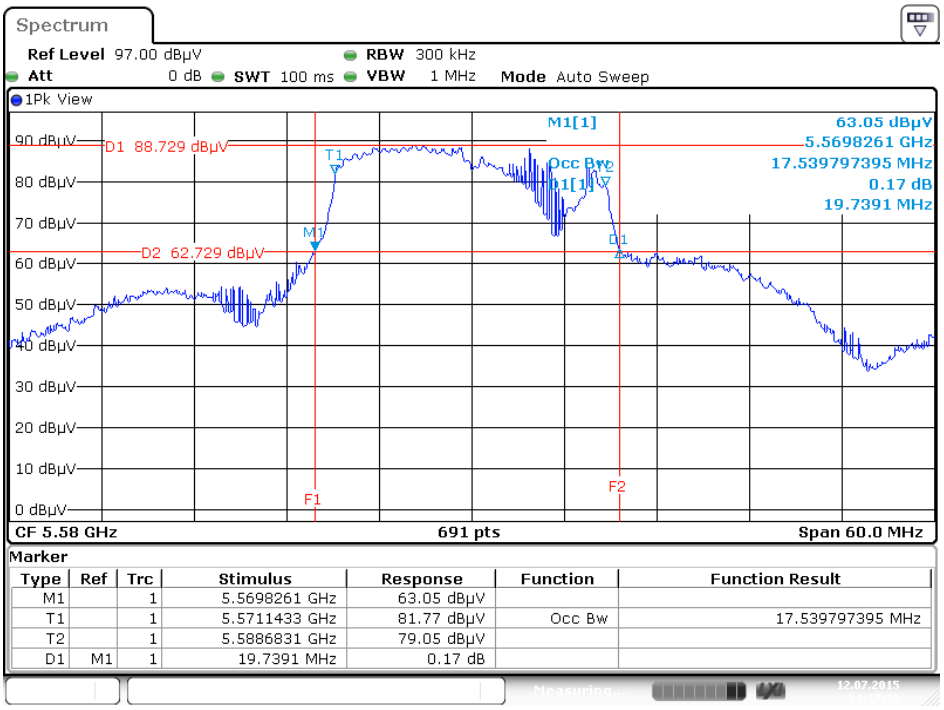
Date: 12.JUL.2015 04:15:48

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 / 5500 MHz



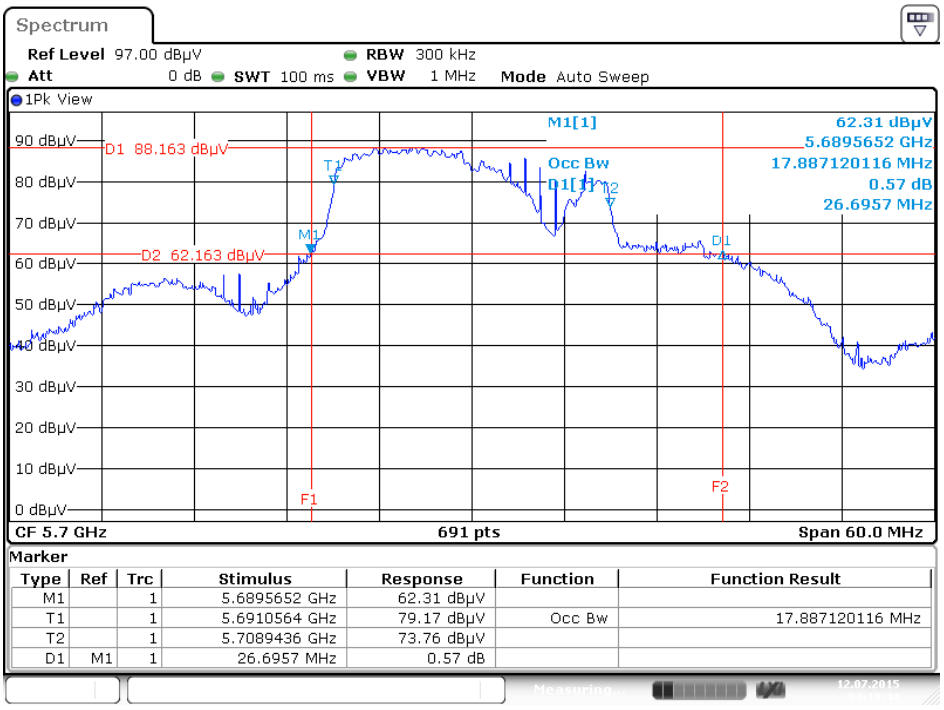
Date: 12.JUL.2015 04:16:34

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 / 5580 MHz



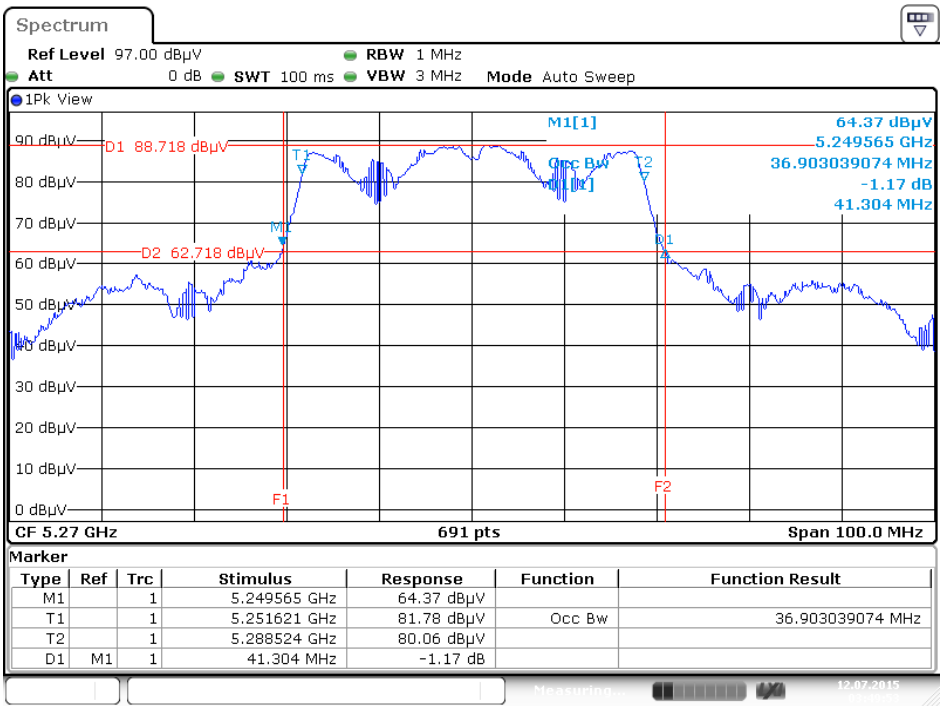
Date: 12.JUL.2015 04:17:38

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 / 5700 MHz



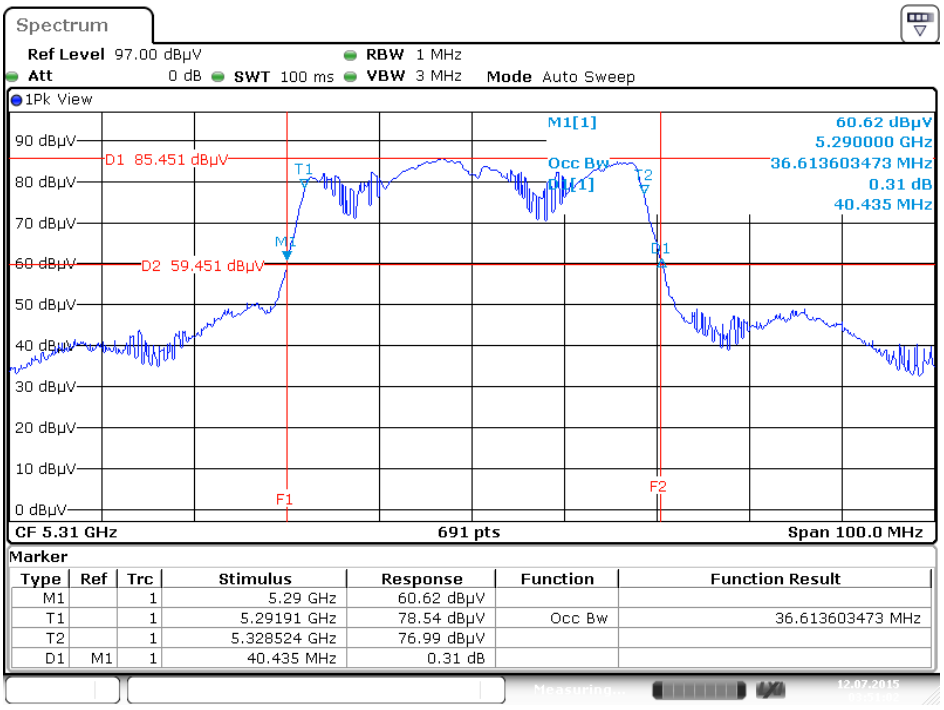
Date: 12.JUL.2015 04:18:44

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 + Chain 5 / 5270 MHz



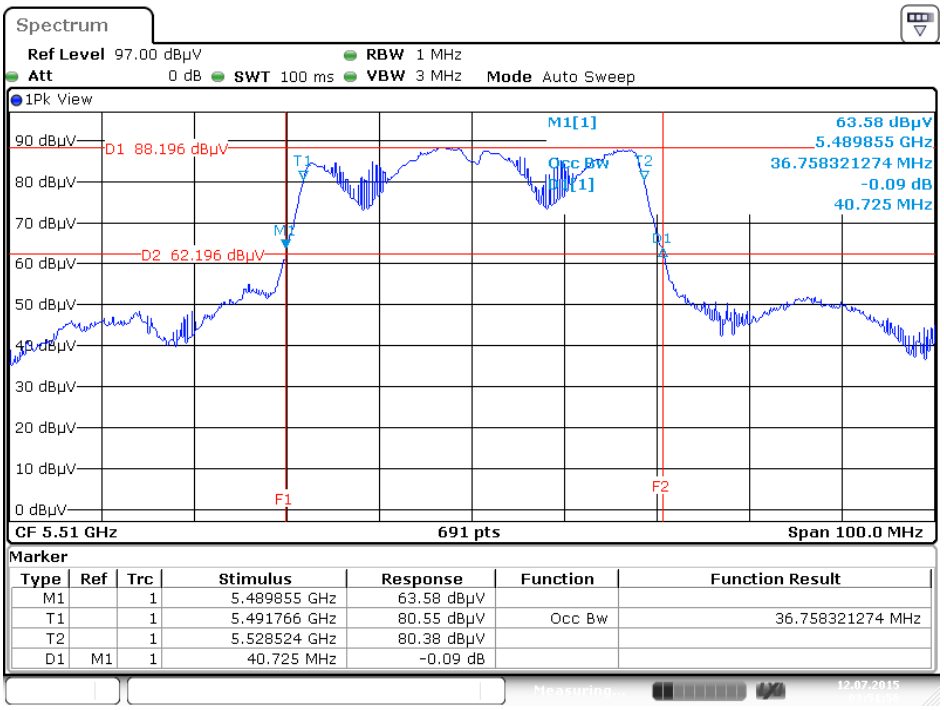
Date: 12.JUL.2015 03:49:53

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 + Chain 5 / 5310 MHz



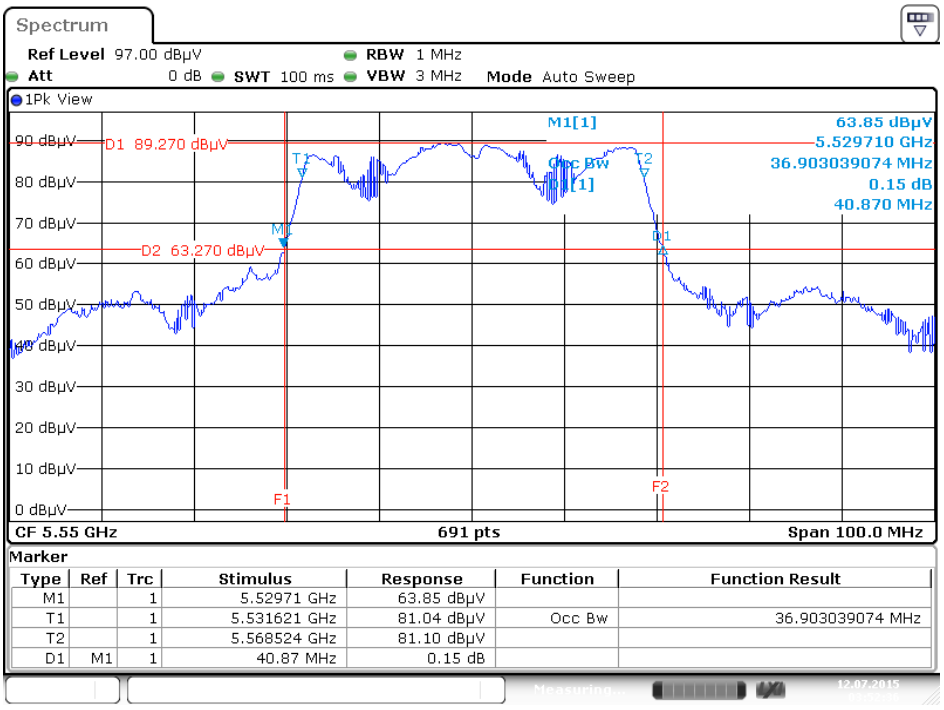
Date: 12.JUL.2015 03:51:02

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 + Chain 5 / 5510 MHz



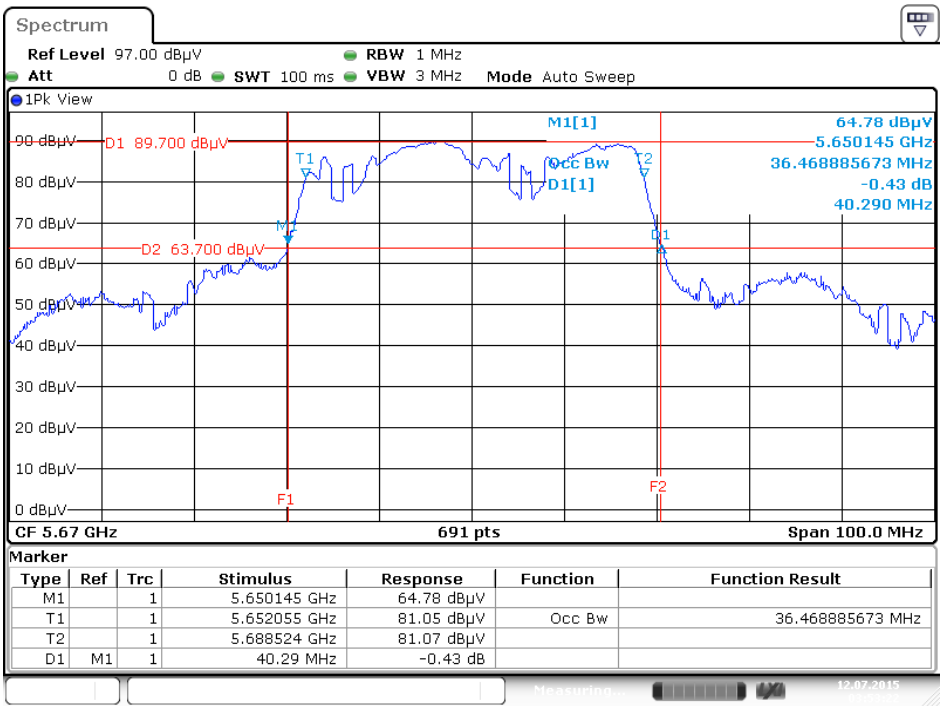
Date: 12.JUL.2015 03:51:56

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 + Chain 5 / 5550 MHz



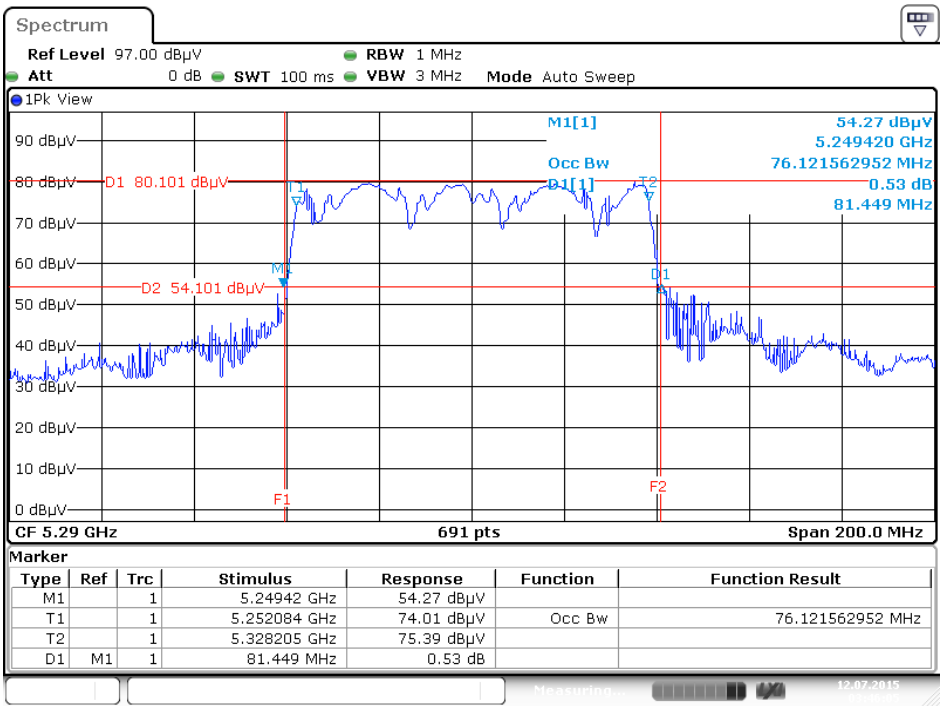
Date: 12.JUL.2015 03:52:36

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 + Chain 5 / 5670 MHz



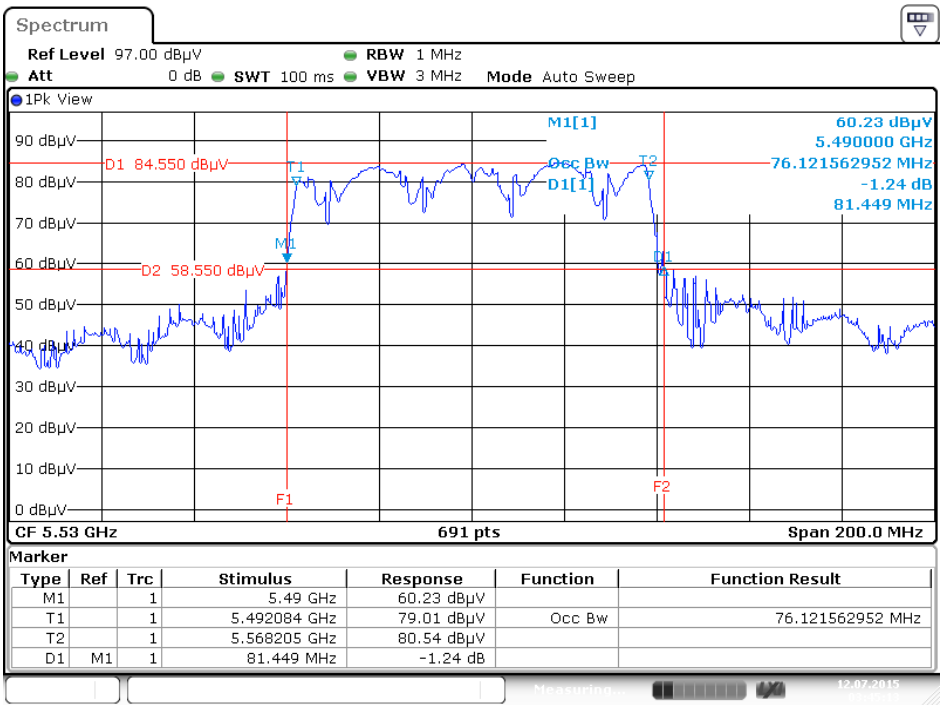
Date: 12.JUL.2015 03:53:22

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 + Chain 5 / 5290 MHz



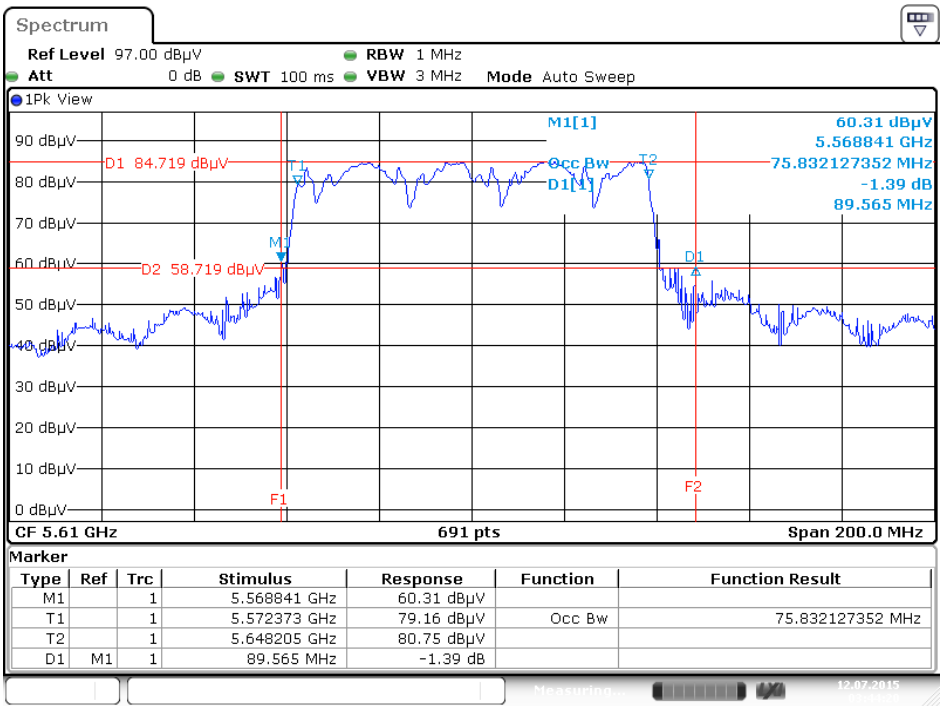
Date: 12.JUL.2015 03:46:06

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 + Chain 5 / 5530 MHz



Date: 12.JUL.2015 03:45:13

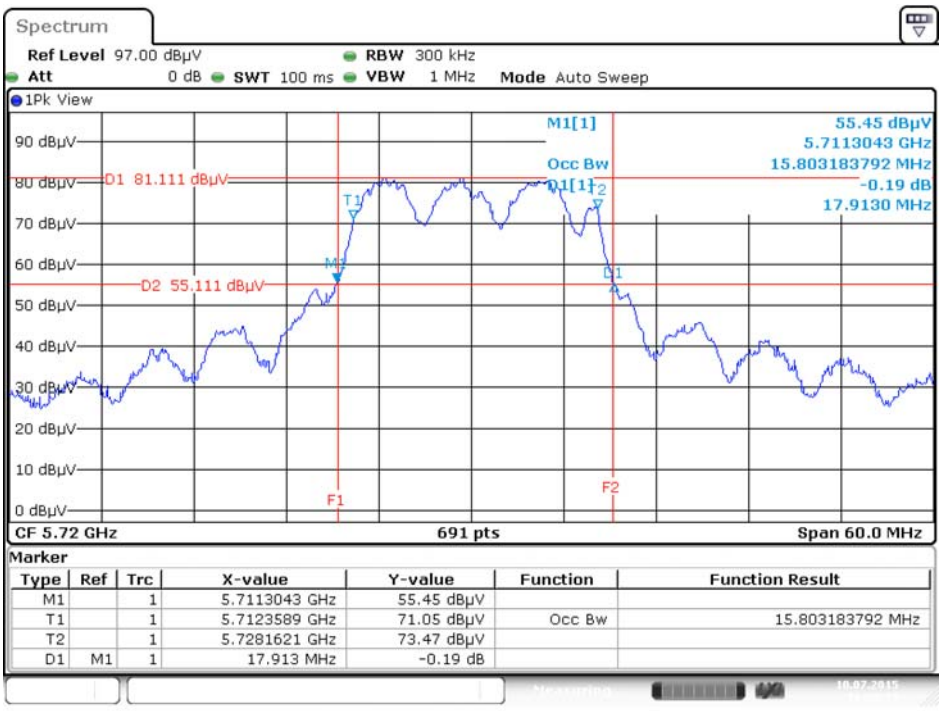
26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 + Chain 5 / 5610 MHz



Date: 12.JUL.2015 03:44:21

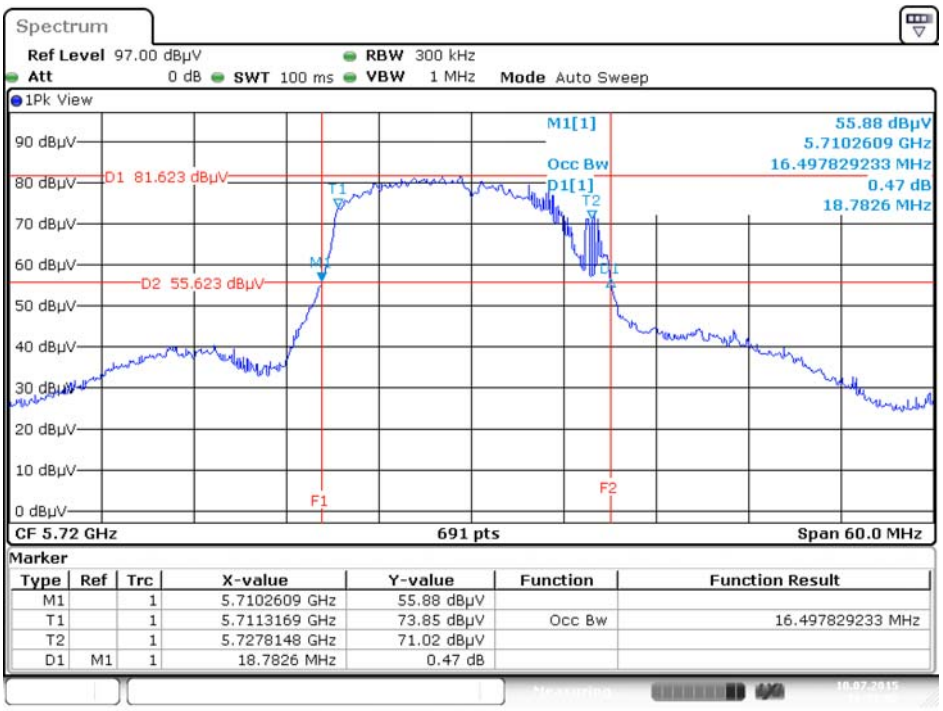
Straddle Channel

26 dB Bandwidth Plot on Configuration IEEE 802.11a / Chain 4+ Chain 5 / 5720 MHz



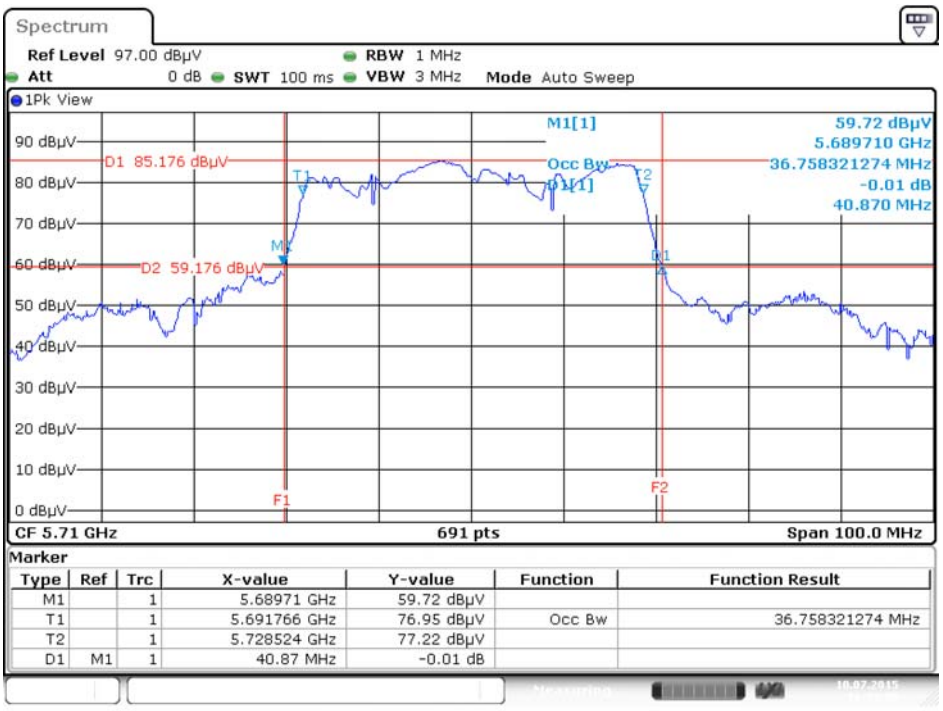
Date: 10.JUL.2015 16:50:13

26 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+ Chain 5 / 5720 MHz



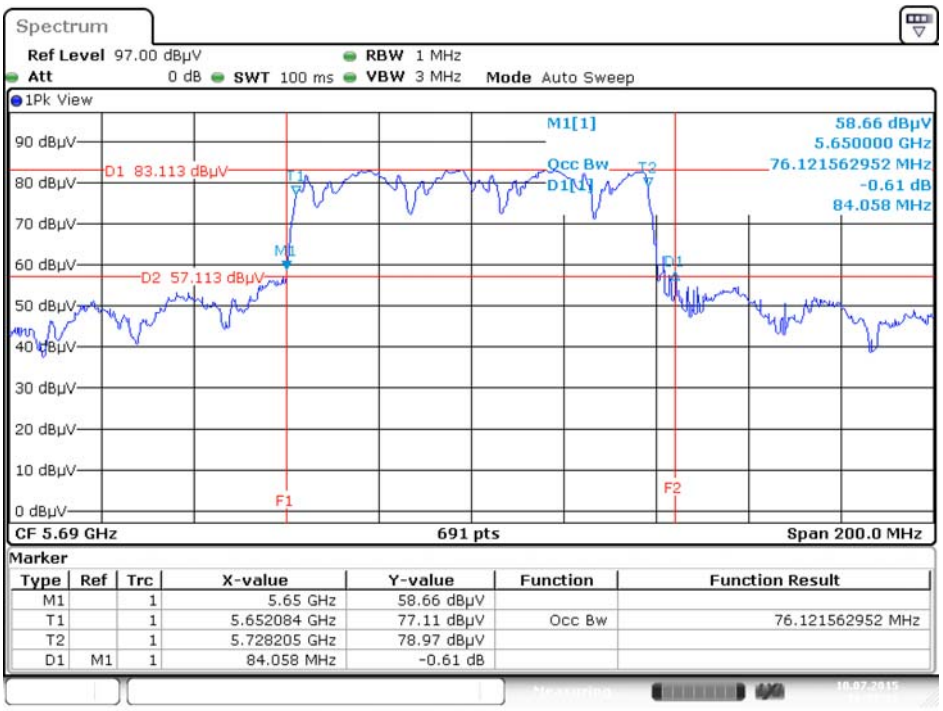
Date: 10.JUL.2015 16:52:02

26 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+ Chain 5 / 5710 MHz



Date: 10.JUL.2015 16:53:59

26 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+ Chain 5 / 5690 MHz



Date: 10.JUL.2015 16:57:12

<For Radio 2 Non-beamforming Mode>: 2TX, 2S

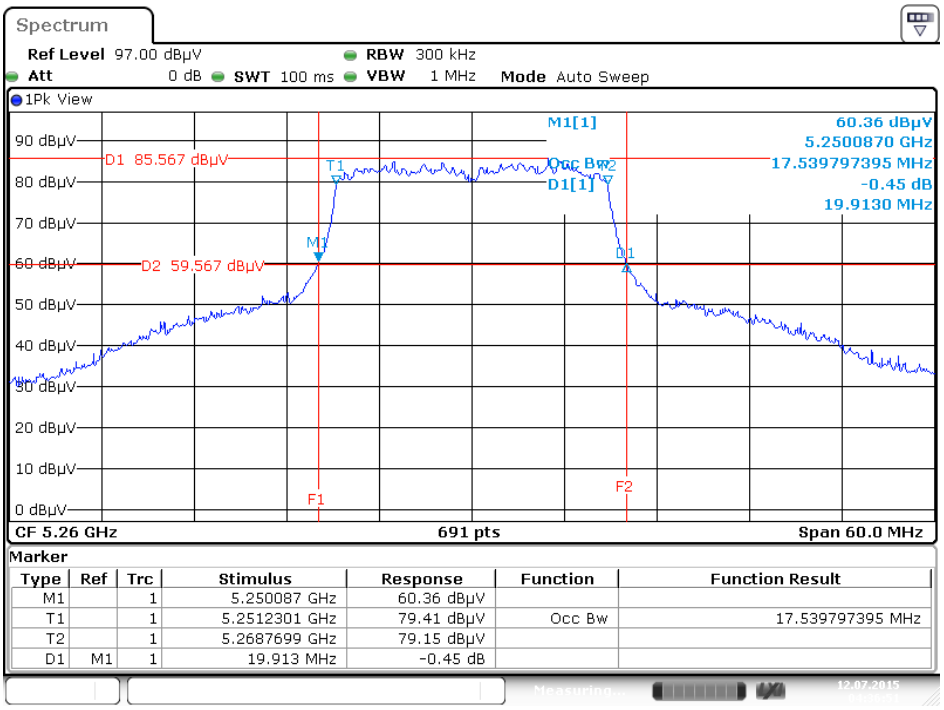
Temperature	25°C	Humidity	55%
Test Engineer	Lucas Huang		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11ac MCS0/Nss2 VHT20	5260 MHz	19.91	17.54
	5300 MHz	20.70	17.63
	5320 MHz	20.78	17.71
	5500 MHz	19.91	17.54
	5580 MHz	19.91	17.63
	5700 MHz	20.09	17.63
802.11ac MCS0/Nss2 VHT40	5270 MHz	40.87	36.47
	5310 MHz	40.44	36.32
	5510 MHz	40.29	36.18
	5550 MHz	40.44	36.32
	5670 MHz	40.29	36.47
802.11ac MCS0/Nss2 VHT80	5290 MHz	89.86	75.83
	5530 MHz	85.22	75.83
	5610 MHz	88.12	75.83

Straddle Channel

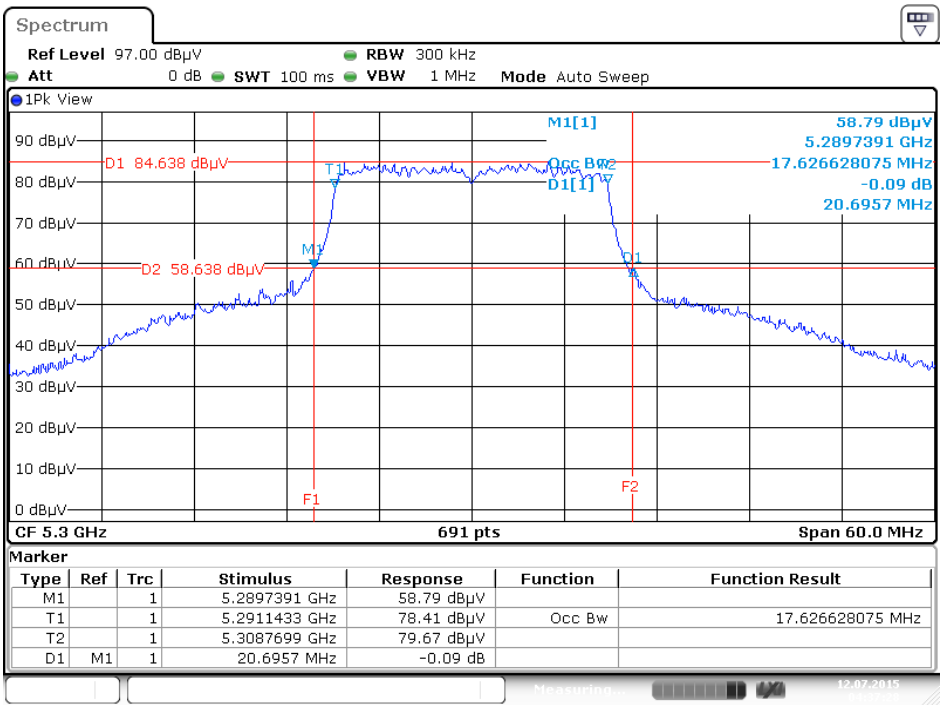
Mode	Frequency	26dB BW (MHz)	99% OBW (MHz)	26dB BW F1 (MHz)	99% OBW T1 (MHz)	UNII 2C 26dB BW (MHz)	UNII 3 26dB BW (MHz)	UNII 2C 99% BW (MHz)	UNII 3 99% BW (MHz)
802.11ac MCS0/Nss2 VHT20	5720 MHz	20.17	17.63	5709.91	5711.14	15.09	5.09	13.86	3.77
802.11ac MCS0/Nss2 VHT40	5710 MHz	40.58	36.47	5689.71	5691.77	35.29	5.29	33.23	3.23
802.11ac MCS0/Nss2 VHT80	5690 MHz	87.25	76.12	5646.81	5651.80	78.19	9.06	73.20	2.92

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4 + Chain 5 / 5260 MHz



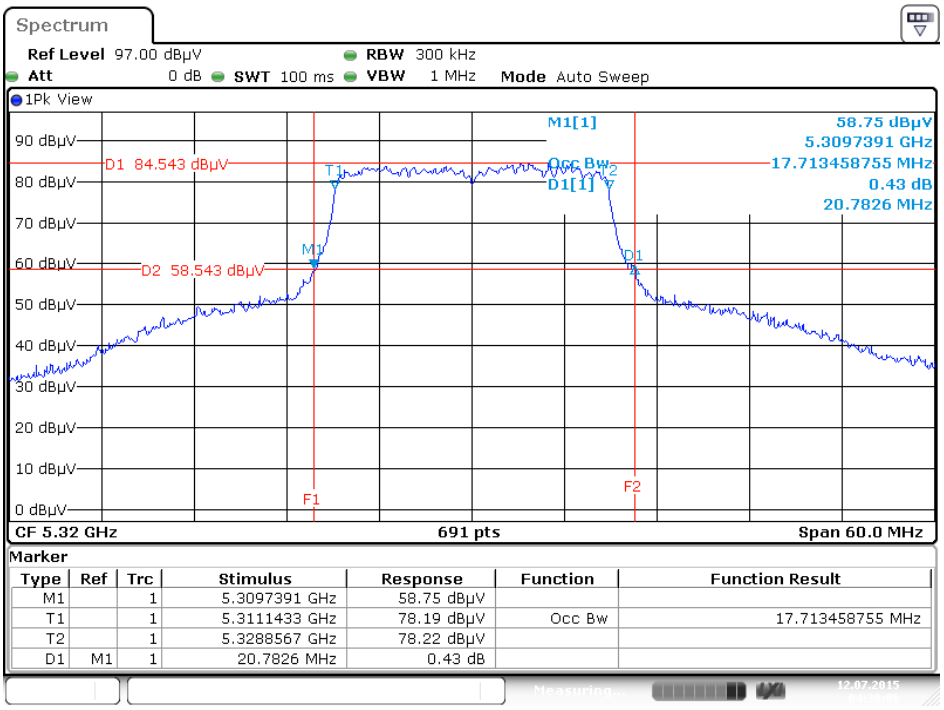
Date: 12.JUL.2015 04:36:51

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4 + Chain 5 / 5300 MHz



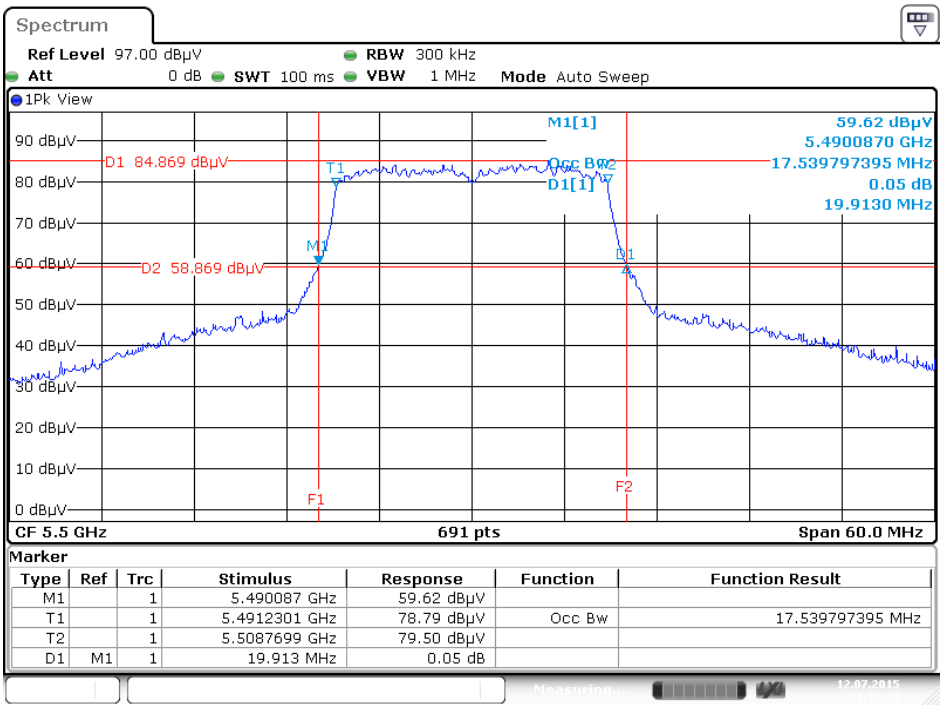
Date: 12.JUL.2015 04:37:28

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4 + Chain 5/ 5320 MHz



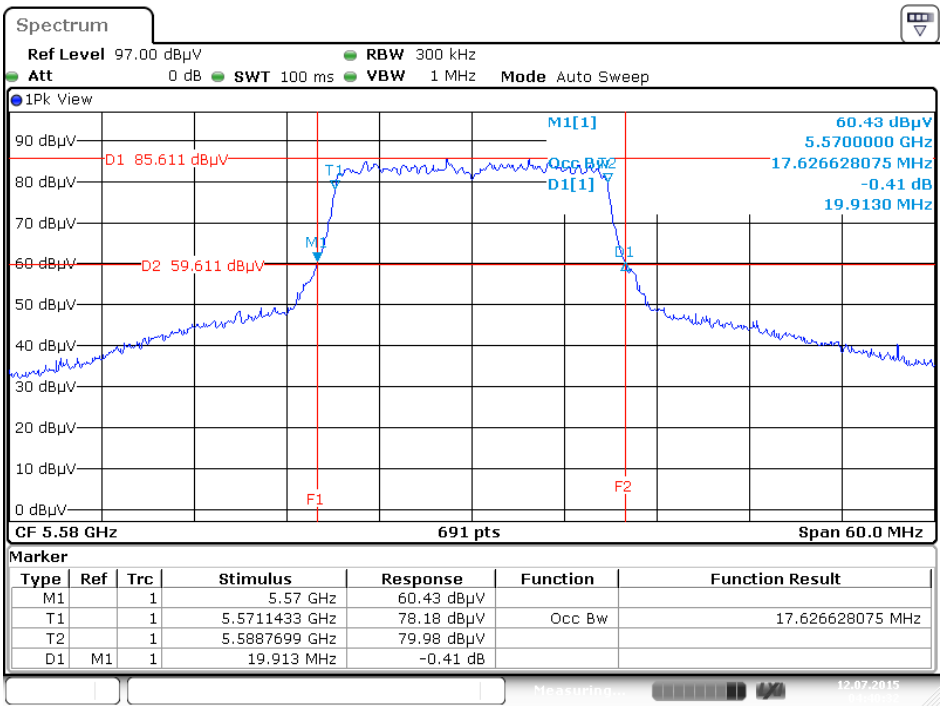
Date: 12.JUL.2015 04:38:06

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4 + Chain 5 / 5500 MHz



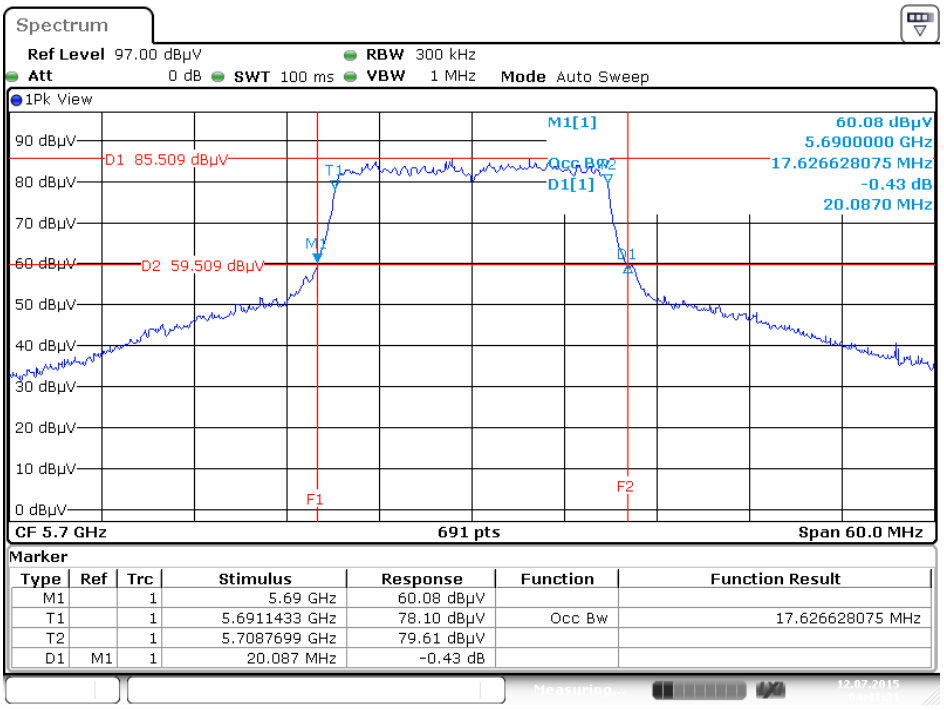
Date: 12.JUL.2015 04:38:44

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4 + Chain 5 / 5580 MHz



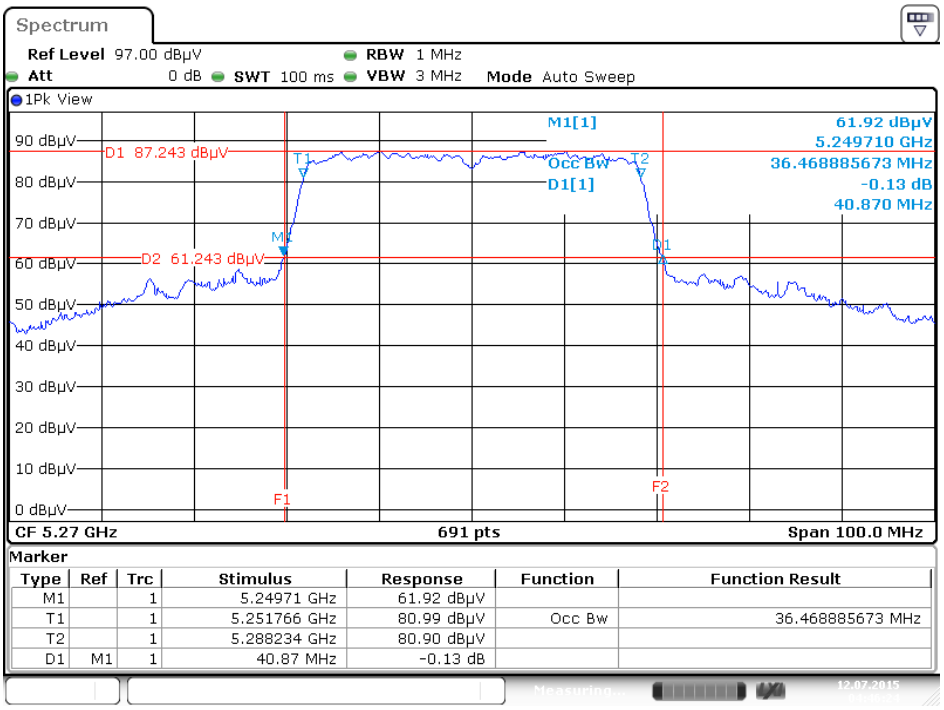
Date: 12.JUL.2015 04:40:32

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4 + Chain 5 / 5700 MHz



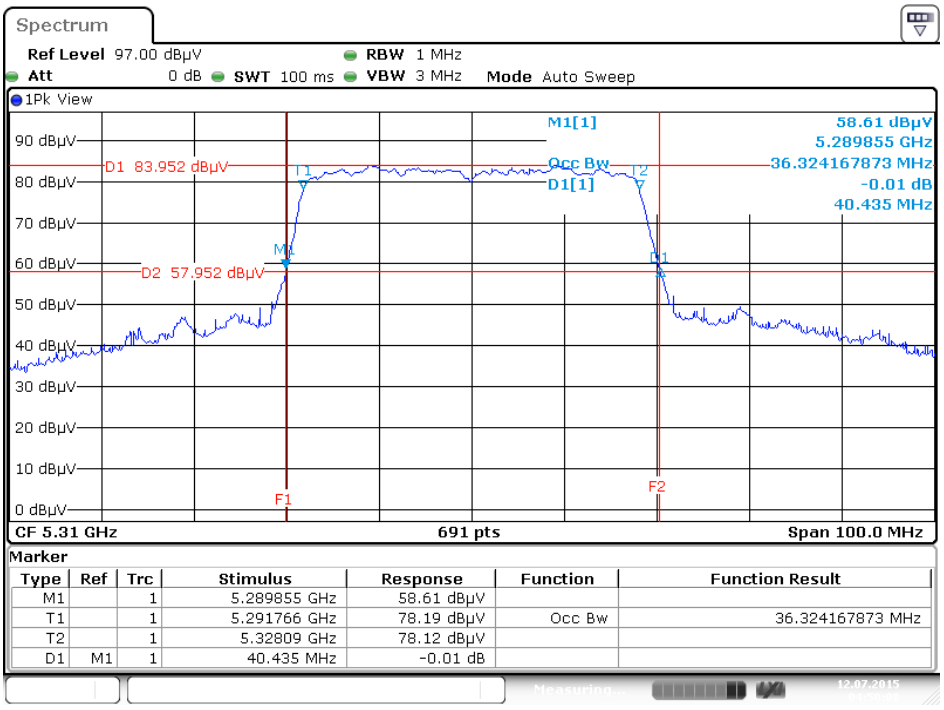
Date: 12.JUL.2015 04:41:21

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4 + Chain 5 / 5270 MHz



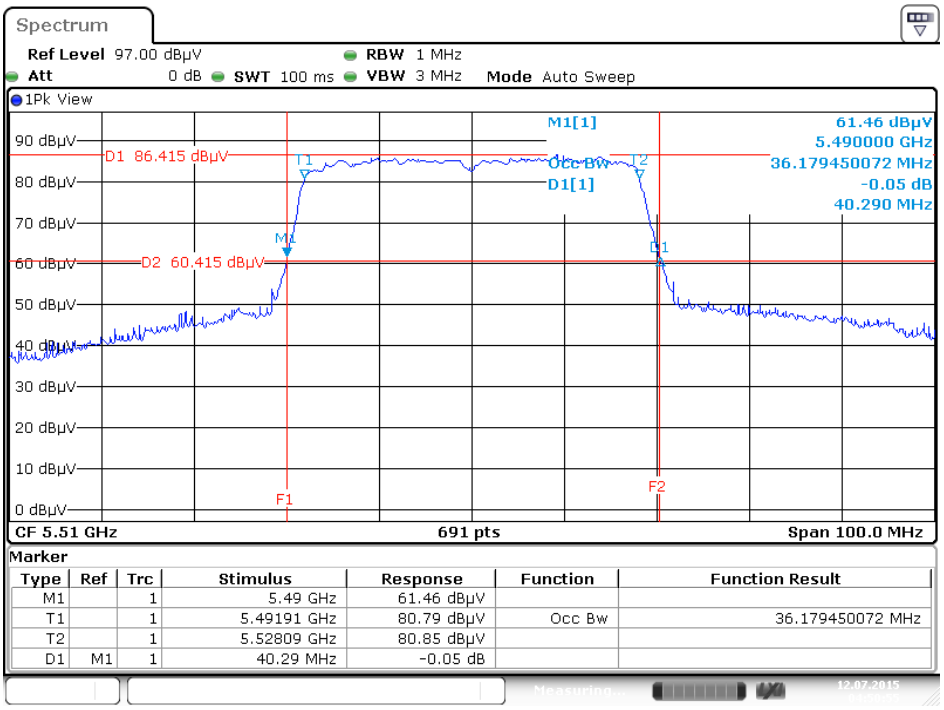
Date: 12.JUL.2015 04:46:24

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4 + Chain 5 / 5310 MHz



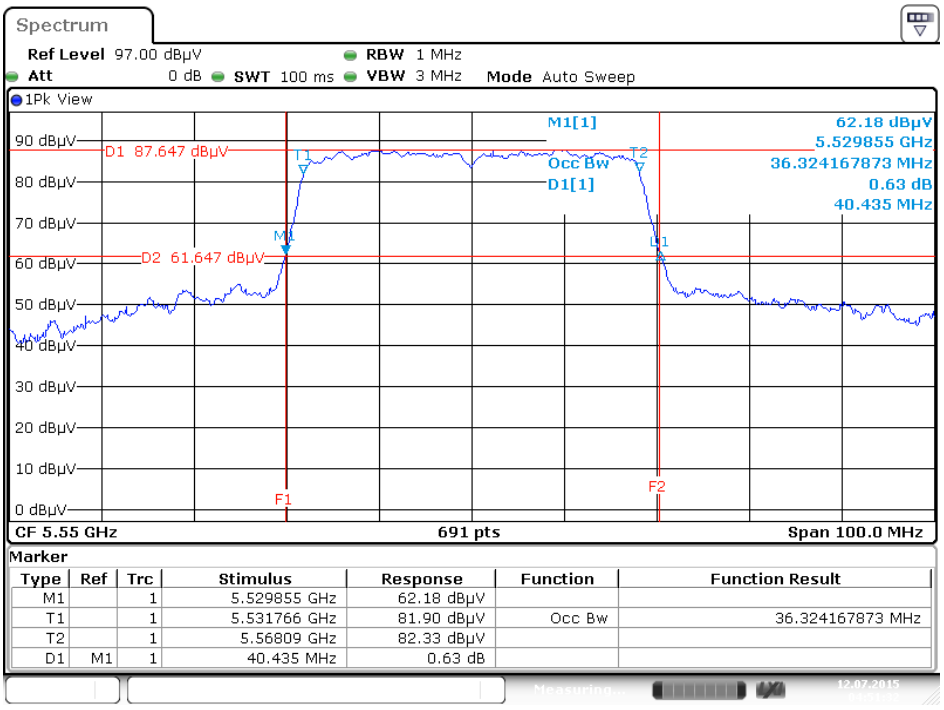
Date: 12.JUL.2015 04:50:08

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4 + Chain 5 / 5510 MHz



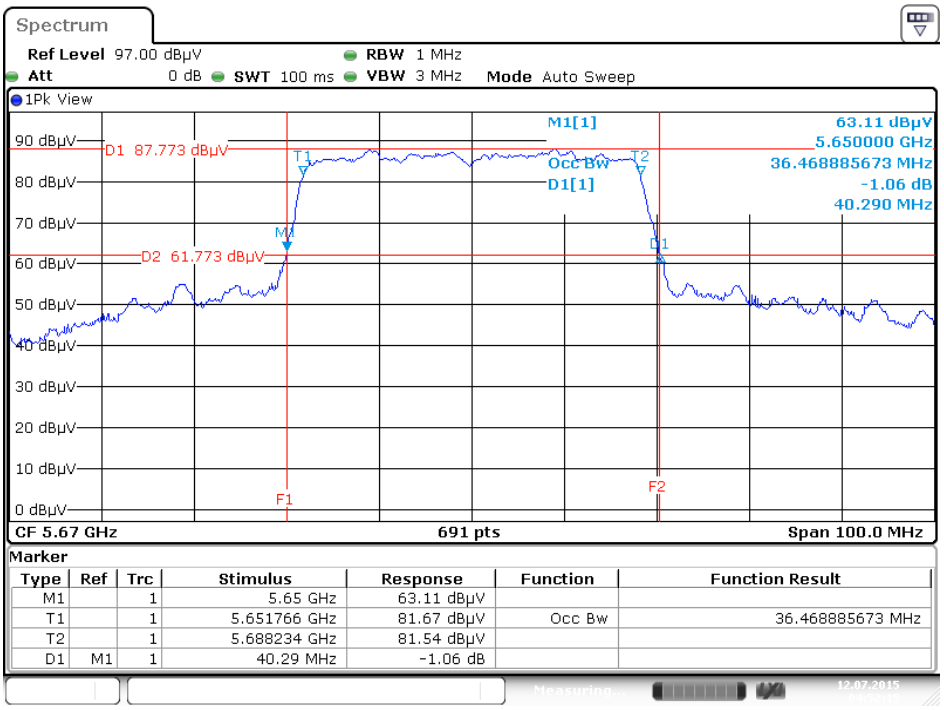
Date: 12.JUL.2015 04:50:55

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4 + Chain 5 / 5550 MHz



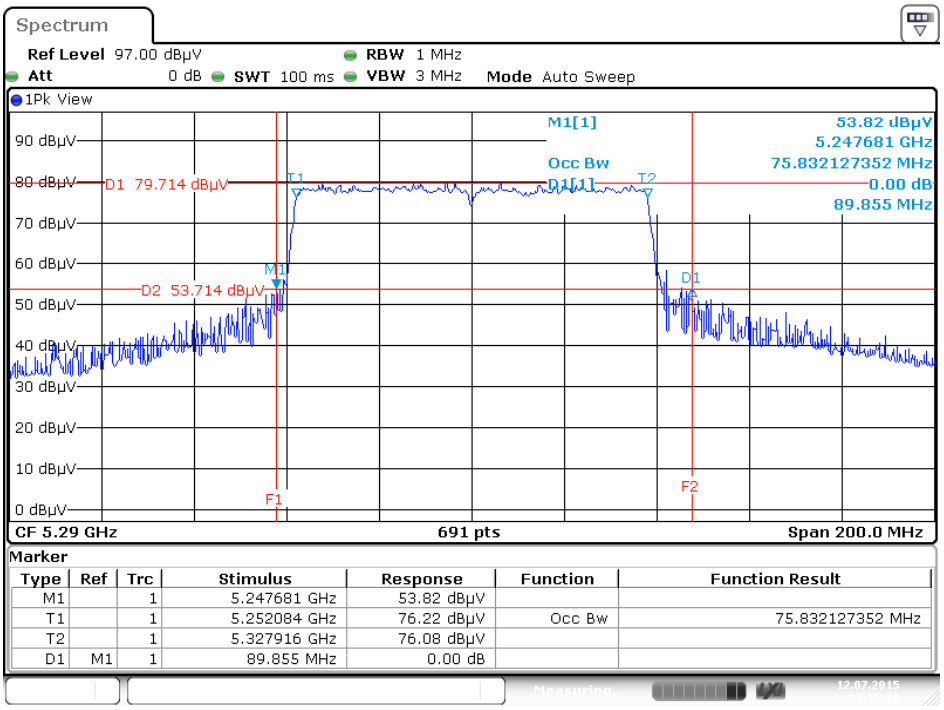
Date: 12.JUL.2015 04:51:32

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4 + Chain 5 / 5670 MHz



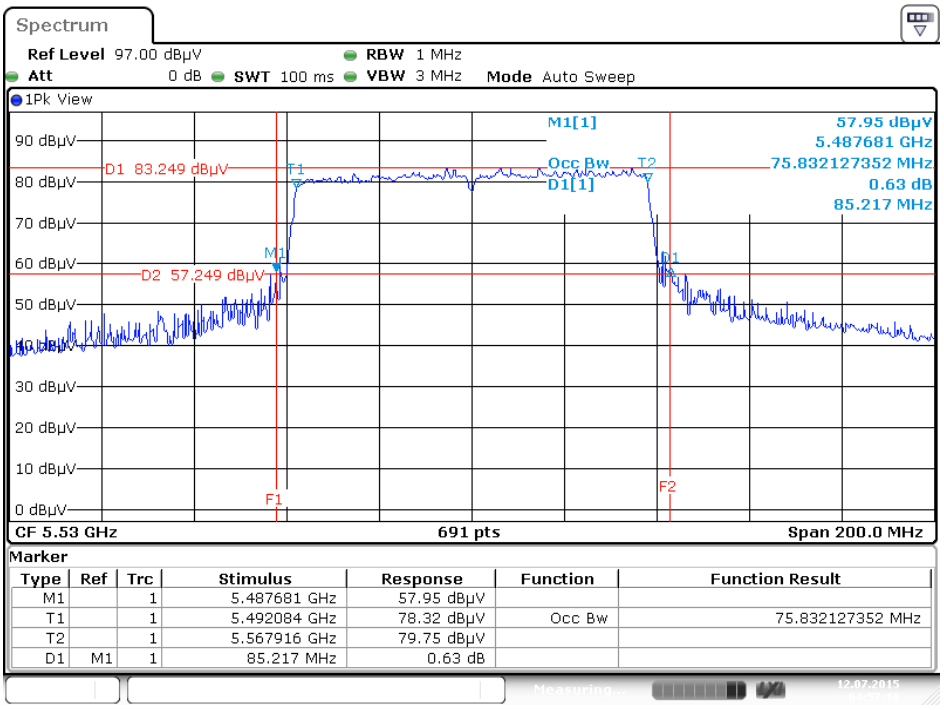
Date: 12.JUL.2015 04:52:15

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4 + Chain 5 / 5290 MHz



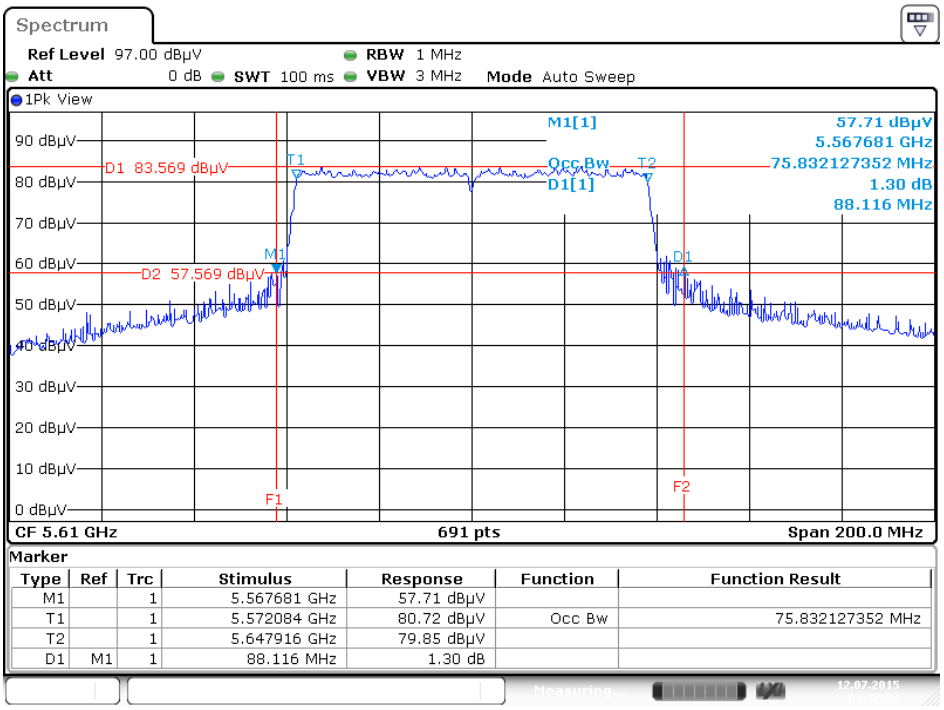
Date: 12.JUL.2015 04:56:28

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4 + Chain 5 / 5530 MHz



Date: 12.JUL.2015 04:57:18

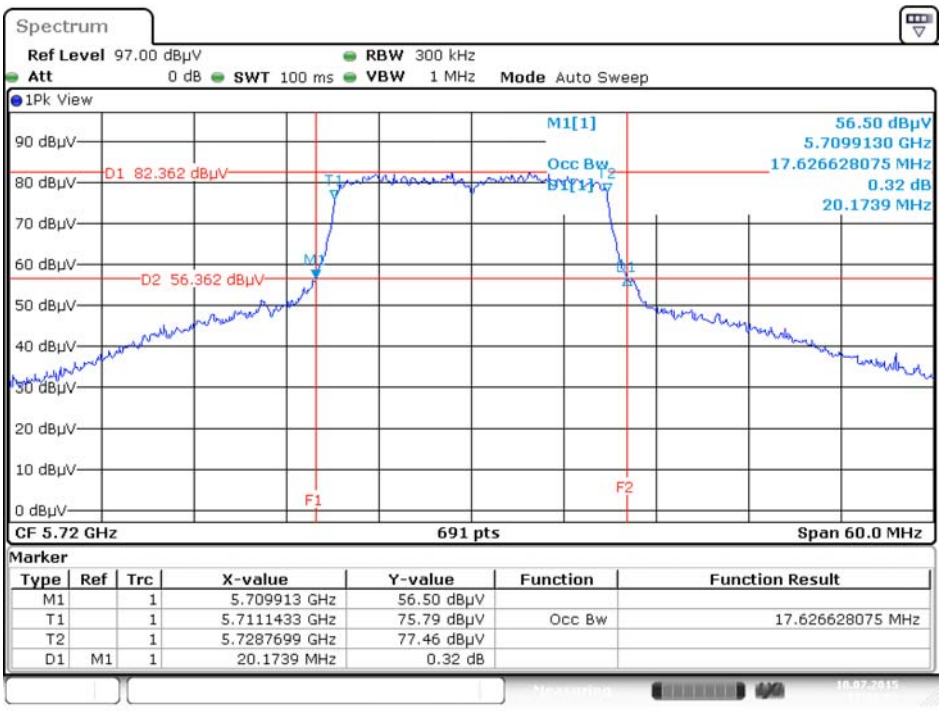
26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4 + Chain 5 / 5610 MHz



Date: 12.JUL.2015 04:57:58

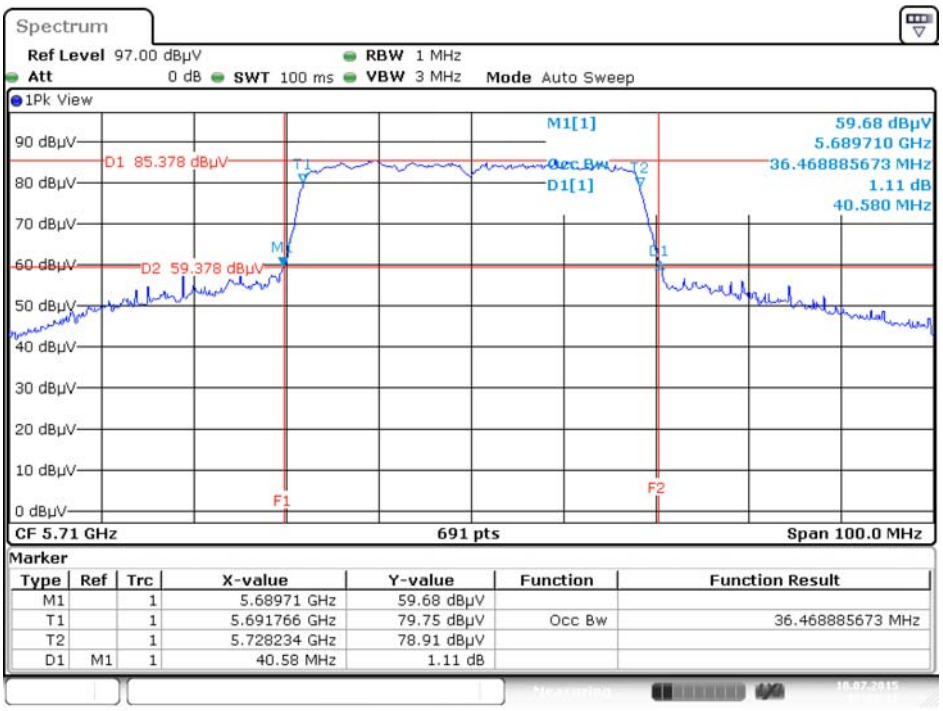
Straddle Channel

26 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4+ Chain 5 / 5720 MHz



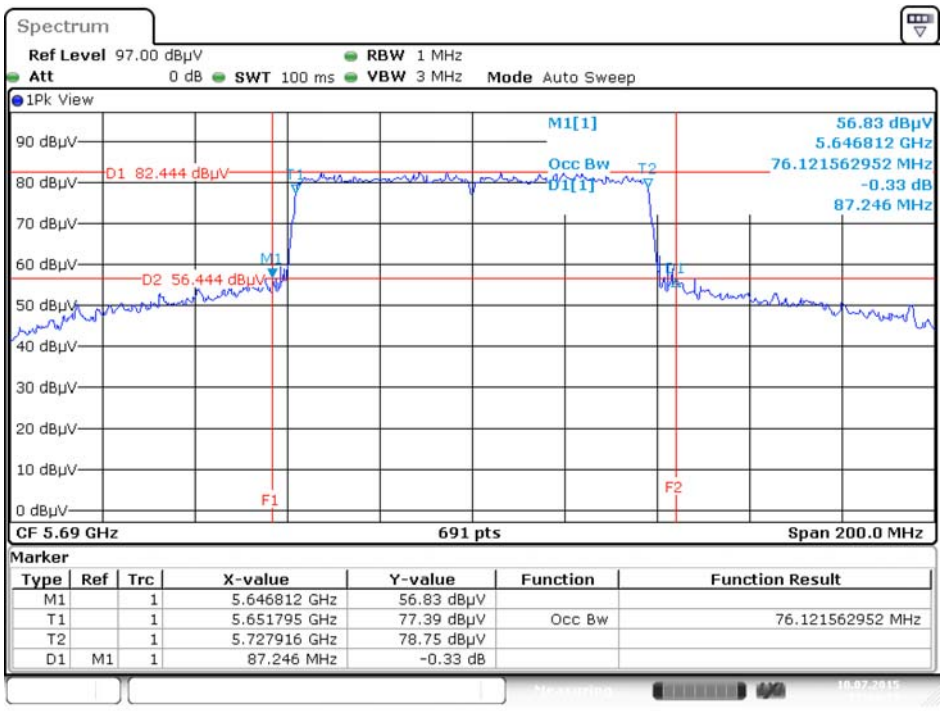
Date: 10.JUL.2015 17:01:52

26 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4+ Chain 5 / 5710 MHz



Date: 10.JUL.2015 17:03:17

26 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4+ Chain 5 / 5690 MHz



Date: 10.JUL.2015 17:04:14

<For Radio 2 Non-beamforming Mode>: 3TX, 1S

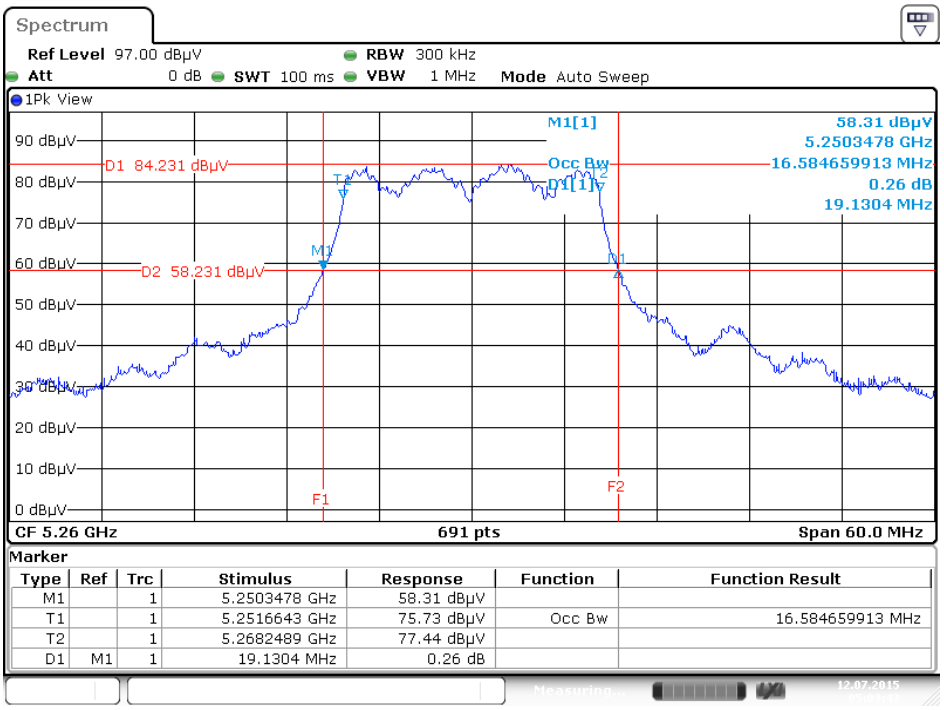
Temperature	25°C	Humidity	55%
Test Engineer	Lucas Huang		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5260 MHz	19.13	16.58
	5300 MHz	18.78	16.41
	5320 MHz	18.87	16.50
	5500 MHz	18.87	16.58
	5580 MHz	18.52	16.32
	5700 MHz	18.43	16.32
802.11ac MCS0/Nss1 VHT20	5260 MHz	19.48	17.28
	5300 MHz	19.74	17.54
	5320 MHz	19.65	17.45
	5500 MHz	19.57	17.37
	5580 MHz	20.00	17.71
	5700 MHz	20.00	17.71
802.11ac MCS0/Nss1 VHT40	5270 MHz	40.29	36.18
	5310 MHz	40.15	36.18
	5510 MHz	39.86	36.18
	5550 MHz	40.29	36.32
	5670 MHz	40.15	36.18
802.11ac MCS0/Nss1 VHT80	5290 MHz	81.16	75.54
	5530 MHz	85.22	75.83
	5610 MHz	81.74	75.54

Straddle Channel

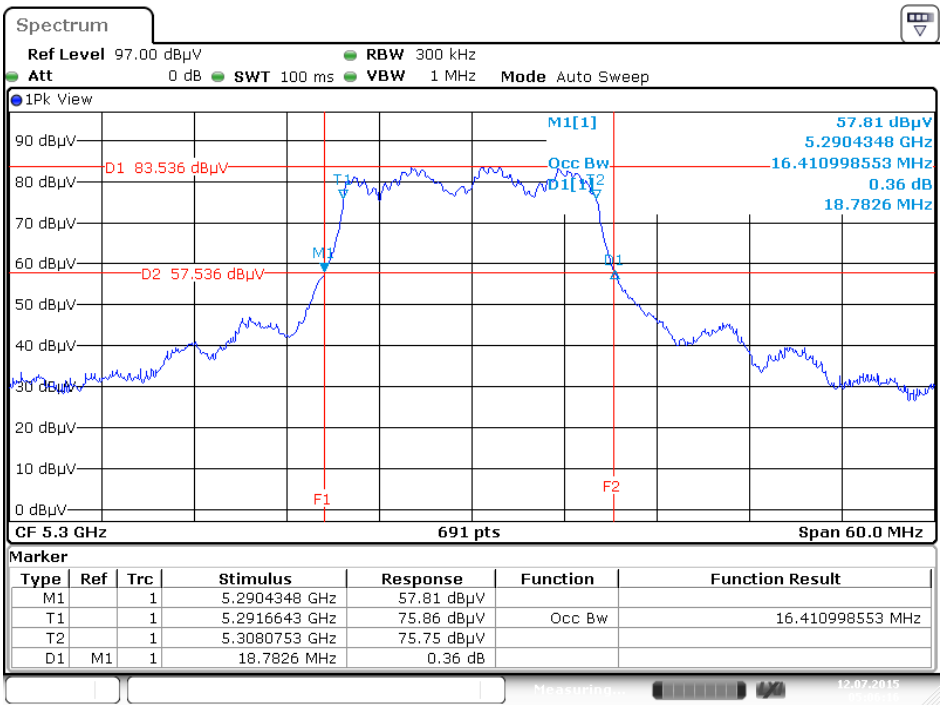
Mode	Frequency	26dB BW (MHz)	99% OBW (MHz)	26dB BW F1 (MHz)	99% OBW T1 (MHz)	UNII 2C 26dB BW (MHz)	UNII 3 26dB BW (MHz)	UNII 2C 99% BW (MHz)	UNII 3 99% BW (MHz)
802.11a	5720 MHz	19.08	16.56	5710.52	5711.72	14.48	4.60	13.28	3.28
802.11ac MCS0/Nss1 VHT20	5720 MHz	19.68	17.76	5709.92	5711.00	15.08	4.60	14.00	3.76
802.11ac MCS0/Nss1 VHT40	5710 MHz	40.20	36.20	5689.80	5691.60	35.20	5.00	33.40	2.80
802.11ac MCS0/Nss1 VHT80	5690 MHz	80.00	76.00	5649.60	5651.60	75.40	4.60	73.40	2.60

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 4 + Chain 5 + Chain 6 / 5260 MHz



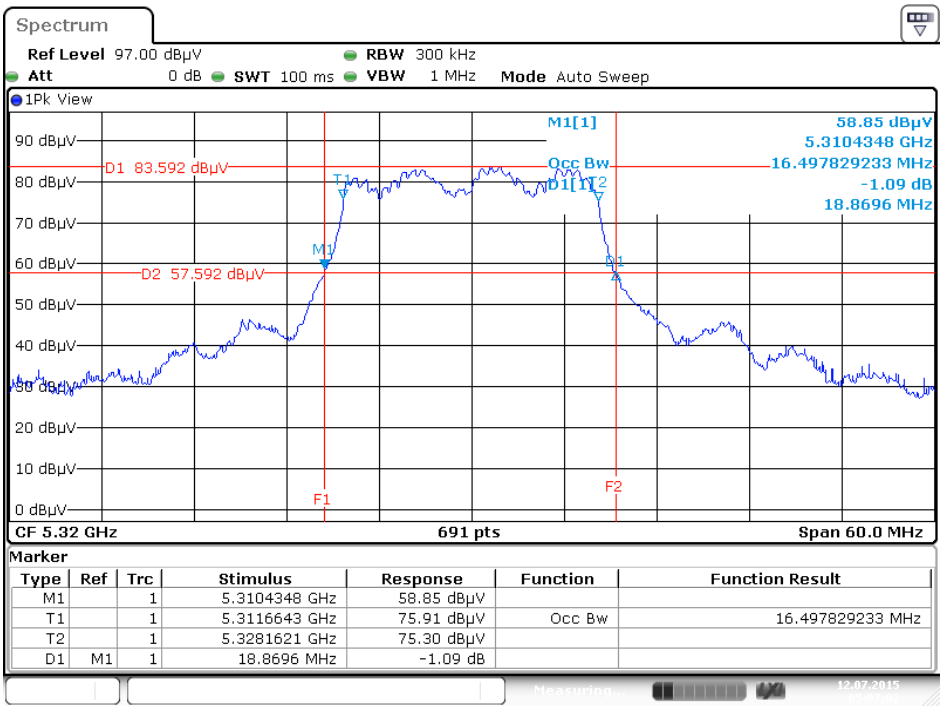
Date: 12.JUL.2015 05:03:43

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 4 + Chain 5 + Chain 6 / 5300 MHz



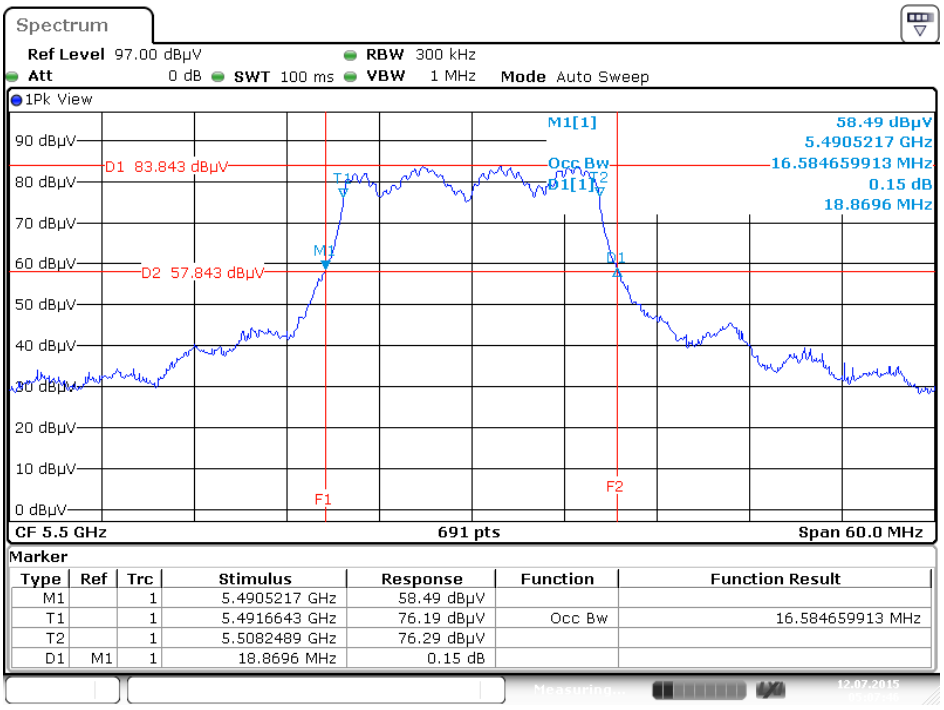
Date: 12.JUL.2015 05:06:16

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 4 + Chain 5 + Chain 6 / 5320 MHz



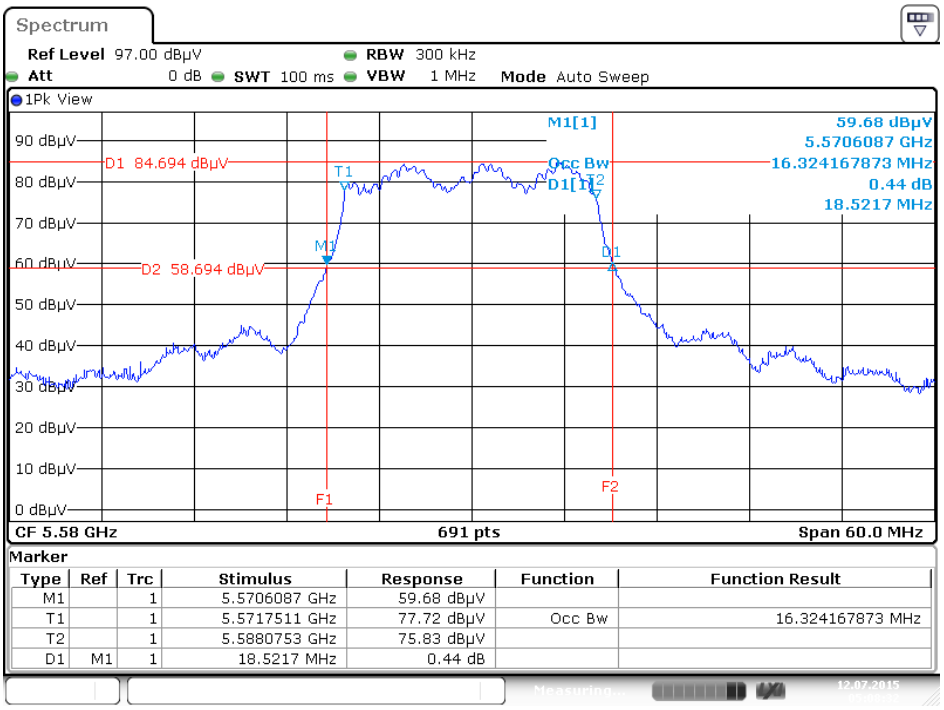
Date: 12.JUL.2015 05:07:03

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 4 + Chain 5 + Chain 6 / 5500 MHz



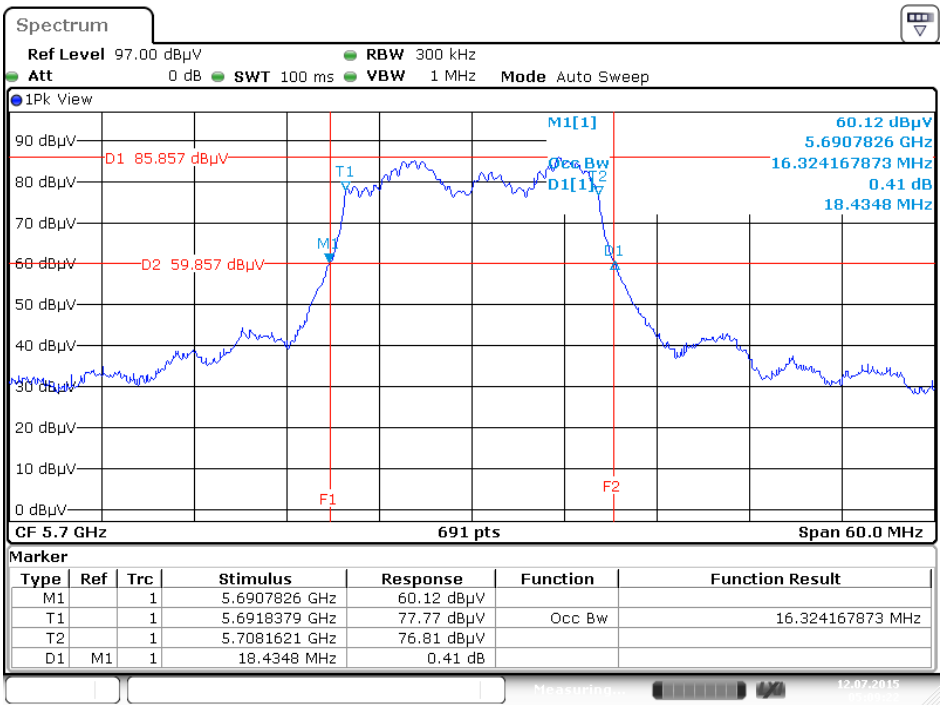
Date: 12.JUL.2015 05:07:47

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 4 + Chain 5 + Chain 6 / 5580 MHz



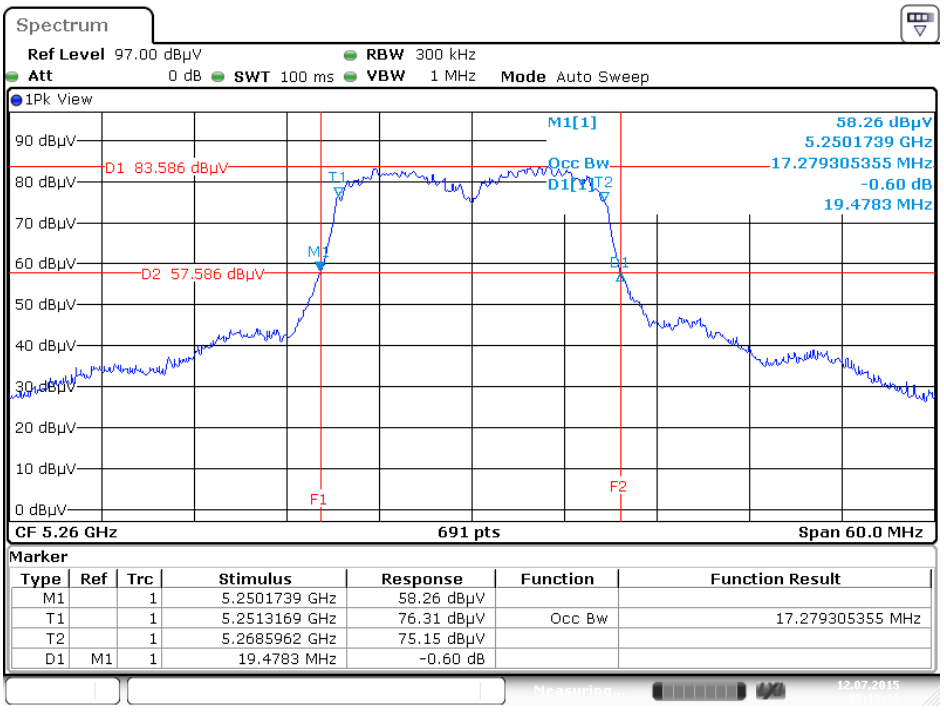
Date: 12.JUL.2015 05:08:32

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 4 + Chain 5 + Chain 6 / 5700 MHz



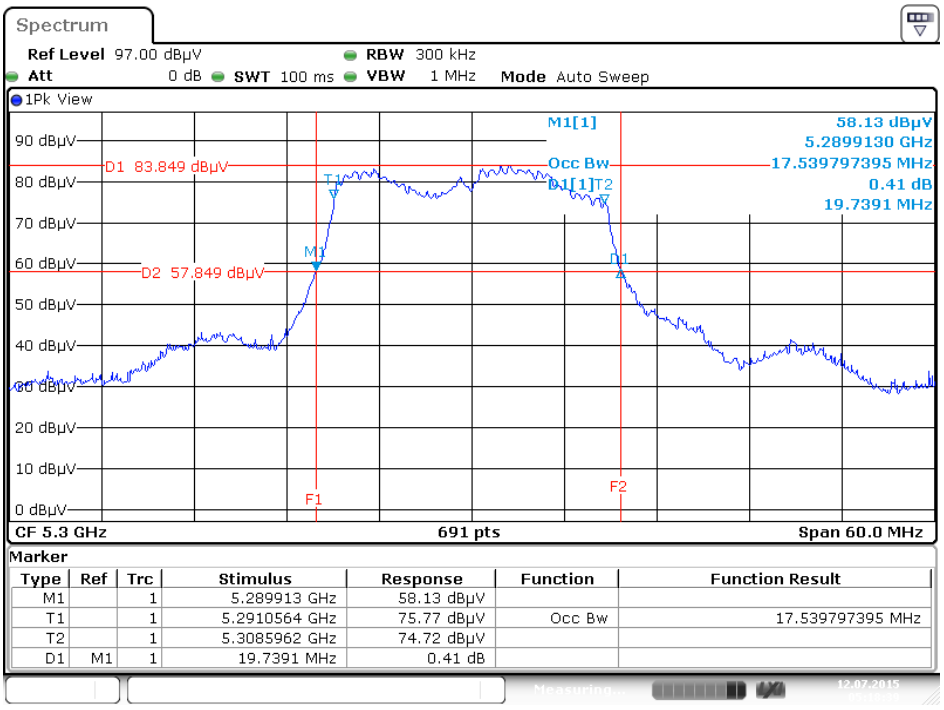
Date: 12.JUL.2015 05:09:22

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5260 MHz



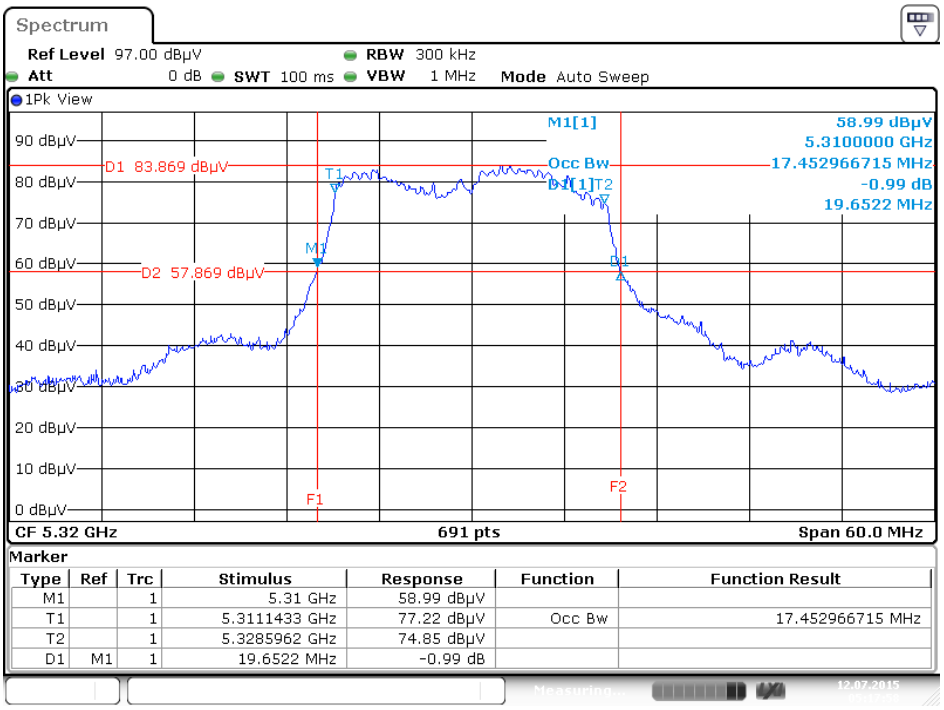
Date: 12.JUL.2015 05:19:32

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5300 MHz



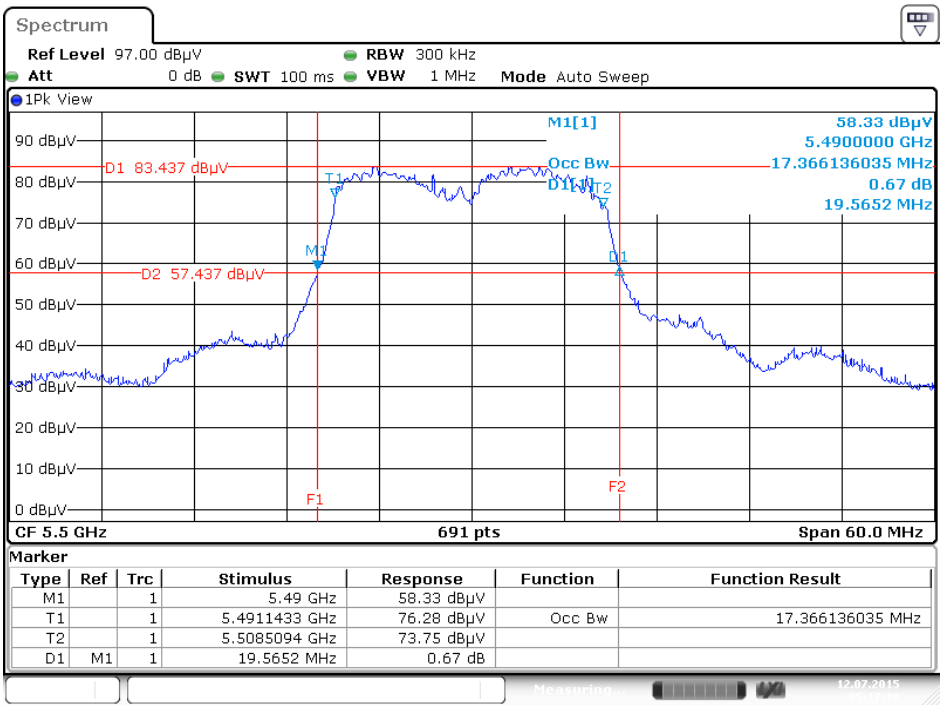
Date: 12.JUL.2015 05:18:39

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5320 MHz



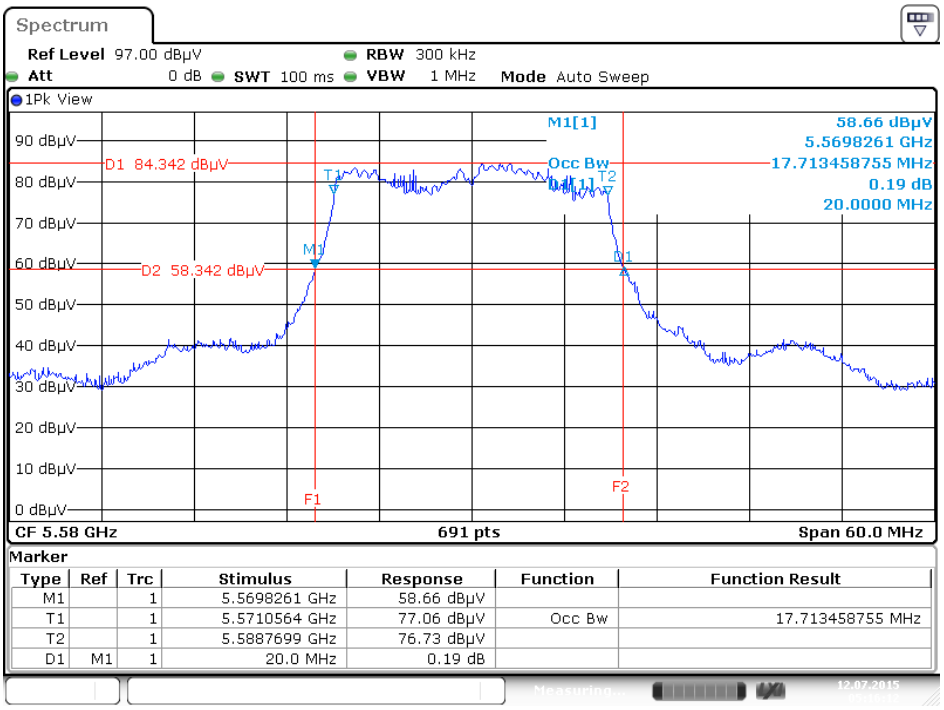
Date: 12.JUL.2015 05:17:58

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5500 MHz



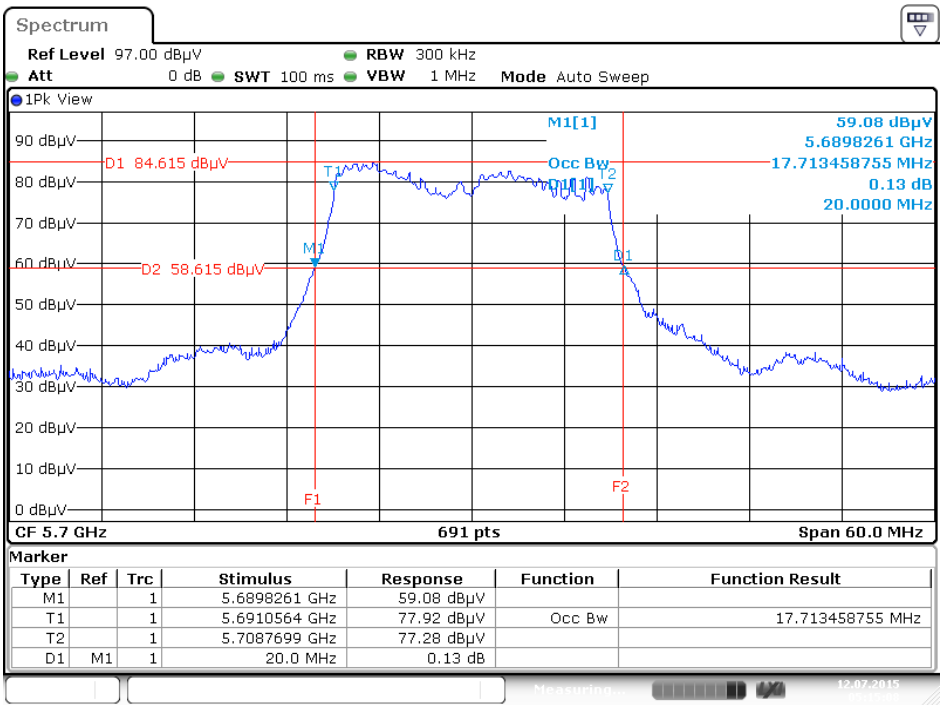
Date: 12.JUL.2015 05:17:10

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5580 MHz



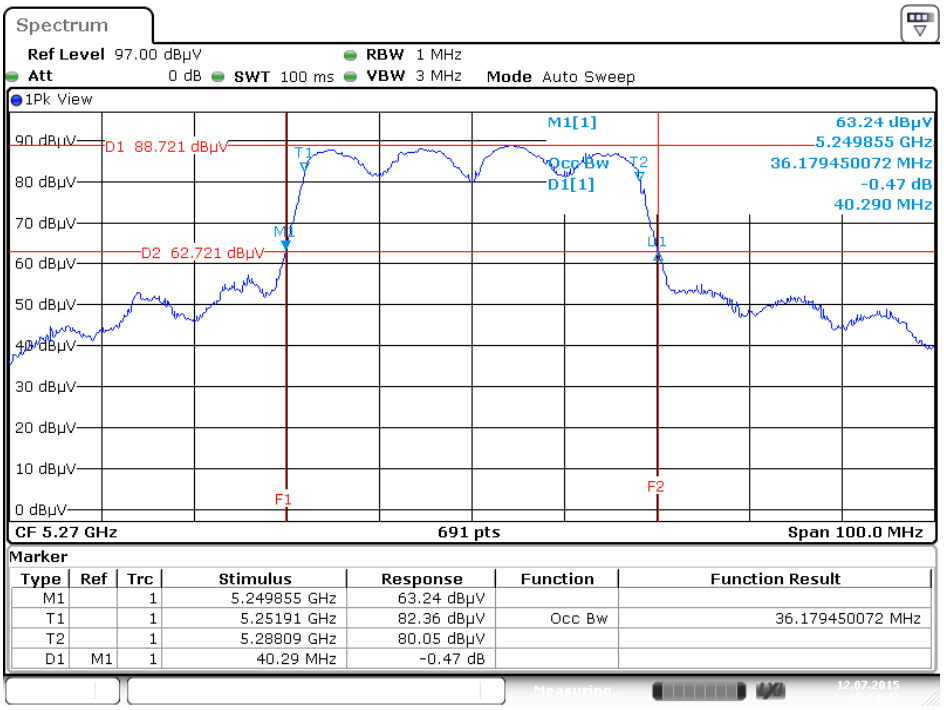
Date: 12.JUL.2015 05:16:12

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5700 MHz



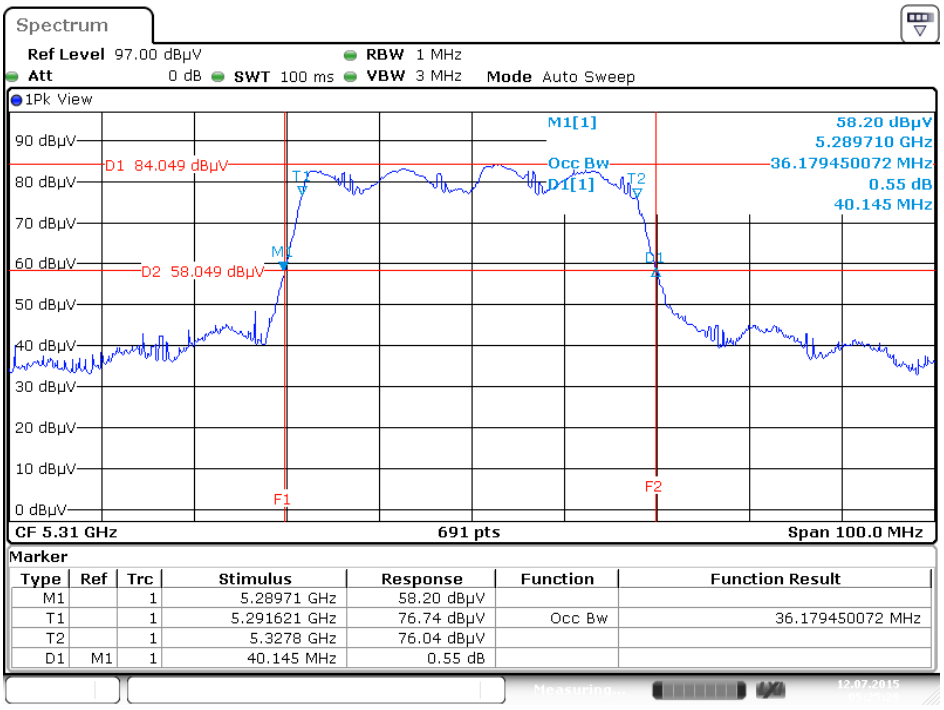
Date: 12.JUL.2015 05:15:08

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5270 MHz



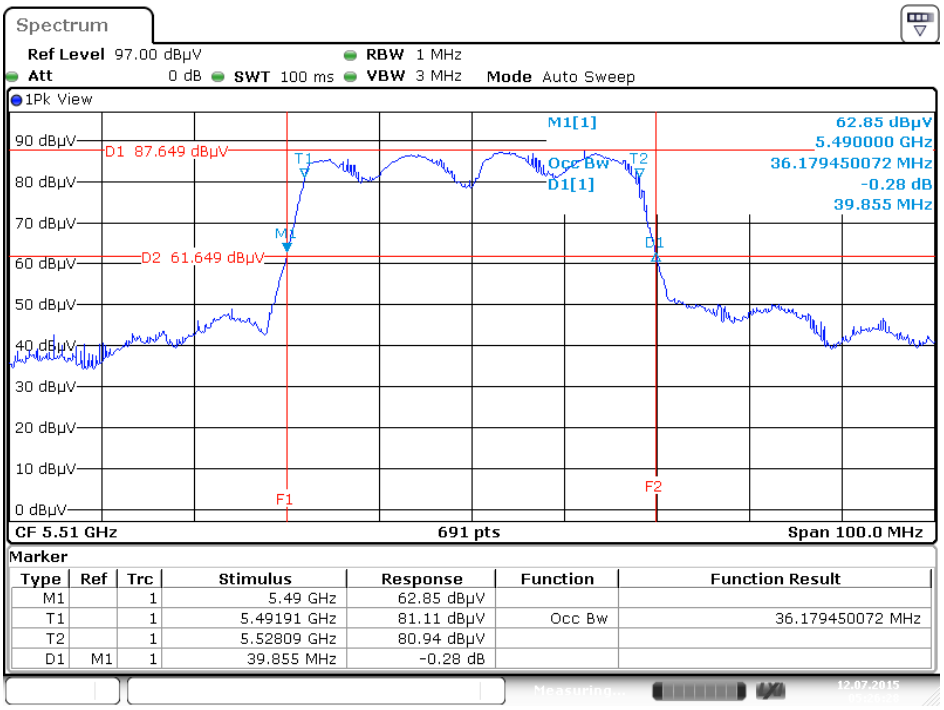
Date: 12.JUL.2015 05:24:47

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5310 MHz



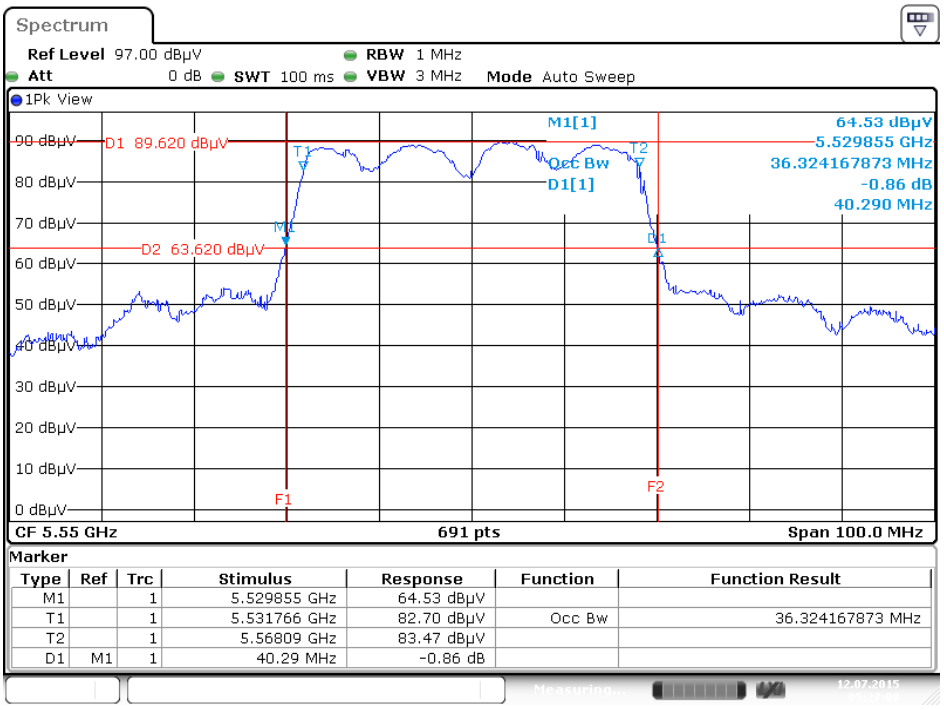
Date: 12.JUL.2015 05:25:30

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5510 MHz



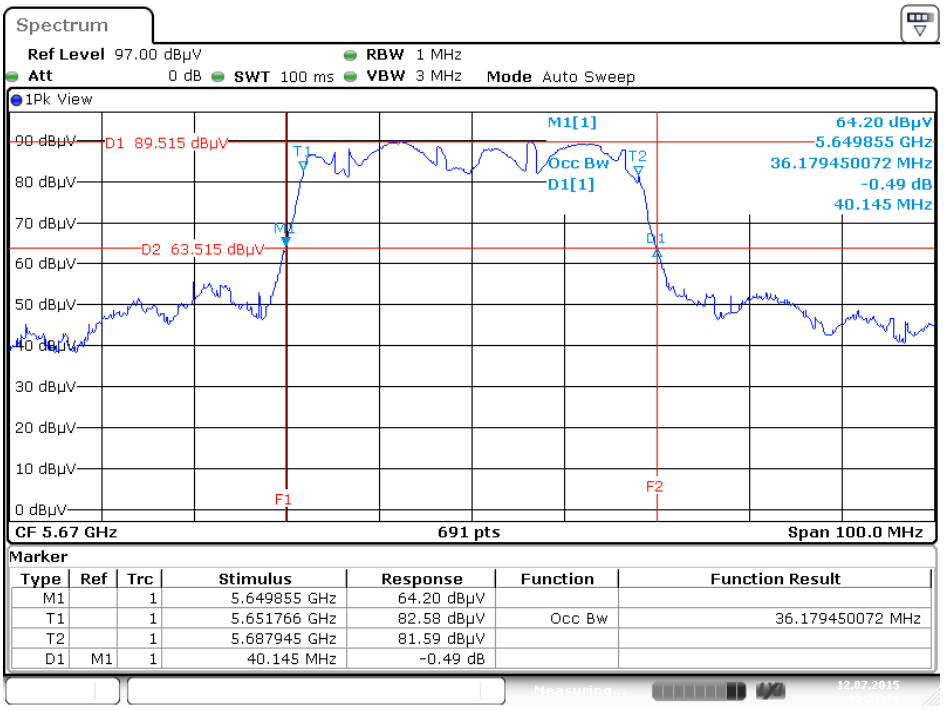
Date: 12.JUL.2015 05:26:28

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5550 MHz



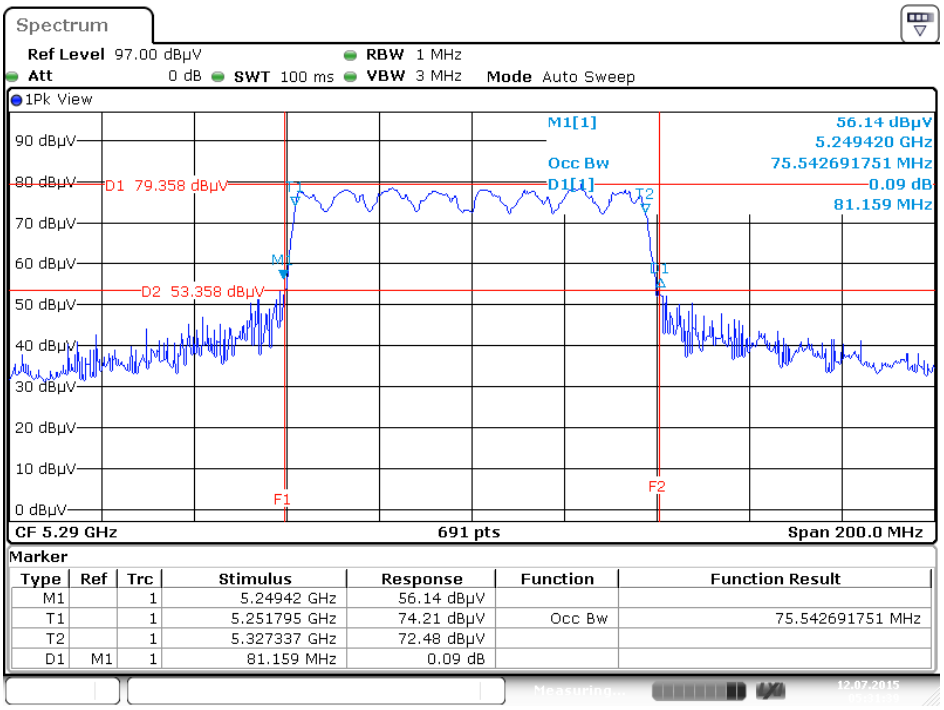
Date: 12.JUL.2015 05:27:08

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5670 MHz



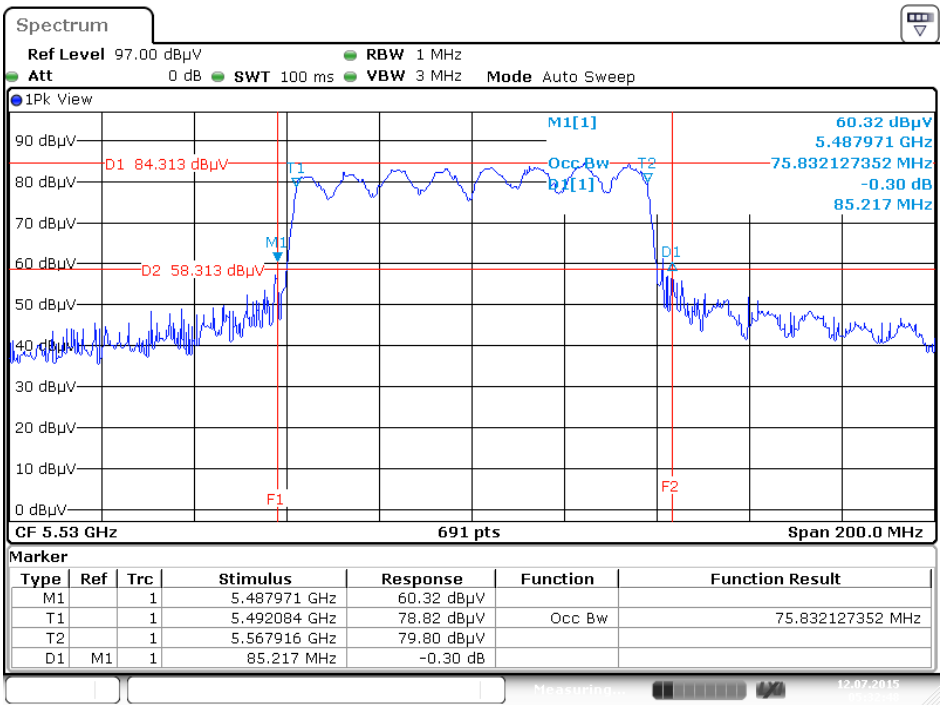
Date: 12.JUL.2015 05:27:56

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 + Chain 5 + Chain 6 / 5290 MHz



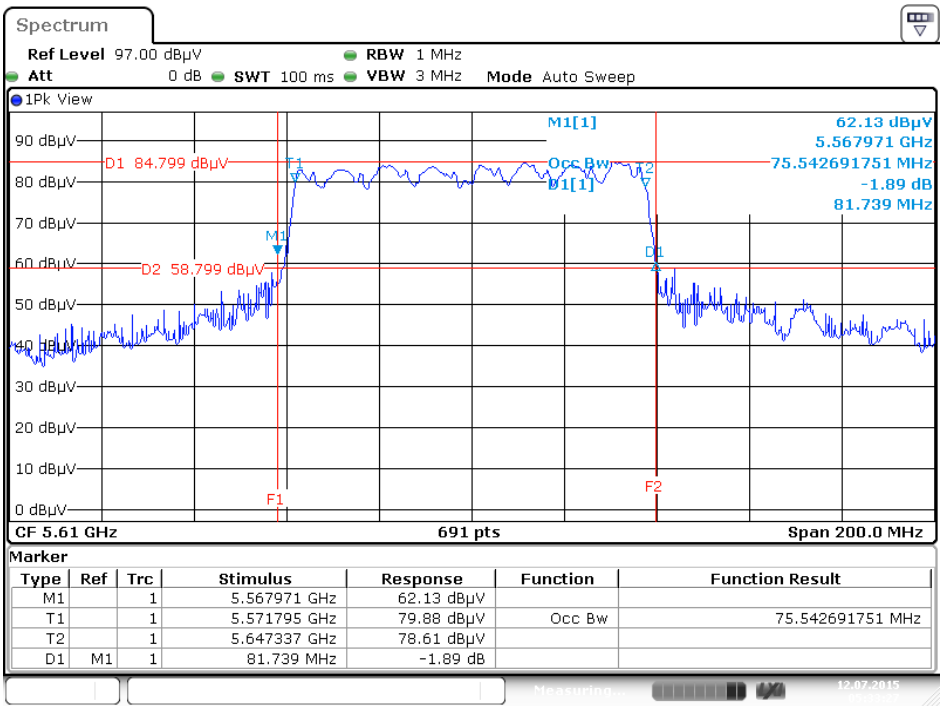
Date: 12.JUL.2015 05:31:39

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 + Chain 5 + Chain 6 / 5530 MHz



Date: 12.JUL.2015 05:32:48

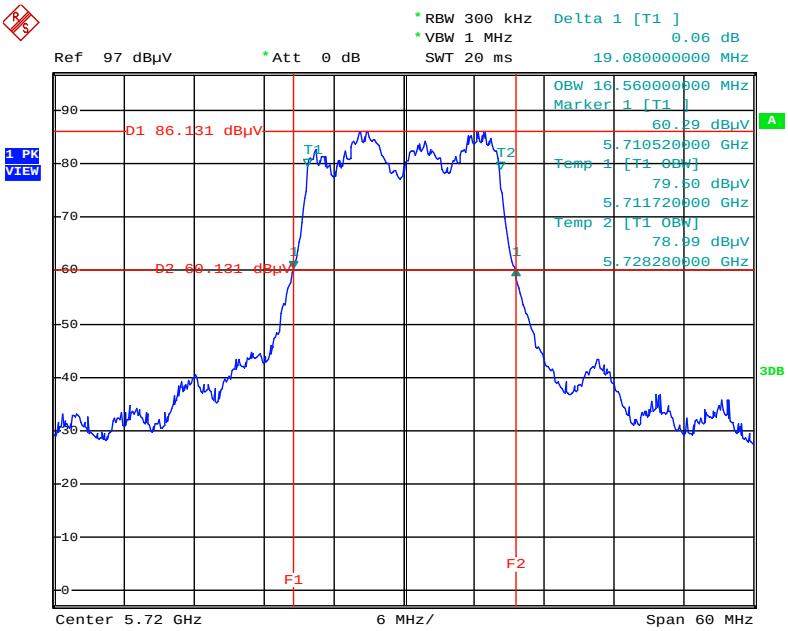
26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 + Chain 5 + Chain 6 / 5610 MHz



Date: 12.JUL.2015 05:33:27

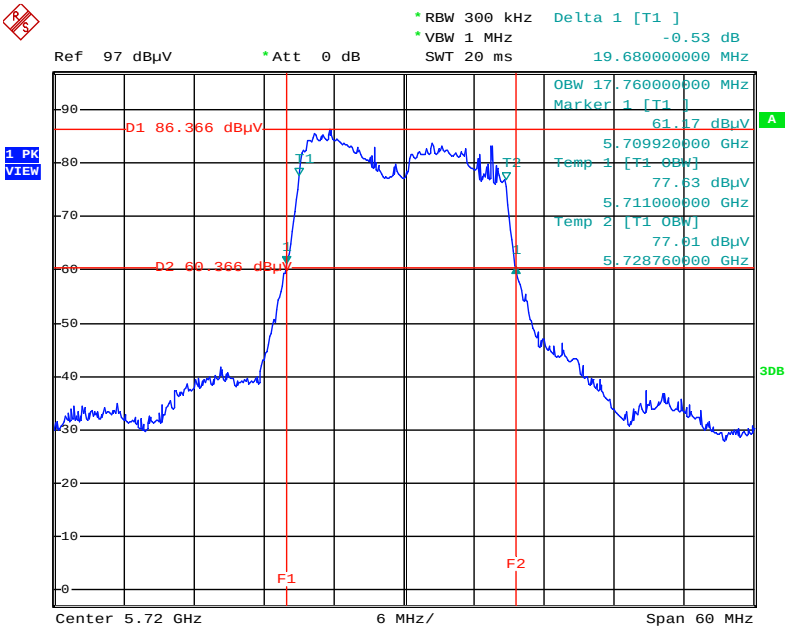
Straddle Channel

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 4 + Chain 5 + Chain 6 / 5720 MHz



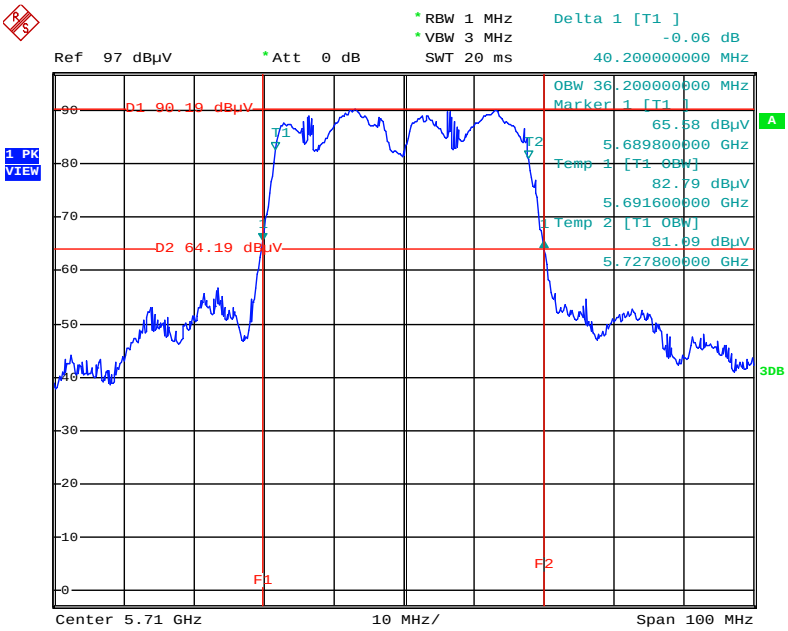
Date: 29.JUN.2015 18:05:45

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5720 MHz



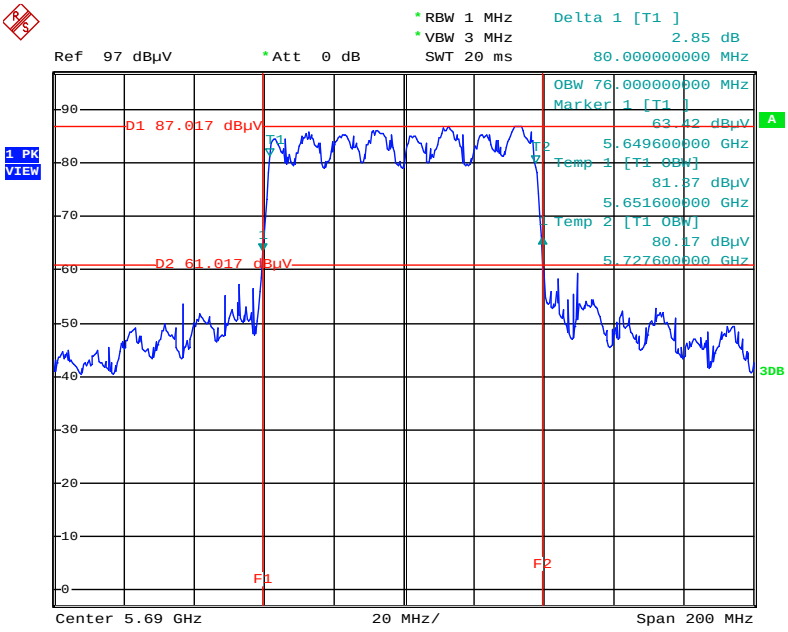
Date: 29.JUN.2015 18:06:22

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5710 MHz



Date: 29.JUN.2015 18:08:10

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 + Chain 5 + Chain 6 / 5690 MHz



Date: 29.JUN.2015 18:09:07

<For Radio 2 Non-beamforming Mode>: 3TX, 2S

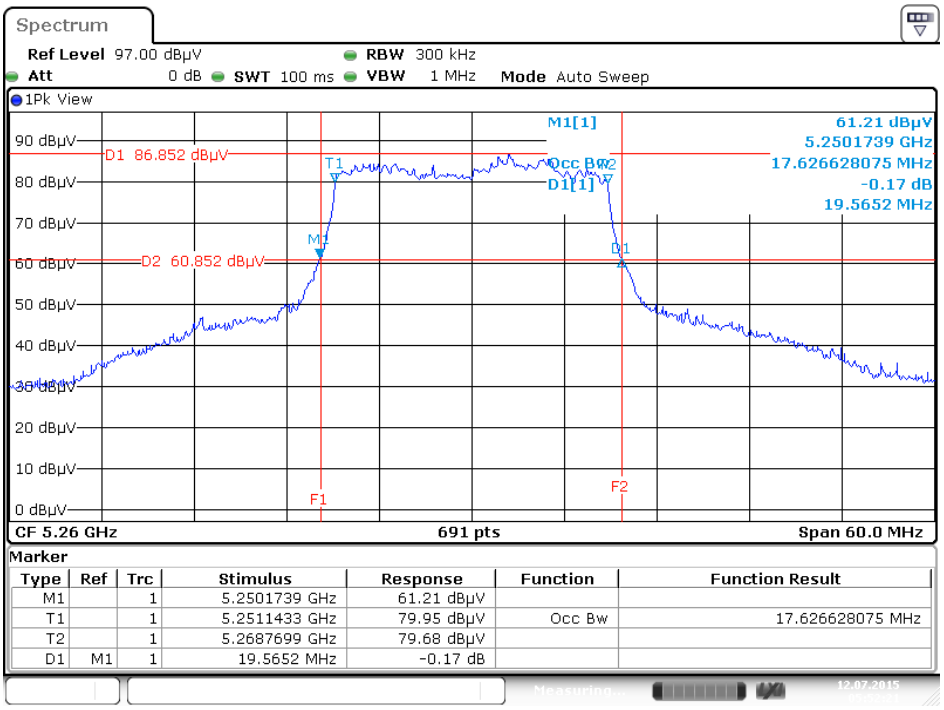
Temperature	25°C	Humidity	55%
Test Engineer	Lucas Huang		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11ac MCS0/Nss2 VHT20	5260 MHz	19.57	17.63
	5300 MHz	20.09	17.71
	5320 MHz	20.09	17.71
	5500 MHz	19.83	17.63
	5580 MHz	20.17	17.71
	5700 MHz	19.91	17.71
802.11ac MCS0/Nss2 VHT40	5270 MHz	40.15	36.32
	5310 MHz	40.15	36.32
	5510 MHz	40.15	36.32
	5550 MHz	40.29	36.32
	5670 MHz	40.15	36.32
802.11ac MCS0/Nss2 VHT80	5290 MHz	83.77	75.83
	5530 MHz	83.19	75.83
	5610 MHz	82.90	75.83

Straddle Channel

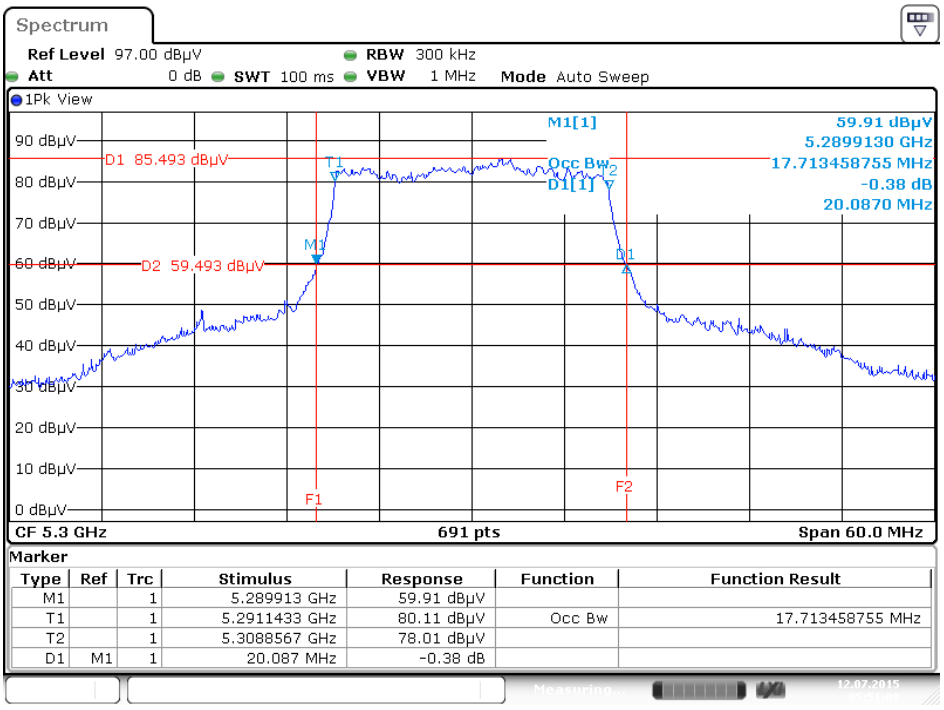
Mode	Frequency	26dB BW (MHz)	99% OBW (MHz)	26dB BW F1 (MHz)	99% OBW T1 (MHz)	UNII 2C 26dB BW (MHz)	UNII 3 26dB BW (MHz)	UNII 2C 99% BW (MHz)	UNII 3 99% BW (MHz)
802.11ac MCS0/Nss1 VHT20	5720 MHz	19.22	17.11	5710.26	5711.23	14.74	4.48	13.77	3.34
802.11ac MCS0/Nss1 VHT40	5710 MHz	40.58	36.76	5689.57	5691.62	35.44	5.14	33.38	3.38
802.11ac MCS0/Nss1 VHT80	5690 MHz	84.06	76.41	5649.13	5651.80	75.87	8.19	73.20	3.21

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5260 MHz



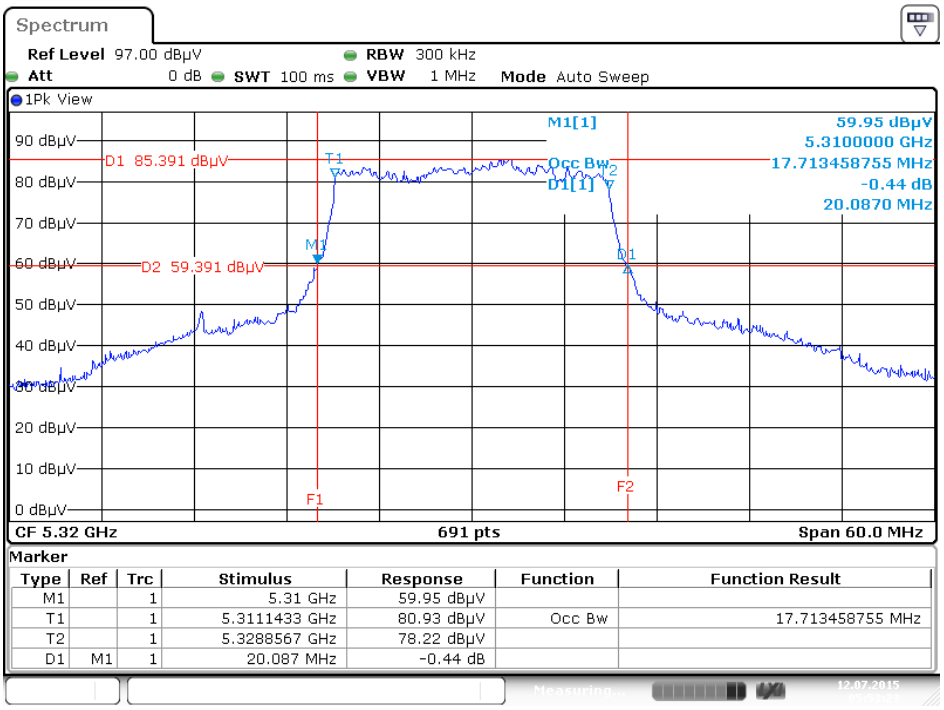
Date: 12.JUL.2015 05:52:21

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5300 MHz



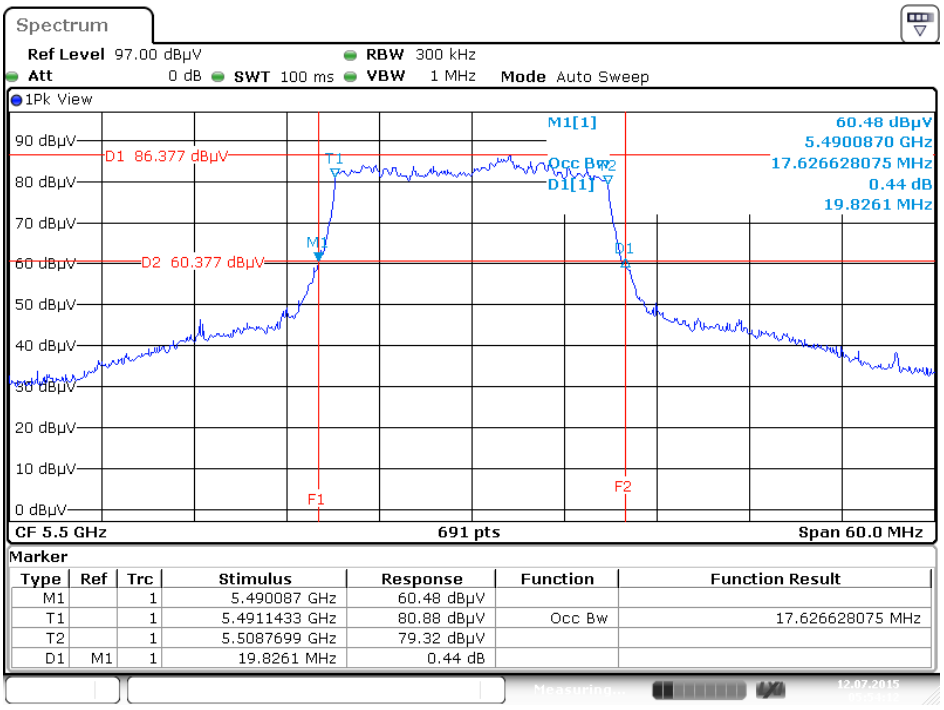
Date: 12.JUL.2015 05:51:09

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5320 MHz



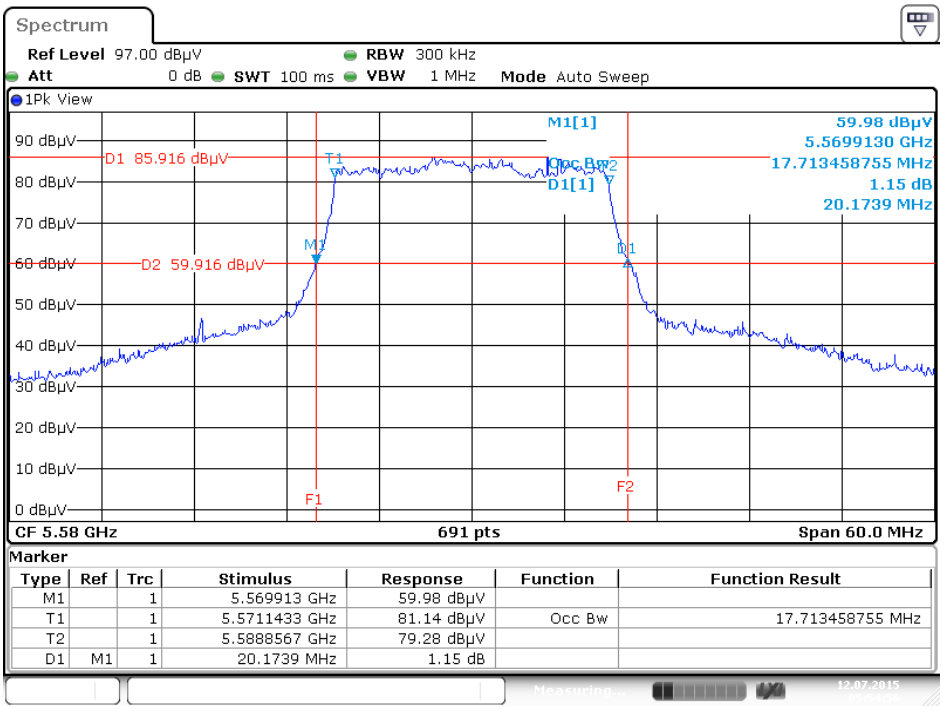
Date: 12.JUL.2015 05:53:23

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5500 MHz



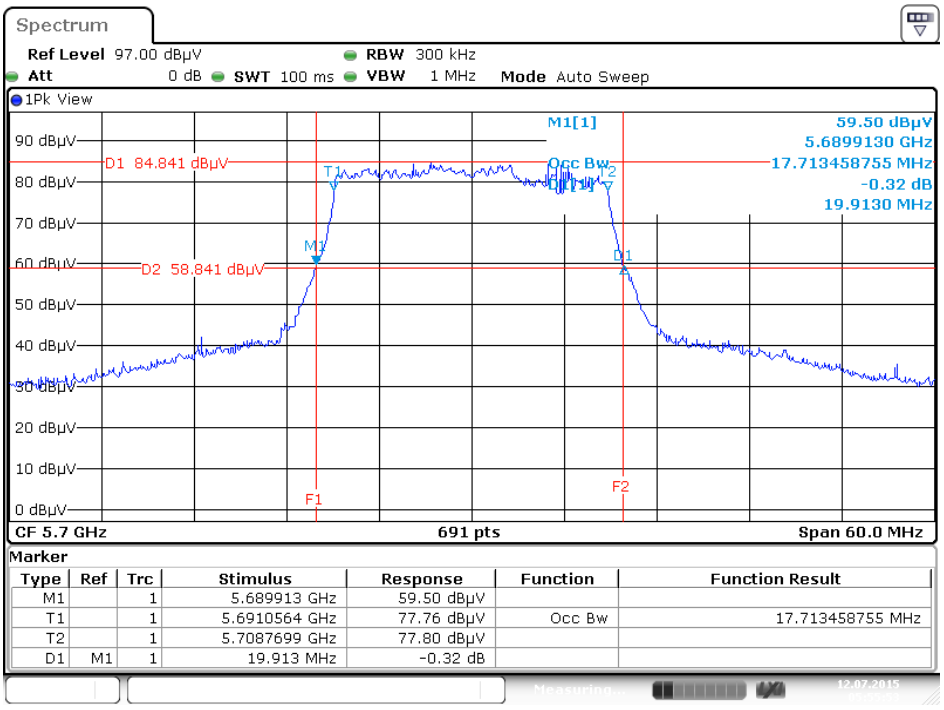
Date: 12.JUL.2015 05:54:12

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5580 MHz



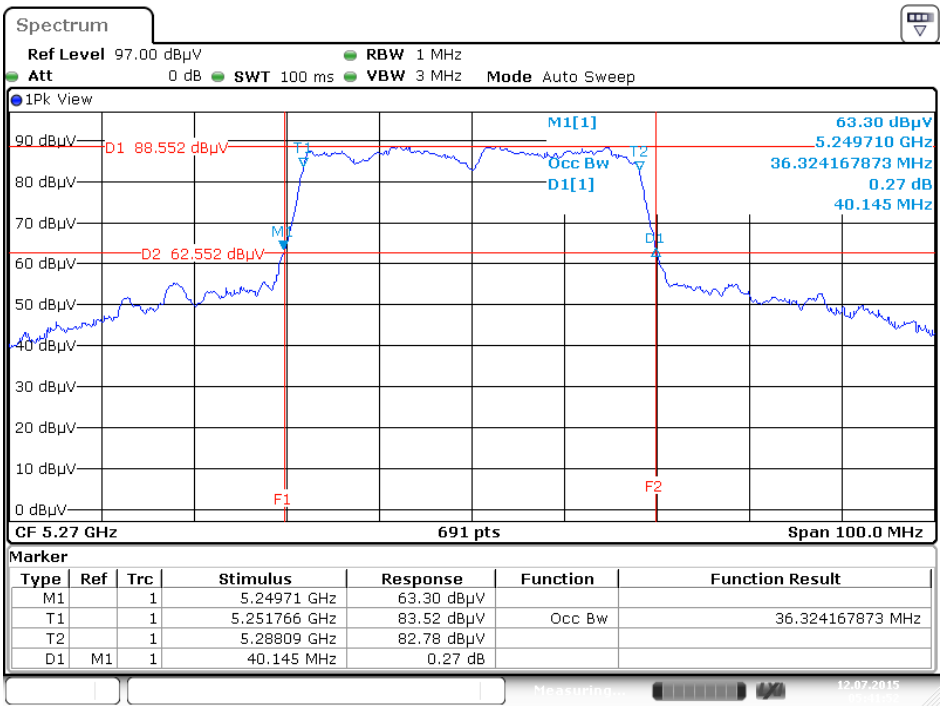
Date: 12.JUL.2015 05:54:56

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5700 MHz



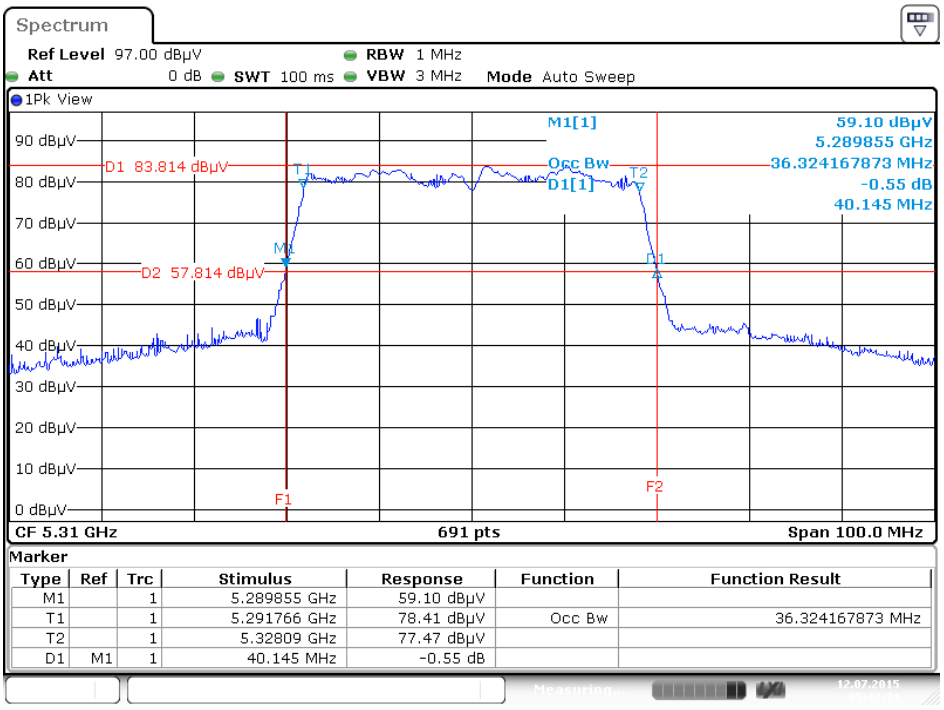
Date: 12.JUL.2015 05:55:53

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5270 MHz



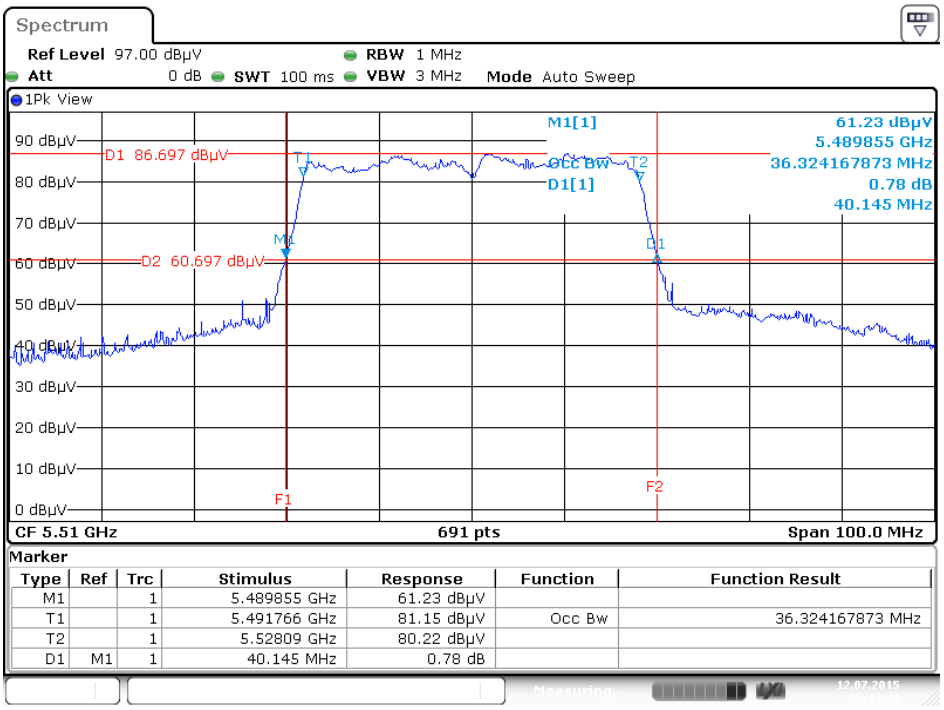
Date: 12.JUL.2015 05:41:52

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5310 MHz



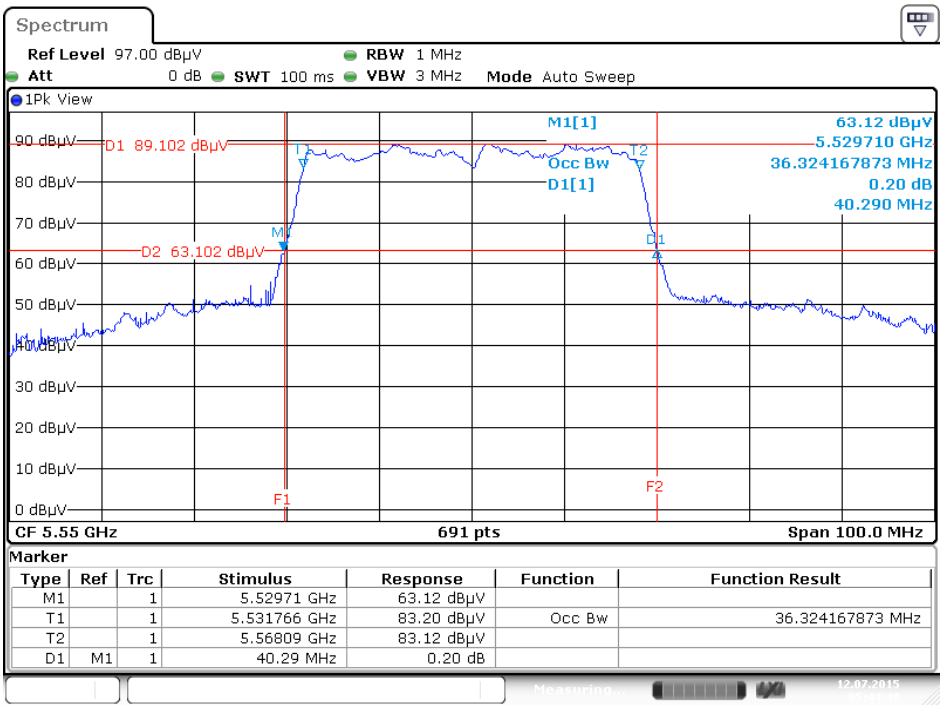
Date: 12.JUL.2015 05:42:34

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5510 MHz



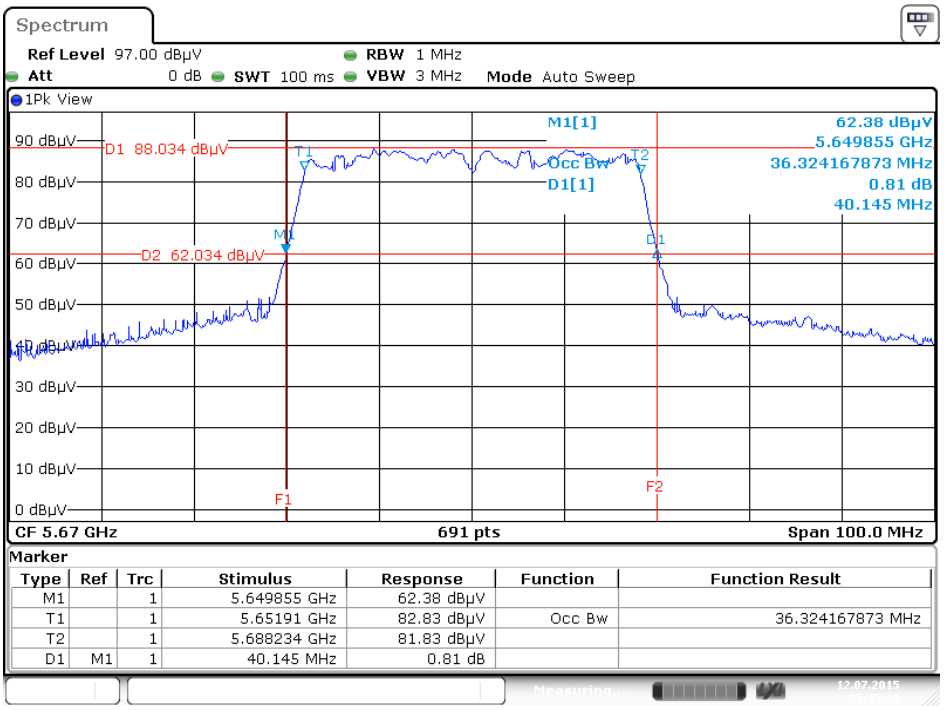
Date: 12.JUL.2015 05:43:43

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5550 MHz



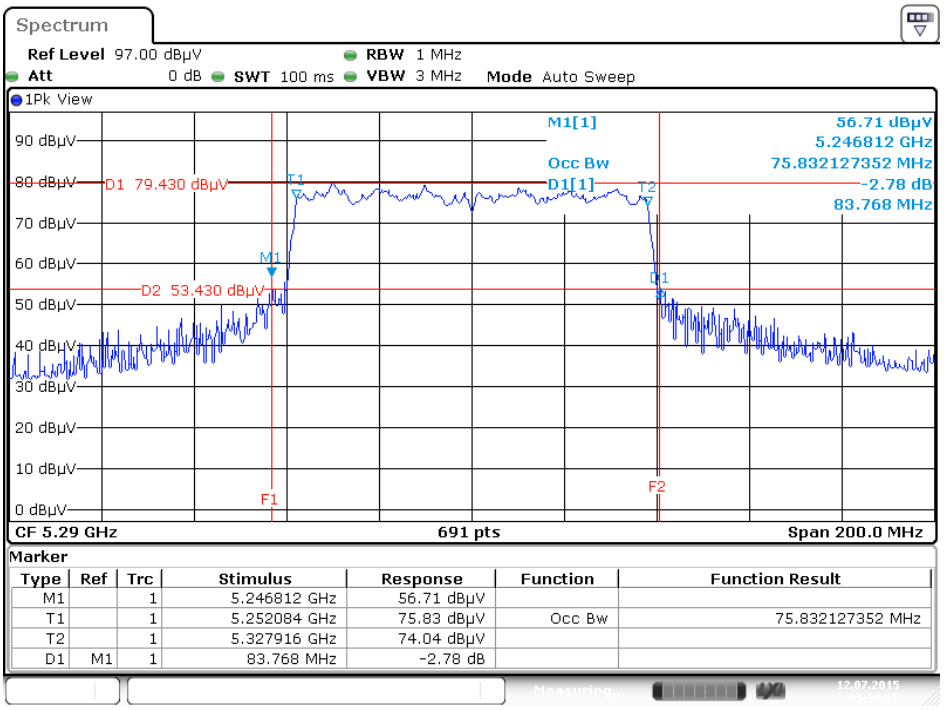
Date: 12.JUL.2015 05:44:40

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5670 MHz



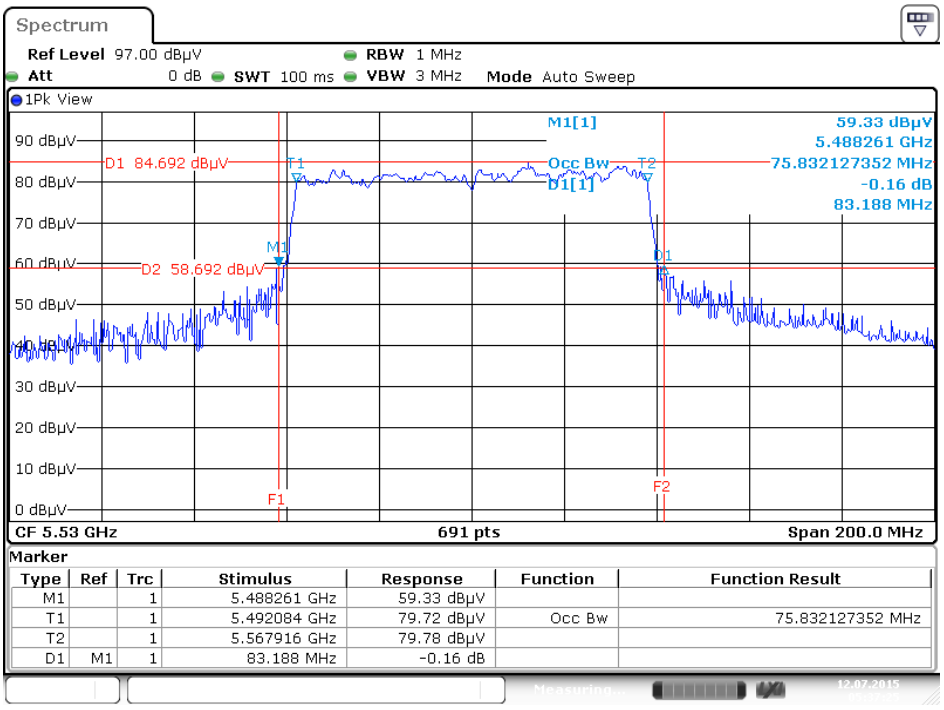
Date: 12.JUL.2015 05:45:29

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4 + Chain 5 + Chain 6 / 5290 MHz



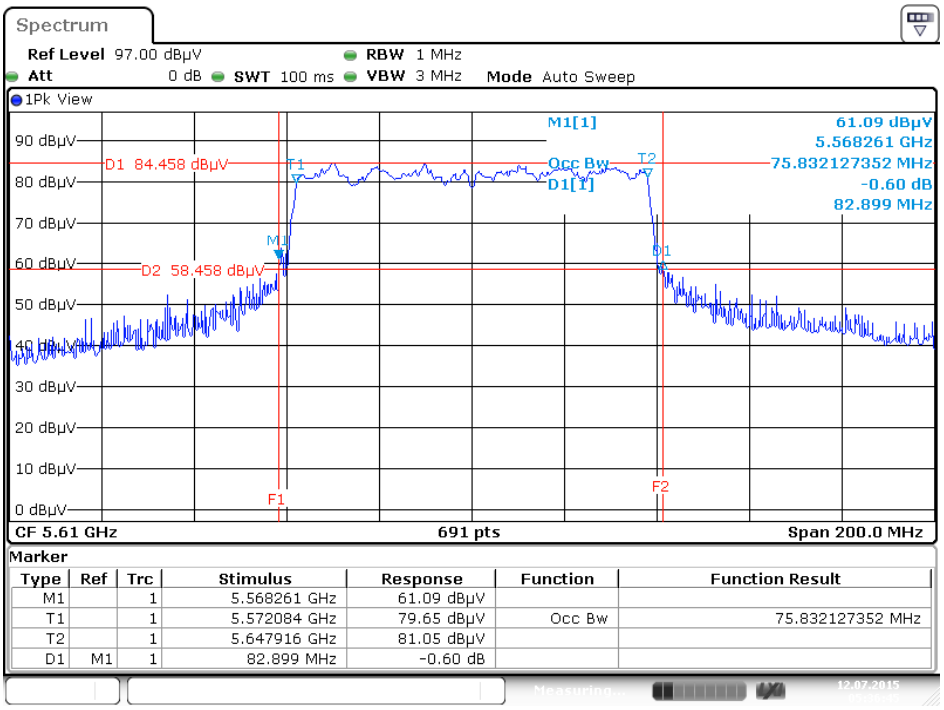
Date: 12.JUL.2015 05:38:37

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4 + Chain 5 + Chain 6 / 5530 MHz



Date: 12.JUL.2015 05:37:25

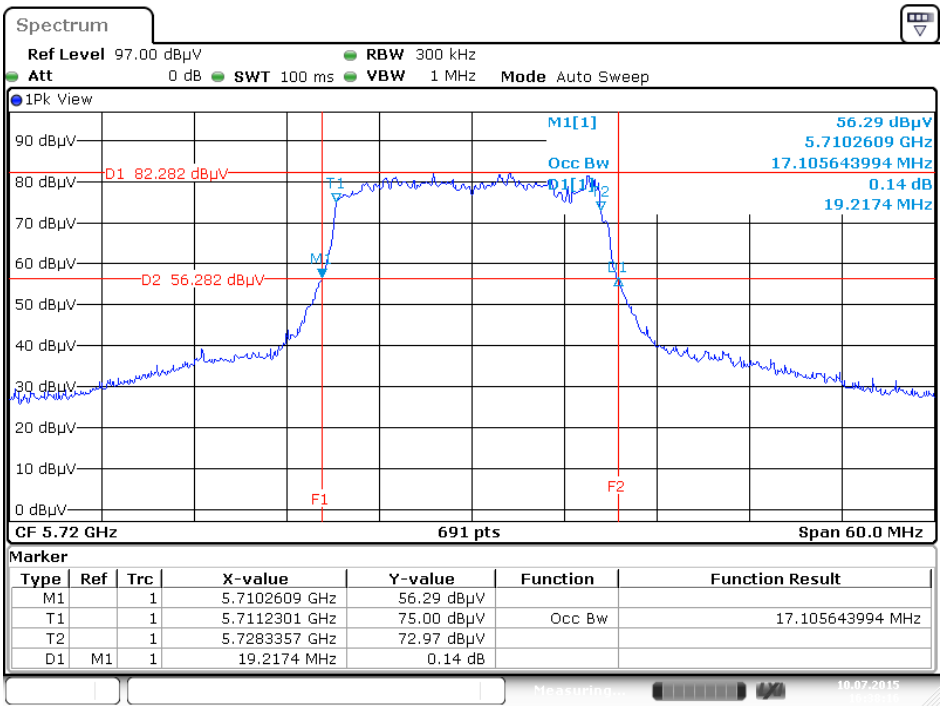
26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4 + Chain 5 + Chain 6 / 5610 MHz



Date: 12.JUL.2015 05:36:45

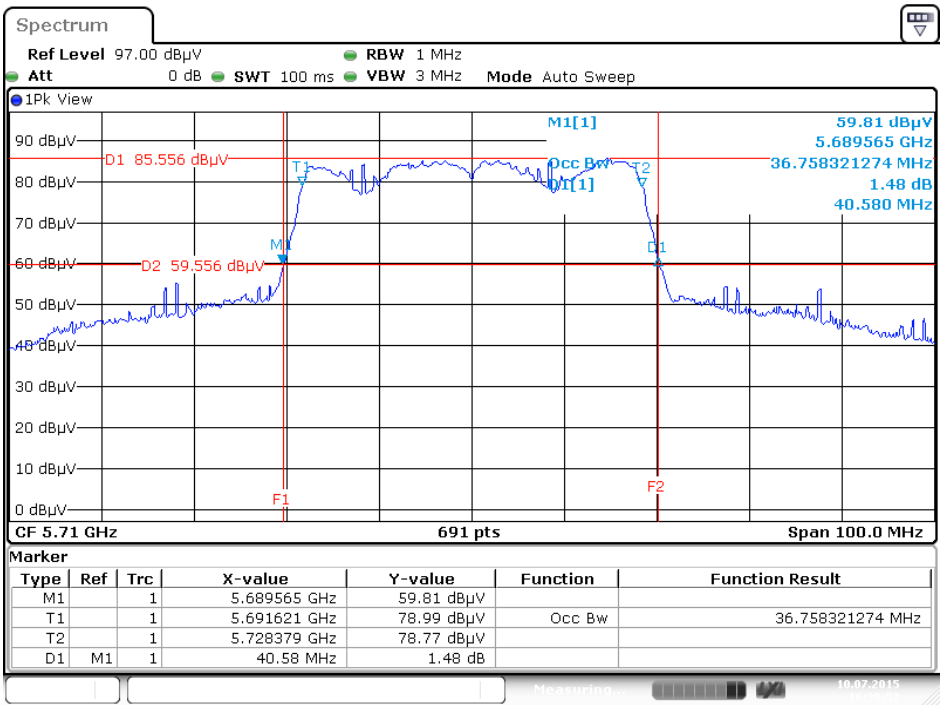
Straddle Channel

26 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5720 MHz



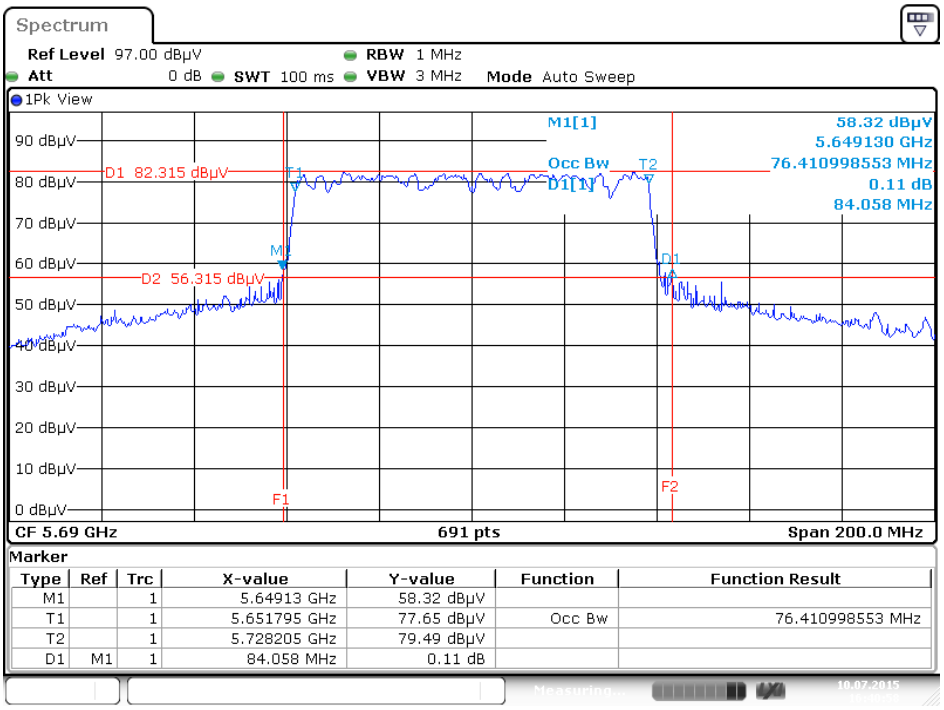
Date:10.JUL.2015 16:38:15

26 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5710 MHz



Date:10.JUL.2015 16:39:52

26 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4 + Chain 5 + Chain 6 / 5690 MHz



Date:10.JUL.2015 16:40:59

<For Radio 2 Non-beamforming Mode>: 3TX, 3S

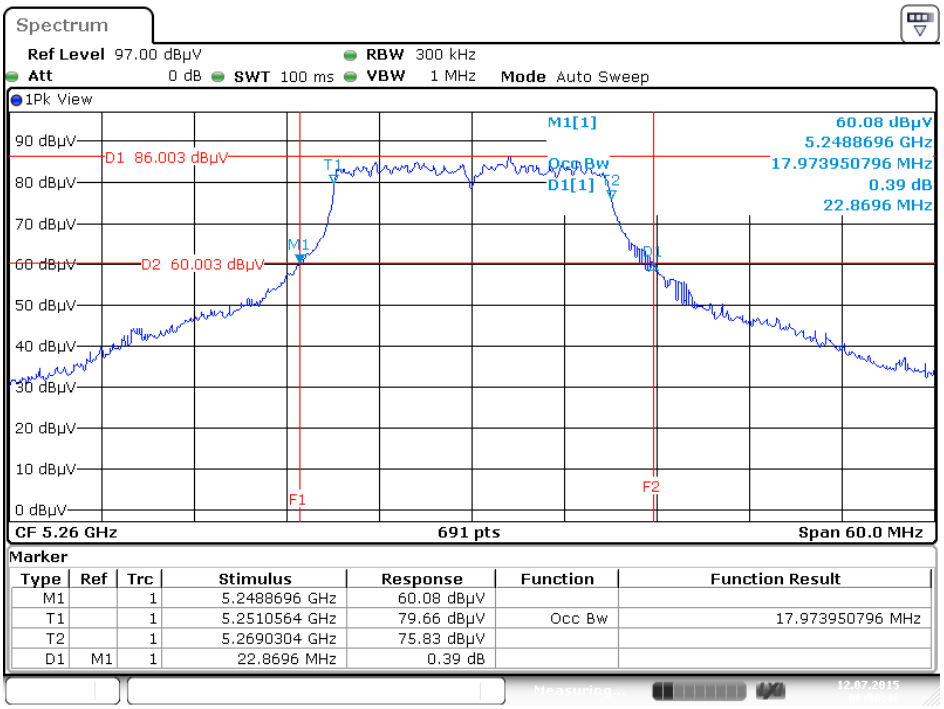
Temperature	25°C	Humidity	55%
Test Engineer	Lucas Huang		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11ac MCS0/Nss3 VHT20	5260 MHz	22.87	17.97
	5300 MHz	22.96	17.97
	5320 MHz	22.96	17.97
	5500 MHz	22.70	17.97
	5580 MHz	22.70	17.89
	5700 MHz	22.61	17.89
802.11ac MCS0/Nss3 VHT40	5270 MHz	46.67	37.34
	5310 MHz	46.23	37.05
	5510 MHz	45.65	37.05
	5550 MHz	45.94	37.19
	5670 MHz	45.51	37.05
802.11ac MCS0/Nss3 VHT80	5290 MHz	88.41	76.12
	5530 MHz	87.25	76.12
	5610 MHz	88.12	76.41

Straddle Channel

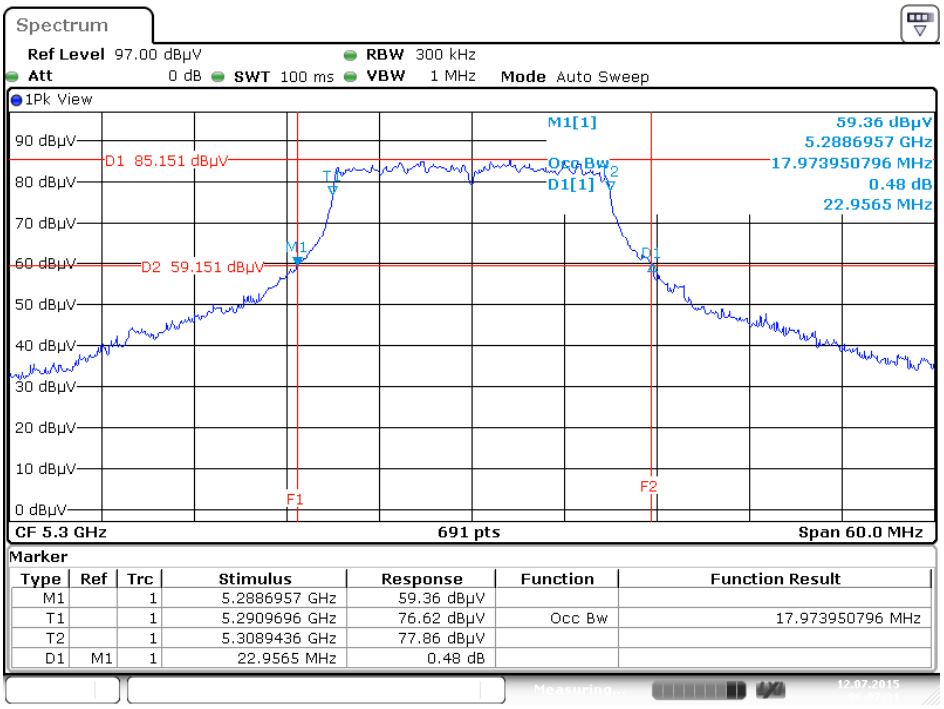
Mode	Frequency	26dB BW (MHz)	99% OBW (MHz)	26dB BW F1 (MHz)	99% OBW T1 (MHz)	UNII 2C 26dB BW (MHz)	UNII 3 26dB BW (MHz)	UNII 2C 99% BW (MHz)	UNII 3 99% BW (MHz)
802.11ac MCS0/Nss3 VHT20	5720 MHz	22.61	17.89	5708.78	5711.06	16.22	6.39	13.94	3.94
802.11ac MCS0/Nss3 VHT40	5710 MHz	52.75	37.19	5685.80	5691.48	39.20	13.55	33.52	3.67
802.11ac MCS0/Nss3 VHT80	5690 MHz	88.41	76.41	5645.36	5651.80	79.64	8.77	73.20	3.21

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5260 MHz



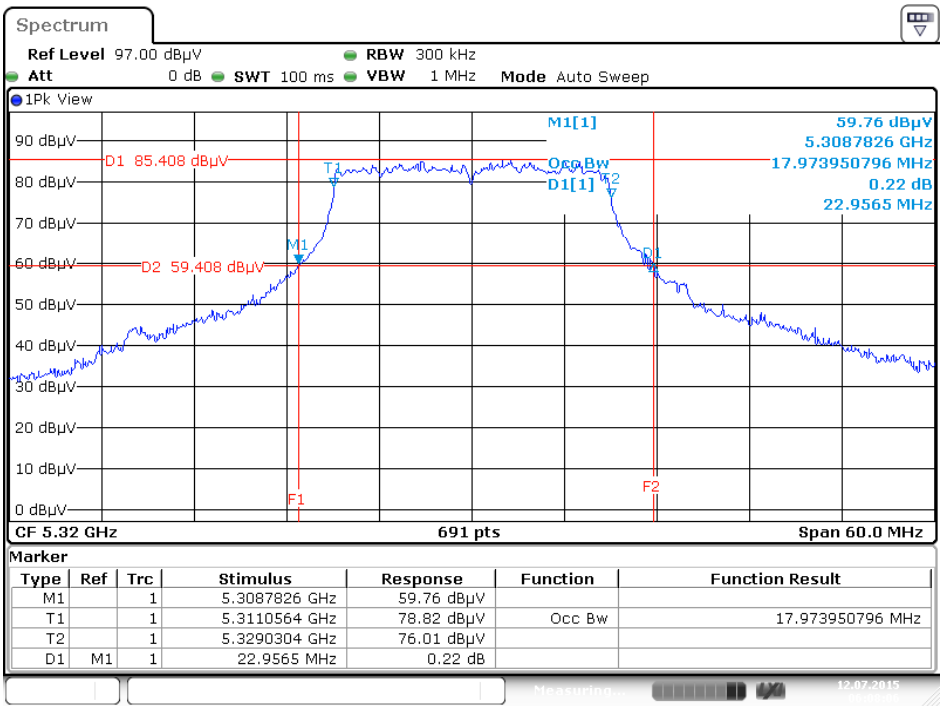
Date: 12.JUL.2015 06:06:46

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5300 MHz



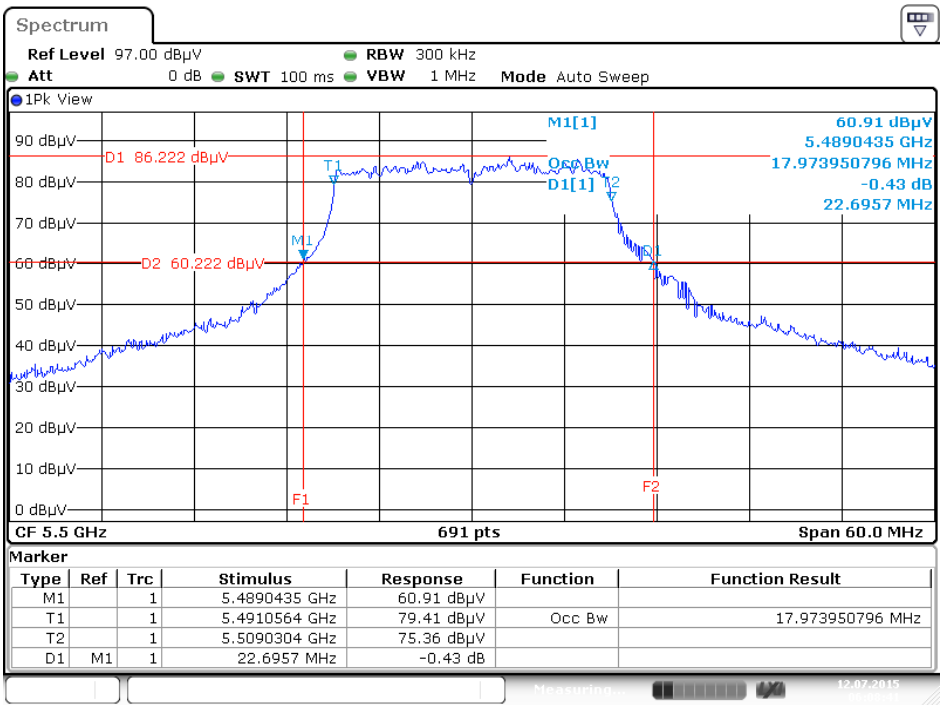
Date: 12.JUL.2015 06:07:31

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5320 MHz



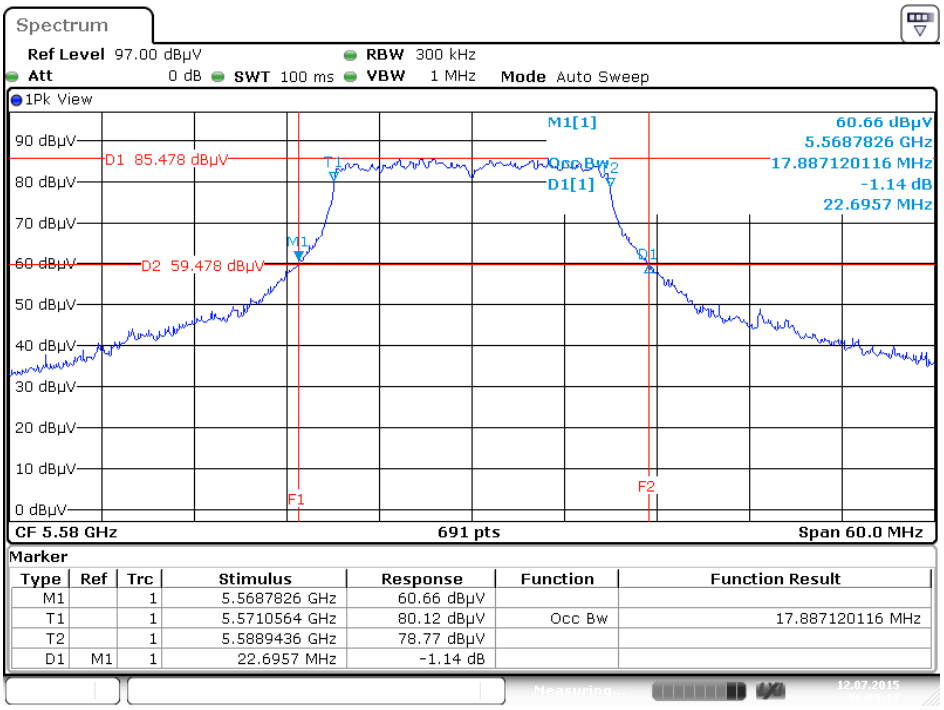
Date: 12.JUL.2015 06:08:06

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5500 MHz



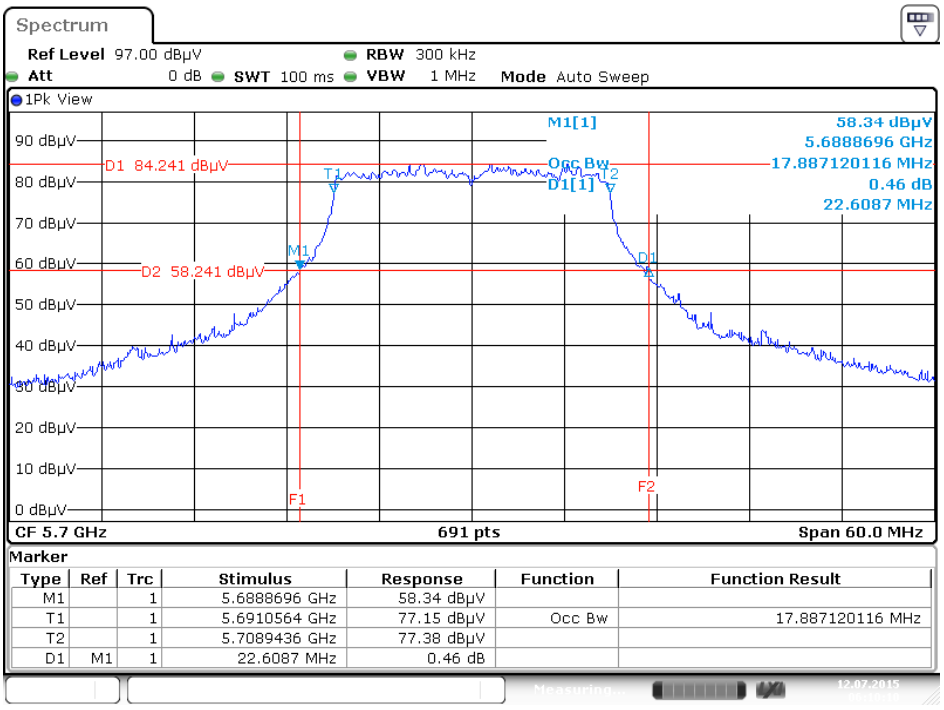
Date: 12.JUL.2015 06:08:41

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5580 MHz



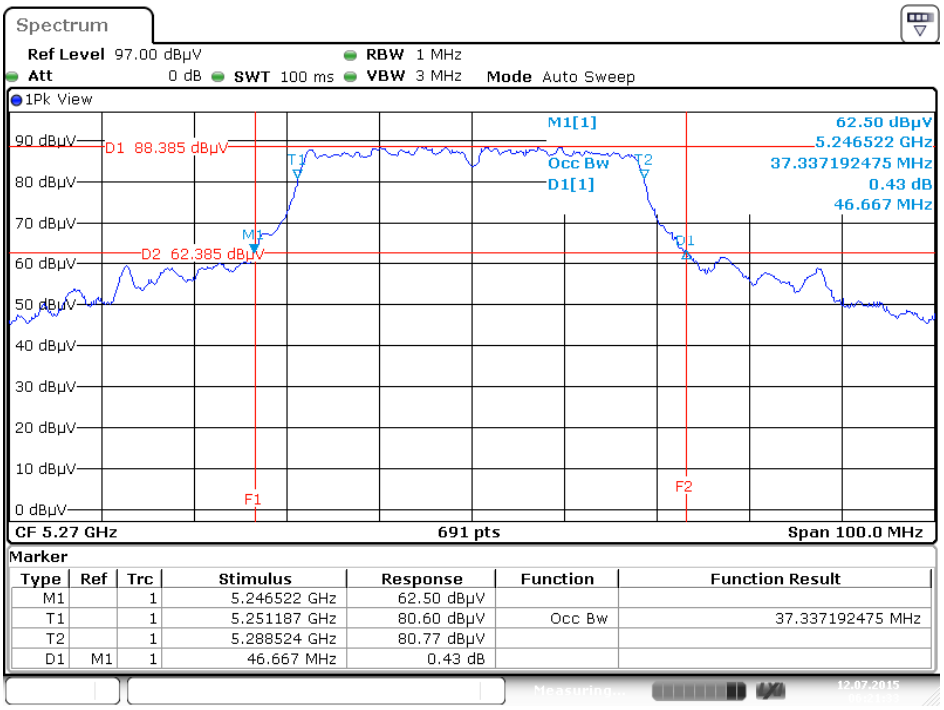
Date: 12.JUL.2015 06:09:17

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5700 MHz



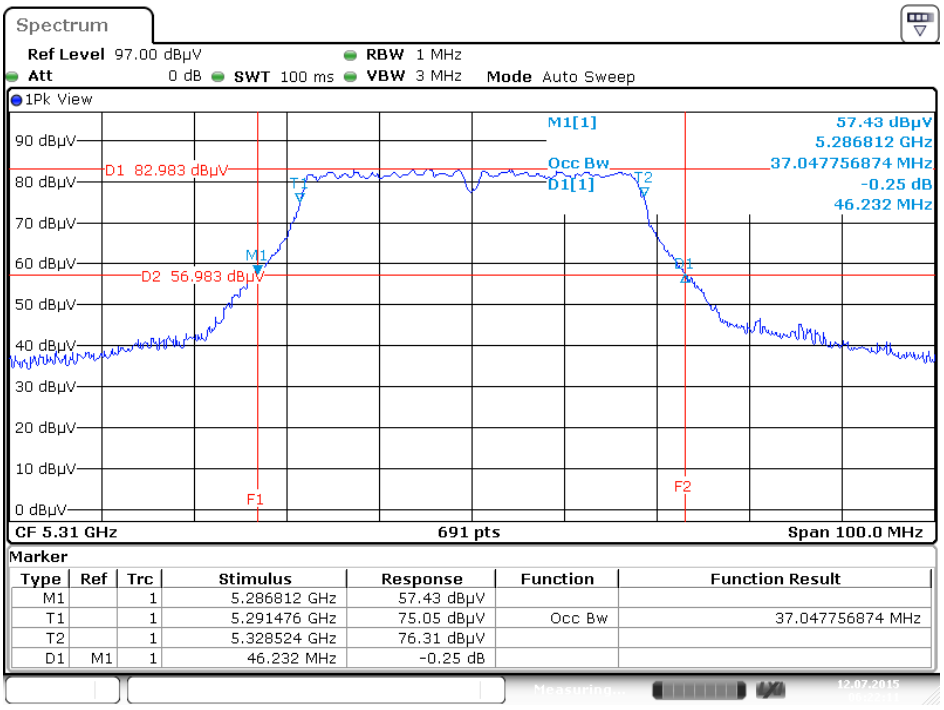
Date: 12.JUL.2015 06:10:10

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5270 MHz



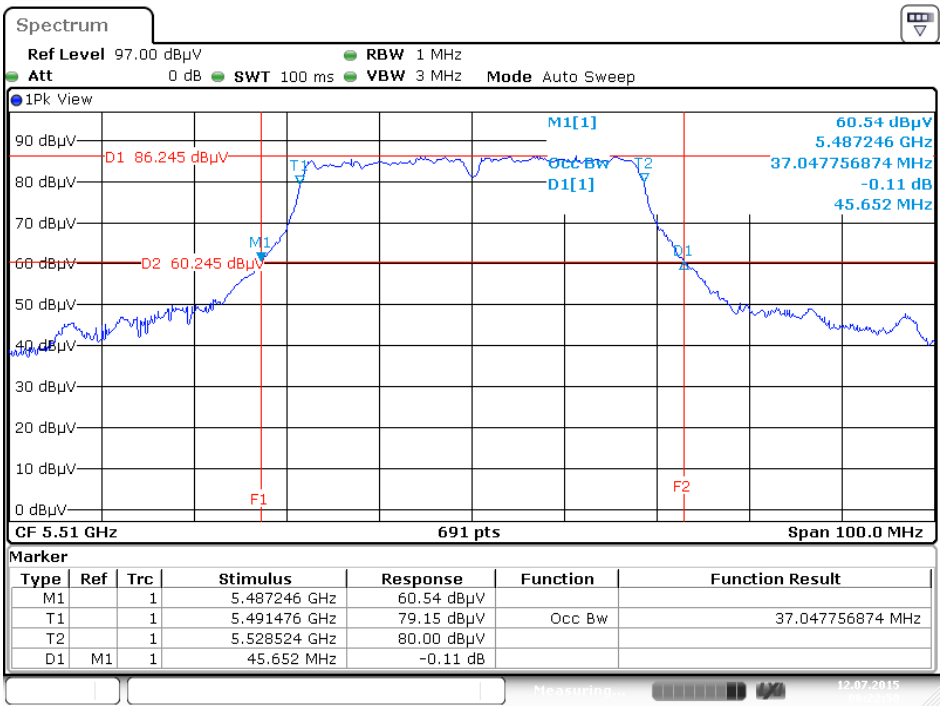
Date: 12.JUL.2015 06:21:33

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5310 MHz



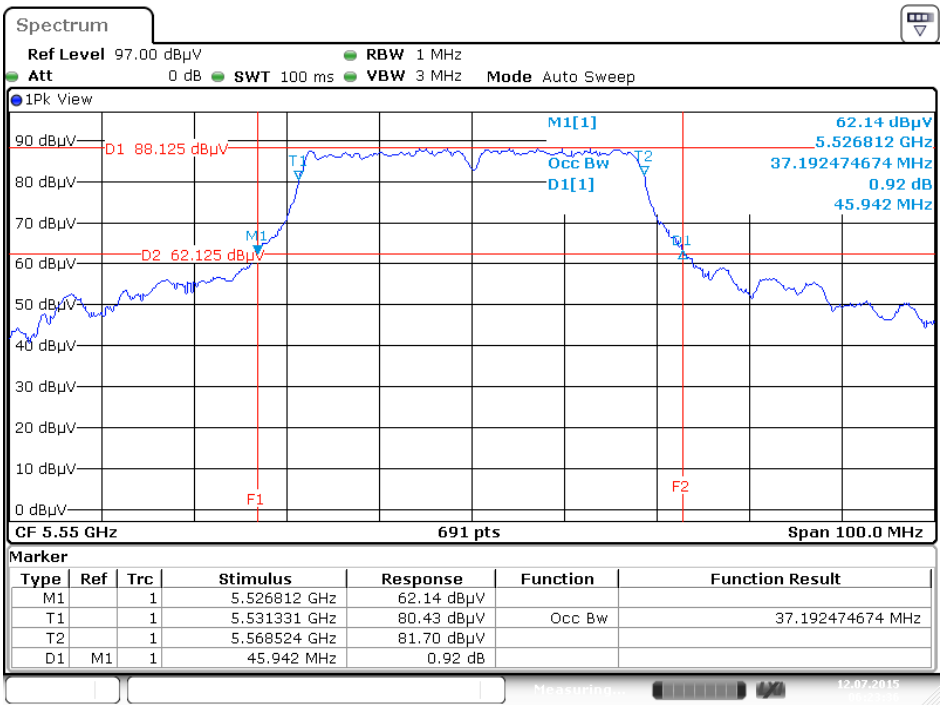
Date: 12.JUL.2015 06:22:11

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5510 MHz



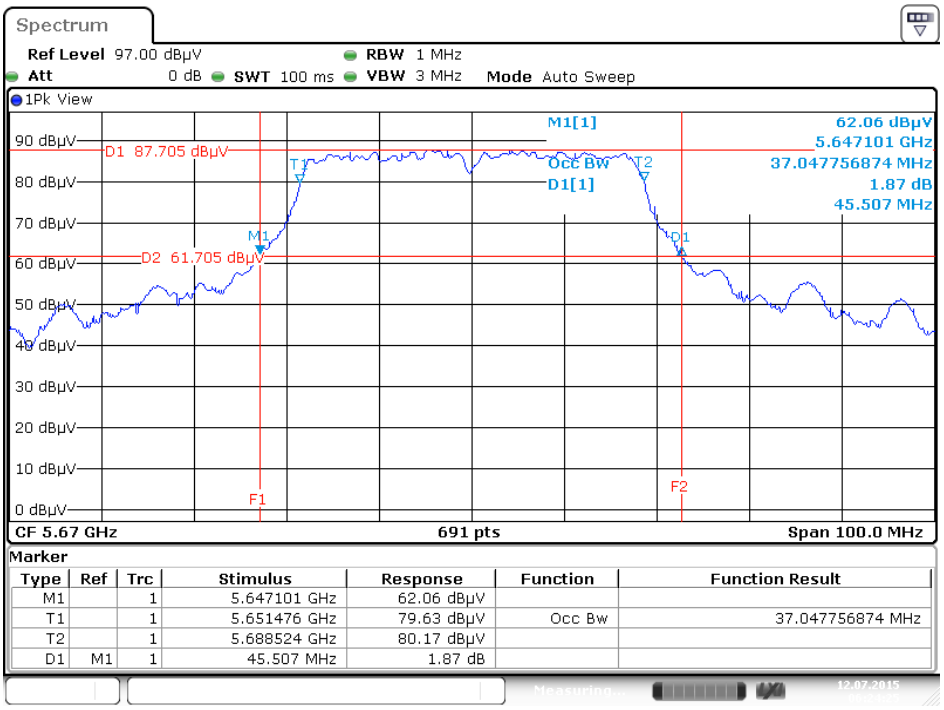
Date: 12.JUL.2015 06:22:51

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5550 MHz



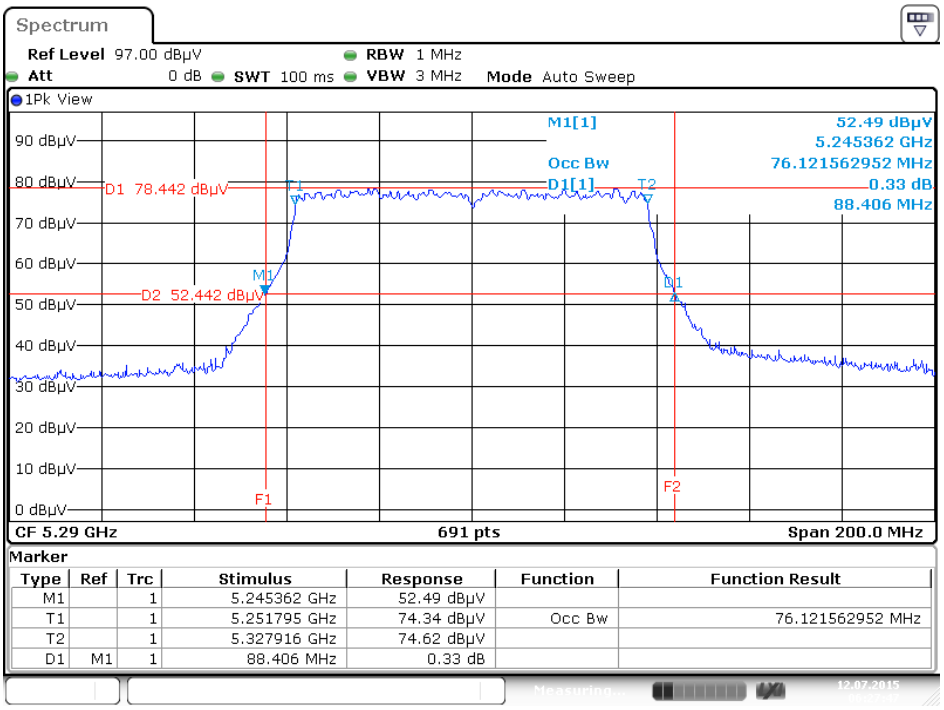
Date: 12.JUL.2015 06:23:37

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5670 MHz



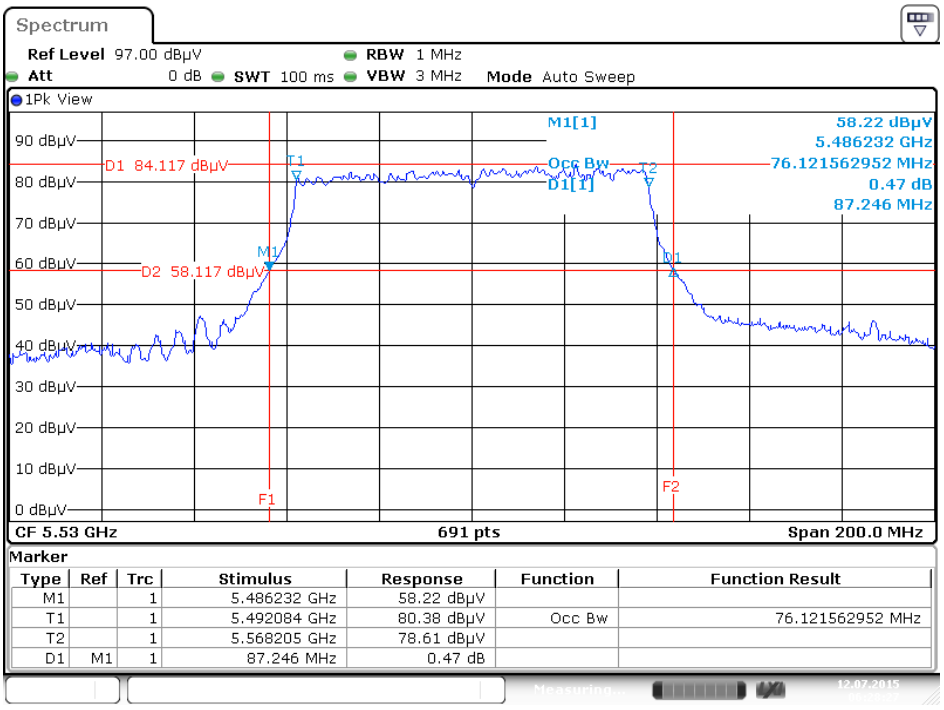
Date: 12.JUL.2015 06:24:25

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT80 / Chain 4 + Chain 5 + Chain 6 / 5290 MHz



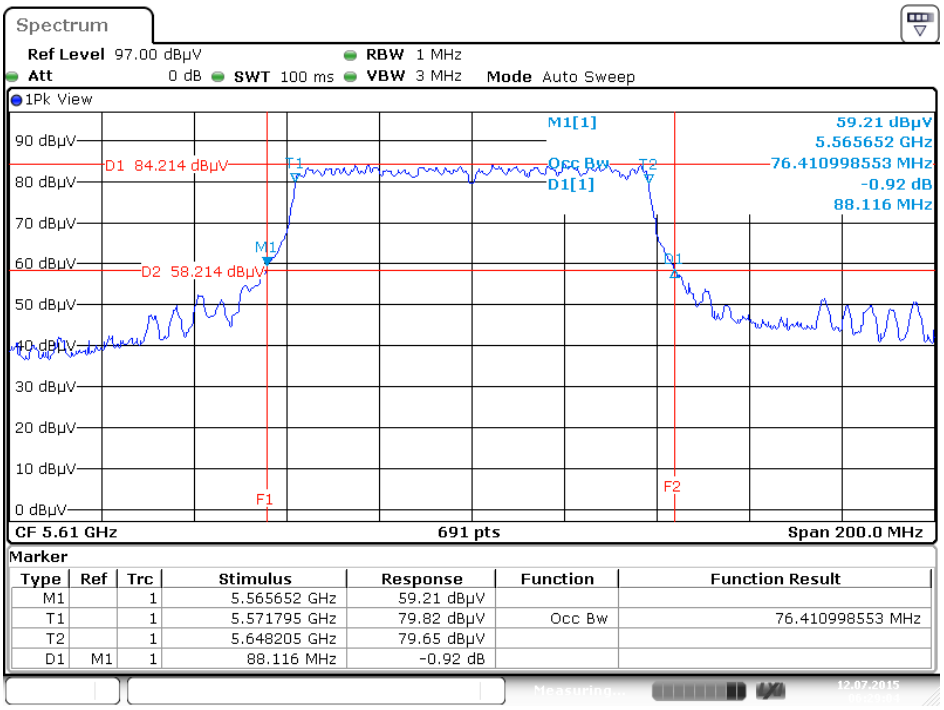
Date: 12.JUL.2015 06:27:47

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT80 / Chain 4 + Chain 5 + Chain 6 / 5530 MHz



Date: 12.JUL.2015 06:28:27

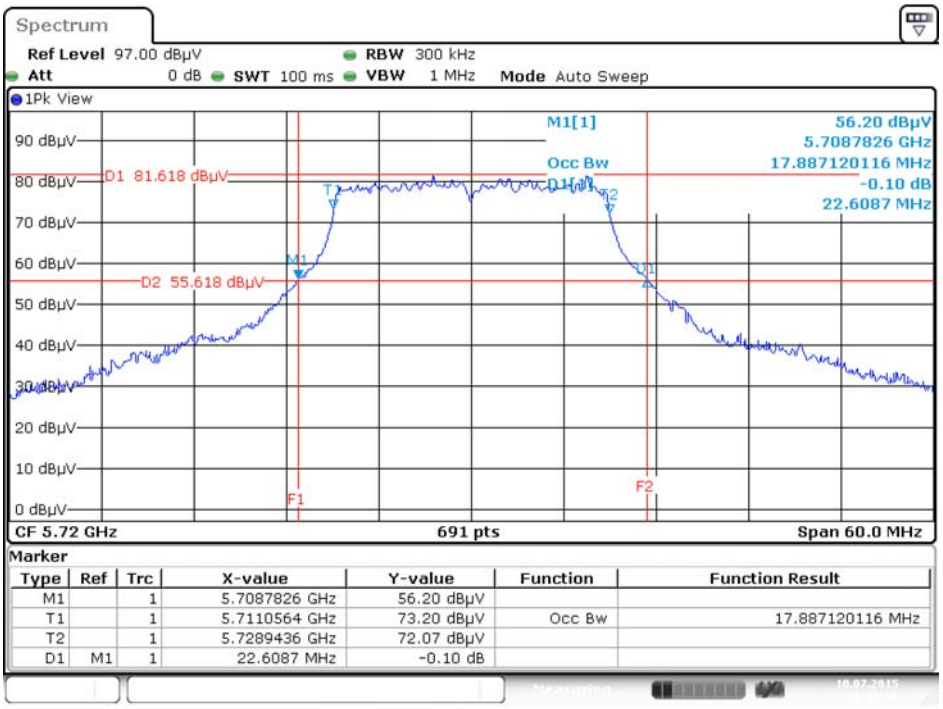
26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT80 / Chain 4 + Chain 5 + Chain 6 / 5610 MHz



Date: 12.JUL.2015 06:29:04

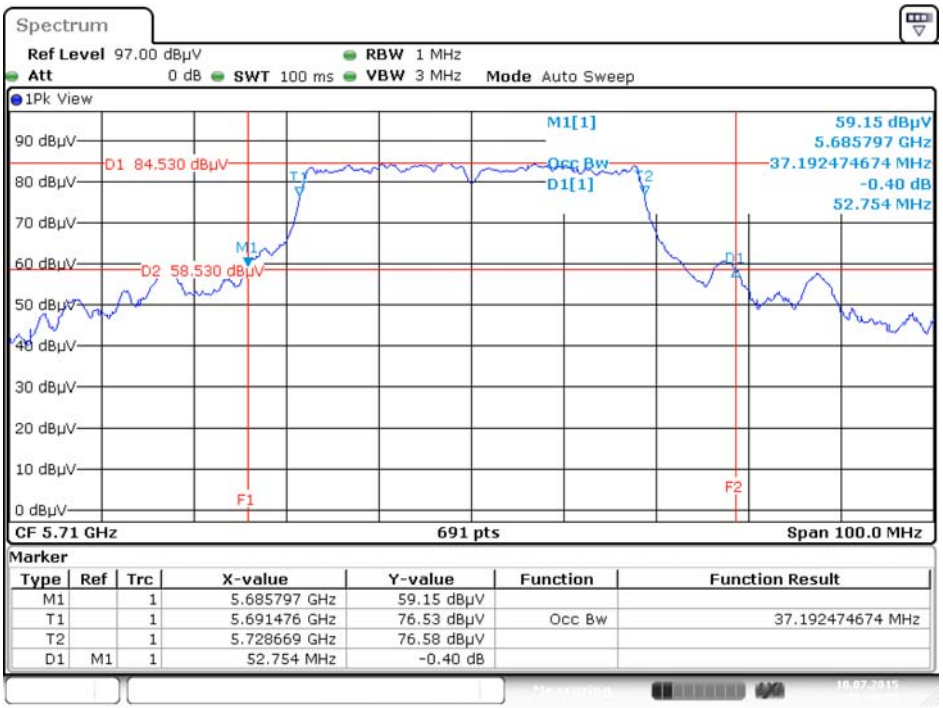
Straddle Channel

26 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5720 MHz



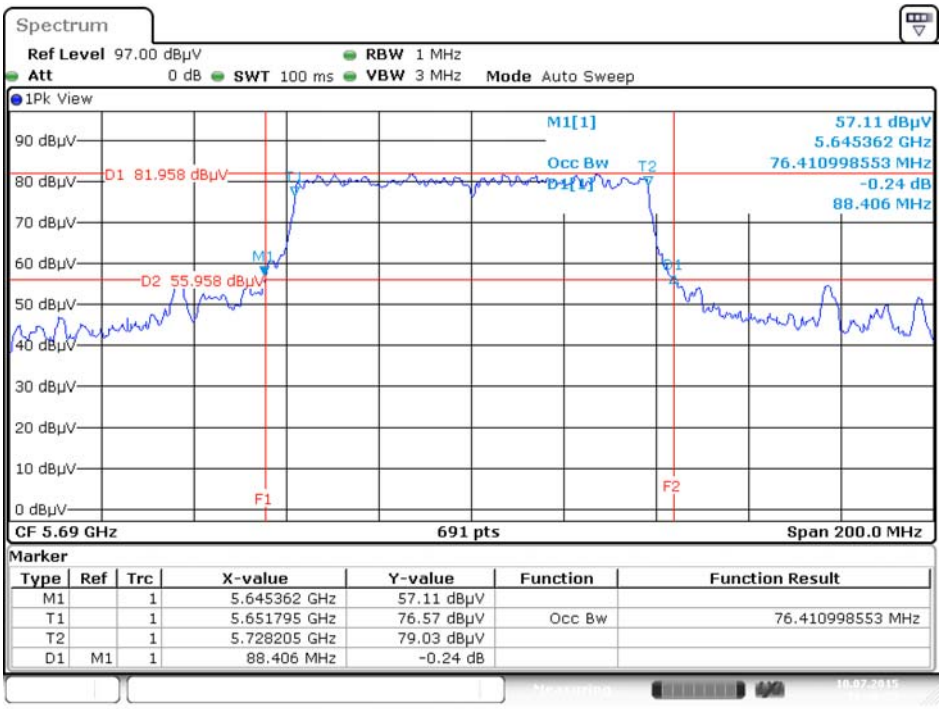
Date: 10.JUL.2015 16:42:45

26 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5710 MHz



Date: 10.JUL.2015 16:45:29

26 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT80 / Chain 4 + Chain 5 + Chain 6 / 5690 MHz



Date: 10.JUL.2015 16:46:24

<For Radio 2 Beamforming Mode>: 2TX, 1S

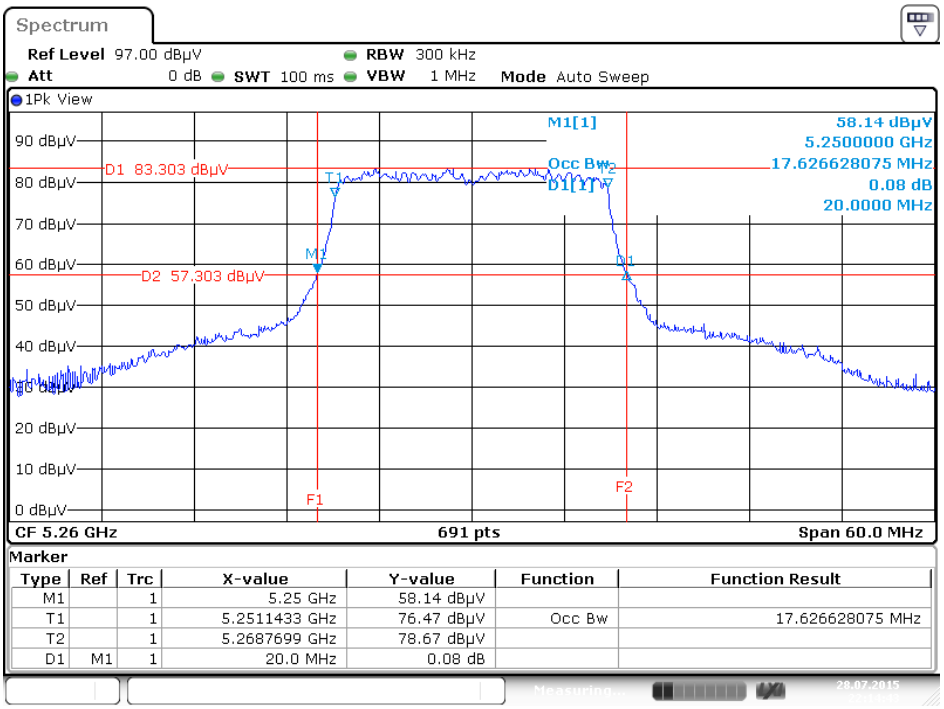
Temperature	25°C	Humidity	55%
Test Engineer	Eddie Weng		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11ac MCS0/Nss1 VHT20	5260 MHz	20.00	17.63
	5300 MHz	20.00	17.63
	5320 MHz	20.09	17.63
	5500 MHz	19.91	17.63
	5580 MHz	20.00	17.63
	5700 MHz	20.00	17.63
802.11ac MCS0/Nss1 VHT40	5270 MHz	40.29	36.32
	5310 MHz	40.44	36.32
	5510 MHz	40.29	36.32
	5550 MHz	40.29	36.32
	5670 MHz	40.44	36.32
802.11ac MCS0/Nss1 VHT80	5290 MHz	87.54	75.83
	5530 MHz	89.28	76.12
	5610 MHz	86.38	76.12

Straddle Channel

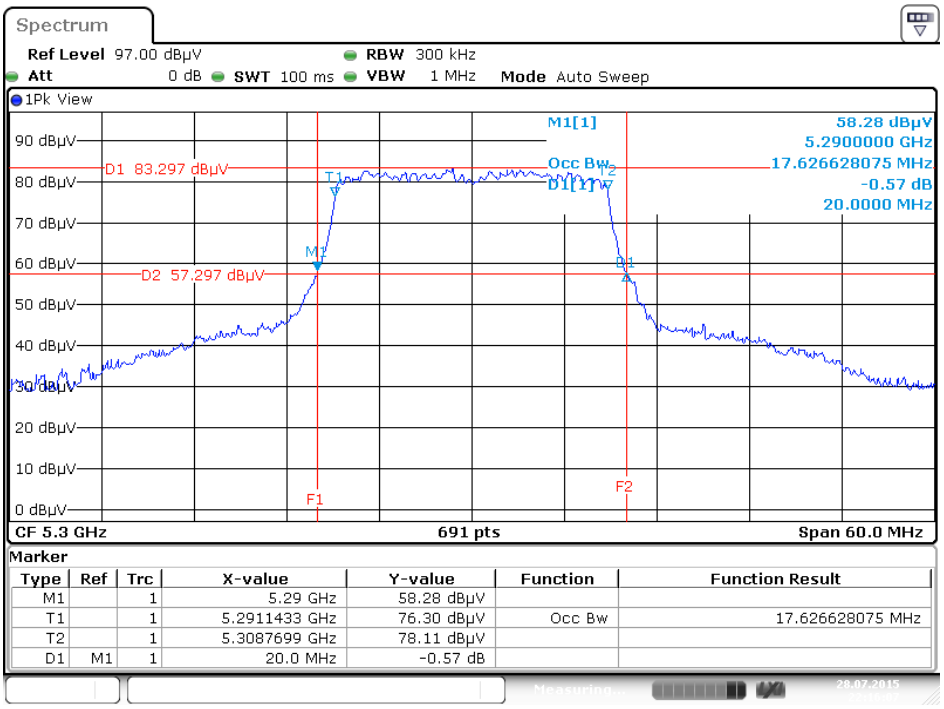
Mode	Frequency	26dB BW (MHz)	99% OBW (MHz)	26dB BW F1 (MHz)	99% OBW T1 (MHz)	UNII 2C 26dB BW (MHz)	UNII 3 26dB BW (MHz)	UNII 2C 99% BW (MHz)	UNII 3 99% BW (MHz)
802.11ac MCS0/Nss1 VHT20	5720 MHz	20.00	17.62	5710.00	5711.23	15.00	5.00	13.77	3.85
802.11ac MCS0/Nss1 VHT40	5710 MHz	40.44	36.46	5689.86	5691.77	35.15	5.29	33.23	3.23
802.11ac MCS0/Nss1 VHT80	5690 MHz	88.98	75.83	5645.94	5652.08	79.06	9.92	72.92	2.91

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 / 5260 MHz



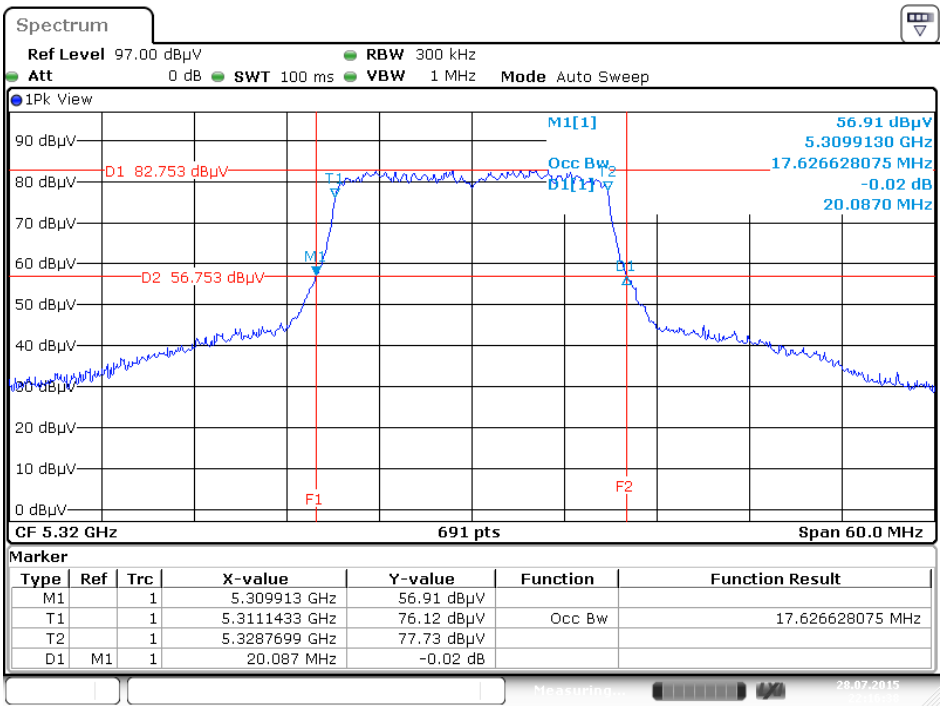
Date: 28.JUL.2015 22:14:43

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 /5300 MHz



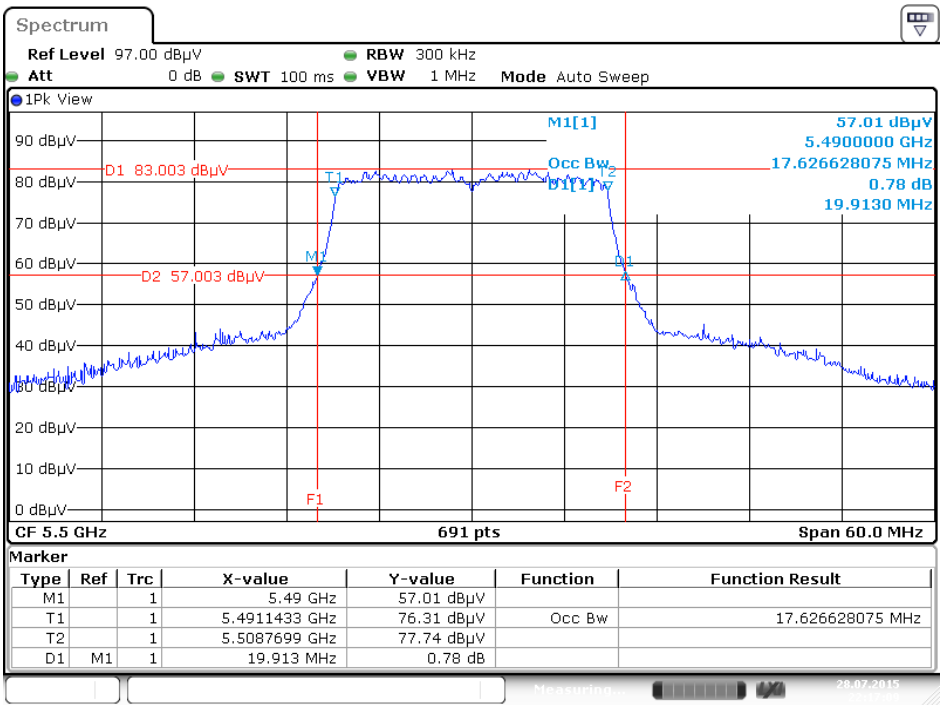
Date: 28.JUL.2015 22:16:07

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 / 5320 MHz



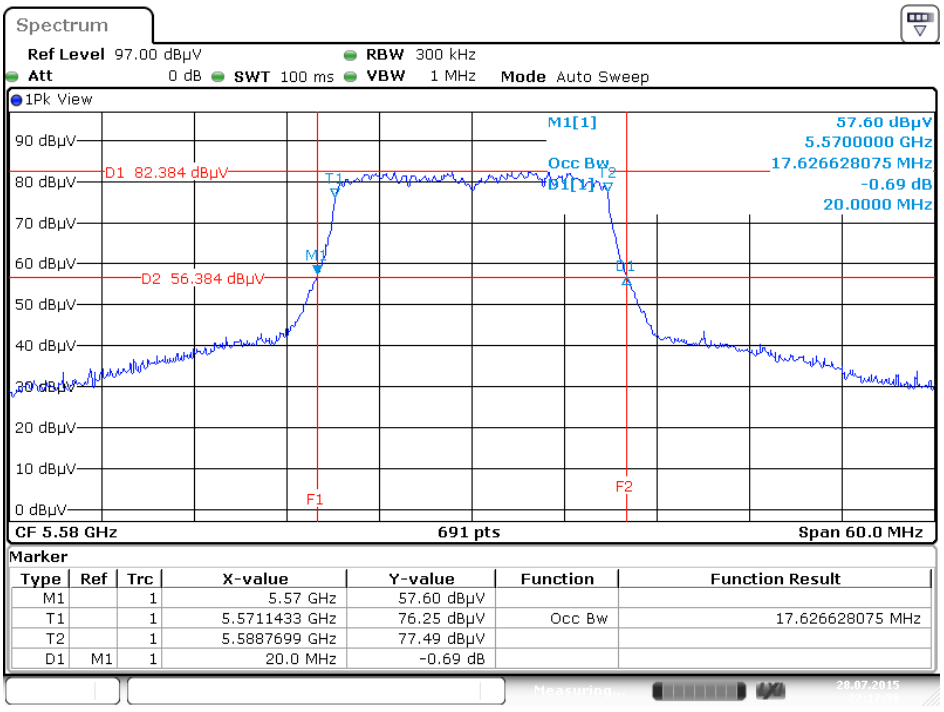
Date: 28.JUL.2015 22:16:39

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 / 5500 MHz



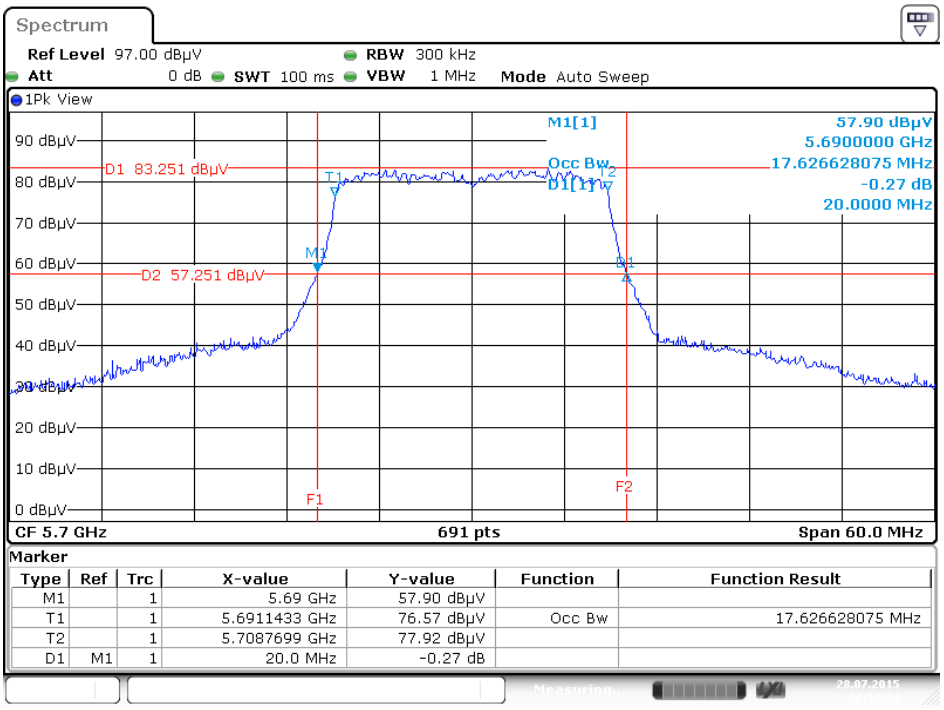
Date: 28.JUL.2015 22:17:09

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 /5580 MHz



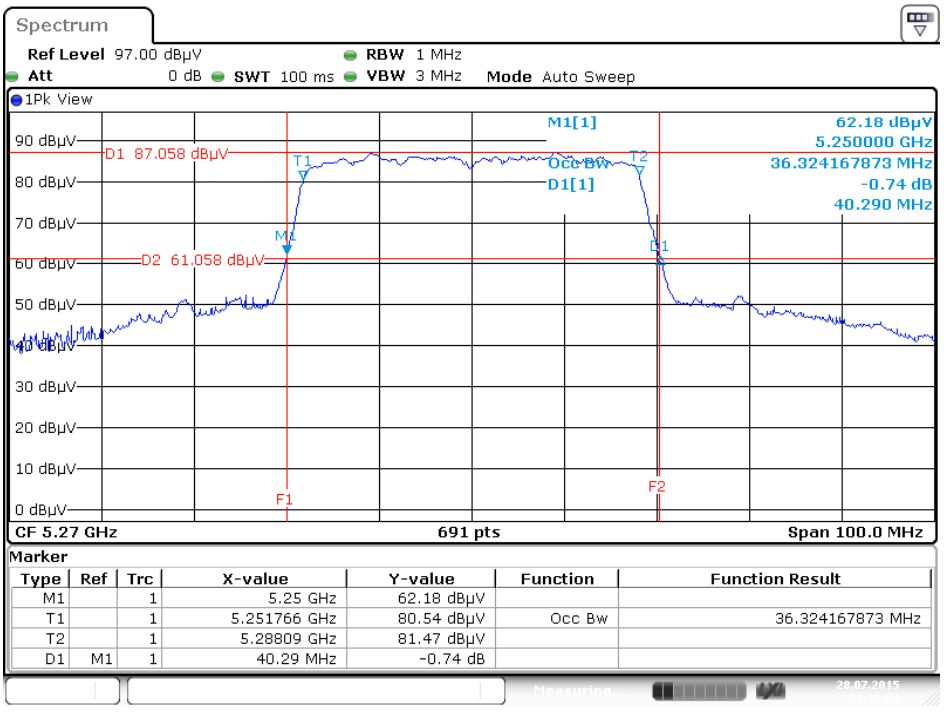
Date: 28.JUL.2015 22:18:00

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 /5700 MHz



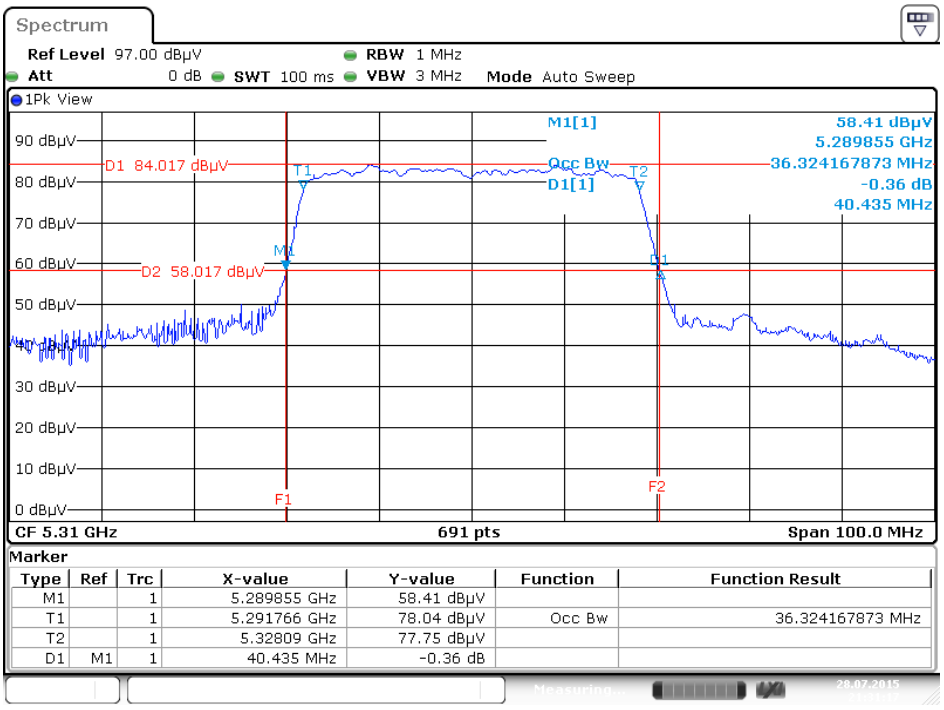
Date: 28.JUL.2015 22:18:44

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 + Chain 5 / 5270 MHz



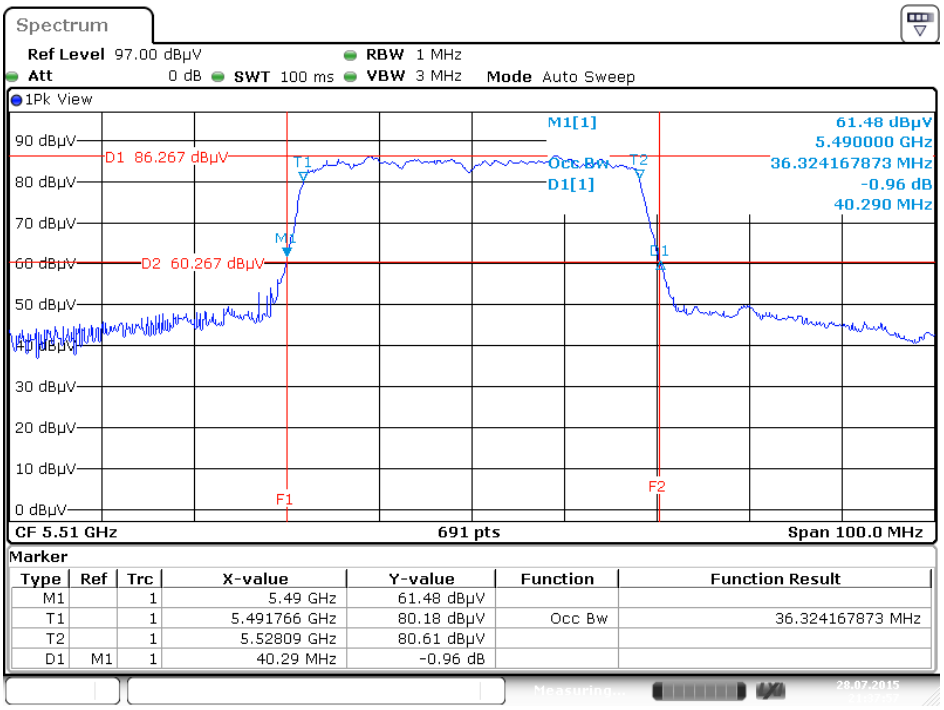
Date: 28.JUL.2015 21:33:03

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 + Chain 5 / 5310 MHz



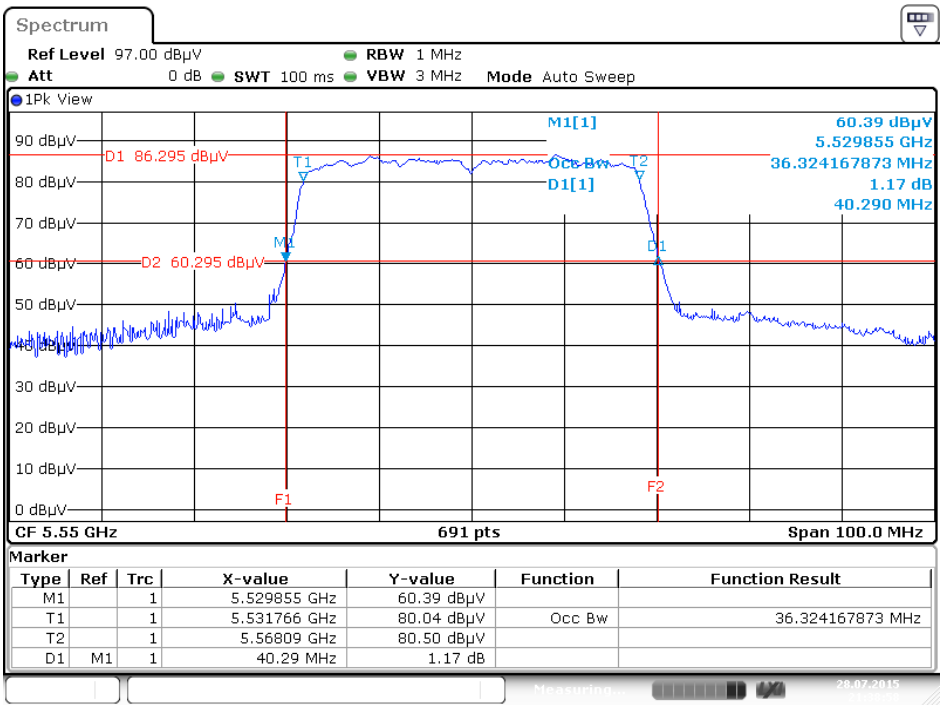
Date: 28.JUL.2015 21:31:17

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 + Chain 5 / 5510 MHz



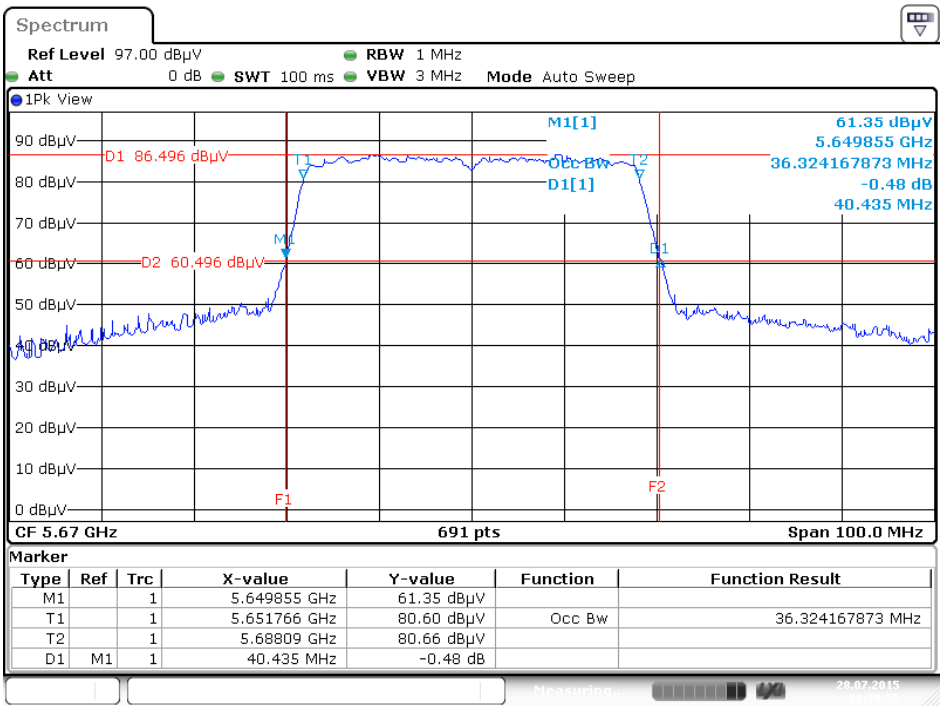
Date: 28.JUL.2015 21:37:57

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 + Chain 5 / 5550 MHz



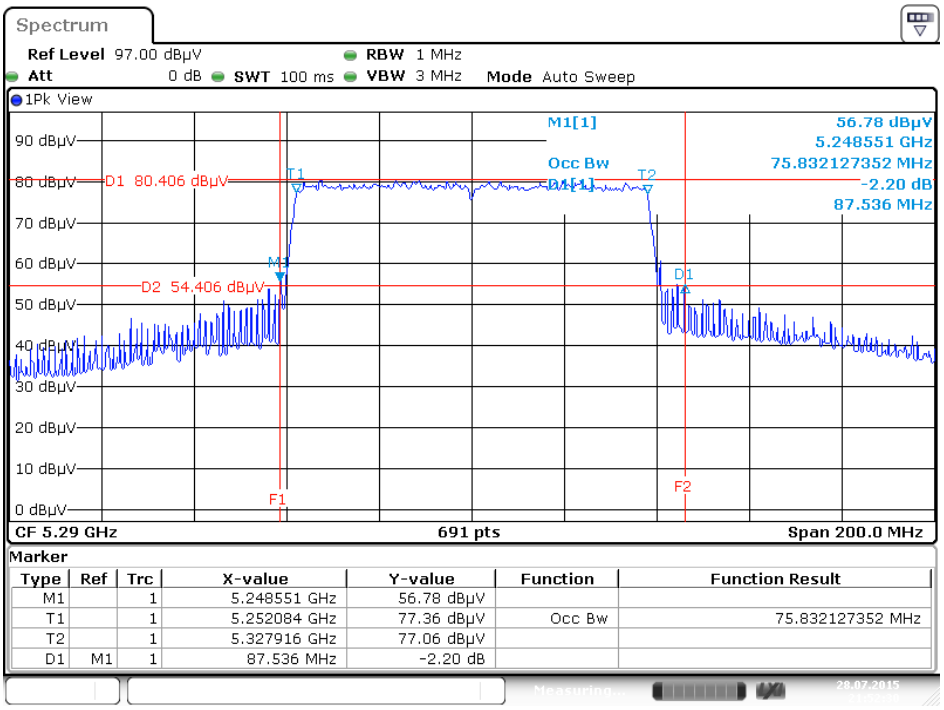
Date: 28.JUL.2015 21:38:58

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 + Chain 5 / 5670 MHz



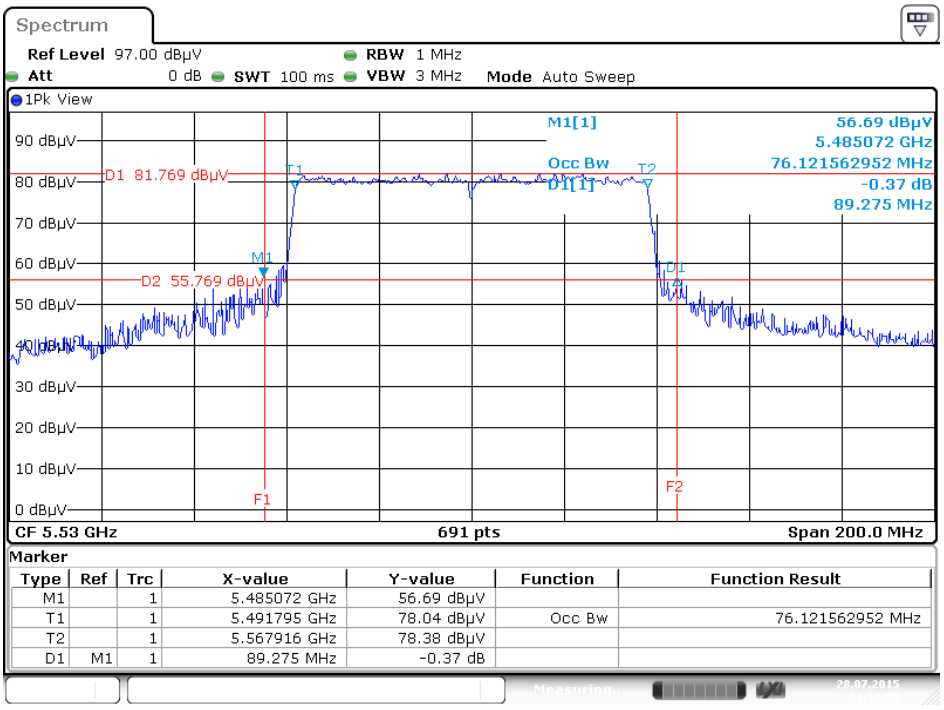
Date: 28.JUL.2015 21:39:55

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 + Chain 5 /5290 MHz



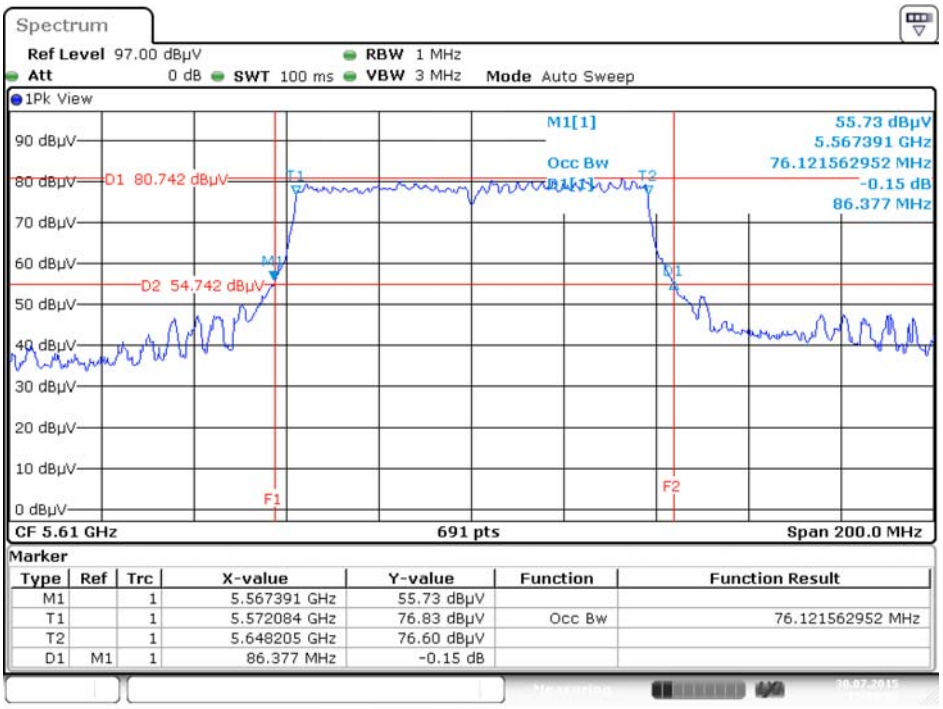
Date: 28.JUL.2015 21:52:30

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 + Chain 5 / 5530 MHz



Date: 28.JUL.2015 21:53:09

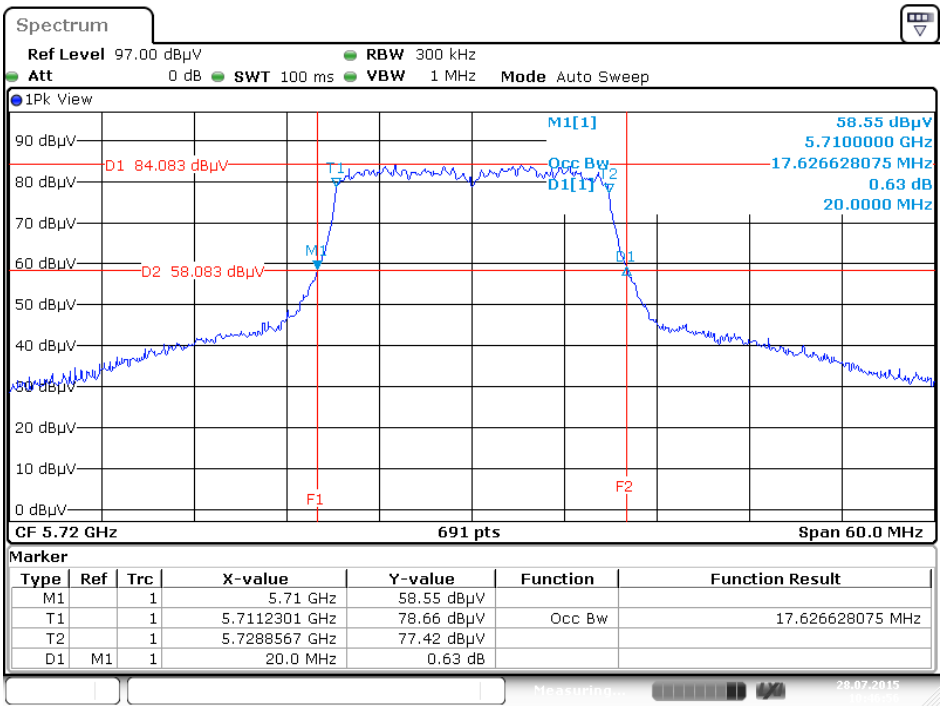
26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 + Chain 5 / 5610 MHz



Date: 30.JUL.2015 15:33:06

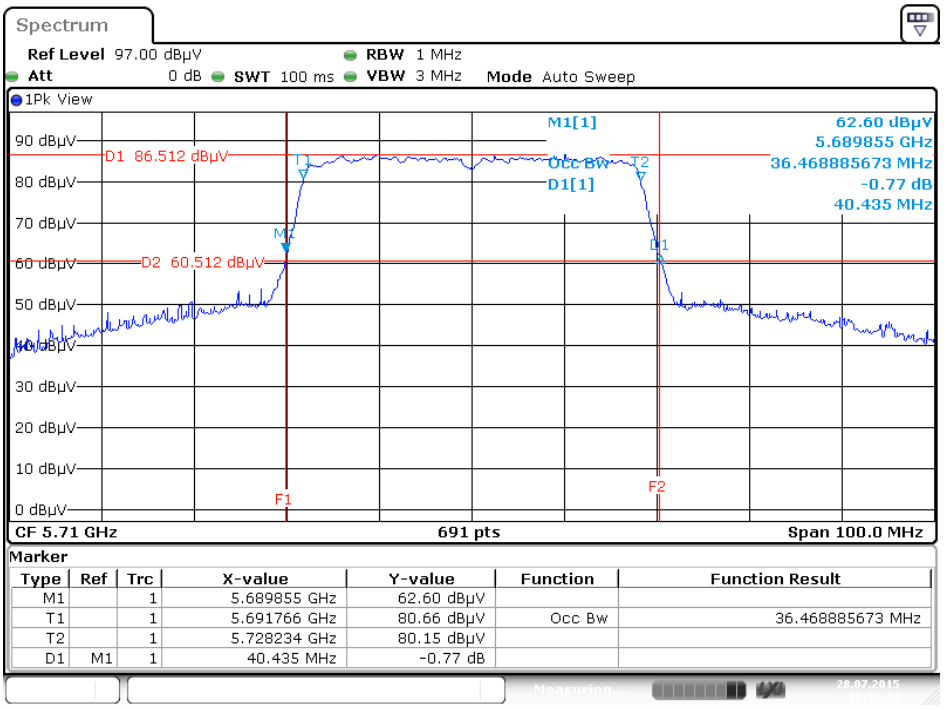
Straddle Channel

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 / 5720 MHz



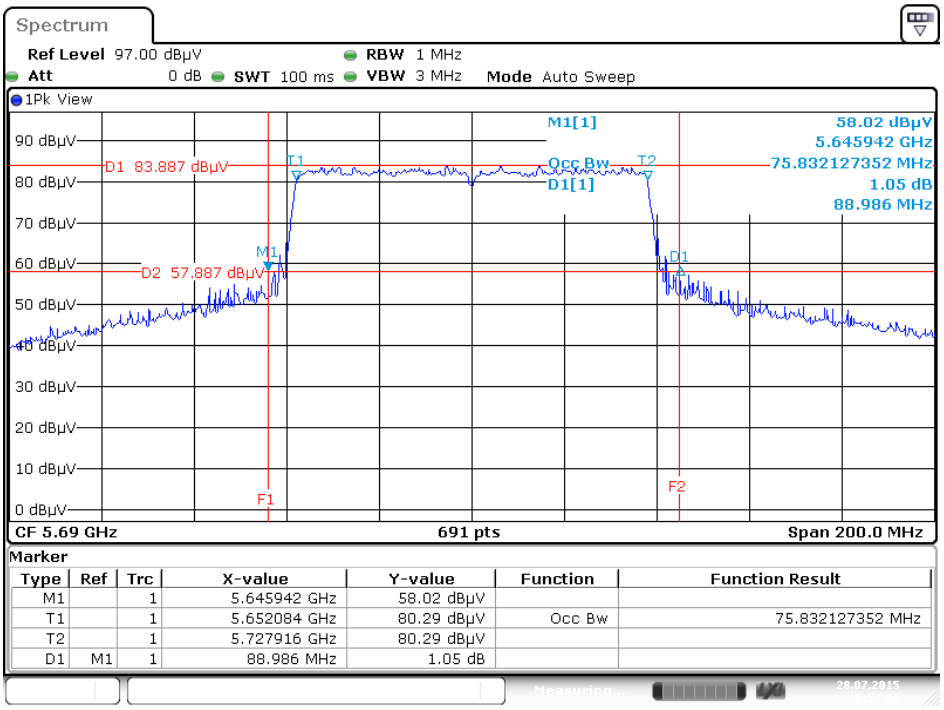
Date: 28.JUL.2015 10:46:56

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 + Chain 5 / 5710 MHz



Date: 28.JUL.2015 10:51:24

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 3 + Chain 4 / 5690 MHz



Date: 28.JUL.2015 10:54:01

<For Radio 2 Beamforming Mode>: 3TX, 1S

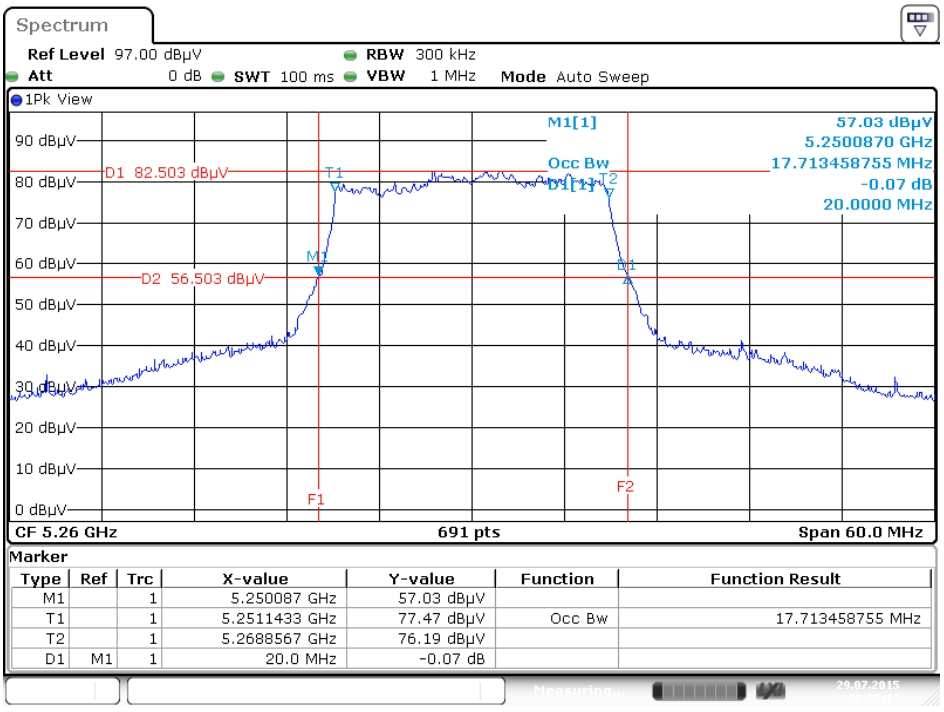
Temperature	25℃	Humidity	55%
Test Engineer	Eddie Weng		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11ac MCS0/Nss1 VHT20	5260 MHz	20.00	17.71
	5300 MHz	20.26	17.71
	5320 MHz	20.26	17.71
	5500 MHz	20.09	17.71
	5580 MHz	19.74	17.71
	5700 MHz	19.74	17.63
802.11ac MCS0/Nss1 VHT40	5270 MHz	40.29	36.47
	5310 MHz	40.29	36.32
	5510 MHz	40.15	36.32
	5550 MHz	40.29	36.32
	5670 MHz	40.00	36.32
802.11ac MCS0/Nss1 VHT80	5290 MHz	82.03	75.83
	5530 MHz	84.93	75.83
	5610 MHz	85.51	76.41

Straddle Channel

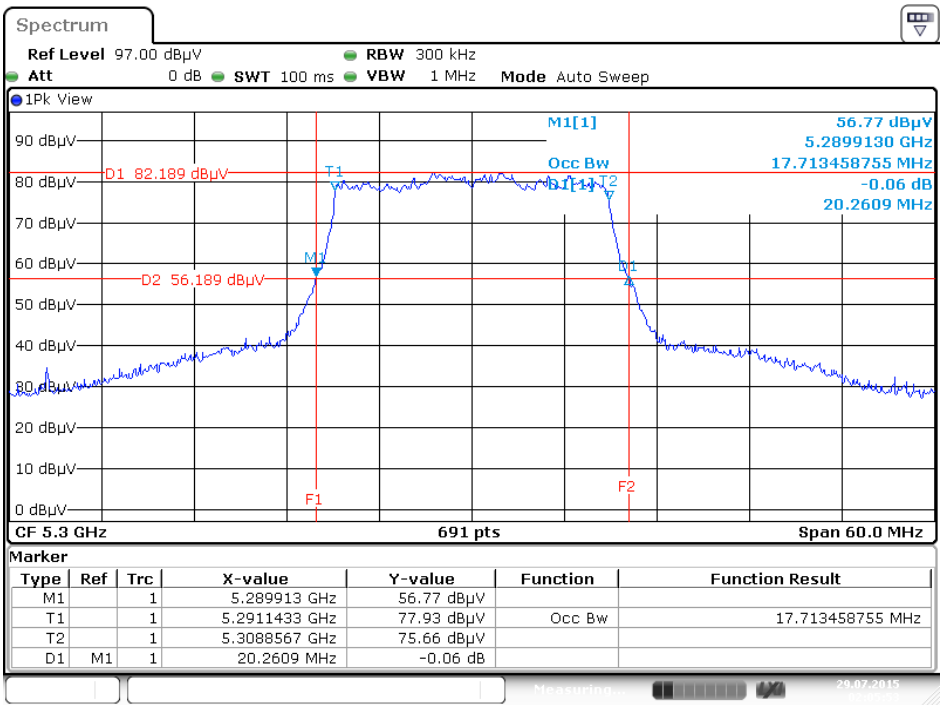
Mode	Frequency	26dB BW (MHz)	99% OBW (MHz)	26dB BW F1 (MHz)	99% OBW T1 (MHz)	UNII 2C 26dB BW (MHz)	UNII 3 26dB BW (MHz)	UNII 2C 99% BW (MHz)	UNII 3 99% BW (MHz)
802.11ac MCS0/Nss1 VHT20	5720 MHz	22.87	17.88	5708.78	5711.06	16.22	6.65	13.94	3.94
802.11ac MCS0/Nss1 VHT40	5710 MHz	45.07	37.05	5687.83	5691.48	37.17	7.90	33.52	3.52
802.11ac MCS0/Nss1 VHT80	5690 MHz	86.67	76.12	5645.65	5651.80	79.35	7.32	73.20	2.92

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5260 MHz



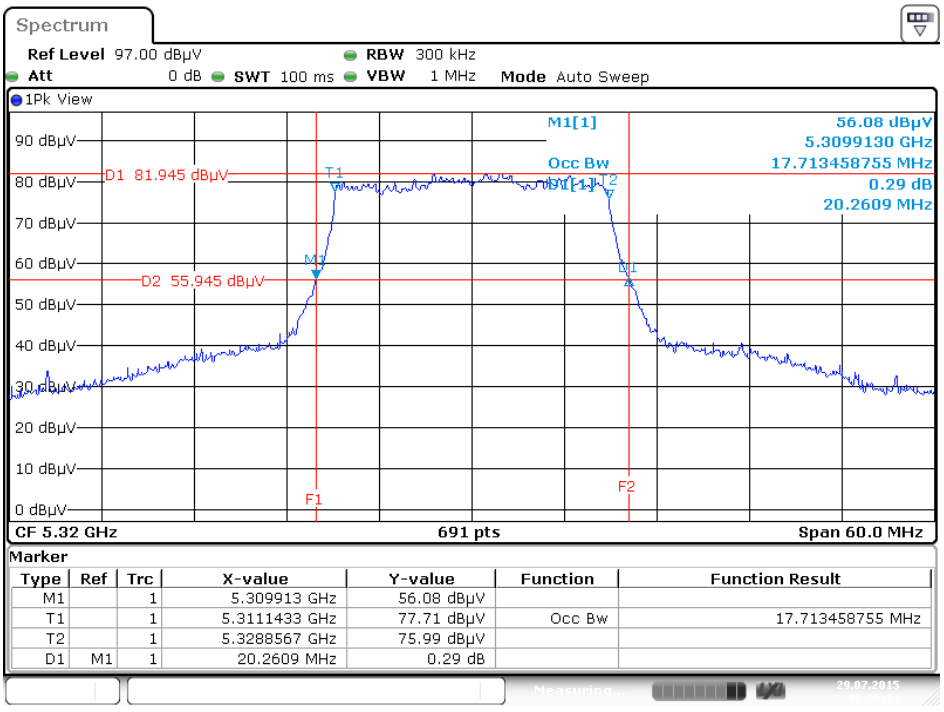
Date: 29.JUL.2015 02:05:17

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5300 MHz



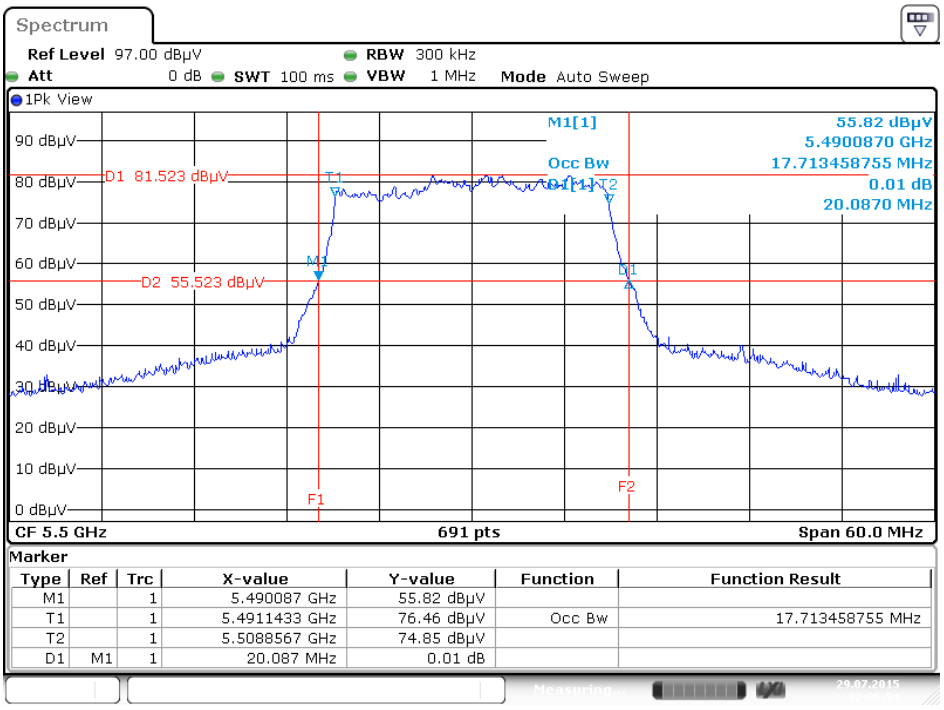
Date: 29.JUL.2015 02:05:54

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5320 MHz



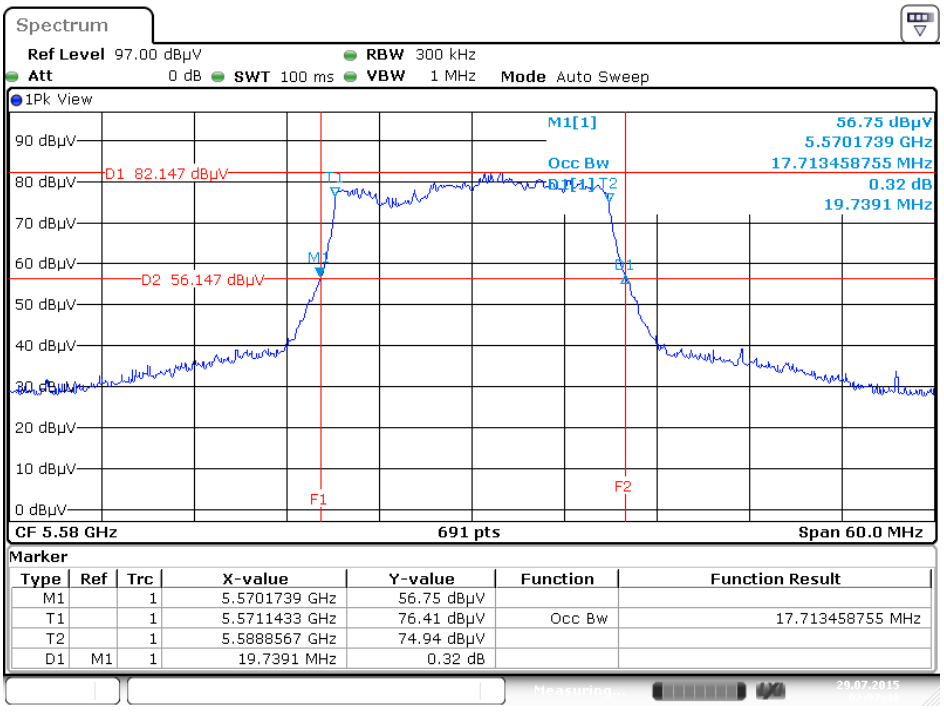
Date: 29.JUL.2015 02:06:24

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5500 MHz



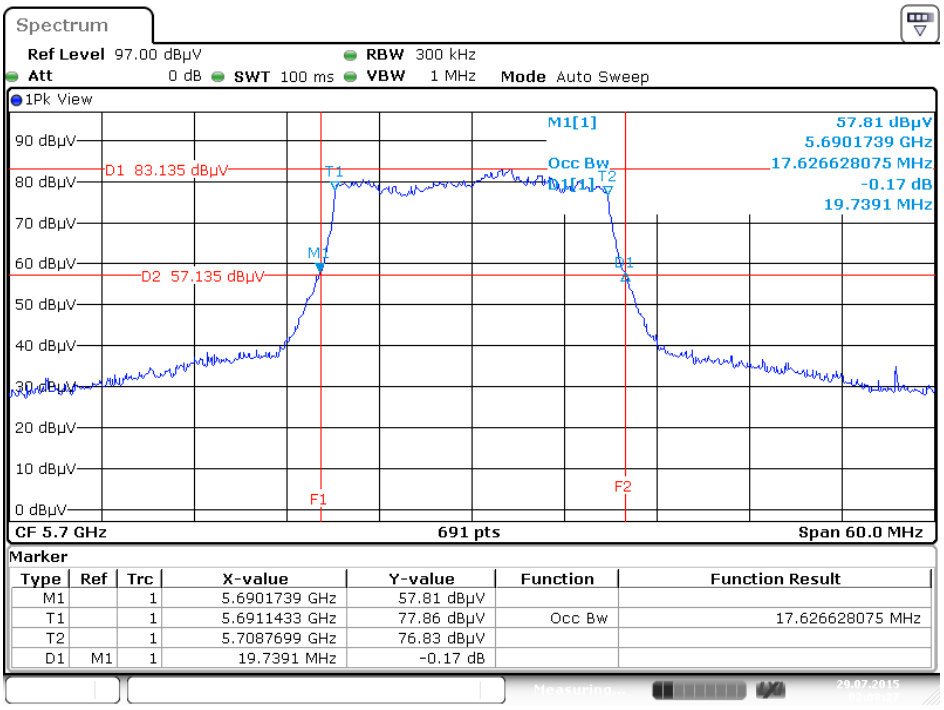
Date: 29.JUL.2015 02:06:54

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5580 MHz



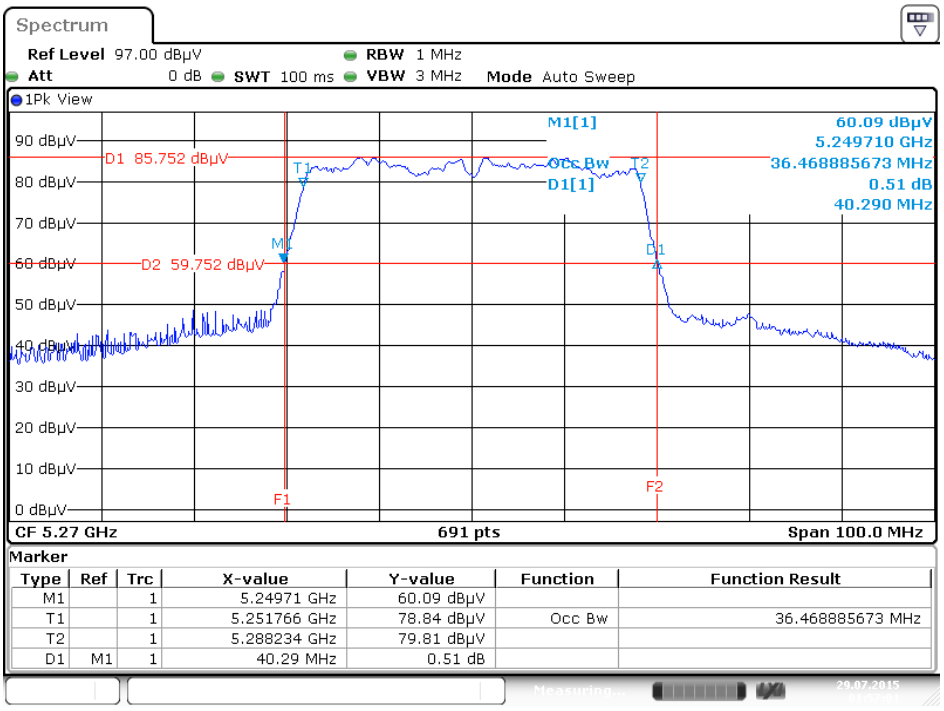
Date: 29.JUL.2015 02:07:48

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5700 MHz



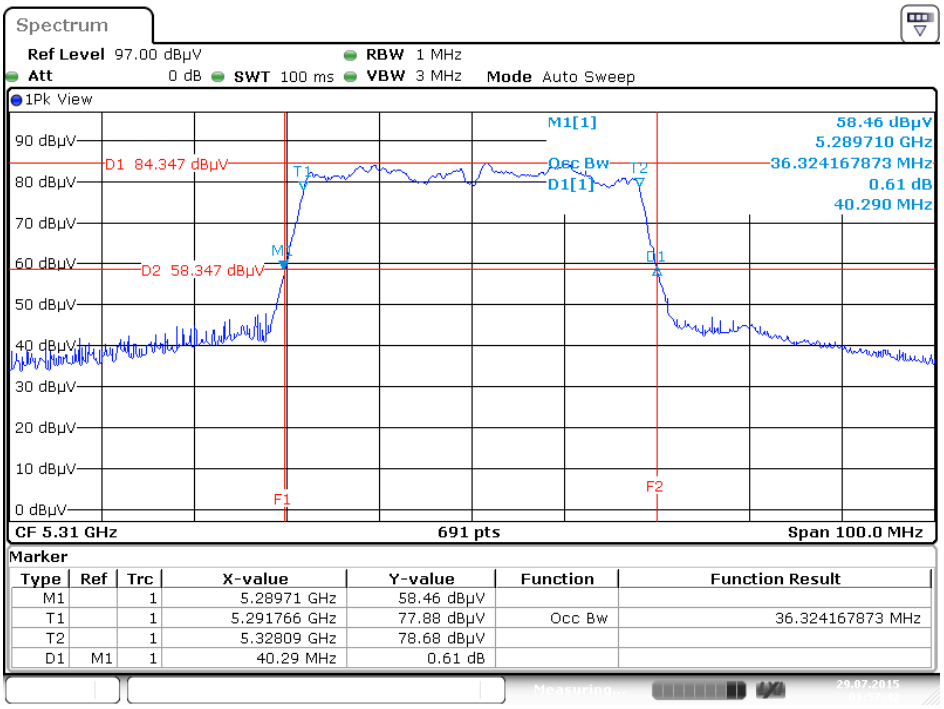
Date: 29.JUL.2015 02:08:27

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5270 MHz



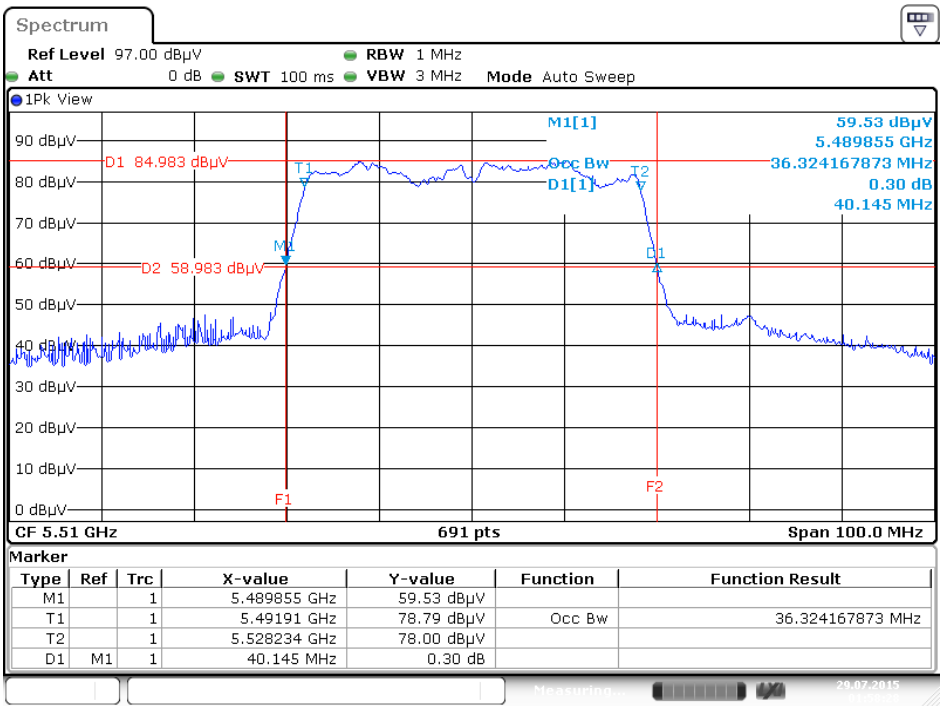
Date: 29.JUL.2015 01:57:01

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5310 MHz



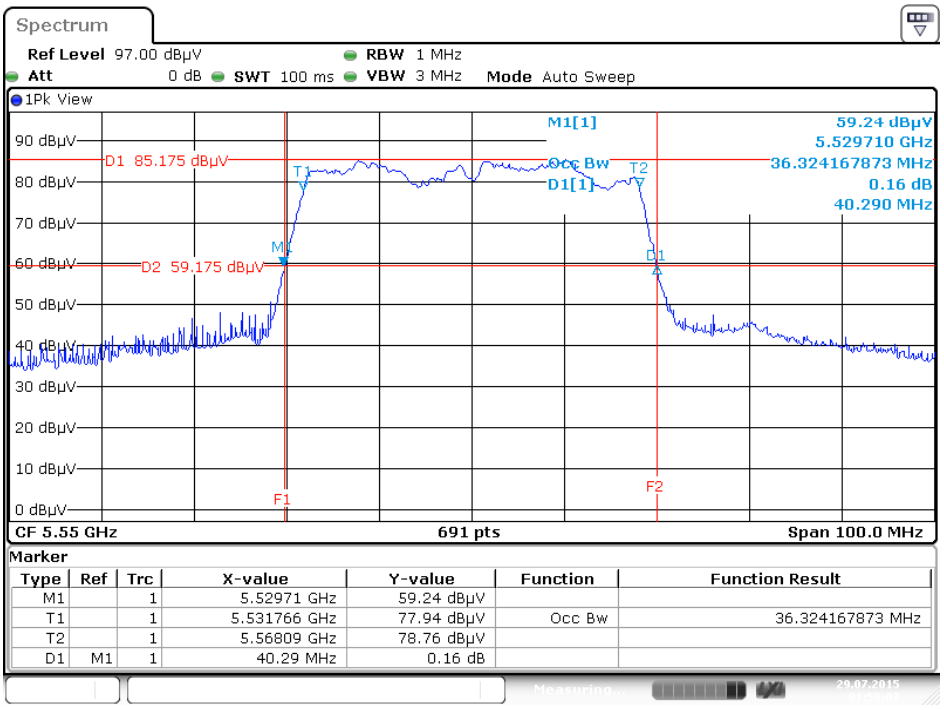
Date: 29.JUL.2015 01:57:42

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5510 MHz



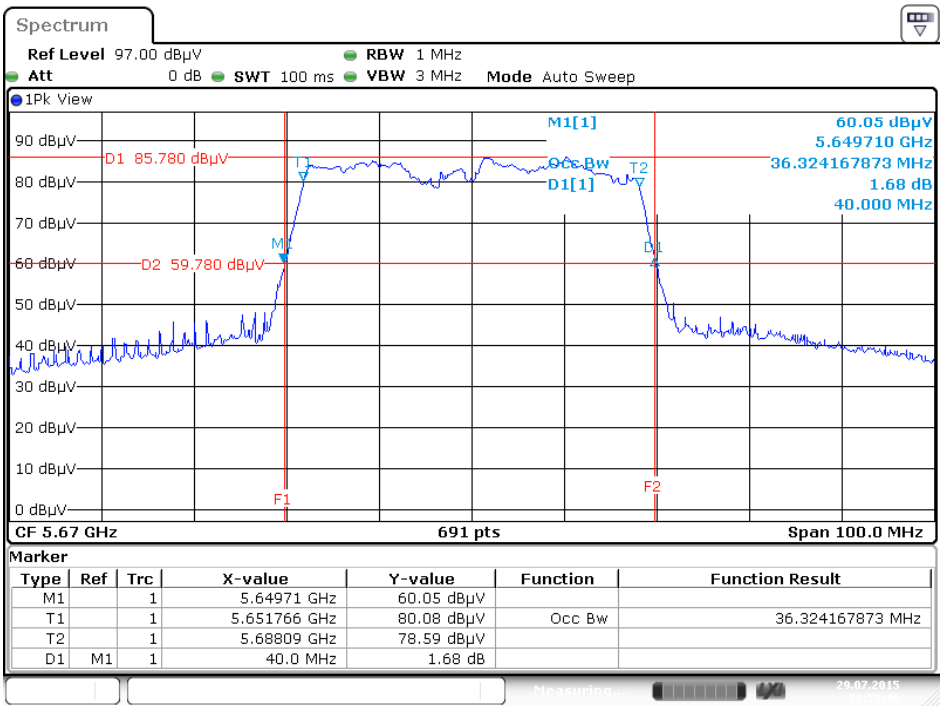
Date: 29.JUL.2015 01:58:29

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5550 MHz



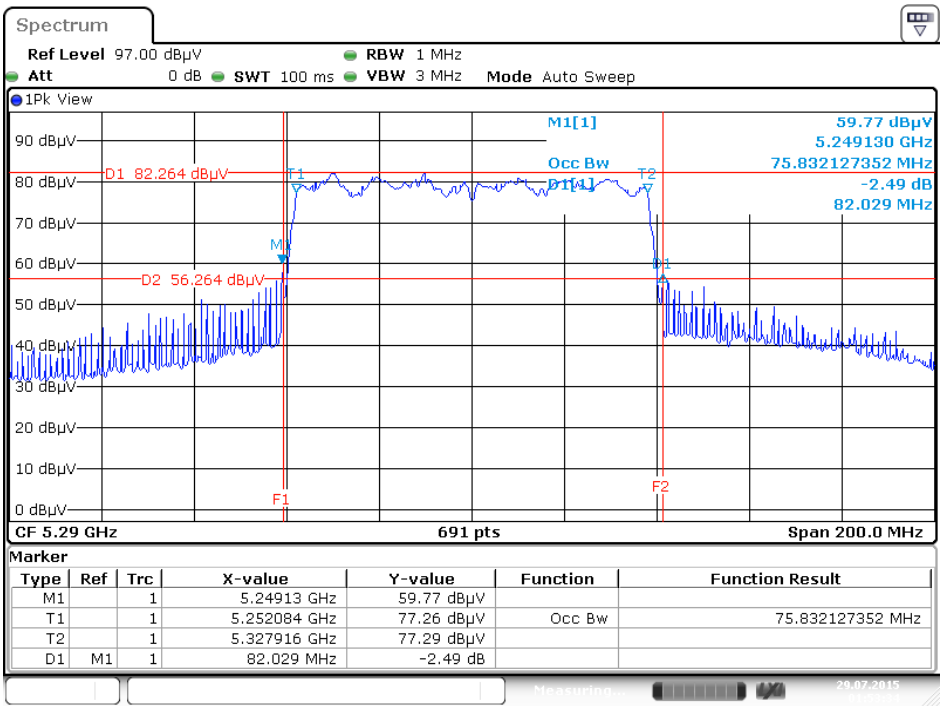
Date: 29.JUL.2015 01:59:07

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5670 MHz



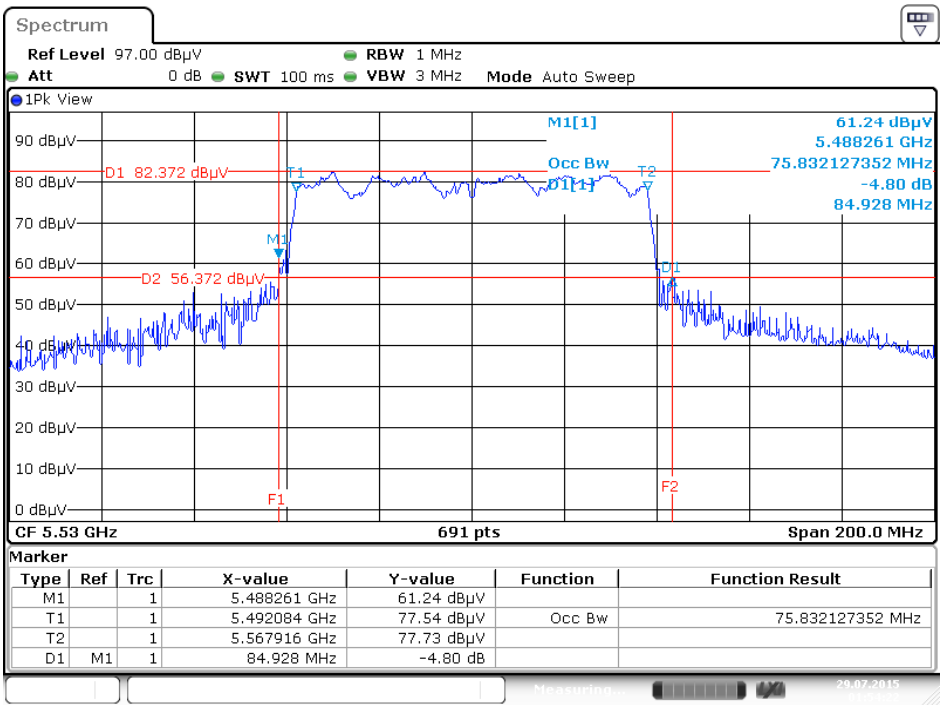
Date: 29.JUL.2015 01:59:46

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 + Chain 5 + Chain 6 / 5290 MHz



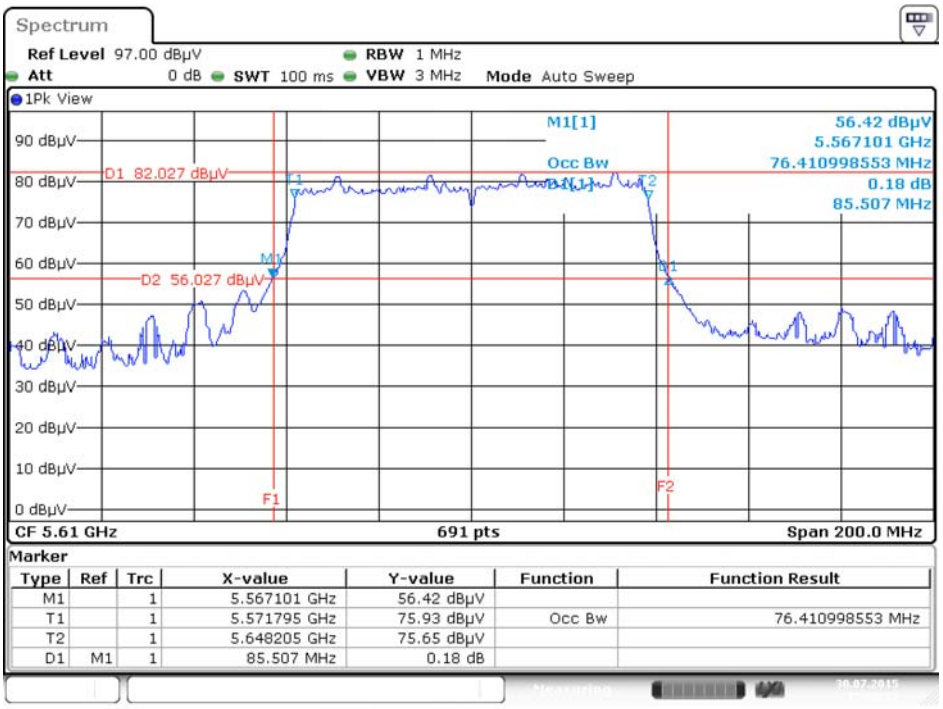
Date: 29.JUL.2015 01:53:35

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 + Chain 5 + Chain 6 / 5530 MHz



Date: 29.JUL.2015 01:54:22

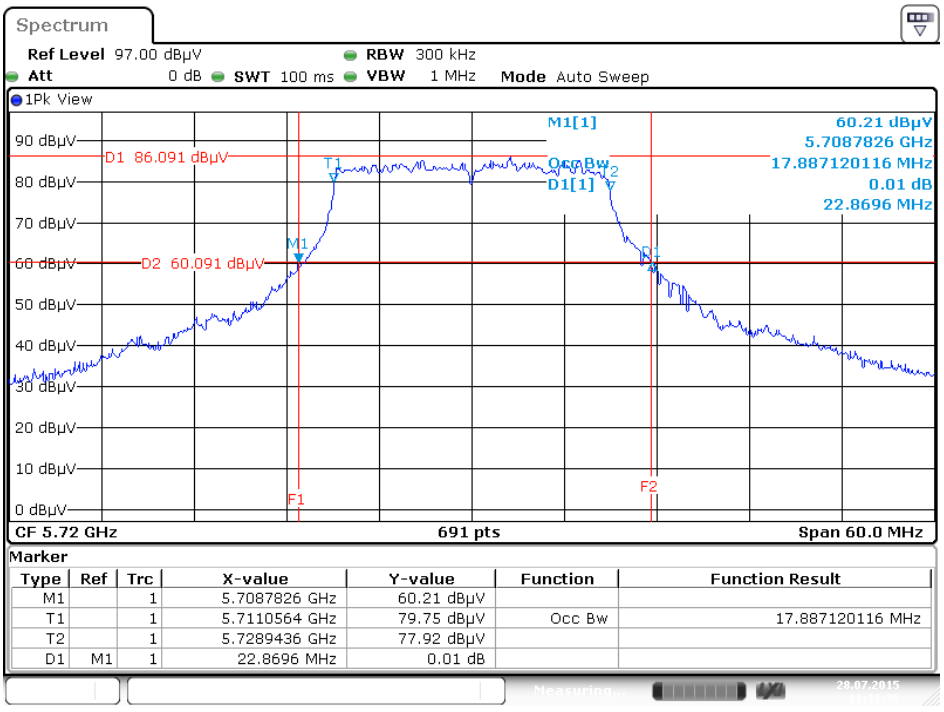
26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 + Chain 5 + Chain 6 / 5610 MHz



Date: 30.JUL.2015 15:30:12

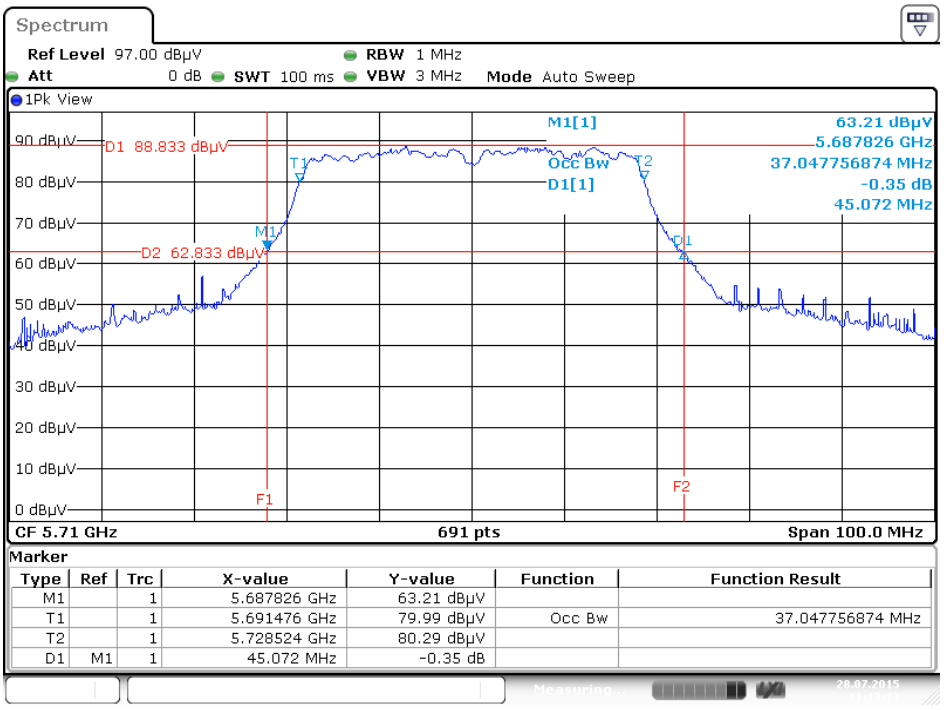
Straddle Channel

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 + Chain 6 5720 MHz



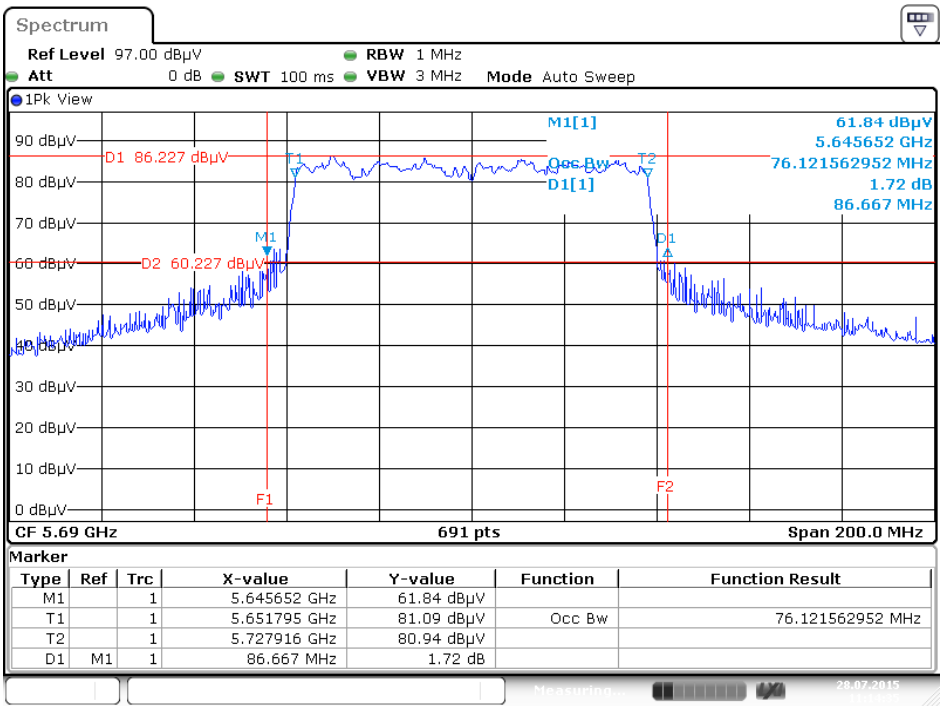
Date: 28.JUL.2015 11:11:36

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5710 MHz



Date: 28.JUL.2015 11:13:14

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 + Chain 5 + Chain 6 / 5690 MHz



Date: 28.JUL.2015 11:14:35

<For Radio 2 Beamforming Mode>: 3TX, 2S

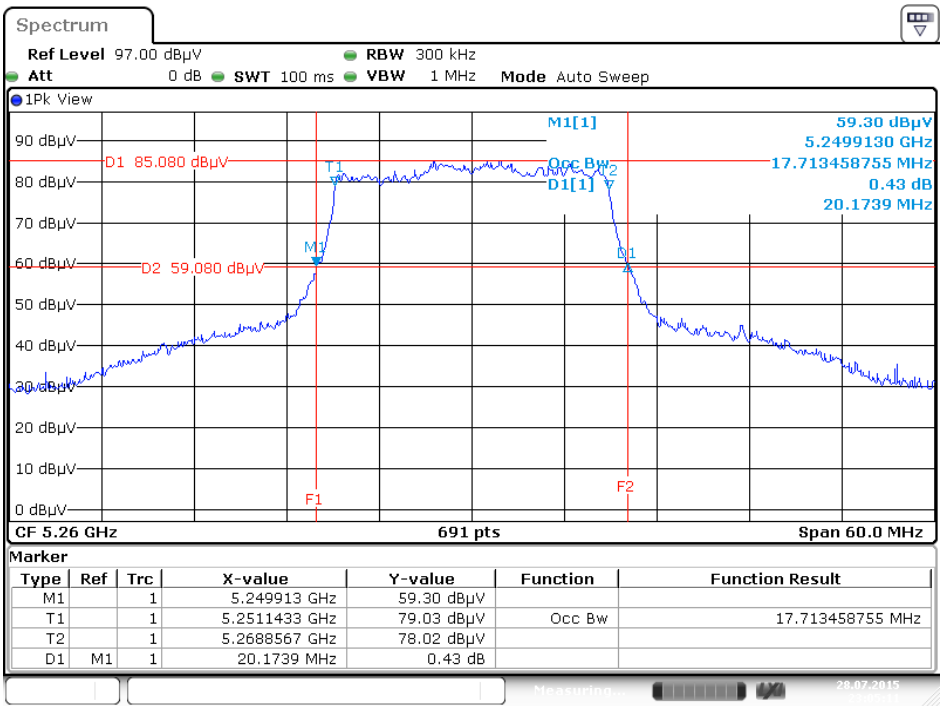
Temperature	25°C	Humidity	55%
Test Engineer	Eddie Weng		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11ac MCS0/Nss2 VHT20	5260 MHz	20.17	17.71
	5300 MHz	20.00	17.71
	5320 MHz	19.91	17.71
	5500 MHz	19.91	17.71
	5580 MHz	19.91	17.71
	5700 MHz	19.74	17.63
802.11ac MCS0/Nss2 VHT40	5270 MHz	40.15	36.32
	5310 MHz	40.00	36.32
	5510 MHz	40.15	36.18
	5550 MHz	40.00	36.32
	5670 MHz	39.86	36.32
802.11ac MCS0/Nss2 VHT80	5290 MHz	86.09	75.83
	5530 MHz	86.67	75.83
	5610 MHz	85.80	76.41

Straddle Channel

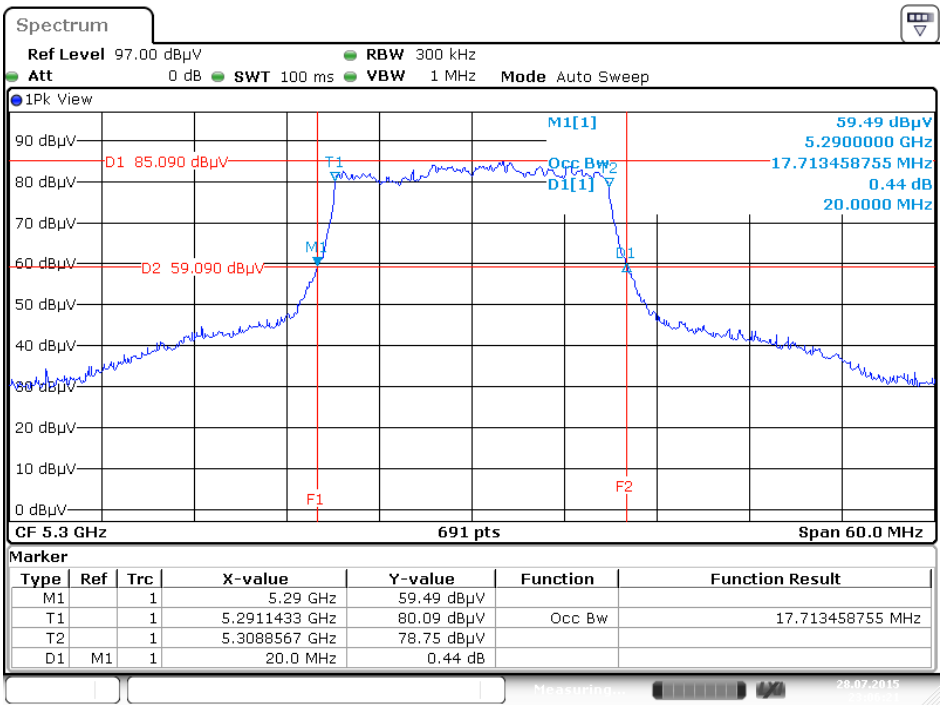
Mode	Frequency	26dB BW (MHz)	99% OBW (MHz)	26dB BW F1 (MHz)	99% OBW T1 (MHz)	UNII 2C 26dB BW (MHz)	UNII 3 26dB BW (MHz)	UNII 2C 99% BW (MHz)	UNII 3 99% BW (MHz)
802.11ac MCS0/Nss2 VHT20	5720 MHz	22.52	17.97	5709.13	5711.06	15.87	6.65	13.94	4.03
802.11ac MCS0/Nss2 VHT40	5710 MHz	44.93	36.90	5687.83	5691.62	37.17	7.75	33.38	3.52
802.11ac MCS0/Nss2 VHT80	5690 MHz	84.34	76.12	5647.39	5651.80	77.61	6.73	73.20	2.92

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5260 MHz



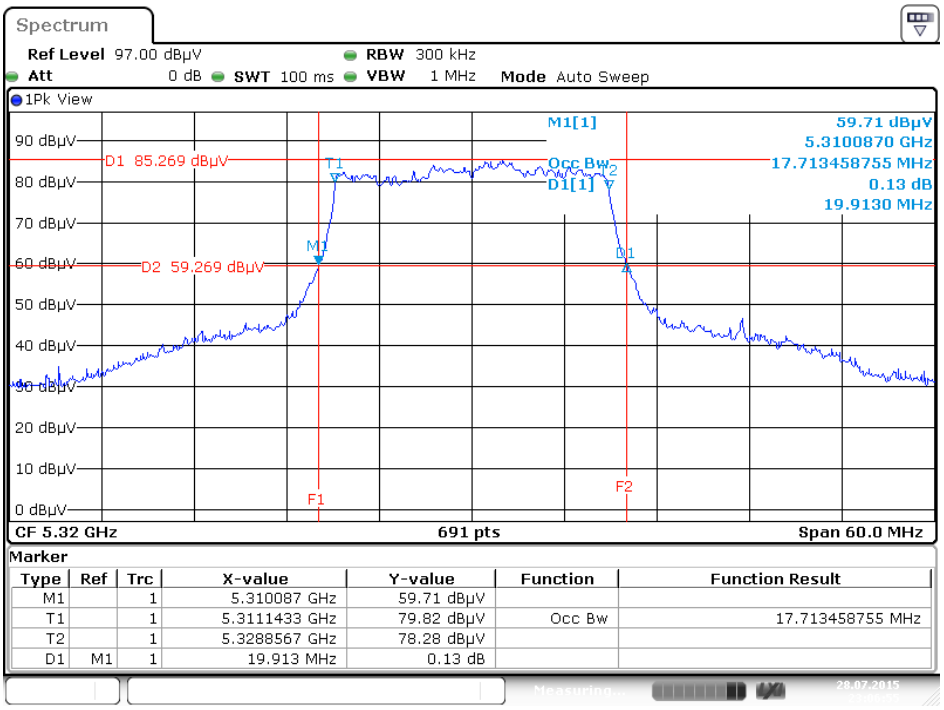
Date: 28.JUL.2015 23:05:12

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5300 MHz



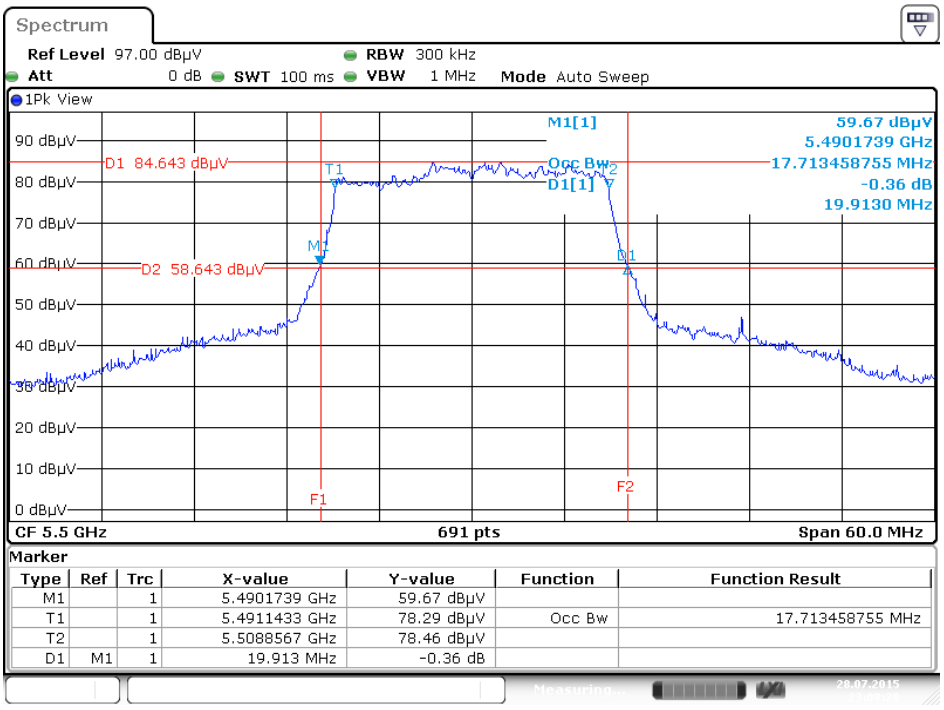
Date: 28.JUL.2015 23:06:21

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5320 MHz



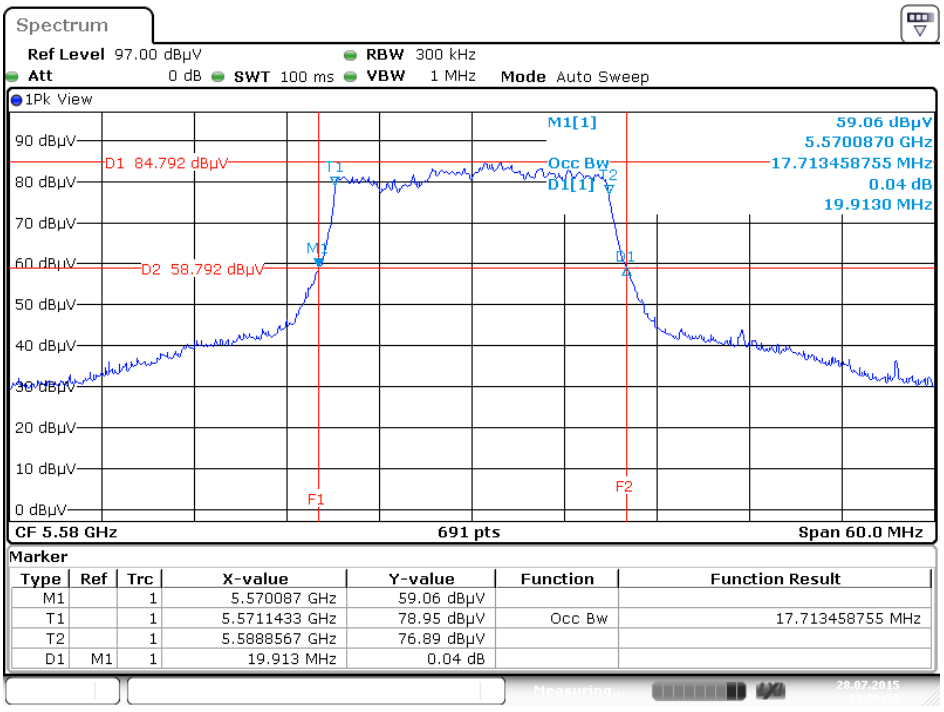
Date: 28.JUL.2015 23:06:55

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5500 MHz



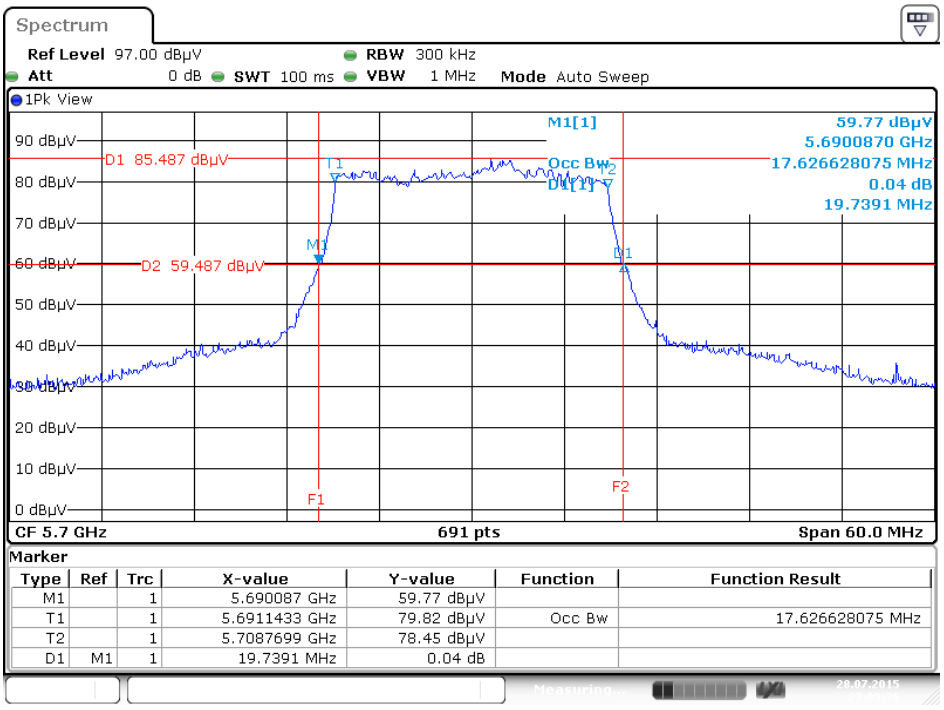
Date: 28.JUL.2015 23:08:28

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5580 MHz



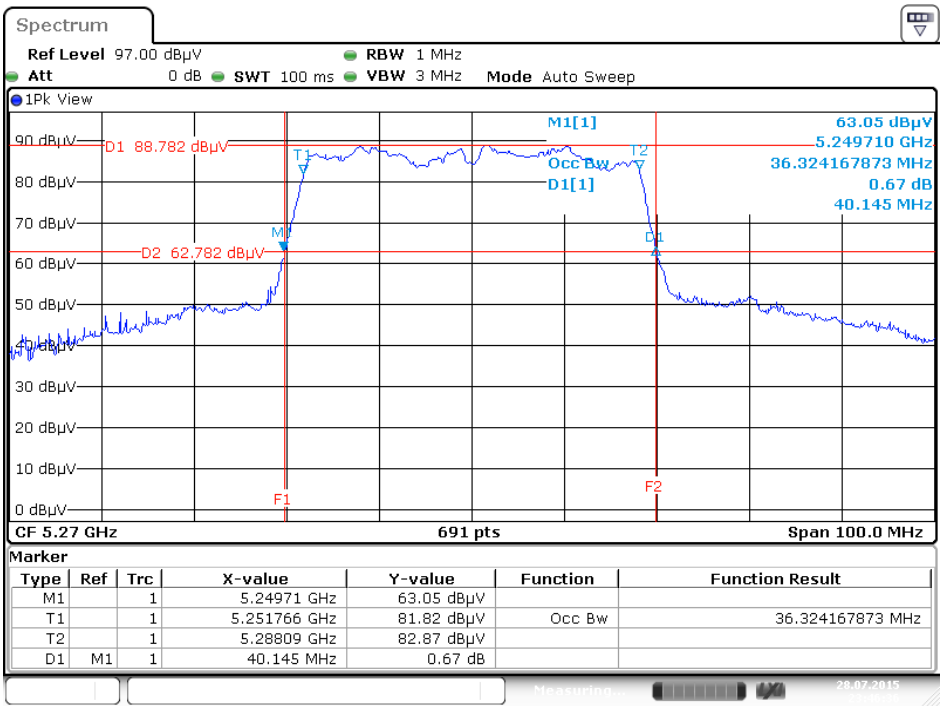
Date: 28.JUL.2015 23:08:58

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4 + Chain 5 + Chain 6 / 5700 MHz



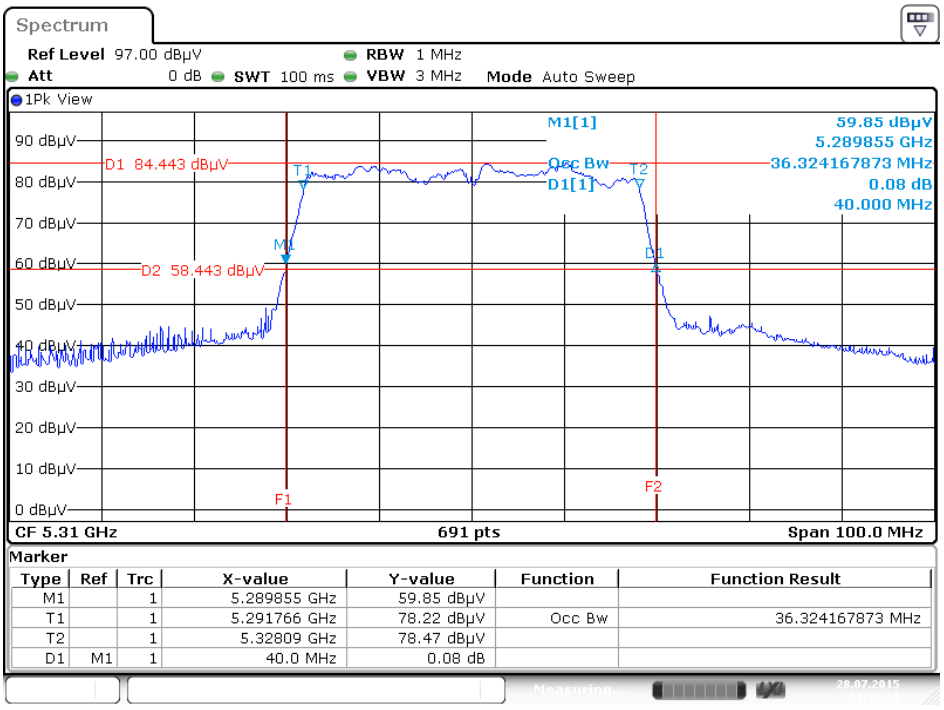
Date: 28.JUL.2015 23:09:37

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5270 MHz



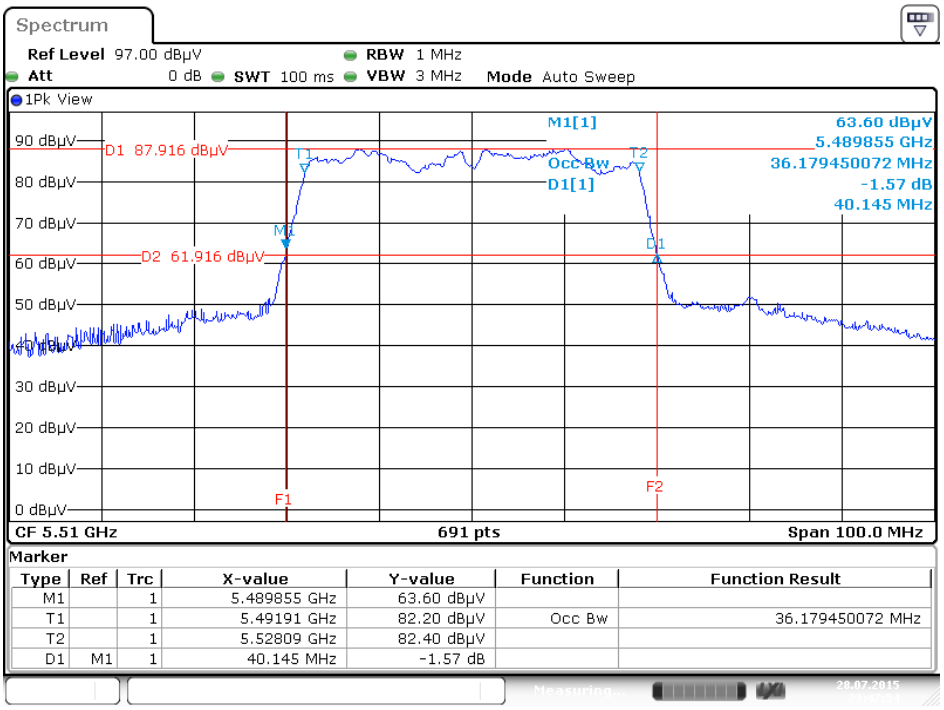
Date: 28.JUL.2015 23:46:36

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5310 MHz



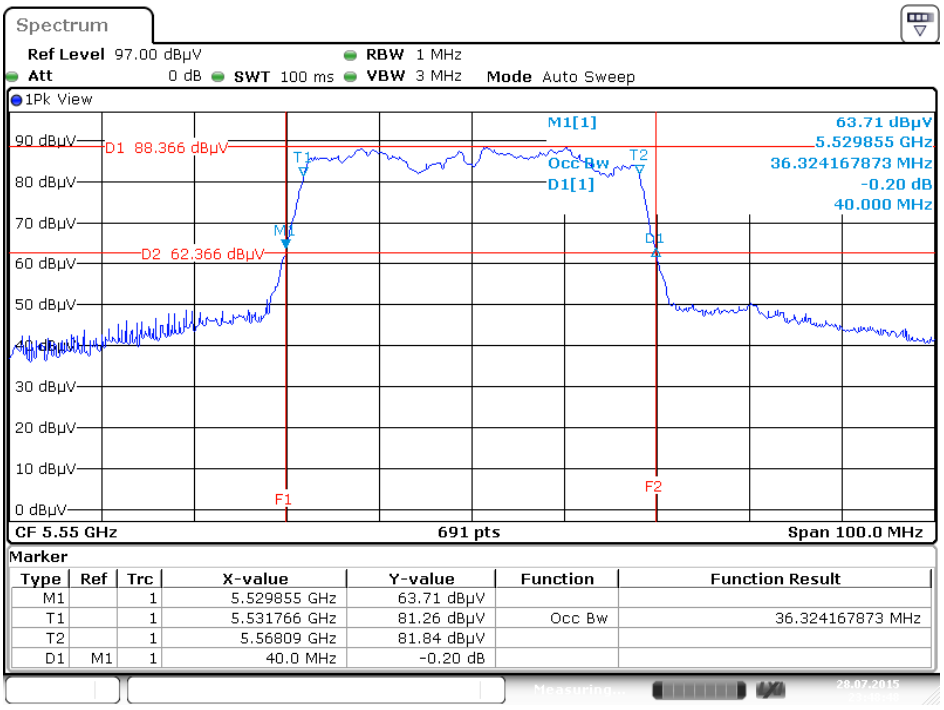
Date: 28.JUL.2015 23:47:12

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5510 MHz



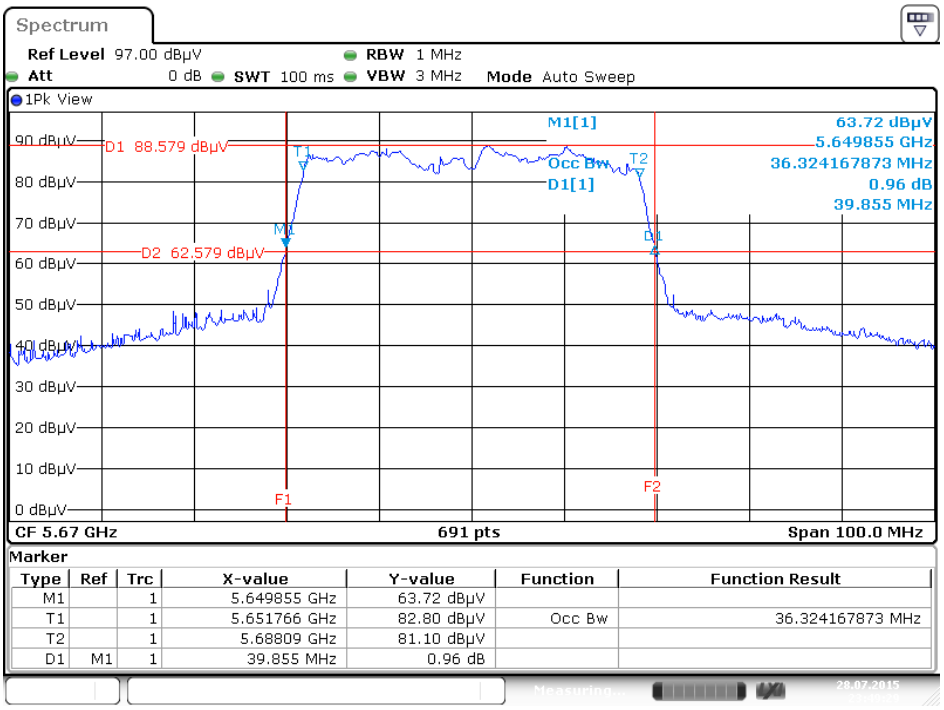
Date: 28.JUL.2015 23:47:54

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5550 MHz



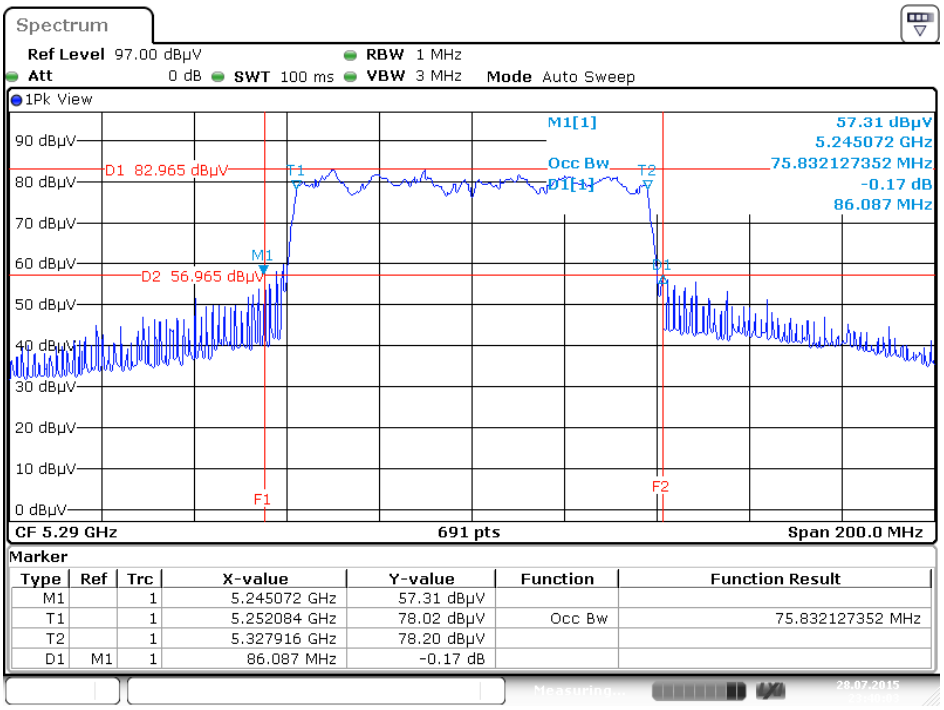
Date: 28.JUL.2015 23:48:47

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5670 MHz



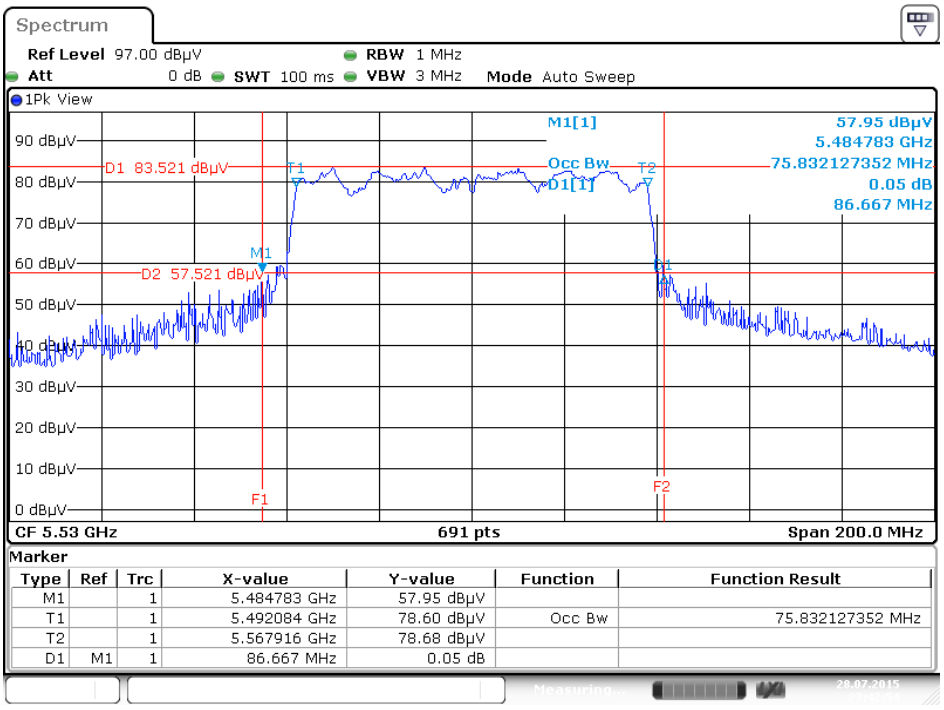
Date: 28.JUL.2015 23:49:30

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4 + Chain 5 + Chain 6 / 5290 MHz



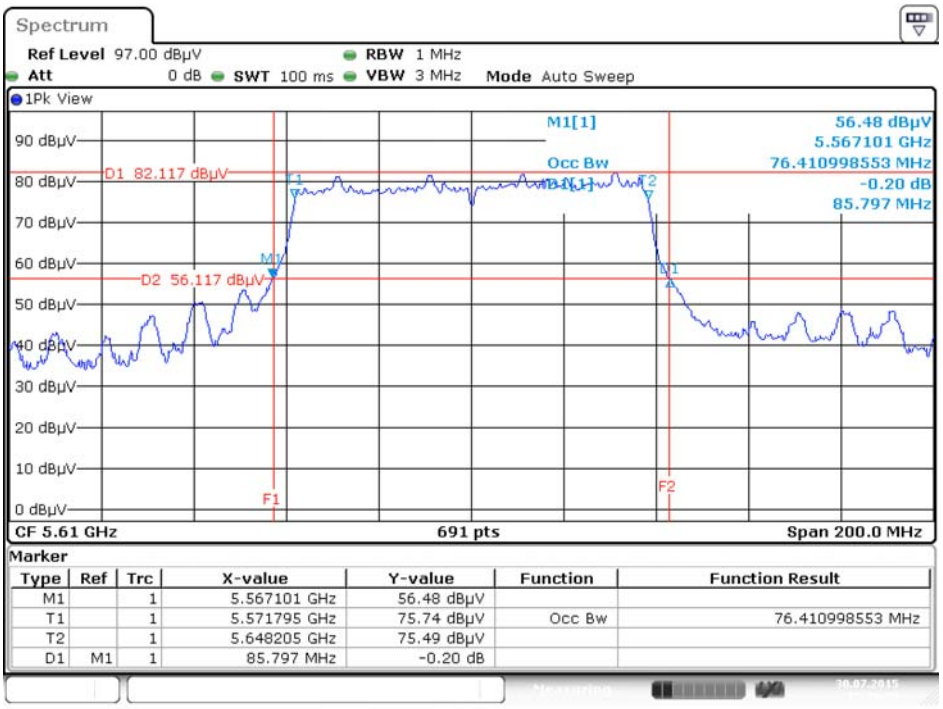
Date: 28.JUL.2015 23:40:03

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4 + Chain 5 + Chain 6 / 5530 MHz



Date: 28.JUL.2015 23:42:54

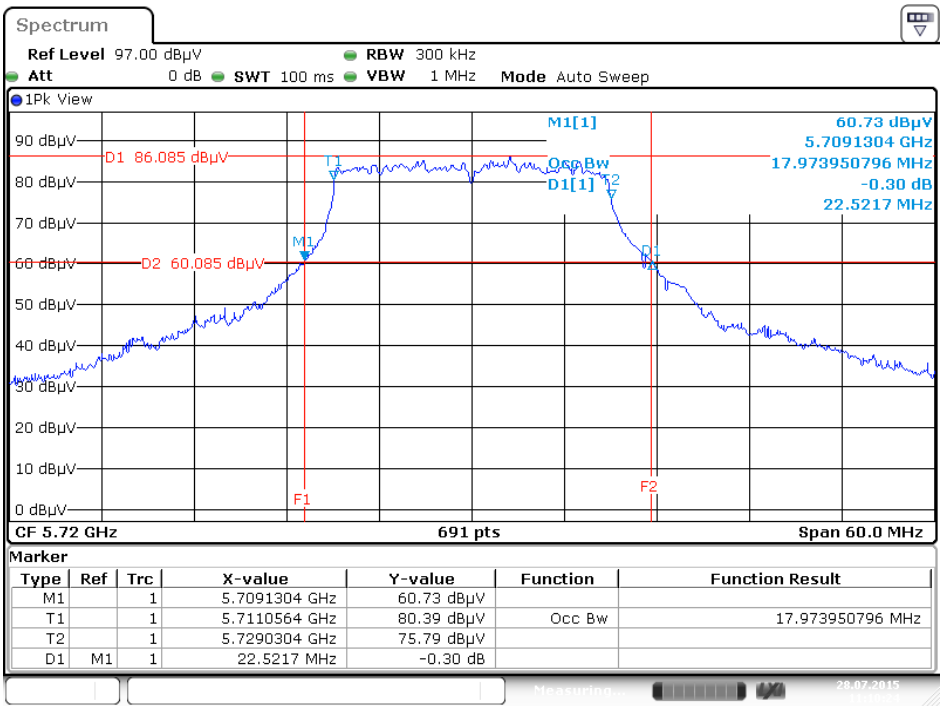
26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4 + Chain 5 + Chain 6 / 5610 MHz



Date: 30.JUL.2015 15:29:54

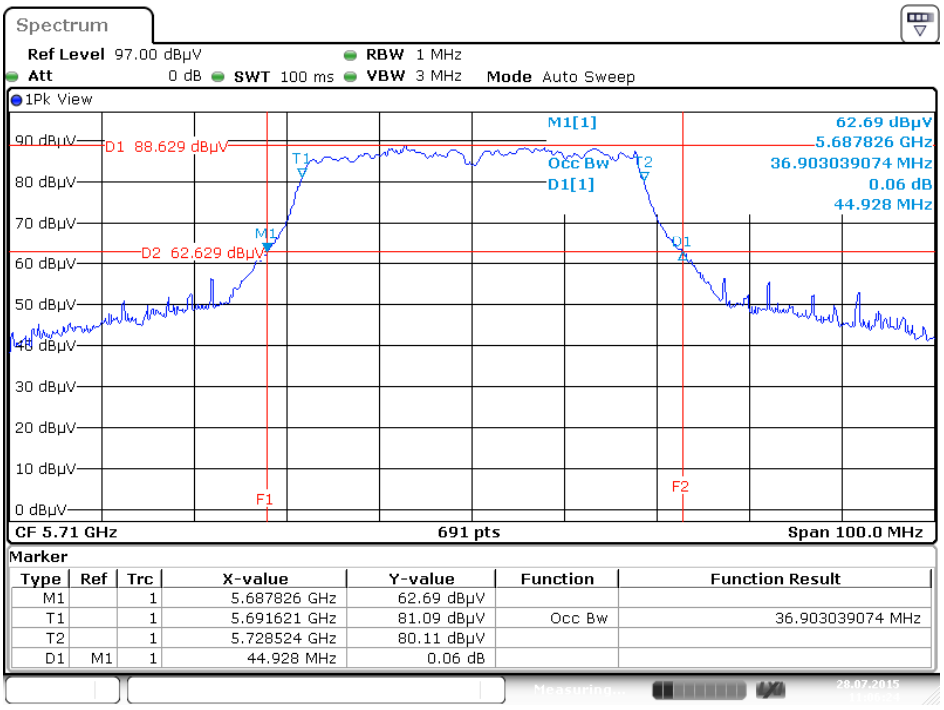
Straddle Channel

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2VHT20 / Chain 4 + Chain 5 + Chain 6 / 5720 MHz



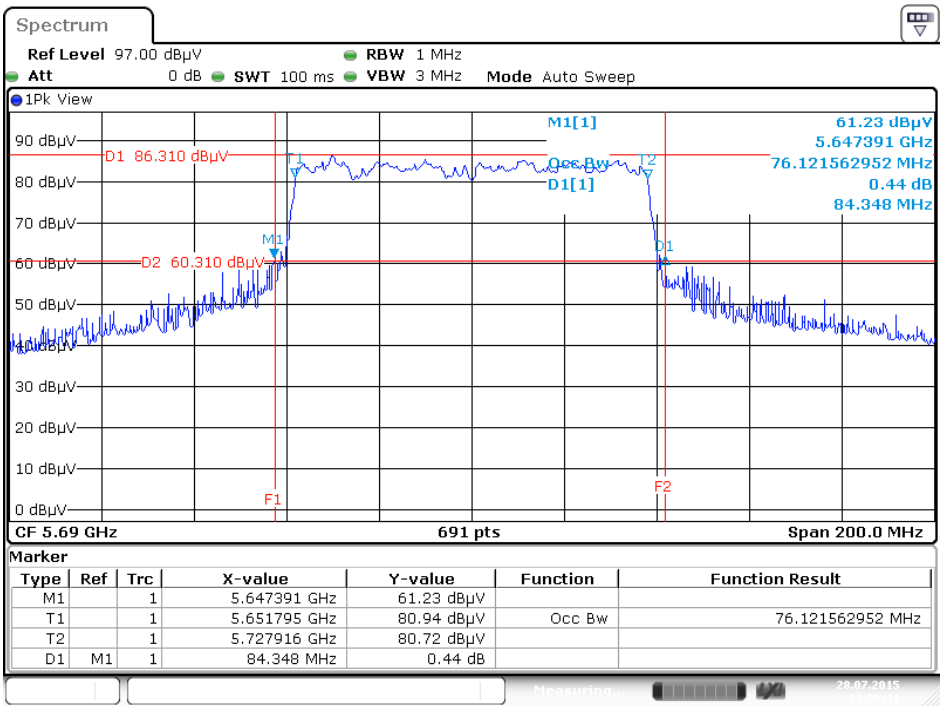
Date: 28.JUL.2015 11:10:24

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4 + Chain 5 + Chain 6 / 5710 MHz



Date: 28.JUL.2015 11:06:24

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4 + Chain 5 + Chain 6 / 5690 MHz



Date: 28.JUL.2015 11:08:41

<For Radio 3>

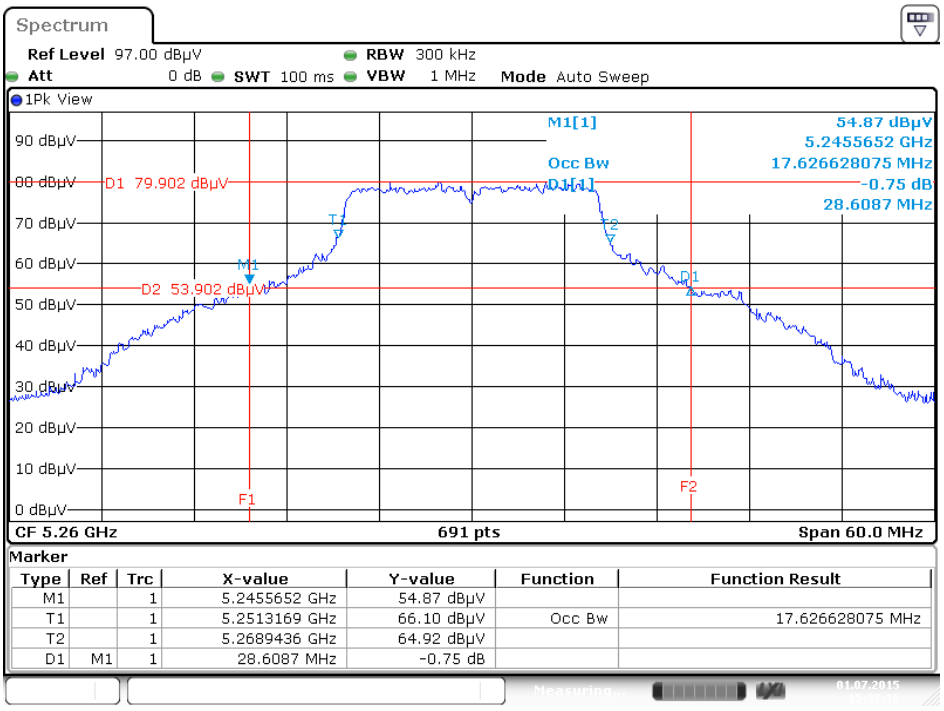
Temperature	25℃	Humidity	55%
Test Engineer	Clemens Fang		

Mode	Frequency	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
802.11a	5260 MHz	28.61	17.63
	5300 MHz	28.87	17.71
	5320 MHz	28.78	17.54
	5500 MHz	25.74	17.11
	5580 MHz	24.52	17.11
	5700 MHz	25.04	17.19
802.11ac MCS0/Nss1 VHT20	5260 MHz	29.04	18.76
	5300 MHz	29.83	18.58
	5320 MHz	29.65	18.41
	5500 MHz	26.78	18.23
	5580 MHz	26.61	18.23
	5700 MHz	27.48	18.23
802.11ac MCS0/Nss1 VHT40	5270 MHz	56.23	37.77
	5310 MHz	55.22	37.48
	5510 MHz	53.33	37.63
	5550 MHz	51.59	37.34
	5670 MHz	54.35	37.63
802.11ac MCS0/Nss1 VHT80	5290 MHz	106.09	76.70
	5530 MHz	100.00	76.70
	5610 MHz	105.80	76.70

Straddle Channel

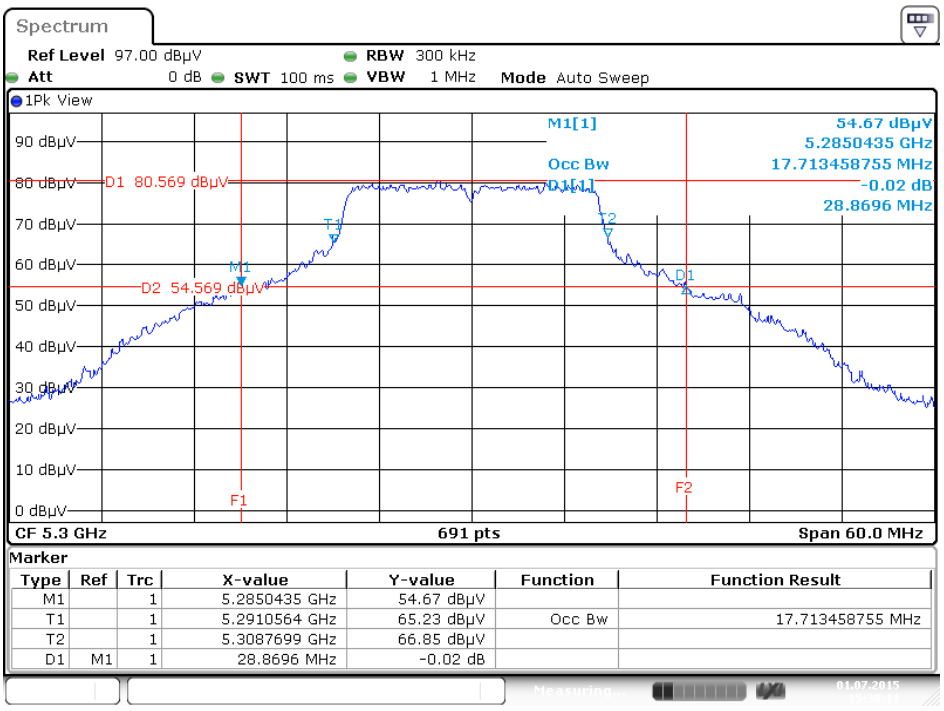
Mode	Frequency	26dB BW (MHz)	99% OBW (MHz)	26dB BW F1 (MHz)	99% OBW T1 (MHz)	UNII 2C 26dB BW (MHz)	UNII 3 26dB BW (MHz)	UNII 2C 99% BW (MHz)	UNII 3 99% BW (MHz)
802.11a	5720 MHz	27.39	17.45	5705.65	5711.23	19.35	8.04	13.77	3.68
802.11ac MCS0/Nss1 VHT20	5720 MHz	28.52	18.32	5706.43	5710.88	18.57	9.96	14.12	4.20
802.11ac MCS0/Nss1 VHT40	5710 MHz	55.36	37.77	5681.74	5691.04	43.26	12.10	33.96	3.81
802.11ac MCS0/Nss1 VHT80	5690 MHz	105.80	76.70	5635.22	5635.22	89.78	16.01	89.78	-13.08

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 7 / 5260 MHz



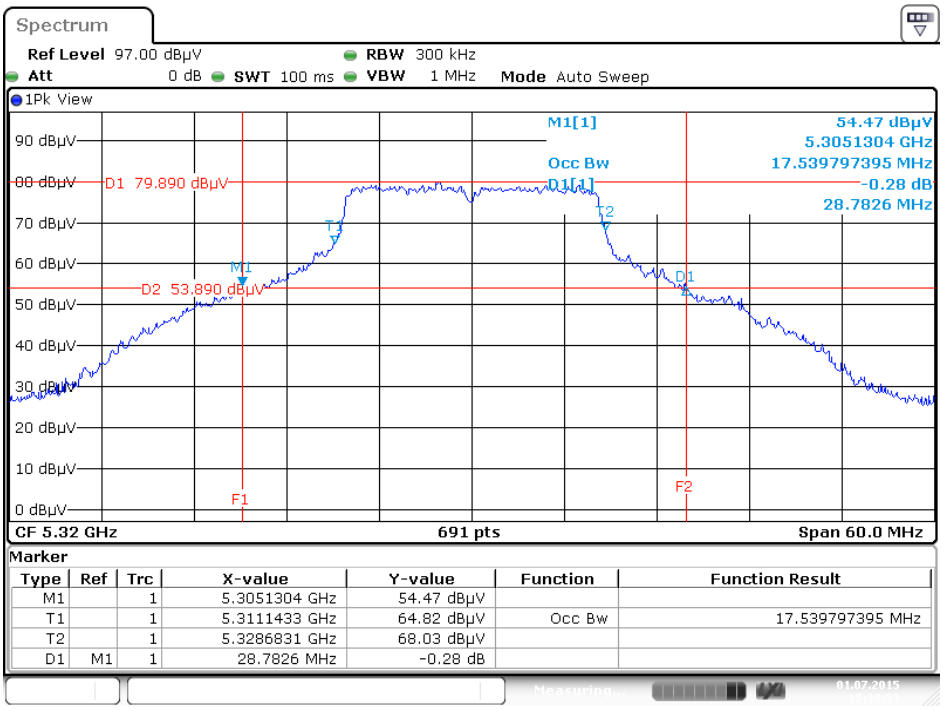
Date: 1.JUL.2015 15:37:16

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 7/ 5300 MHz



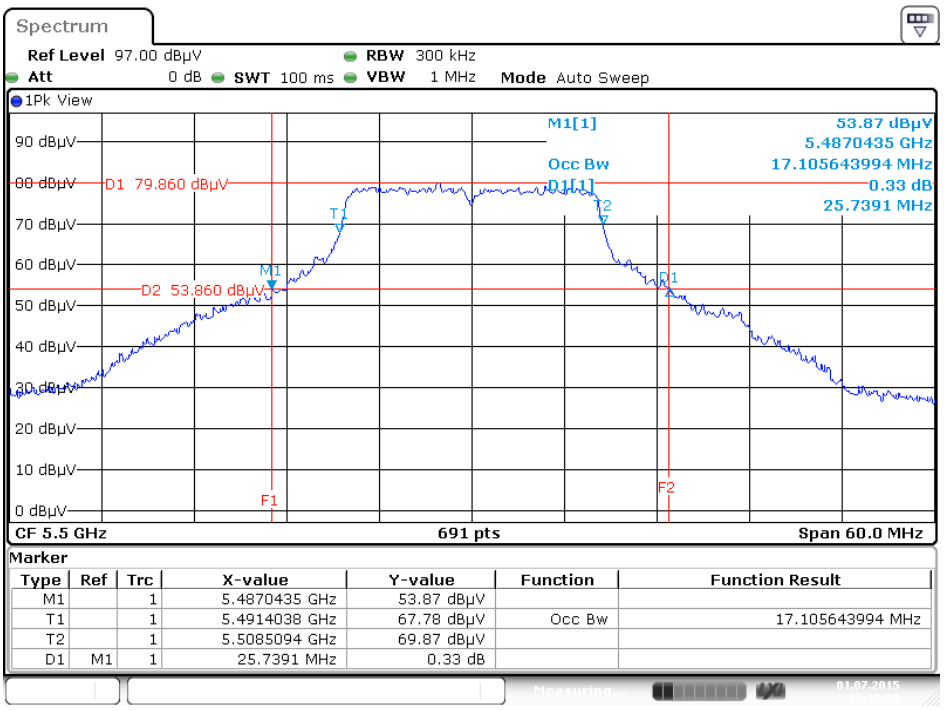
Date: 1.JUL.2015 15:38:12

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 7 / 5320 MHz



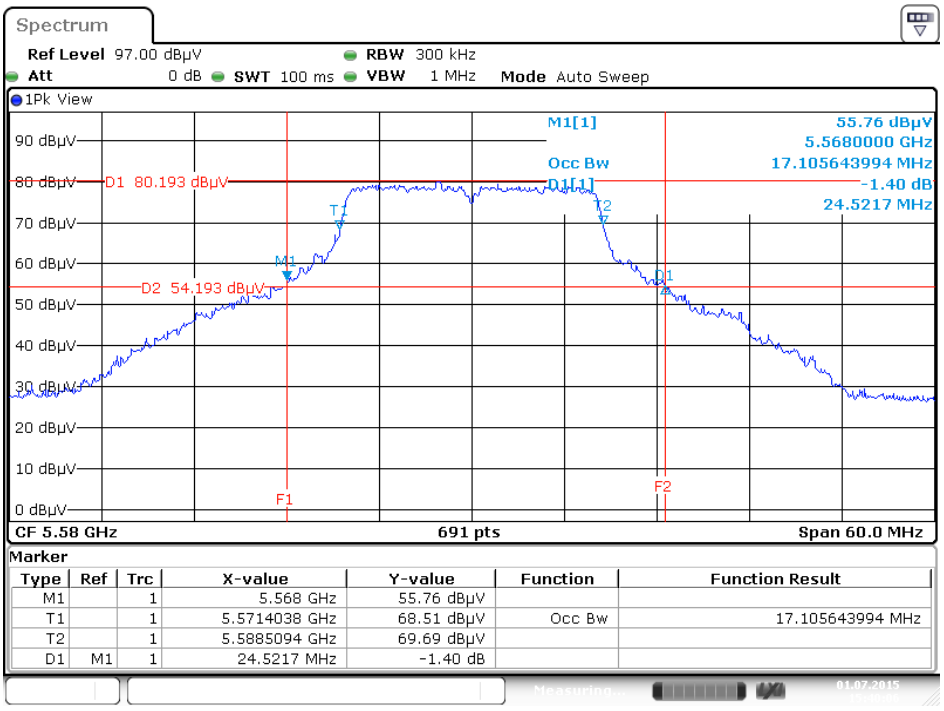
Date: 1.JUL.2015 15:38:54

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 7 / 5500 MHz



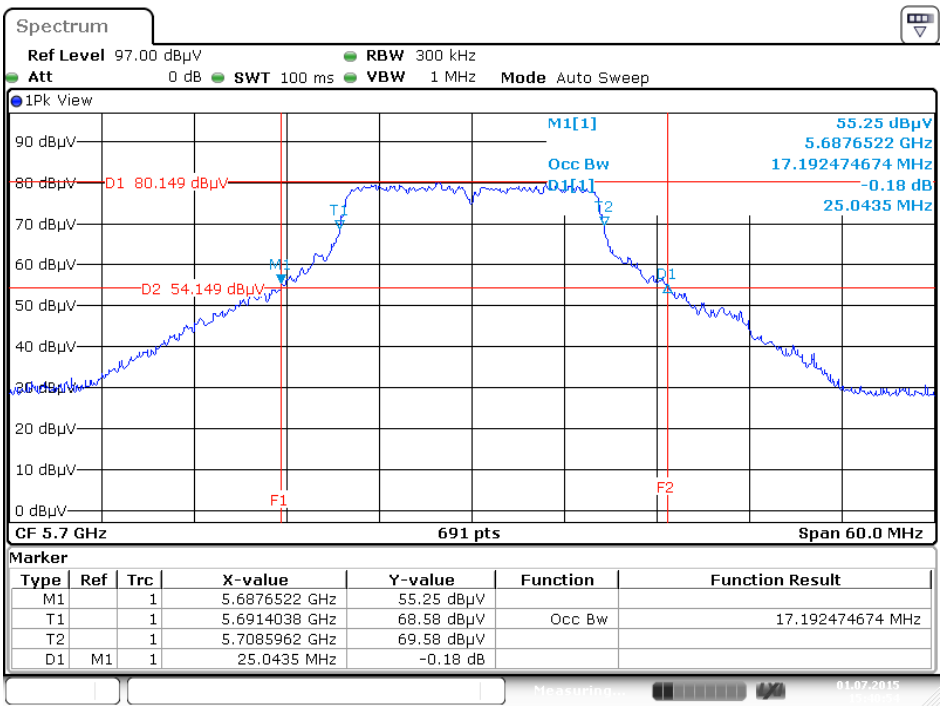
Date: 1.JUL.2015 15:39:29

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 7 / 5580 MHz



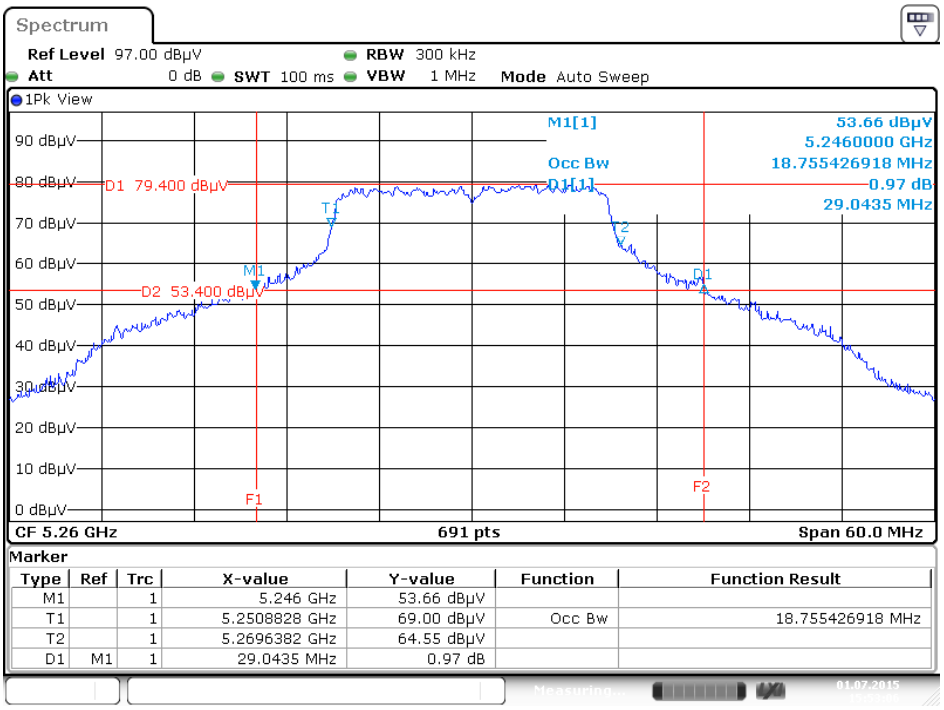
Date: 1.JUL.2015 15:40:06

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 7 / 5700 MHz



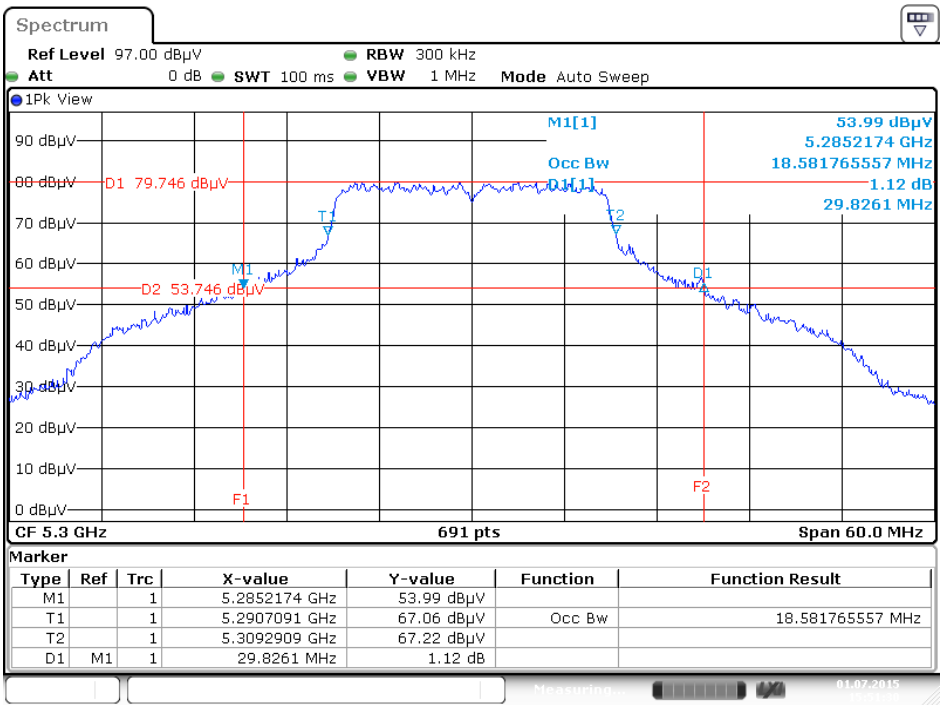
Date: 1.JUL.2015 15:40:54

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 7 / 5260 MHz



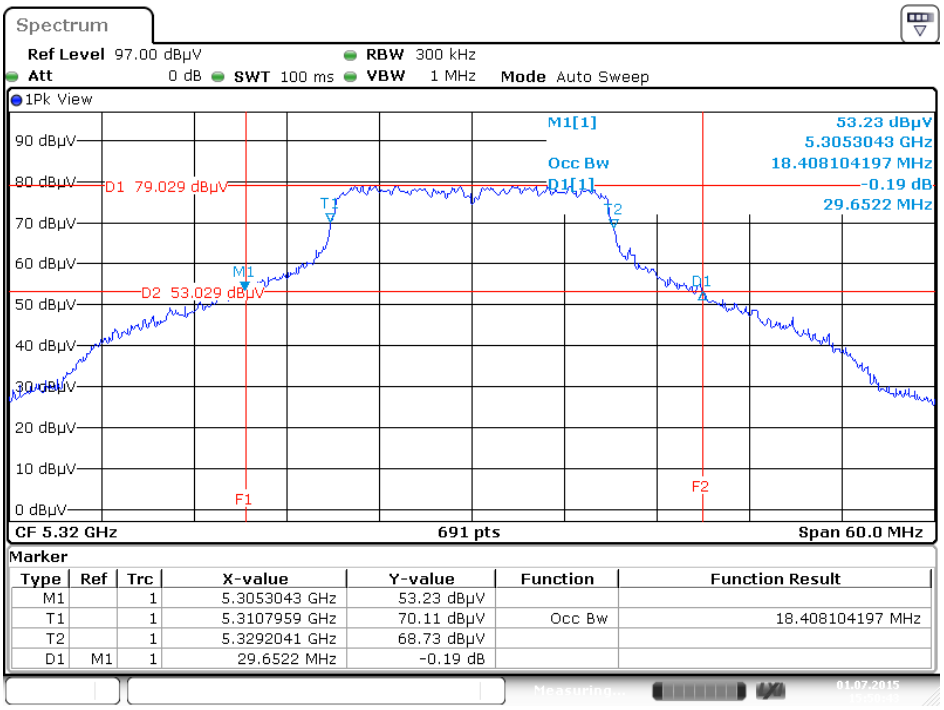
Date: 1.JUL.2015 15:53:06

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 7 / 5300 MHz



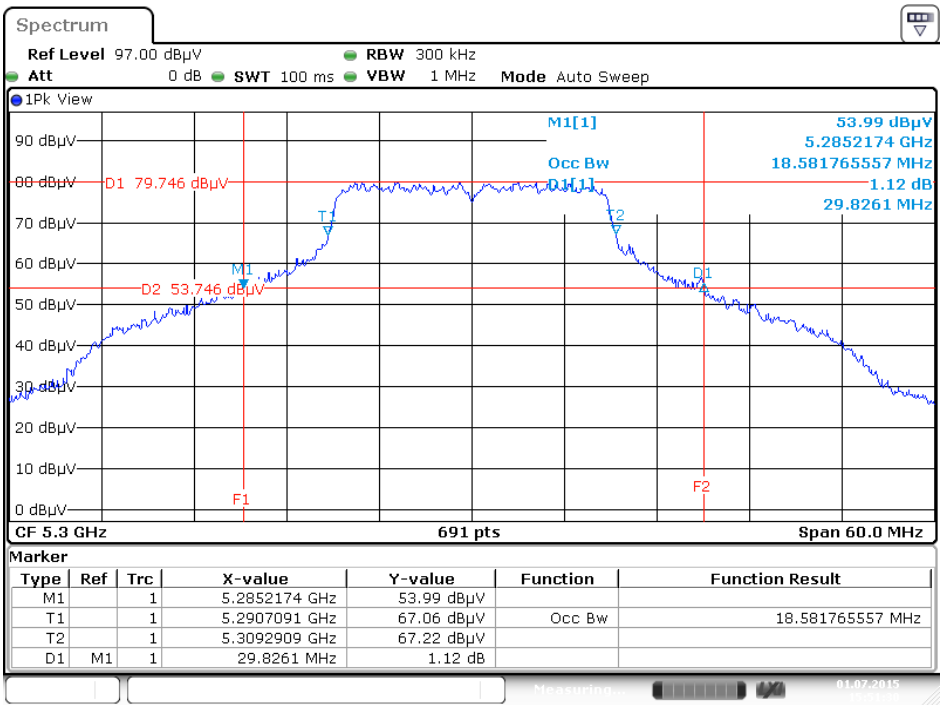
Date: 1.JUL.2015 15:51:30

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 7 / 5260 MHz



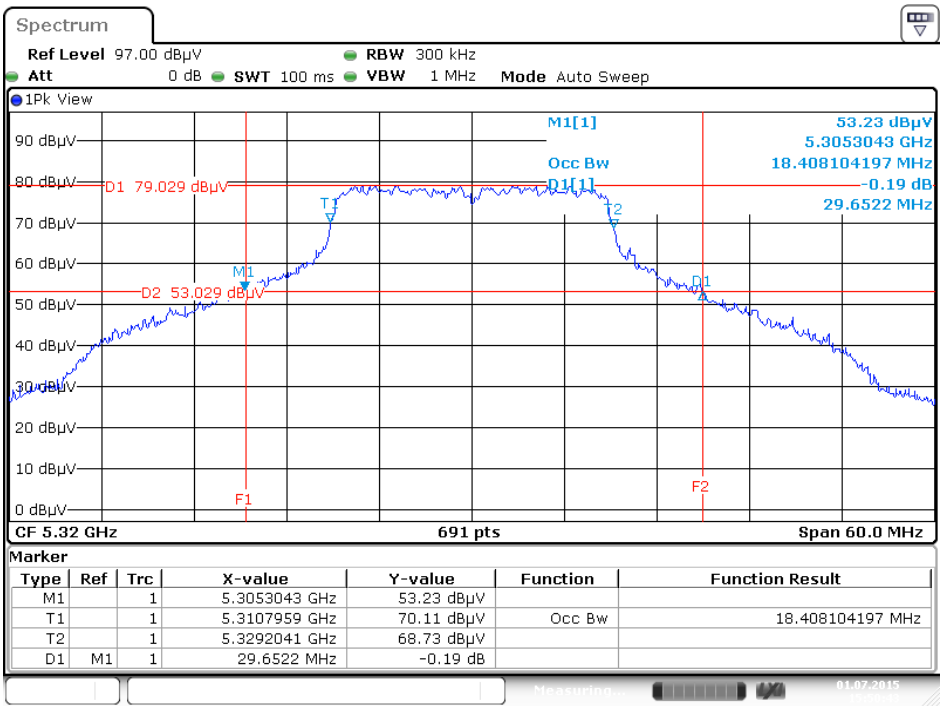
Date: 1.JUL.2015 15:50:43

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 7 / 5300 MHz



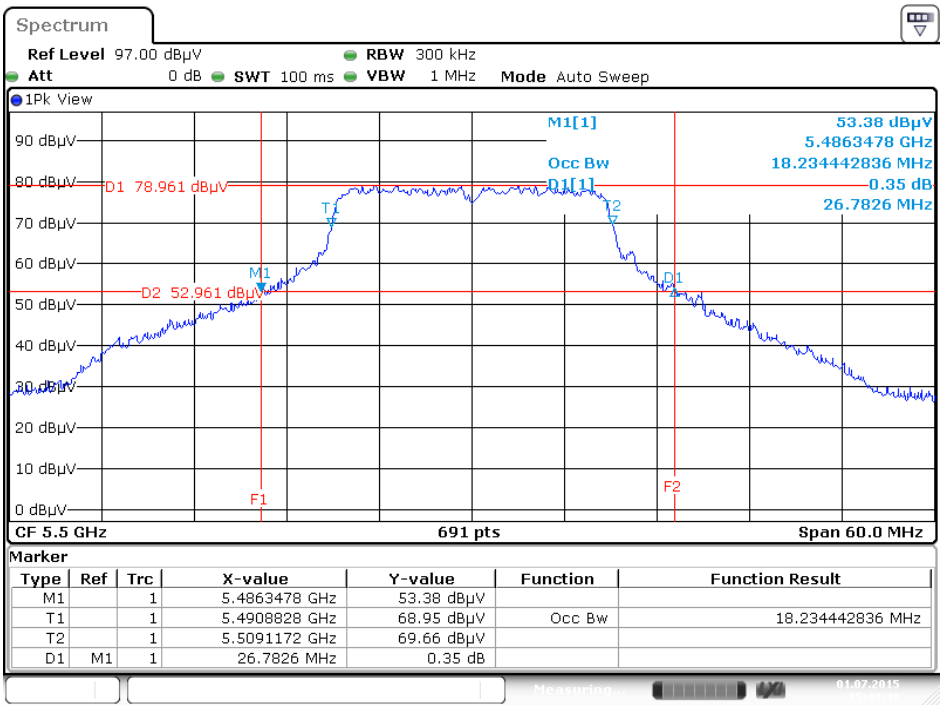
Date: 1.JUL.2015 15:51:30

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 7 / 5320 MHz



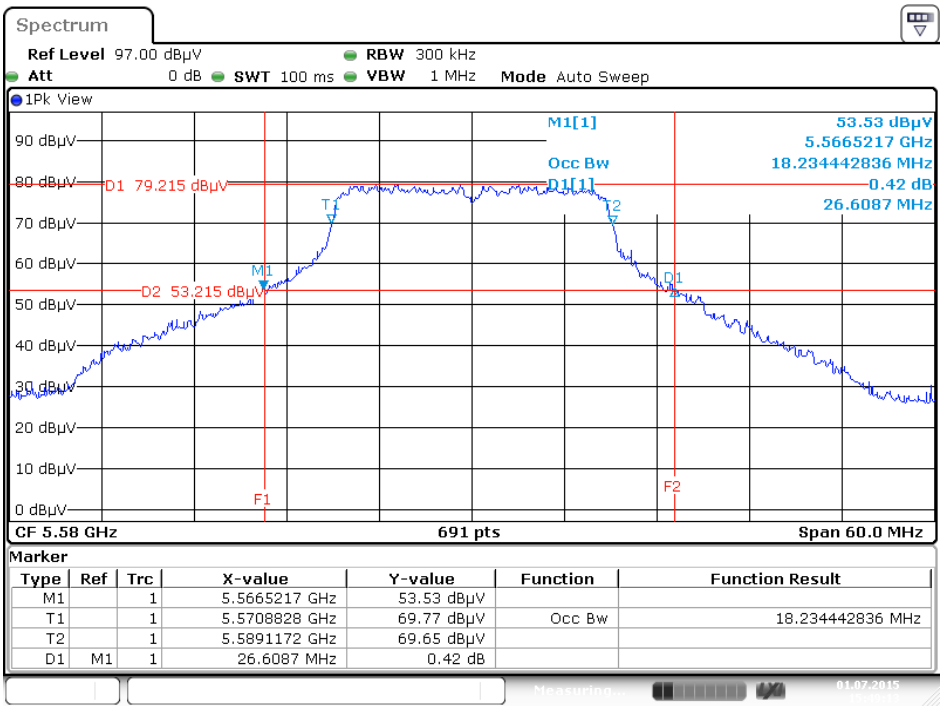
Date: 1.JUL.2015 15:50:43

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 7 / 5500 MHz



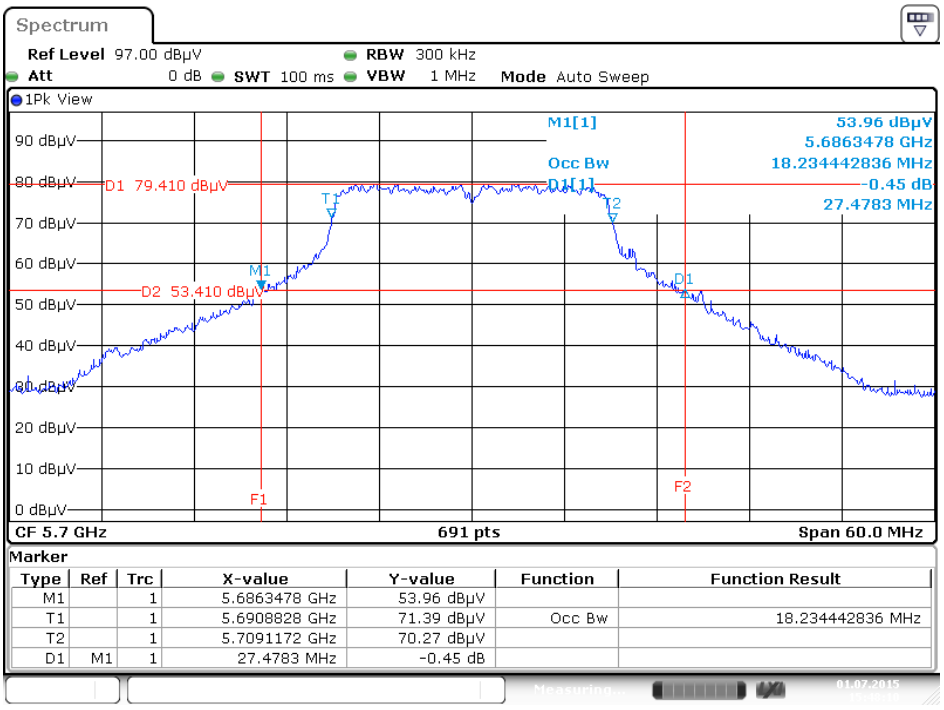
Date: 1.JUL.2015 15:49:49

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 7 / 5580 MHz



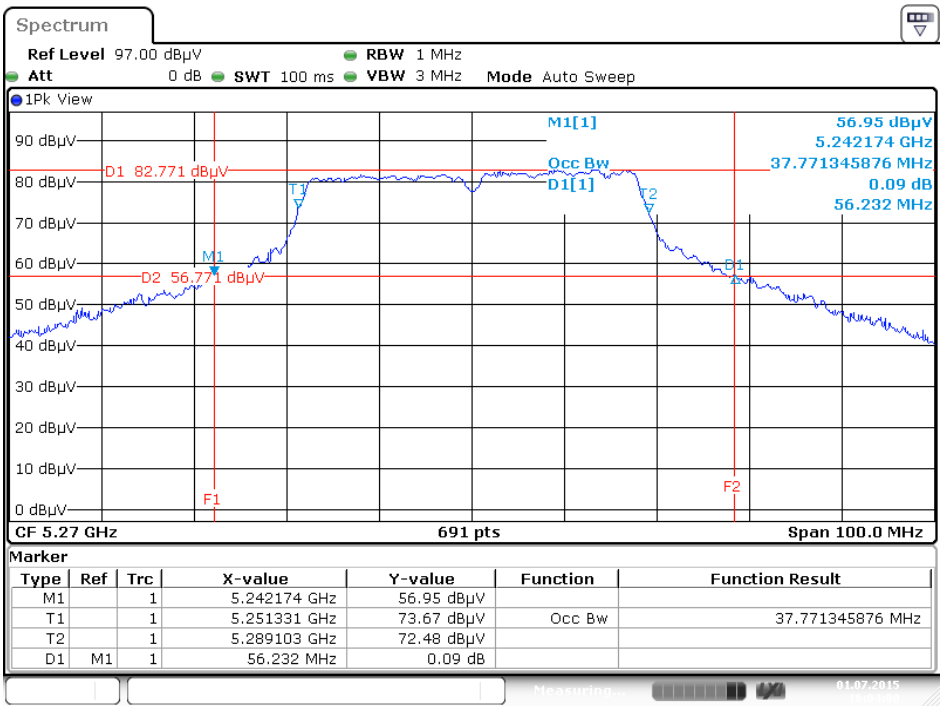
Date: 1.JUL.2015 15:49:13

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 7 / 5700 MHz



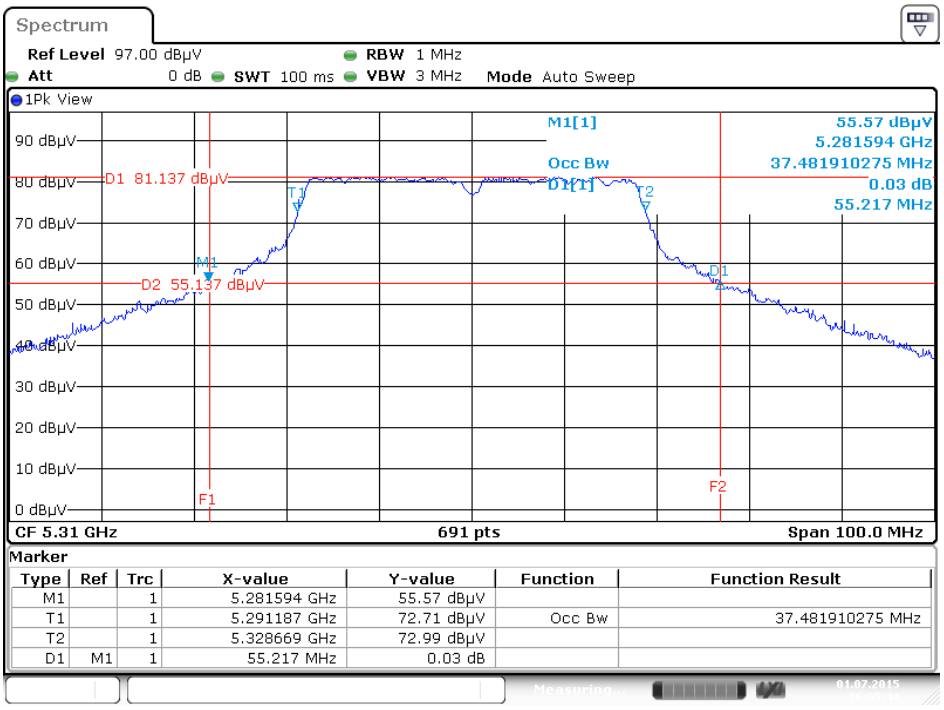
Date: 1.JUL.2015 15:48:10

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 7 / 5270 MHz



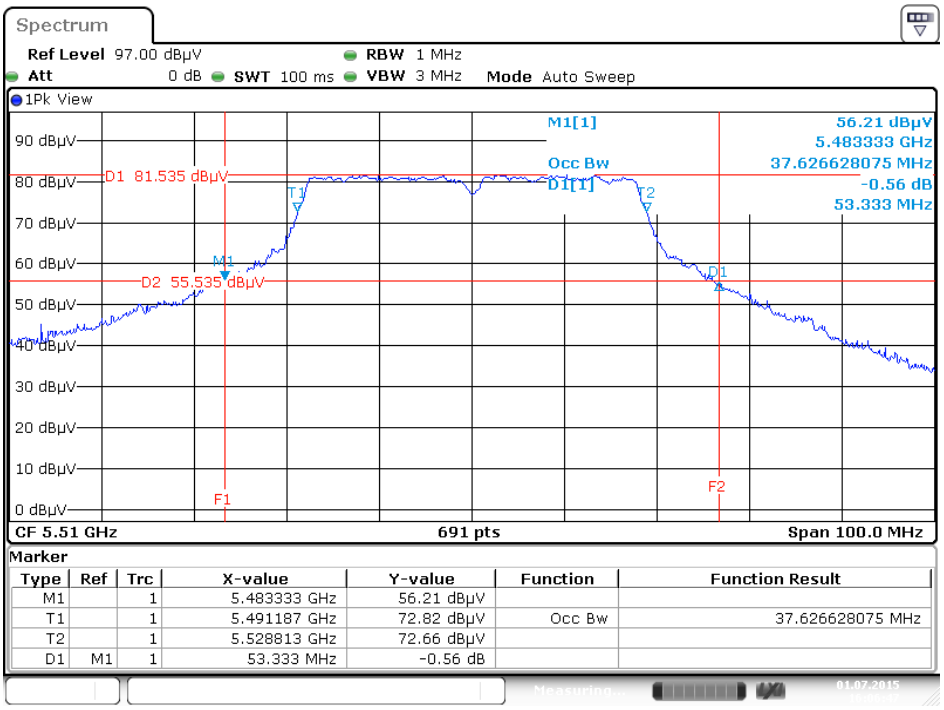
Date: 1.JUL.2015 16:04:00

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 7 / 5310 MHz



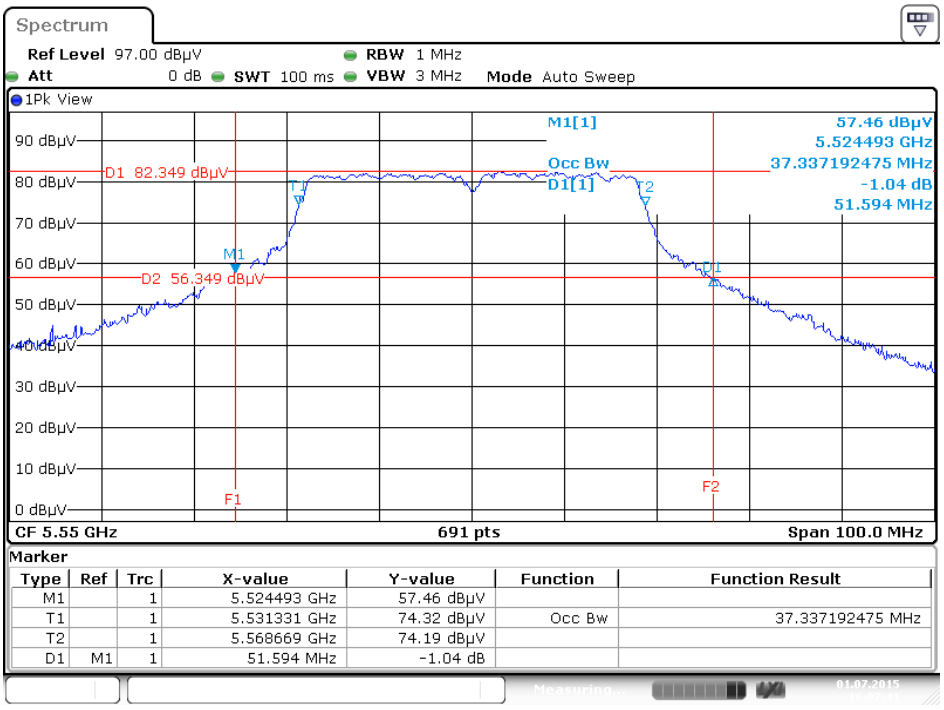
Date: 1.JUL.2015 16:05:45

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 7 / 5510 MHz



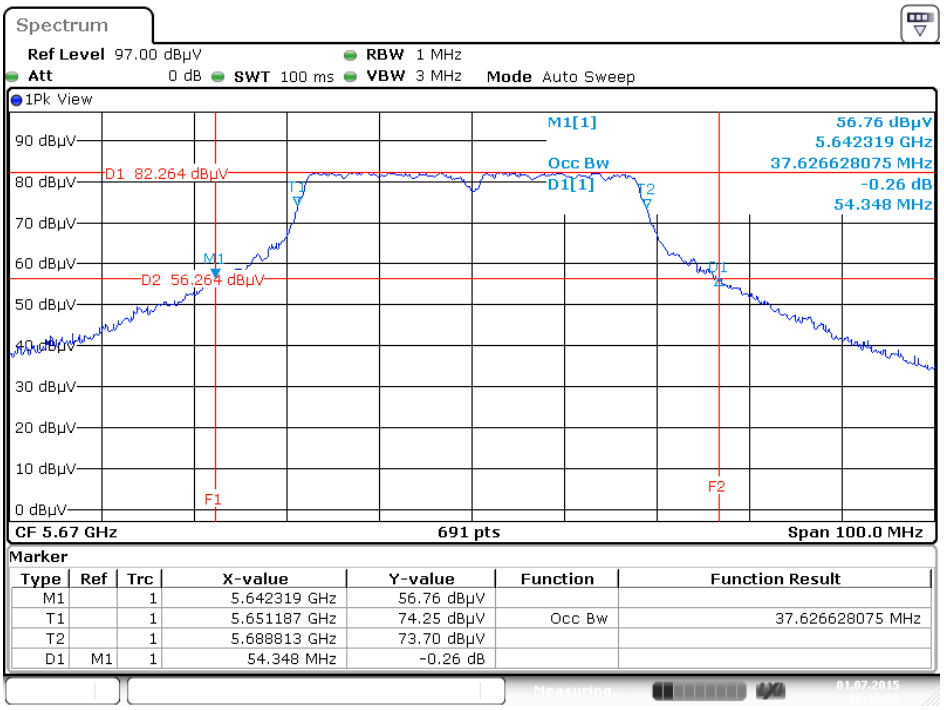
Date: 1.JUL.2015 16:06:47

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 7 / 5550 MHz



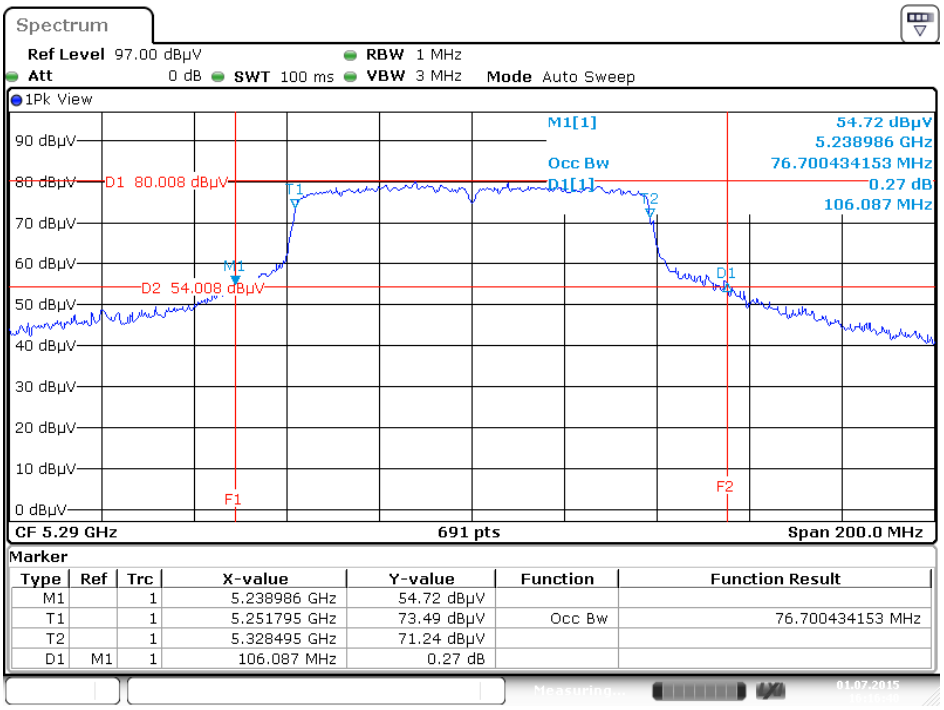
Date: 1.JUL.2015 16:07:41

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 7 / 5670 MHz



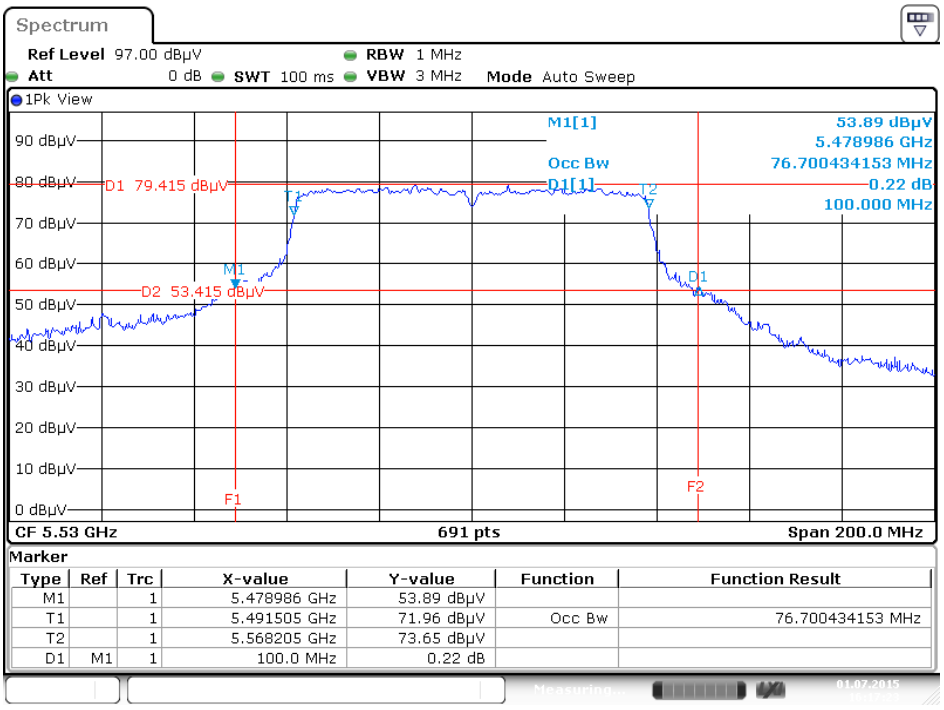
Date:1.JUL.2015 16:13:36

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 7 / 5290 MHz



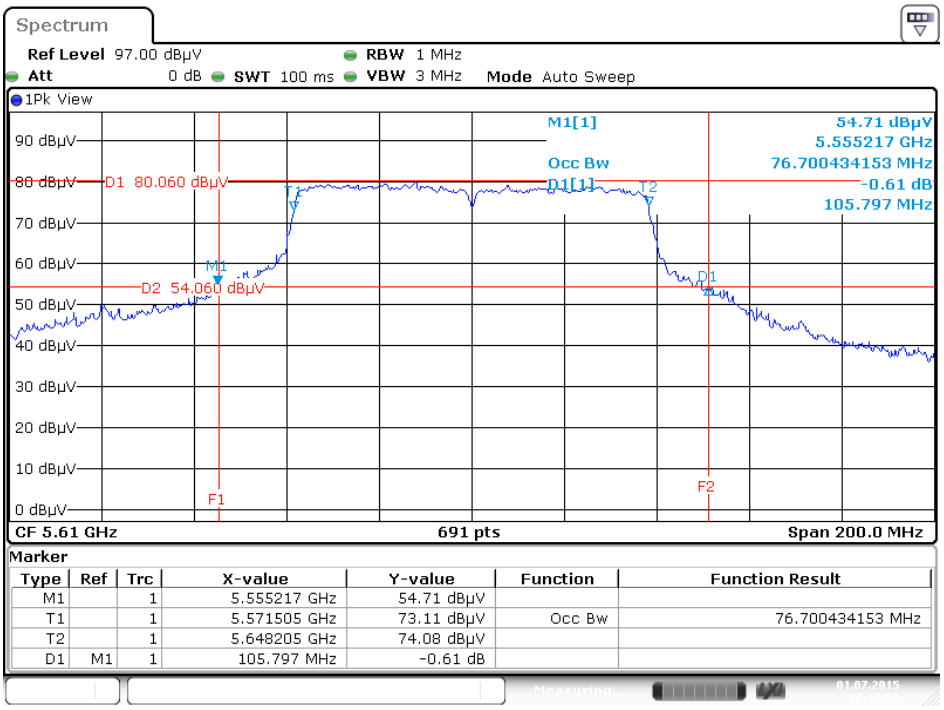
Date: 1.JUL.2015 16:16:41

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 7 / 5530 MHz



Date: 1.JUL.2015 16:17:23

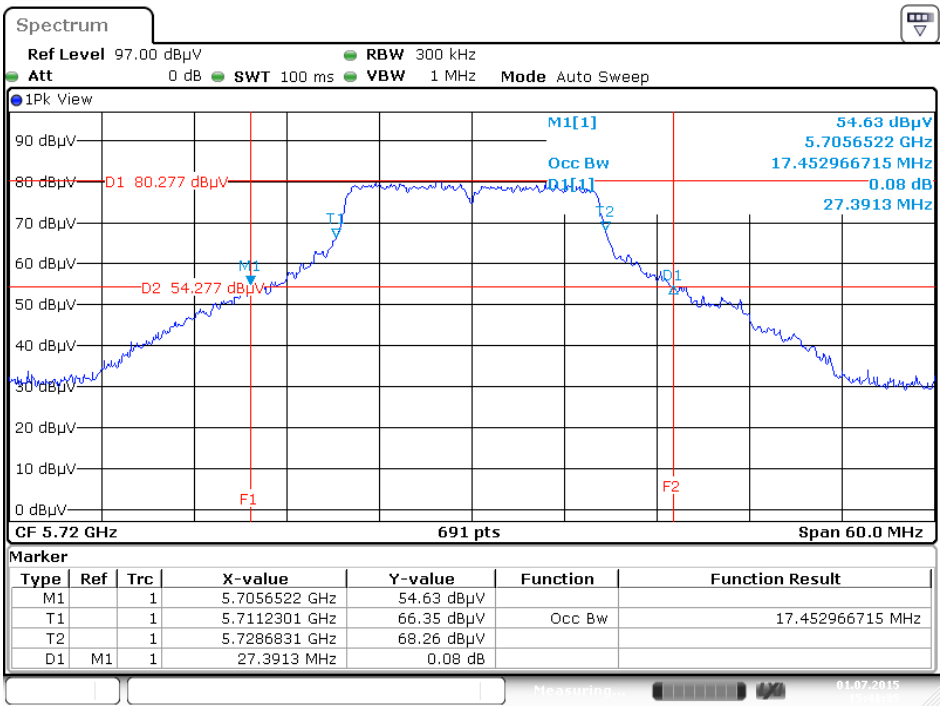
26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 7 / 5610 MHz



Date: 1.JUL.2015 16:17:57

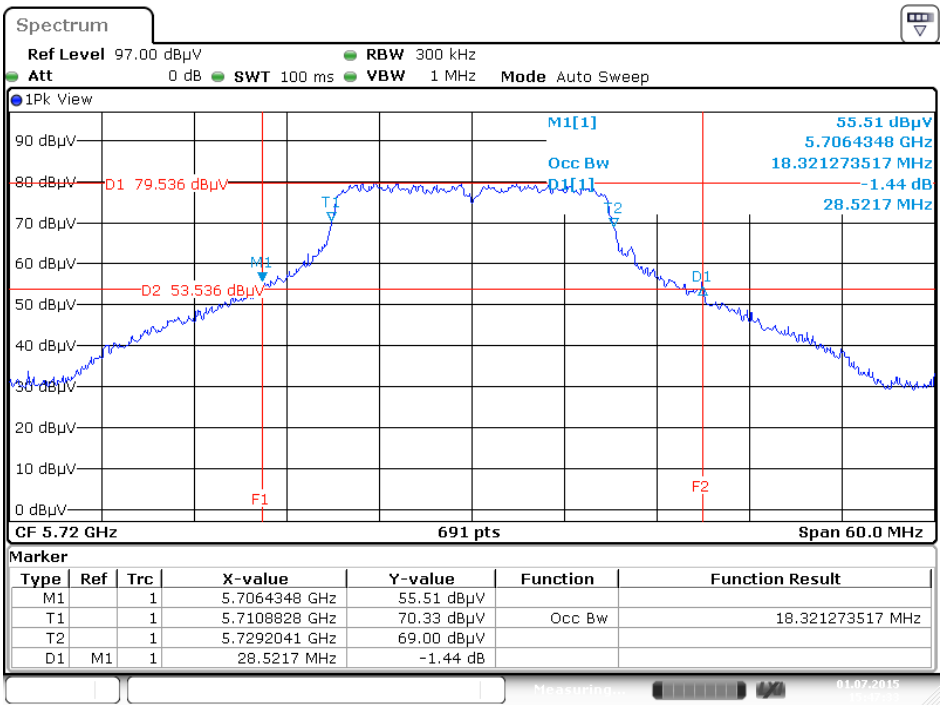
Straddle Channel

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11a / Chain 7 / 5720 MHz



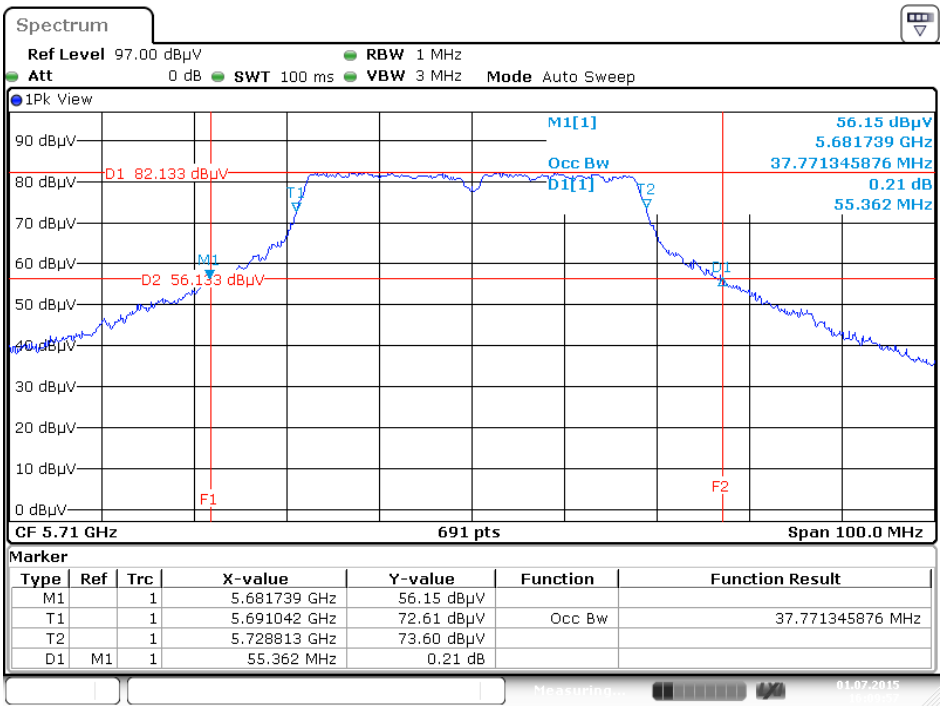
Date: 1.JUL.2015 15:41:36

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 7 / 5720 MHz



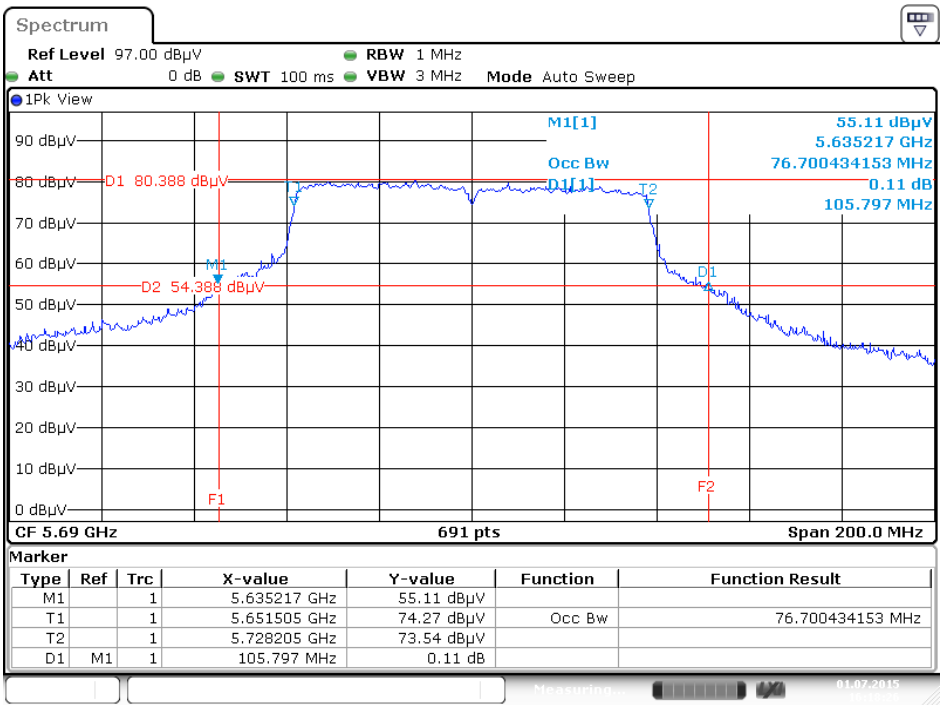
Date: 1.JUL.2015 15:47:34

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 7 / 5710 MHz



Date: 1.JUL.2015 16:09:57

26dB Bandwidth and 99% Occupied Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 7 / 5690 MHz



Date: 1.JUL.2015 16:18:26