

4.3. 6dB Spectrum Bandwidth Measurement

4.3.1. Limit

For digital modulation systems, the minimum 6dB bandwidth shall be at least 500 kHz.

4.3.2. Measuring Instruments and Setting

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

6dB Spectrum Bandwidth	
Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	> 6dB Bandwidth
RBW	100kHz
VBW	$\geq 3 \times \text{RBW}$
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

4.3.3. Test Procedures

For Radiated 6dB Bandwidth Measurement:

1. The transmitter was radiated to the spectrum analyzer in peak hold mode.
2. Test was performed in accordance with KDB789033 D02 v01 for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - section (C) Emission Bandwidth.
3. Multiple antenna system was performed in accordance with KDB662911 D01 v02r01 Emissions Testing of Transmitters with Multiple Outputs in the Same Band.
4. Measured the spectrum width with power higher than 6dB below carrier.

4.3.4. Test Setup Layout

For Radiated 6dB Bandwidth Measurement:

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

4.3.5. Test Deviation

There is no deviation with the original standard.

4.3.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.3.7. Test Result of 6dB Spectrum Bandwidth

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

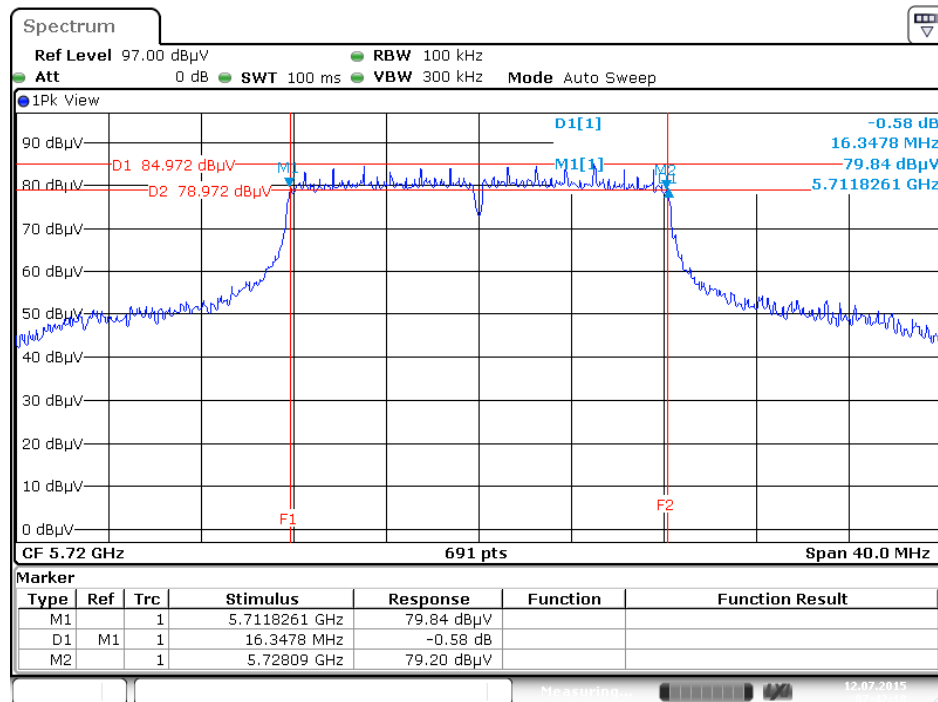
Temperature	25°C	Humidity	55%
Test Engineer	Lucas Huang		

Straddle Channel

Mode	Frequency	6dB BW (MHz)	6dB BW F2 (MHz)	UNII 3 BW (MHz)	Min. Limit (kHz)	Test Result
802.11a	5720 MHz	16.35	5728.09	3.09	500	Complies
802.11ac MCS0/Nss1 VHT20	5720 MHz	17.57	5728.73	3.73	500	Complies
802.11ac MCS0/Nss1 VHT40	5710 MHz	36.29	5728.03	3.03	500	Complies
802.11ac MCS0/Nss1 VHT80	5690 MHz	76.52	5728.32	3.32	500	Complies

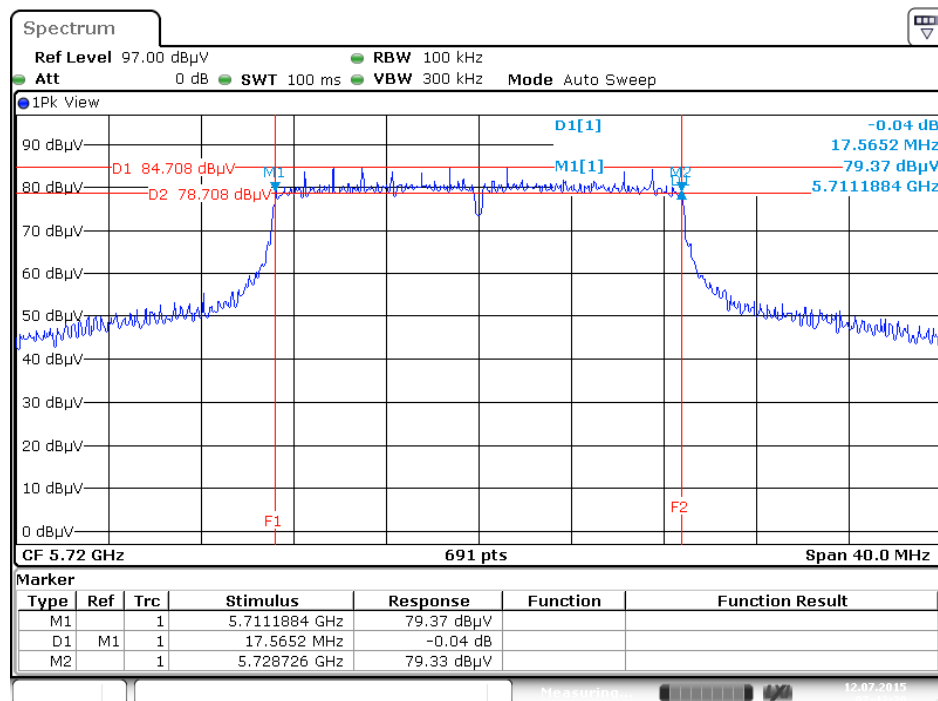
Straddle Channel

6 dB Bandwidth Plot on Configuration IEEE 802.11a / Chain 4 / 5720 MHz



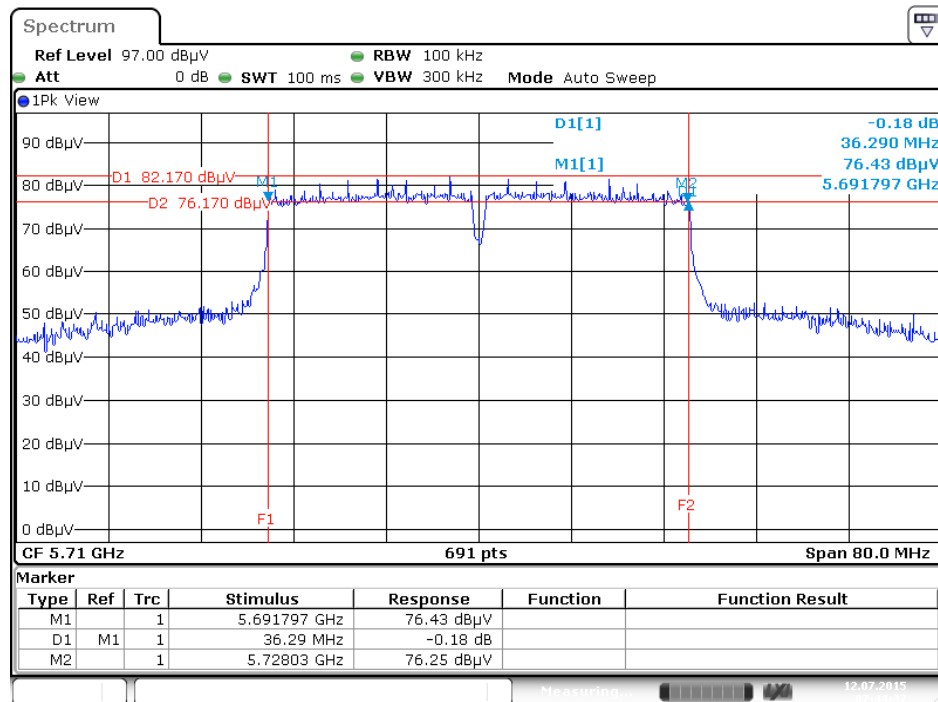
Date: 12.JUL.2015 07:42:18

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



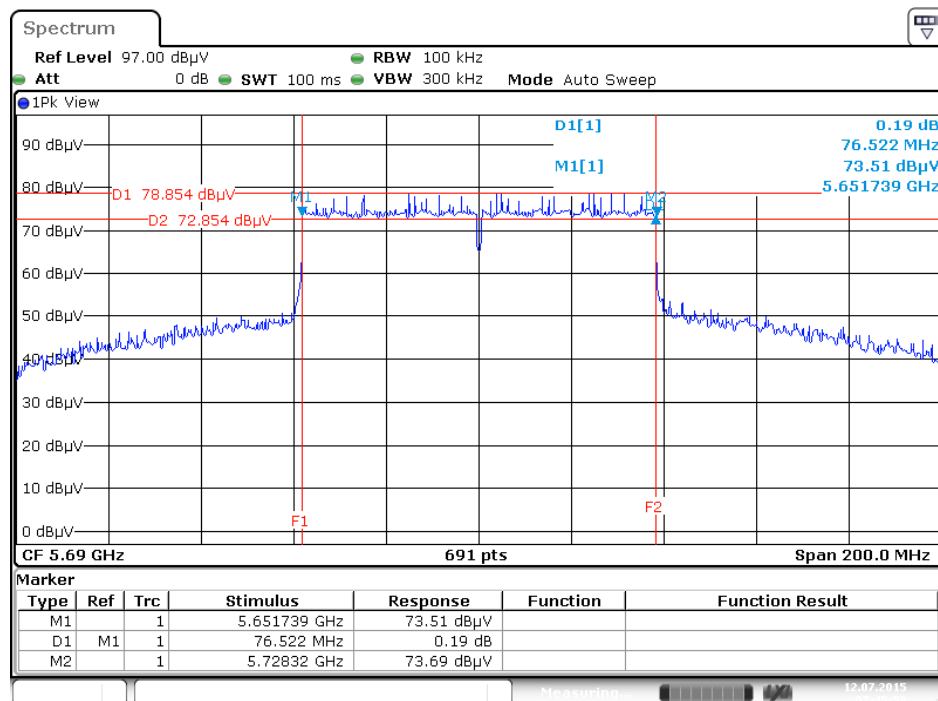
Date: 12.JUL.2015 07:43:20

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



Date: 12.JUL.2015 07:44:37

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



Date: 12.JUL.2015 07:45:58

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

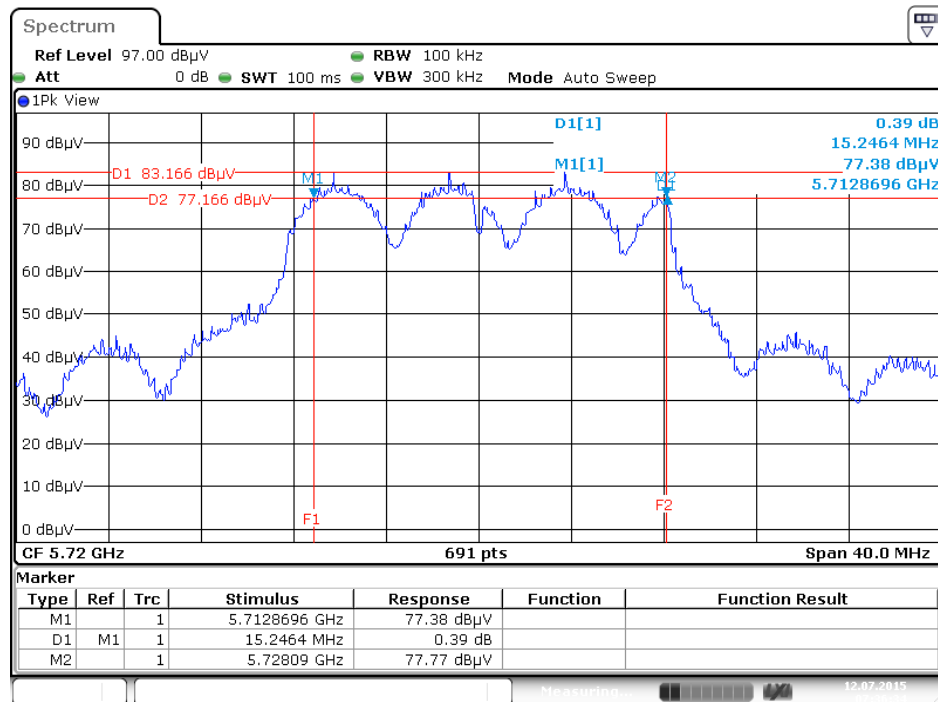
Temperature	25°C	Humidity	55%
Test Engineer	Lucas Huang		

Straddle Channel

Mode	Frequency	6dB BW (MHz)	6dB BW F2 (MHz)	UNII 3 BW (MHz)	Min. Limit (kHz)	Test Result
802.11a	5720 MHz	15.25	5728.09	3.09	500	Complies
802.11ac MCS0/Nss1 VHT20	5720 MHz	15.94	5727.51	2.51	500	Complies
802.11ac MCS0/Nss1 VHT40	5710 MHz	35.71	5728.15	3.15	500	Complies
802.11ac MCS0/Nss1 VHT80	5690 MHz	74.78	5727.92	2.92	500	Complies

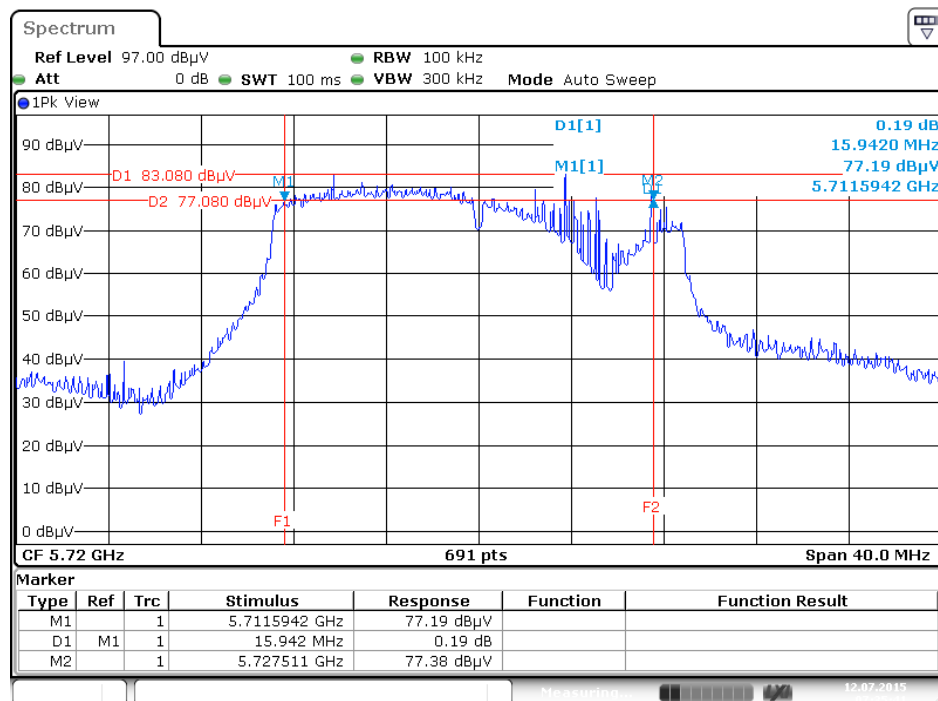
Straddle Channel

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



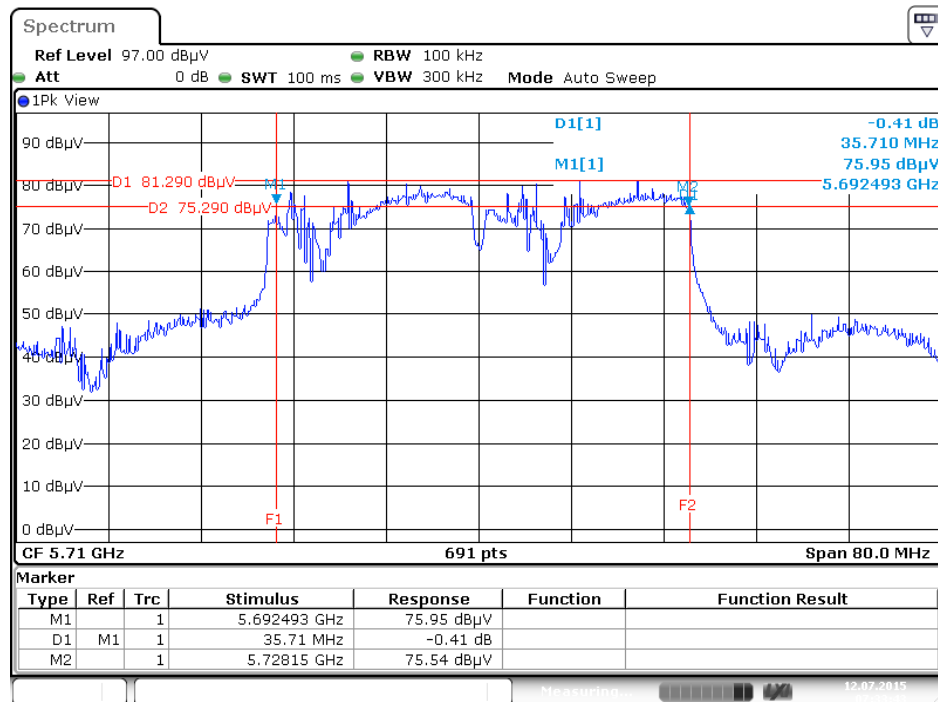
Date: 12.JUL.2015 07:36:34

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



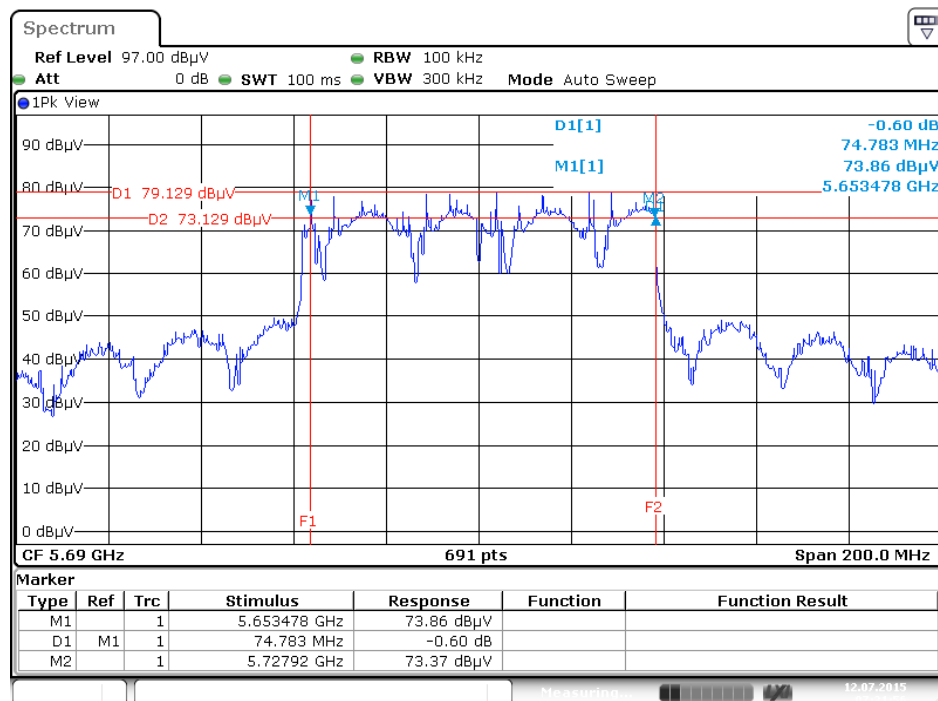
Date: 12.JUL.2015 07:35:41

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



Date: 12.JUL.2015 07:33:43

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



Date: 12.JUL.2015 07:31:56

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

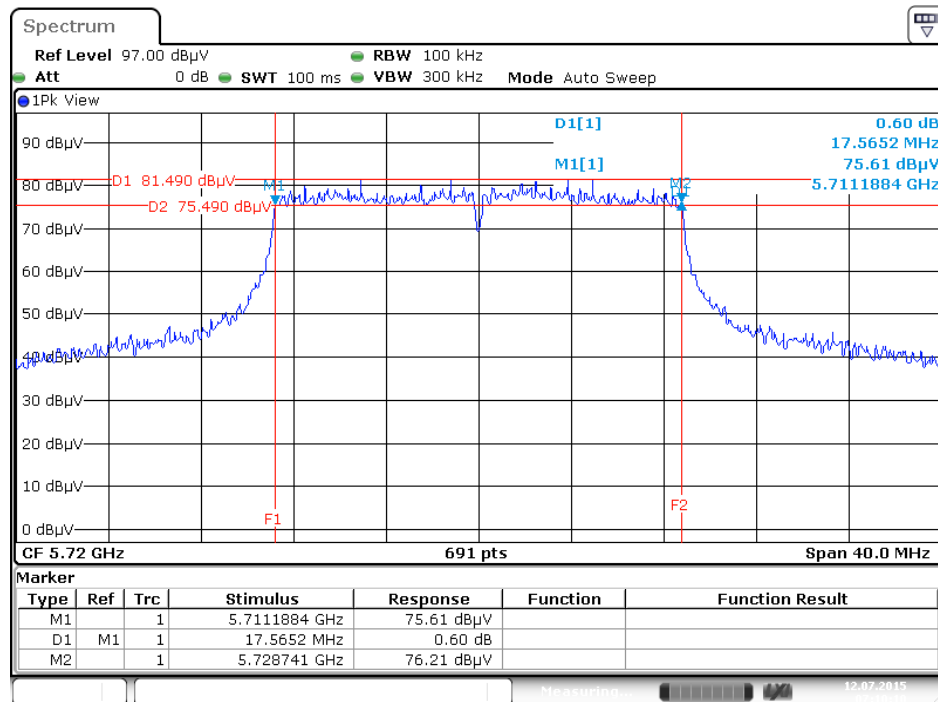
Temperature	25°C	Humidity	55%
Test Engineer	Lucas Huang		

Straddle Channel

Mode	Frequency	6dB BW (MHz)	6dB BW F2 (MHz)	UNII 3 BW (MHz)	Min. Limit (kHz)	Test Result
802.11ac MCS0/Nss2 VHT20	5720 MHz	17.57	5728.74	3.74	500	Complies
802.11ac MCS0/Nss2 VHT40	5710 MHz	33.86	5727.47	2.47	500	Complies
802.11ac MCS0/Nss2 VHT80	5690 MHz	74.78	5727.76	2.76	500	Complies

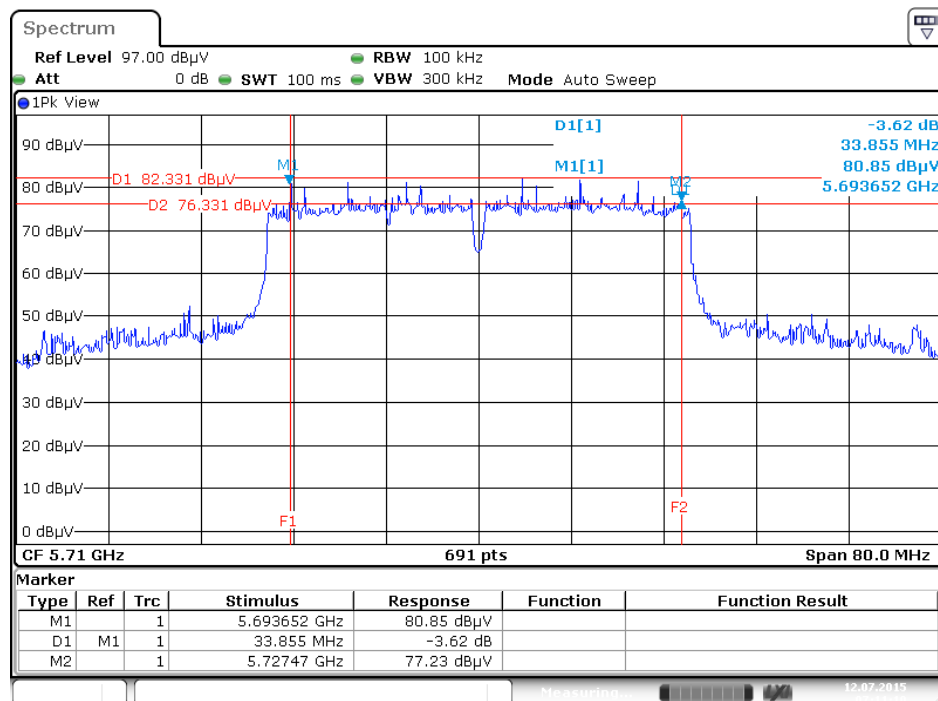
Straddle Channel

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



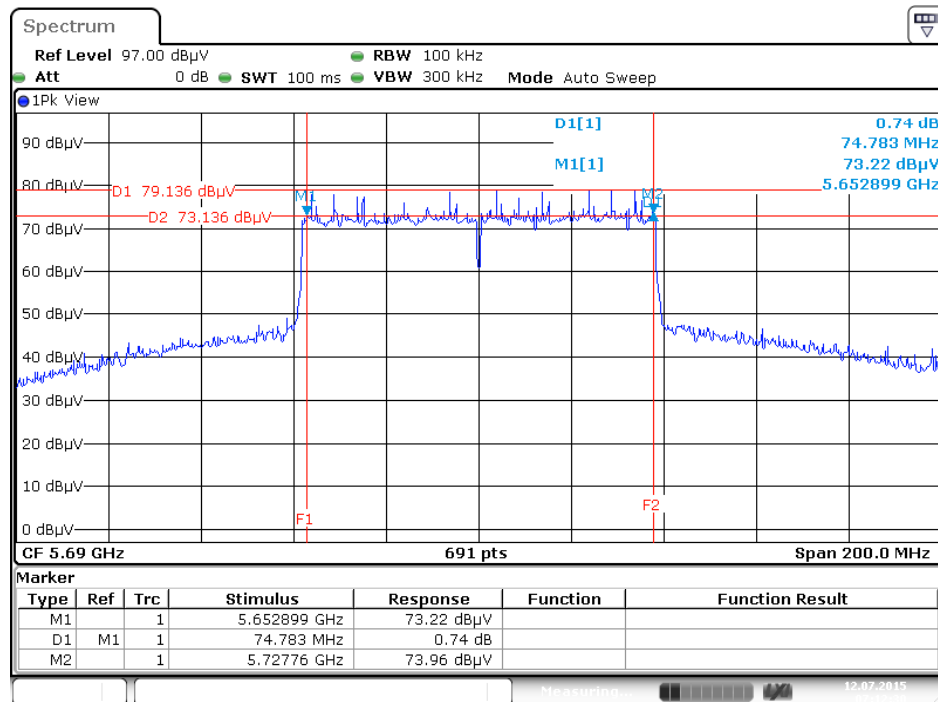
Date: 12.JUL.2015 07:10:10

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



Date: 12.JUL.2015 07:11:10

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



Date: 12.JUL.2015 07:12:30

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

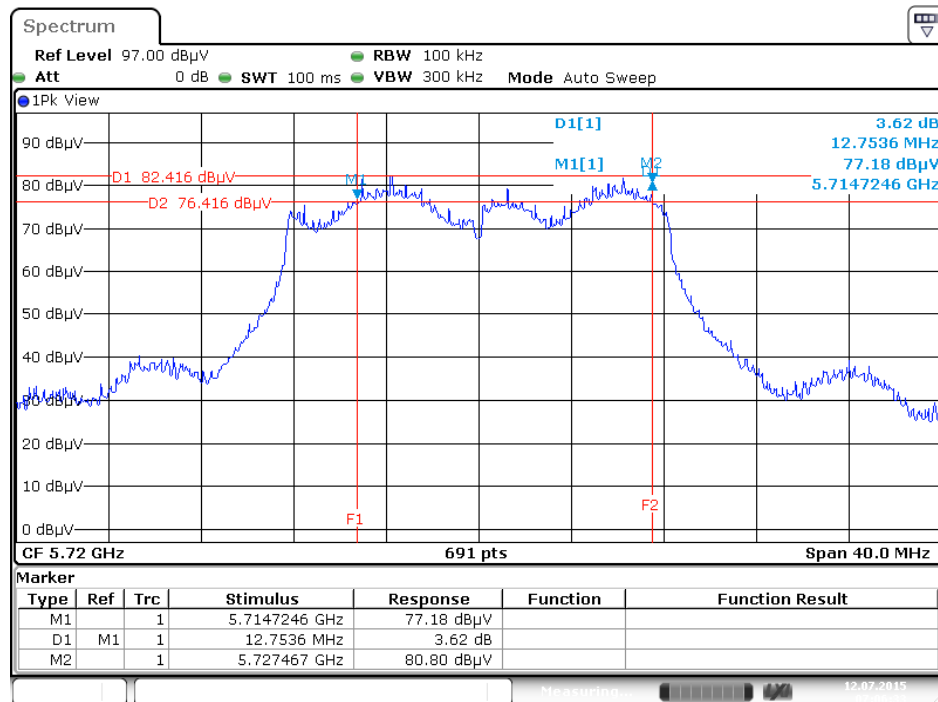
Temperature	25°C	Humidity	55%
Test Engineer	Lcuas Huang		

Straddle Channel

Mode	Frequency	6dB BW (MHz)	6dB BW F2 (MHz)	UNII 3 BW (MHz)	Min. Limit (kHz)	Test Result
802.11a	5720 MHz	12.75	5727.47	2.47	500	Complies
802.11ac MCS0/Nss1 VHT20	5720 MHz	16.35	5727.47	2.47	500	Complies
802.11ac MCS0/Nss1 VHT40	5710 MHz	32.58	5727.45	2.45	500	Complies
802.11ac MCS0/Nss1 VHT80	5690 MHz	75.36	5727.34	2.34	500	Complies

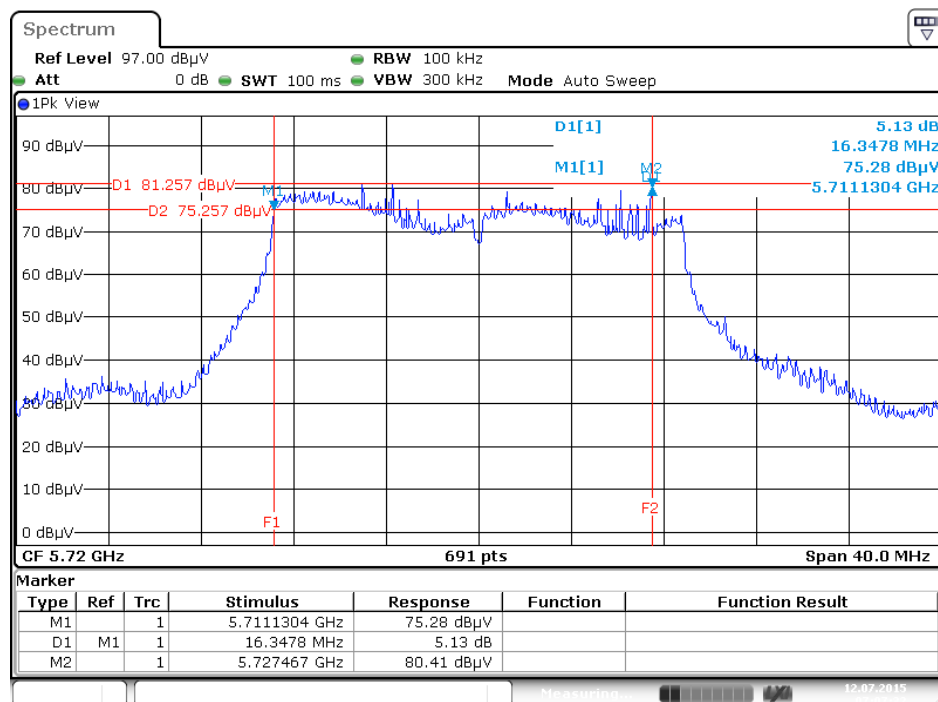
Straddle Channel

6 dB Bandwidth Plot on Configuration IEEE 802.11a / Chain 4+Chain 5+Chain 6 / 5720 MHz



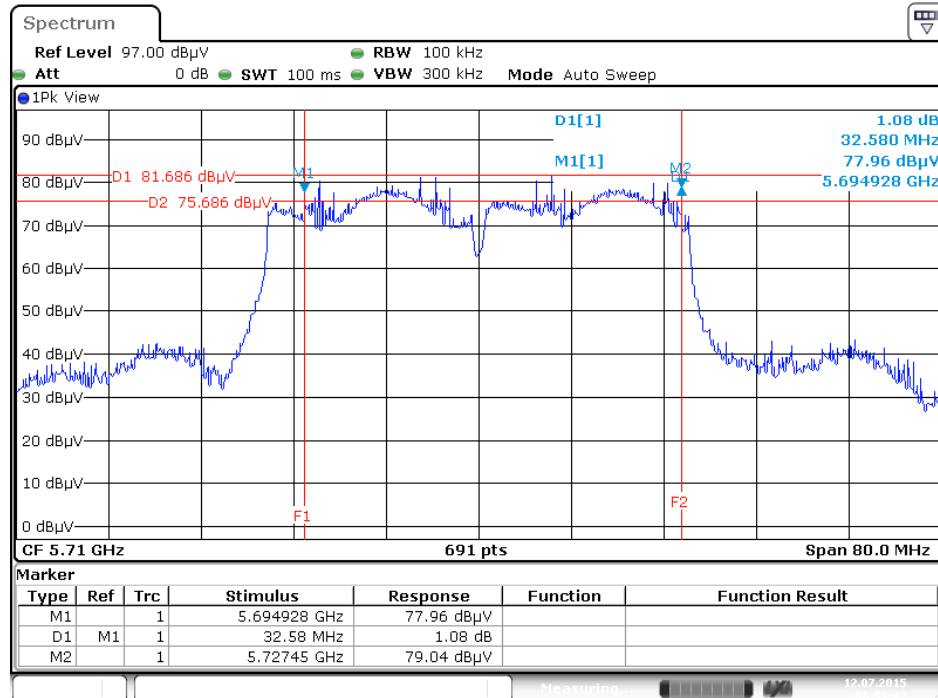
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6 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5+Chain 6 / 5720 MHz



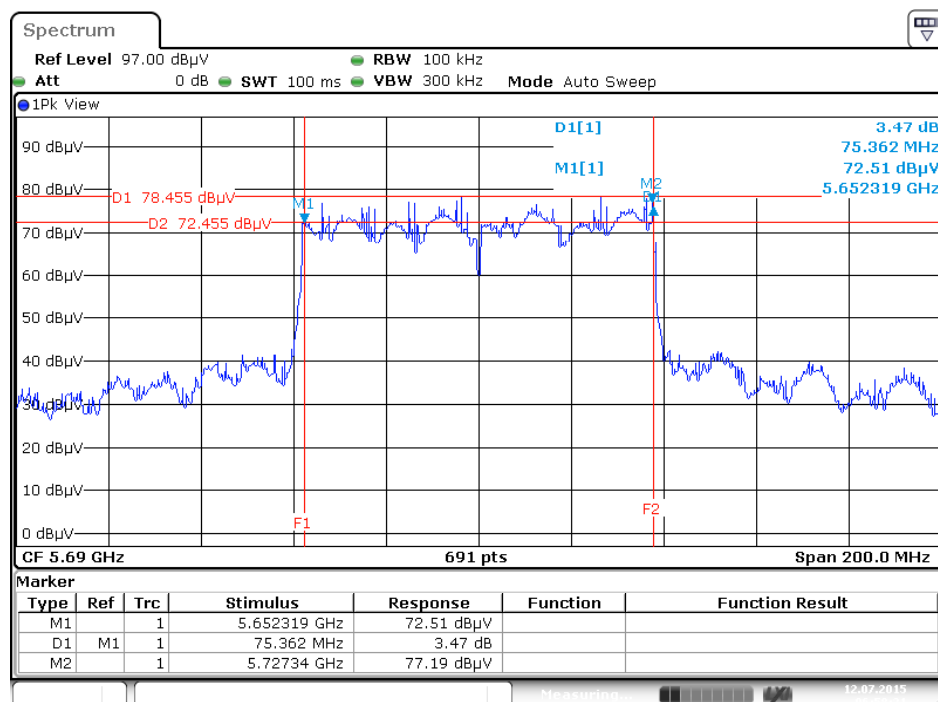
Date: 12.JUL.2015 07:07:32

6 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5+Chain 6 / 5710 MHz



Date: 12.JUL.2015 06:59:42

6 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5+Chain 6 / 5690 MHz



Date: 12.JUL.2015 06:58:21

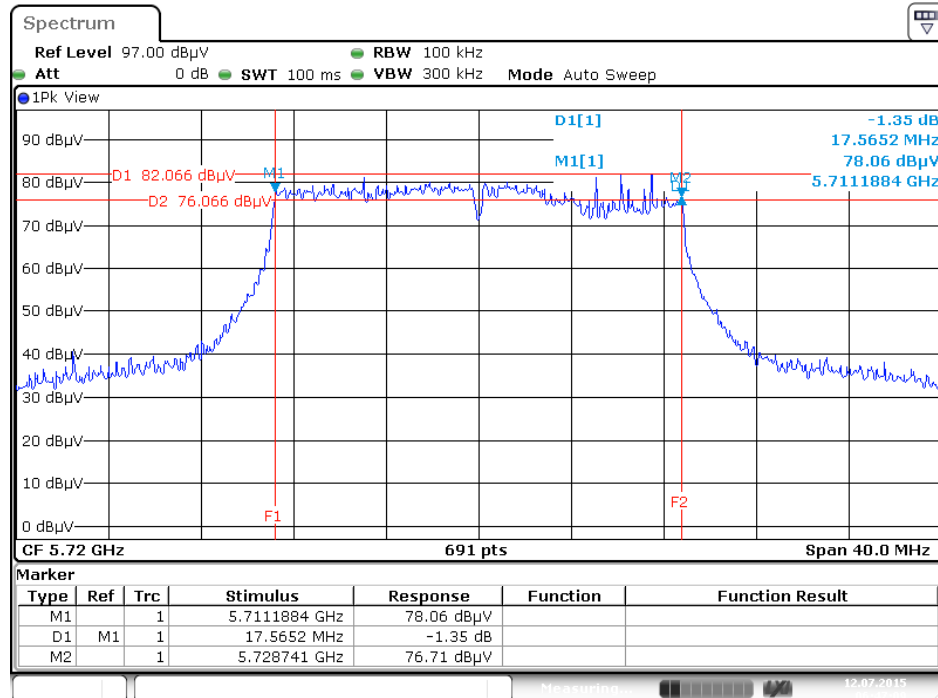
<For Radio 2 Non-beamforming Mode>: 3TX, 2S

Temperature	25°C	Humidity	55%
Test Engineer	Lucas Huang		

Mode	Frequency	6dB BW (MHz)	6dB BW F2 (MHz)	UNII 3 BW (MHz)	Min. Limit (kHz)	Test Result
802.11ac MCS0/Nss2 VHT20	5720 MHz	17.57	5728.74	3.74	500	Complies
802.11ac MCS0/Nss2 VHT40	5710 MHz	32.58	5727.48	2.48	500	Complies
802.11ac MCS0/Nss2 VHT80	5690 MHz	72.75	5727.77	2.77	500	Complies

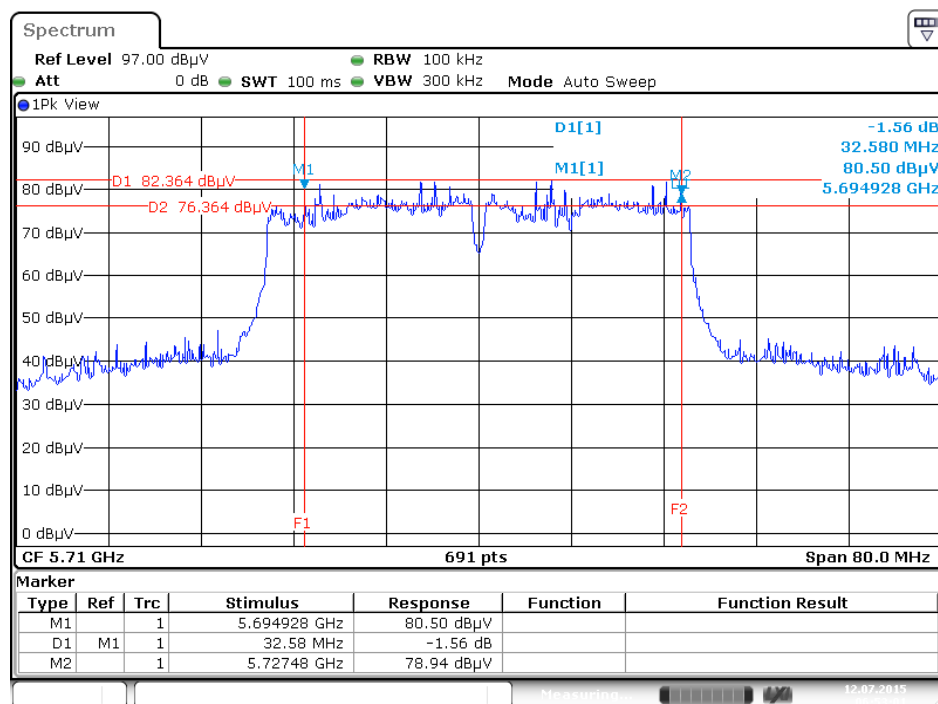
Straddle Channel

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



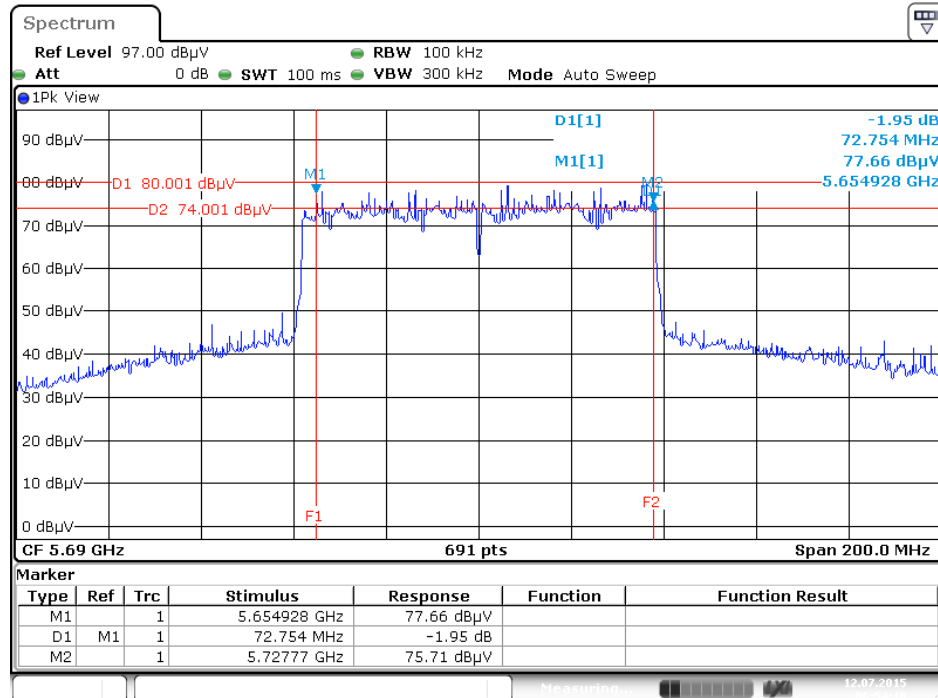
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6 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4+Chain 5+Chain 6 / 5710 MHz



Date: 12.JUL.2015 06:53:01

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



Date: 12.JUL.2015 06:54:18

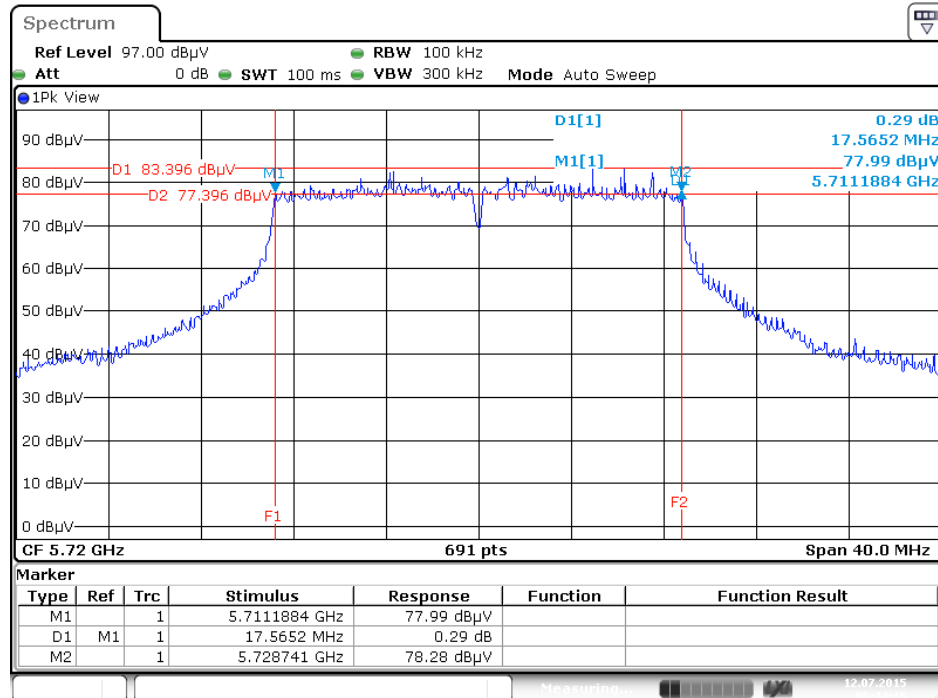
<For Radio 2 Non-beamforming Mode>: 3TX, 3S

Temperature	25°C	Humidity	55%
Test Engineer	Luacs Huang		

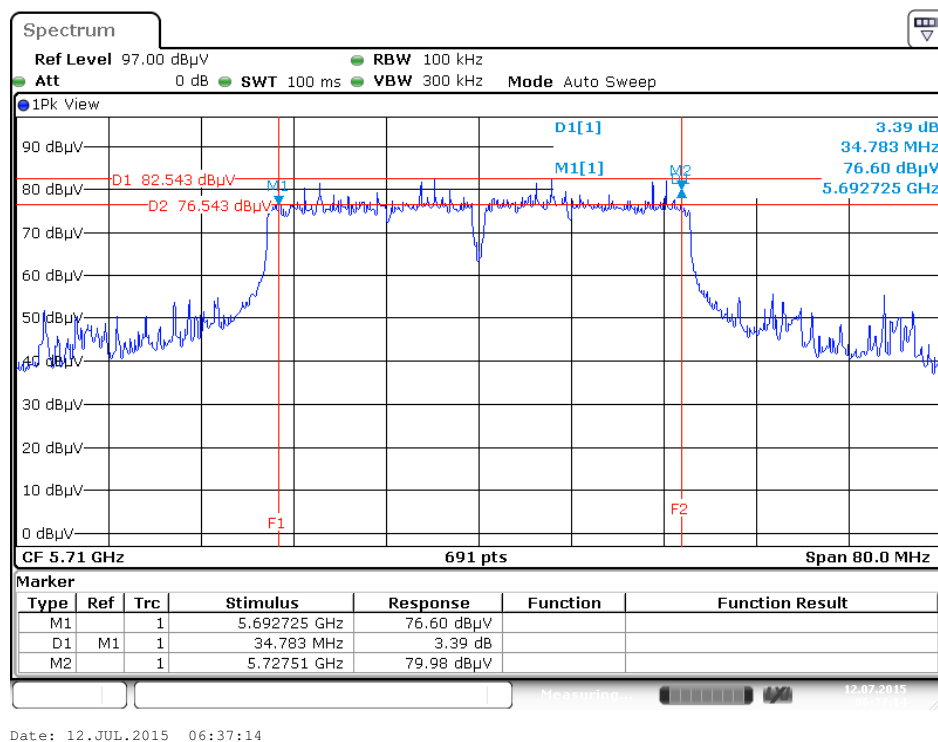
Mode	Frequency	6dB BW (MHz)	6dB BW F2 (MHz)	UNII 3 BW (MHz)	Min. Limit (kHz)	Test Result
802.11ac MCS0/Nss3 VHT20	5720 MHz	17.57	5728.74	3.74	500	Complies
802.11ac MCS0/Nss3 VHT40	5710 MHz	34.78	5727.51	2.51	500	Complies
802.11ac MCS0/Nss3 VHT80	5690 MHz	75.36	5727.63	2.63	500	Complies

Straddle Channel

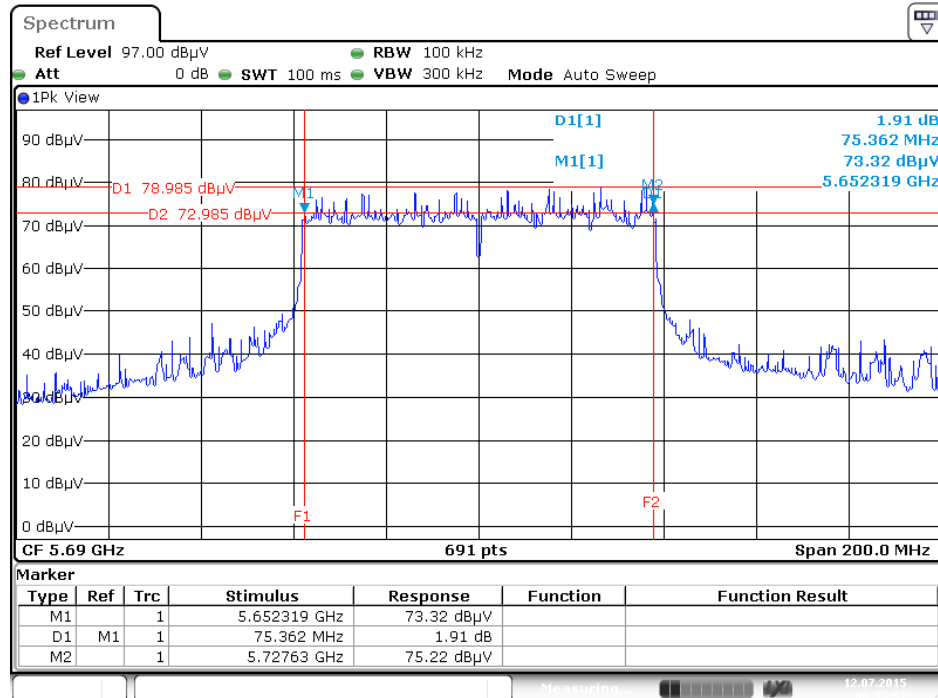
6 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT20 / Chain 4+Chain 5+Chain 6 / 5720 MHz



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



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



Date: 12.JUL.2015 06:33:51

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

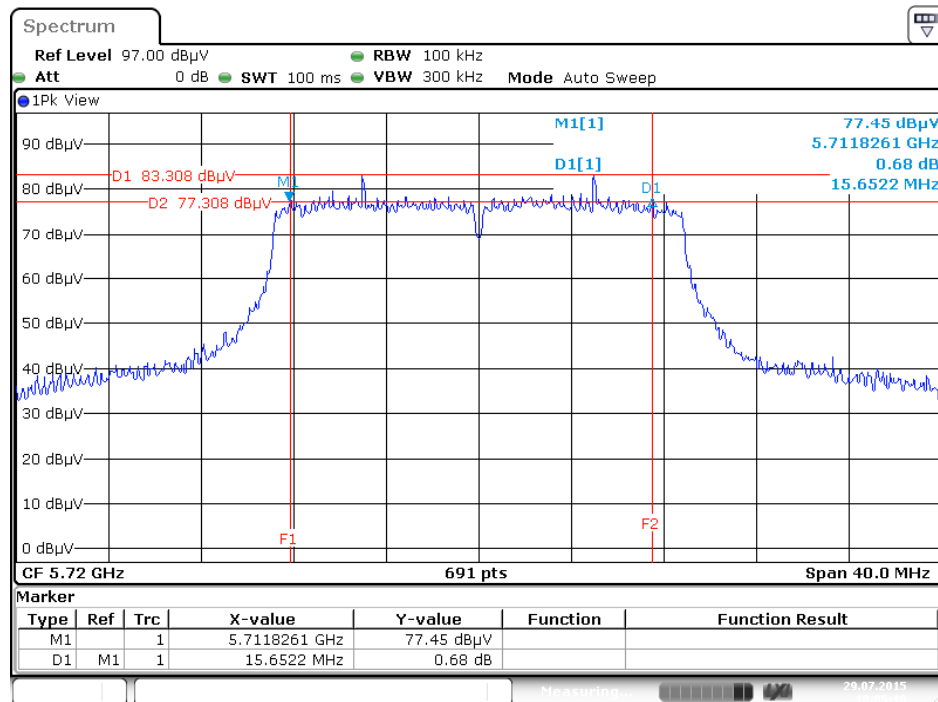
Temperature	25°C	Humidity	55%
Test Engineer	Eddie Weng		

Straddle Channel

Mode	Frequency	6dB BW (MHz)	6dB BW F2 (MHz)	UNII 3 BW (MHz)	Min. Limit (kHz)	Test Result
802.11ac MCS0/Nss1 VHT20	5720 MHz	15.65	5727.48	2.48	500	Complies
802.11ac MCS0/Nss1 VHT40	5710 MHz	35.01	5727.51	2.51	500	Complies
802.11ac MCS0/Nss1 VHT80	5690 MHz	73.33	5726.52	1.52	500	Complies

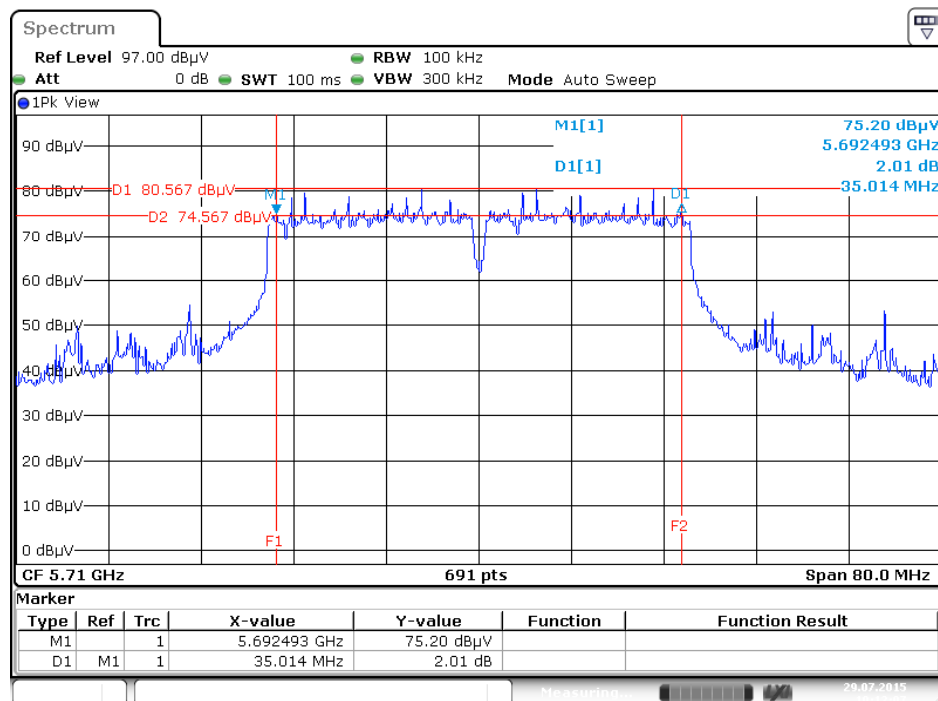
Straddle Channel

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



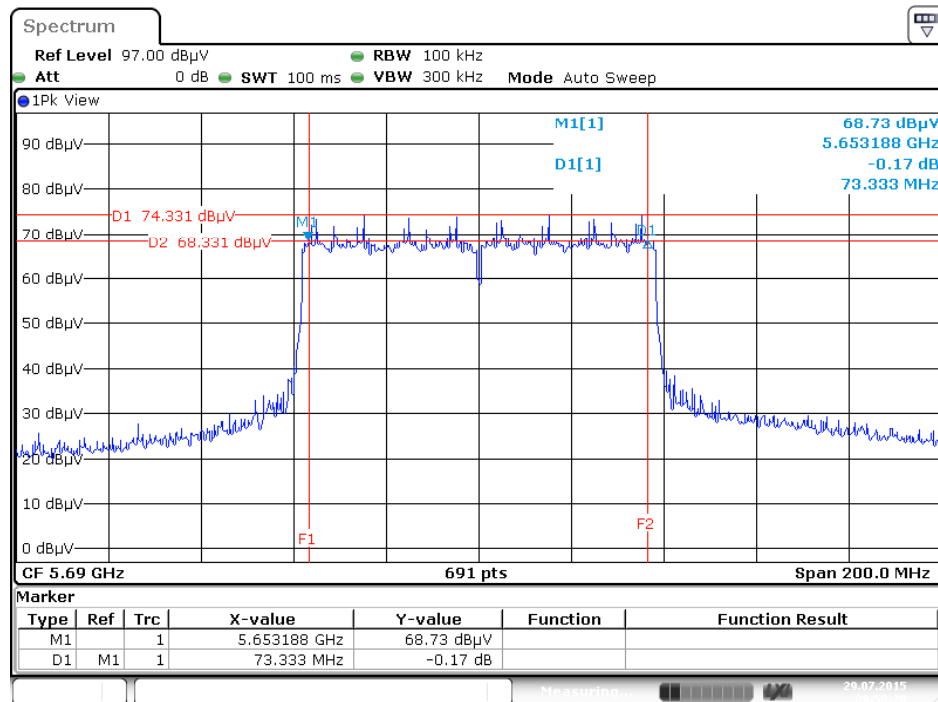
Date: 29 JUL 2015 10:05:10

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



Date: 29 JUL 2015 10:12:08

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



Date: 29 JUL 2015 09:58:20

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

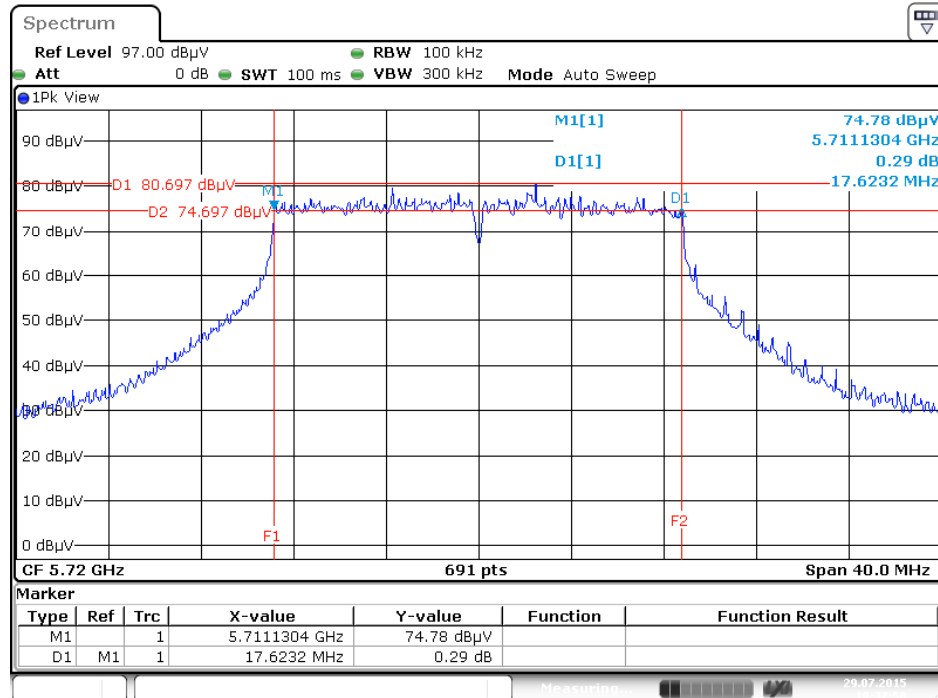
Temperature	25°C	Humidity	55%
Test Engineer	Eddie Weng		

Straddle Channel

Mode	Frequency	6dB BW (MHz)	6dB BW F2 (MHz)	UNII 3 BW (MHz)	Min. Limit (kHz)	Test Result
802.11ac MCS0/Nss1 VHT20	5720 MHz	17.62	5728.75	3.75	500	Complies
802.11ac MCS0/Nss1 VHT40	5710 MHz	35.48	5727.51	2.51	500	Complies
802.11ac MCS0/Nss1 VHT80	5690 MHz	75.36	5727.68	2.68	500	Complies

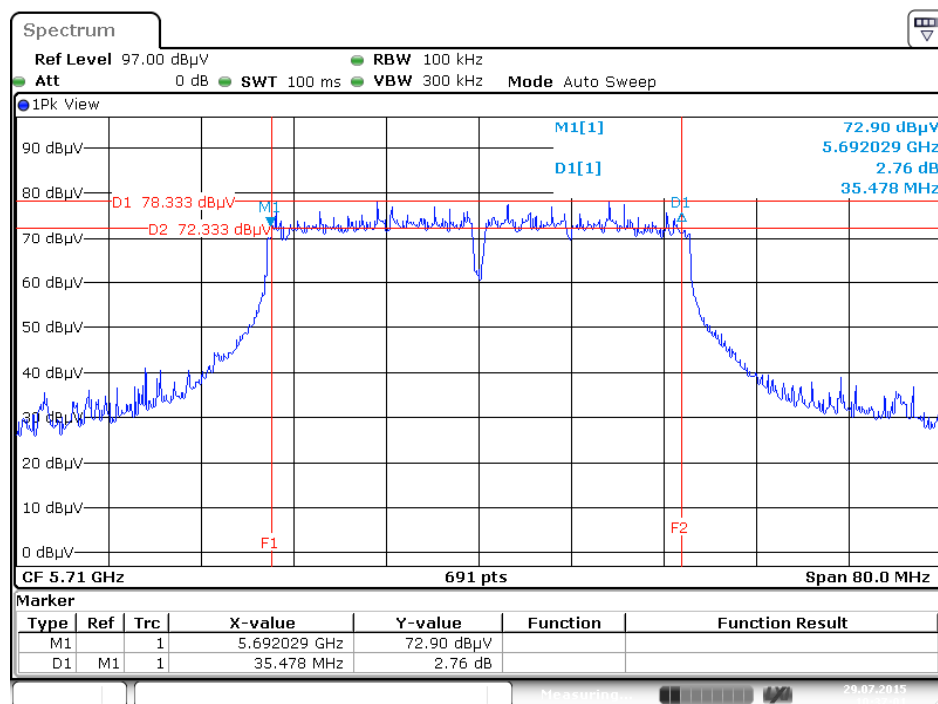
Straddle Channel

6 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5+Chain 6 / 5720 MHz



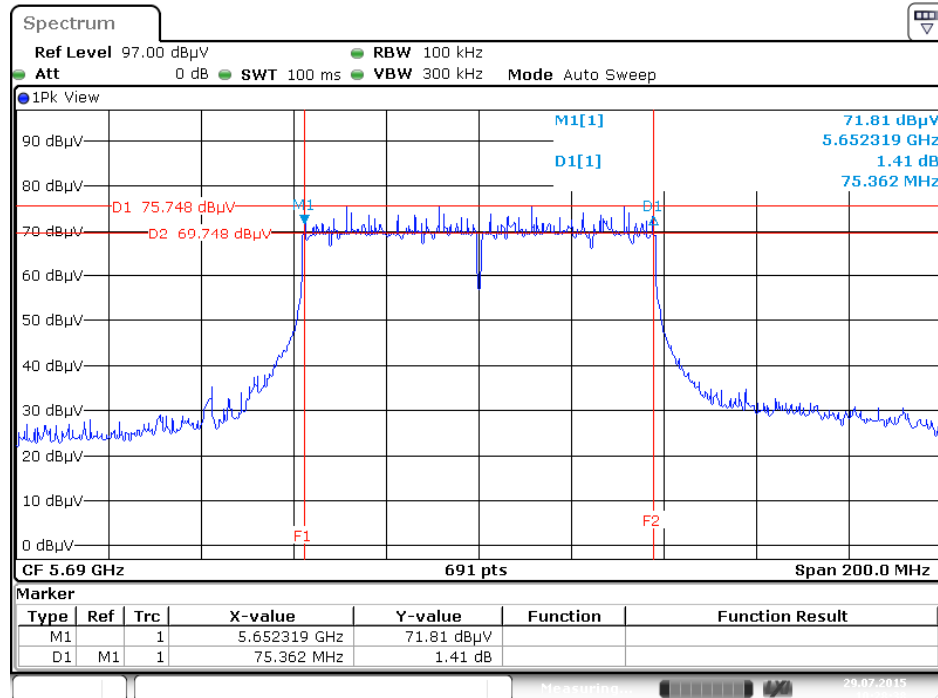
Date: 29 JUL 2015 10:37:58

6 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5+Chain 6 / 5710 MHz



Date: 29 JUL 2015 10:37:01

6 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5+Chain 6 / 5690 MHz



Date: 29 JUL 2015 10:28:38

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

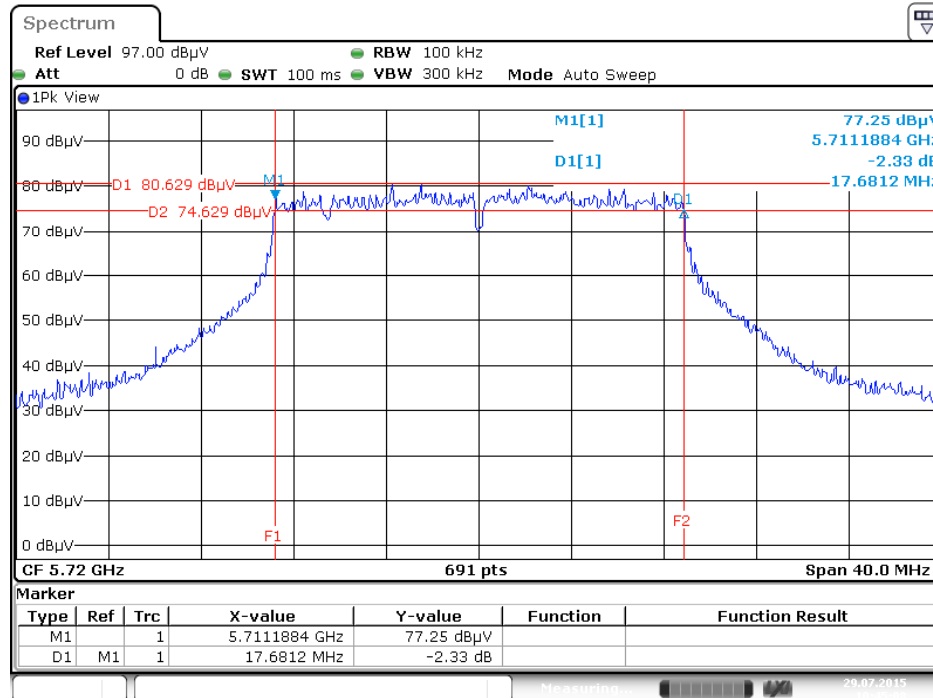
Temperature	25°C	Humidity	55%
Test Engineer	Eddie Weng		

Straddle Channel

Mode	Frequency	6dB BW (MHz)	6dB BW F2 (MHz)	UNII 3 BW (MHz)	Min. Limit (kHz)	Test Result
802.11ac MCS0/Nss1 VHT20	5720 MHz	17.68	5728.87	3.87	500	Complies
802.11ac MCS0/Nss1 VHT40	5710 MHz	35.48	5727.48	2.48	500	Complies
802.11ac MCS0/Nss1 VHT80	5690 MHz	75.36	5727.68	2.68	500	Complies

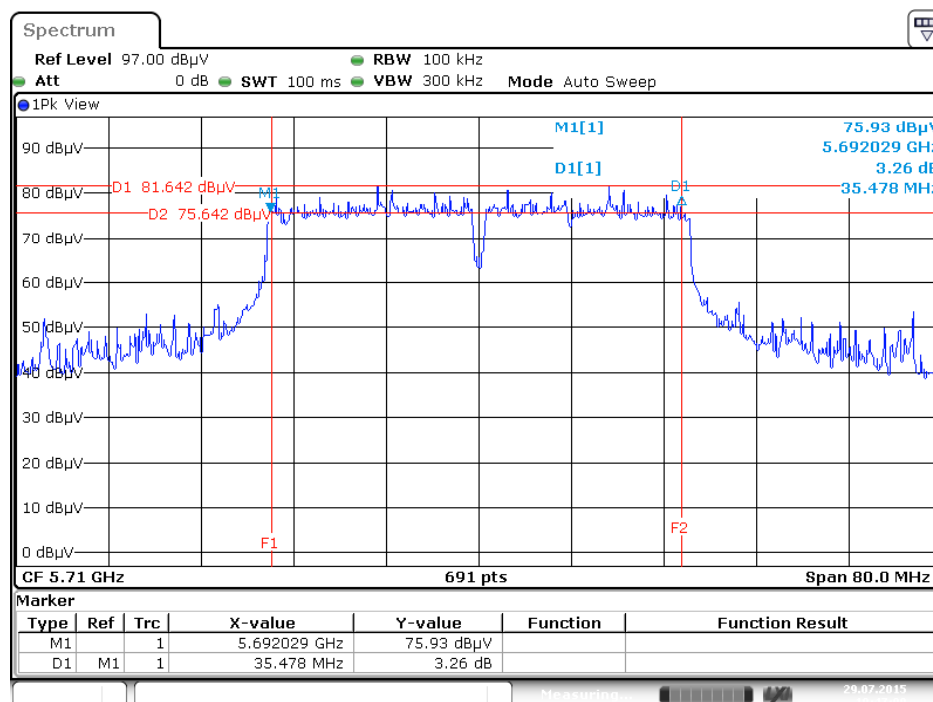
Straddle Channel

6 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5+Chain 6 / 5720 MHz



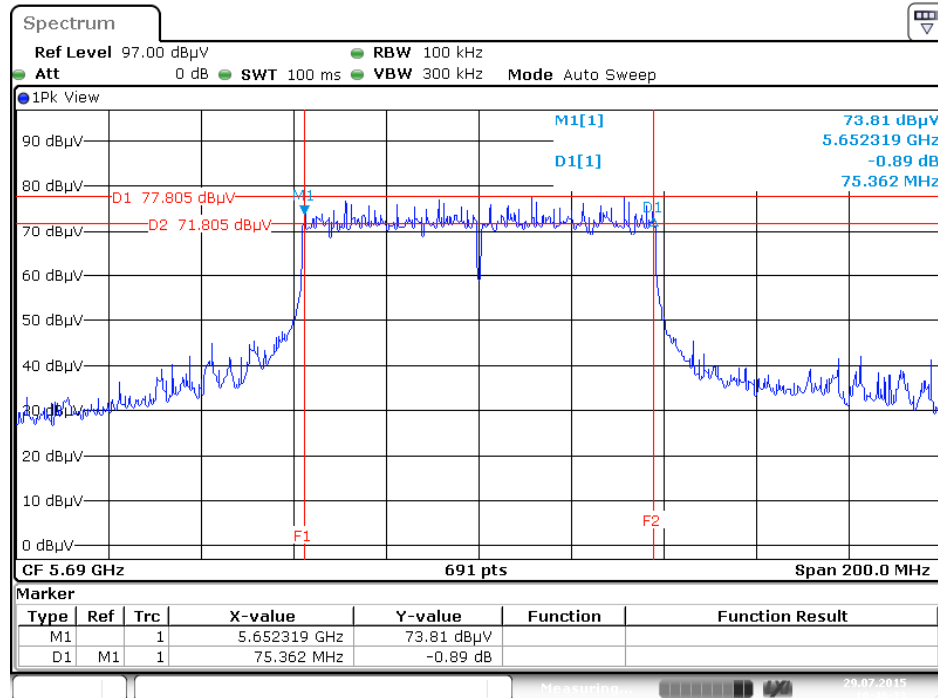
Date: 29 JUL 2015 10:45:08

6 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5+Chain 6 / 5710 MHz



Date: 29 JUL 2015 10:47:10

6 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5+Chain 6 / 5690 MHz



Date: 29 JUL 2015 10:48:23

<For Radio 3>

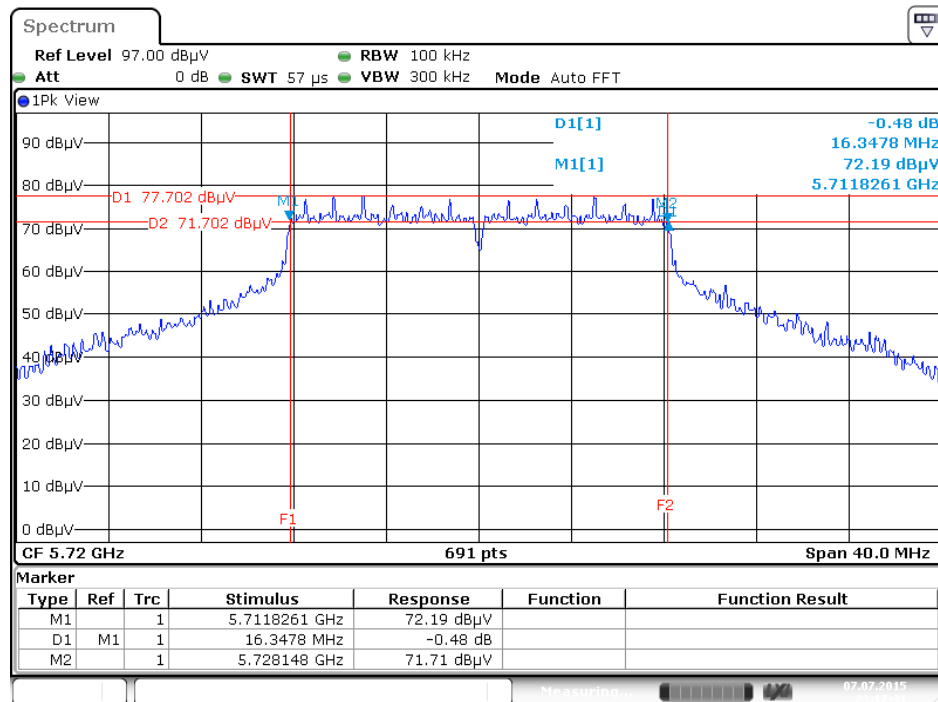
Temperature	25°C	Humidity	55%
Test Engineer	Clemens Fang		

Straddle Channel

Mode	Frequency	6dB BW (MHz)	6dB BW F2 (MHz)	UNII 3 BW (MHz)	Min. Limit (kHz)	Test Result
802.11a	5720 MHz	16.35	5728.15	3.15	500	Complies
802.11ac MCS0/Nss1 VHT20	5720 MHz	17.62	5728.78	3.78	500	Complies
802.11ac MCS0/Nss1 VHT40	5710 MHz	36.41	5728.15	3.15	500	Complies
802.11ac MCS0/Nss1 VHT80	5690 MHz	76.23	5727.92	2.92	500	Complies

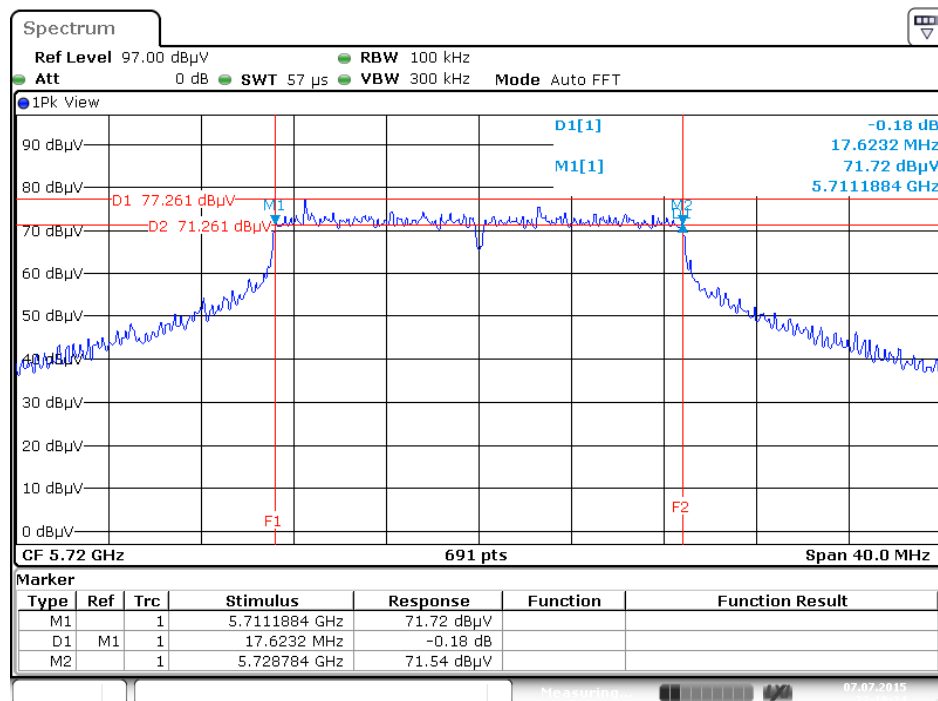
Straddle Channel

6 dB Bandwidth Plot on Configuration IEEE 802.11a / Chain 7 / 5720 MHz



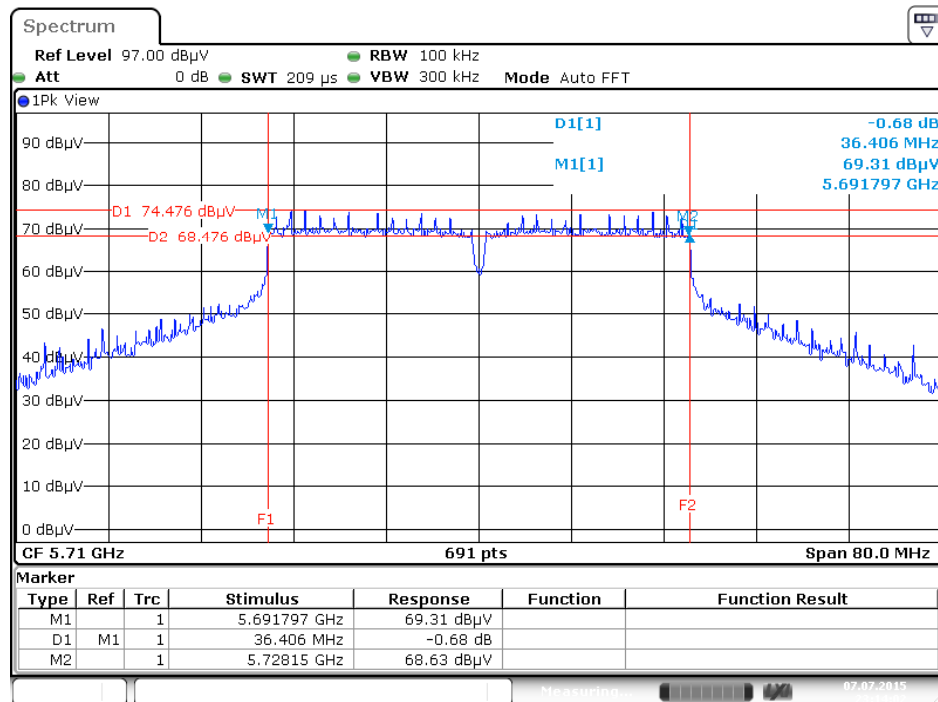
Date: 7.JUL.2015 23:17:31

6 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 7 / 5720 MHz



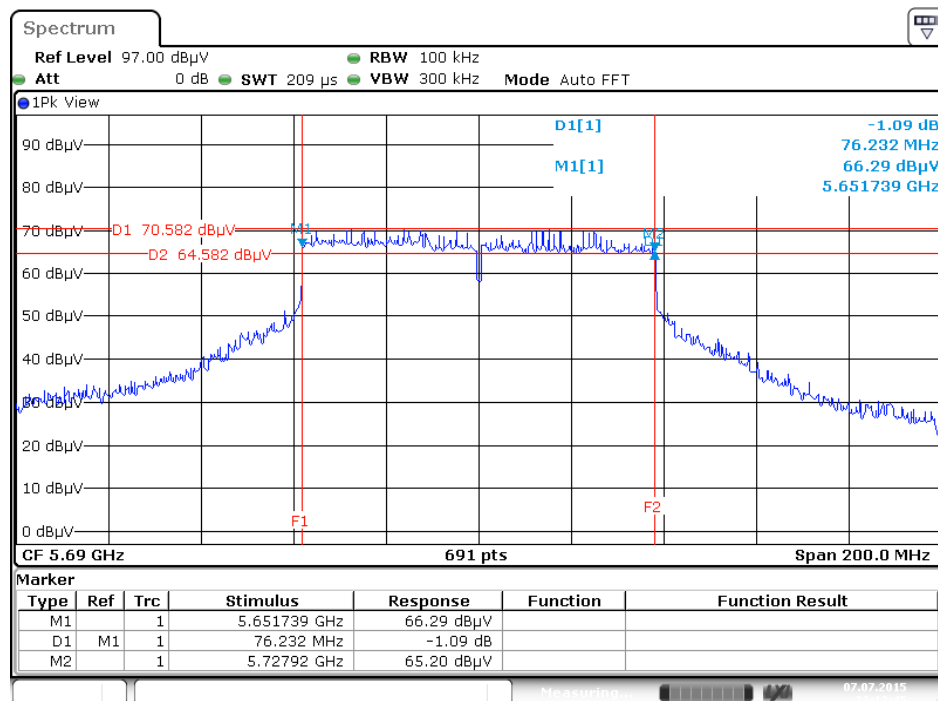
Date: 7.JUL.2015 23:18:24

6 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 7 / 5710 MHz



Date: 7.JUL.2015 23:14:02

6 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 7 / 5690 MHz



Date: 7.JUL.2015 23:12:45

4.4. Maximum Conducted Output Power Measurement

4.4.1. Limit

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

For straddle channel:

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

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

For other channel:

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

Power Meter Parameter	Setting
Detector	AVERAGE

4.4.2. Test Procedures

For straddle channel:

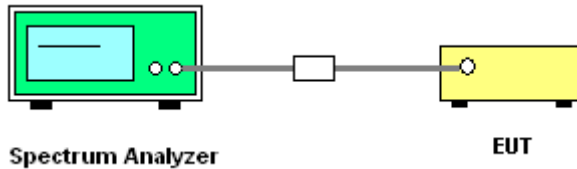
1. The transmitter output (antenna port) was connected to the spectrum analyzer.
2. Test was performed in accordance with FCC Public Notice DA 02-2138, August 30, 2002

For other channel:

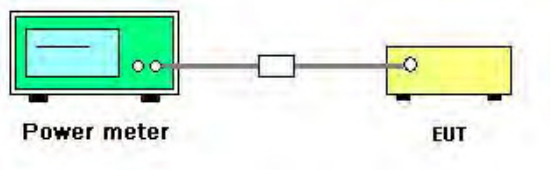
1. The transmitter output (antenna port) was connected to the power meter.
2. Test was performed in accordance with KDB789033 D02 v01 for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - section (E) Maximum conducted output power =>3. Measurement using a Power Meter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

4.4.3. Test Setup Layout

For straddle channel:



For other channel:



4.4.4. Test Deviation

There is no deviation with the original standard.

4.4.5. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.4.6. Test Result of Maximum Conducted Output Power

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

Temperature	25°C	Humidity	55%
Test Engineer	Lucas Huang	Test Date	Jul. 11, 2015

Mode	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 4		
802.11a	5260 MHz	21.76	24.00	Complies
	5300 MHz	21.59	24.00	Complies
	5320 MHz	21.42	24.00	Complies
	5500 MHz	21.47	23.91	Complies
	5580 MHz	21.92	24.00	Complies
	5700 MHz	20.65	23.97	Complies
802.11ac MCS0/Nss1 VHT20	5260 MHz	21.73	24.00	Complies
	5300 MHz	21.64	24.00	Complies
	5320 MHz	21.95	24.00	Complies
	5500 MHz	21.95	24.00	Complies
	5580 MHz	21.91	24.00	Complies
	5700 MHz	20.64	24.00	Complies
802.11ac MCS0/Nss1 VHT40	5270 MHz	21.48	24.00	Complies
	5310 MHz	19.37	24.00	Complies
	5510 MHz	20.62	24.00	Complies
	5550 MHz	21.59	24.00	Complies
	5670 MHz	21.43	24.00	Complies
802.11ac MCS0/Nss1 VHT80	5290 MHz	17.52	24.00	Complies
	5530 MHz	19.85	24.00	Complies
	5610 MHz	20.91	24.00	Complies

Note : 5500MHz power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(19.57) = 23.91\text{dBm} < 24\text{dBm}$, so power limit=23.91dBm

Note : 5700MHz power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(19.83) = 23.97\text{dBm} < 24\text{dBm}$, so power limit=23.97dBm

Straddle Channel

Mode	Frequency	Conducted Power (dBm)		Max. Limit (dBm)	Result
		Chain 4	Total		
802.11a	5720 MHz (UNII 2C)	20.56	20.71	22.89	Complies
	5720 MHz (UNII 3)	14.14	14.29	30.00	Complies
802.11ac MCS0/Nss1 VHT20	5720 MHz (UNII 2C)	20.53	20.61	22.84	Complies
	5720 MHz (UNII 3)	14.62	14.70	30.00	Complies
802.11ac MCS0/Nss1 VHT40	5710 MHz (UNII 2C)	21.37	21.56	24.00	Complies
	5710 MHz (UNII 3)	10.61	10.80	30.00	Complies
802.11ac MCS0/Nss1 VHT80	5690 MHz (UNII 2C)	21.35	21.75	24.00	Complies
	5690 MHz (UNII 3)	7.99	8.39	30.00	Complies

Note : 5720MHz (802.11a/ UNII 2C) power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(15.44) = 22.89\text{dBm} < 24\text{dBm}$,

so power limit=22.89dBm

Note : 5720MHz (VHT20/ UNII 2C) power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(15.26) = 22.84\text{dBm} < 24\text{dBm}$,

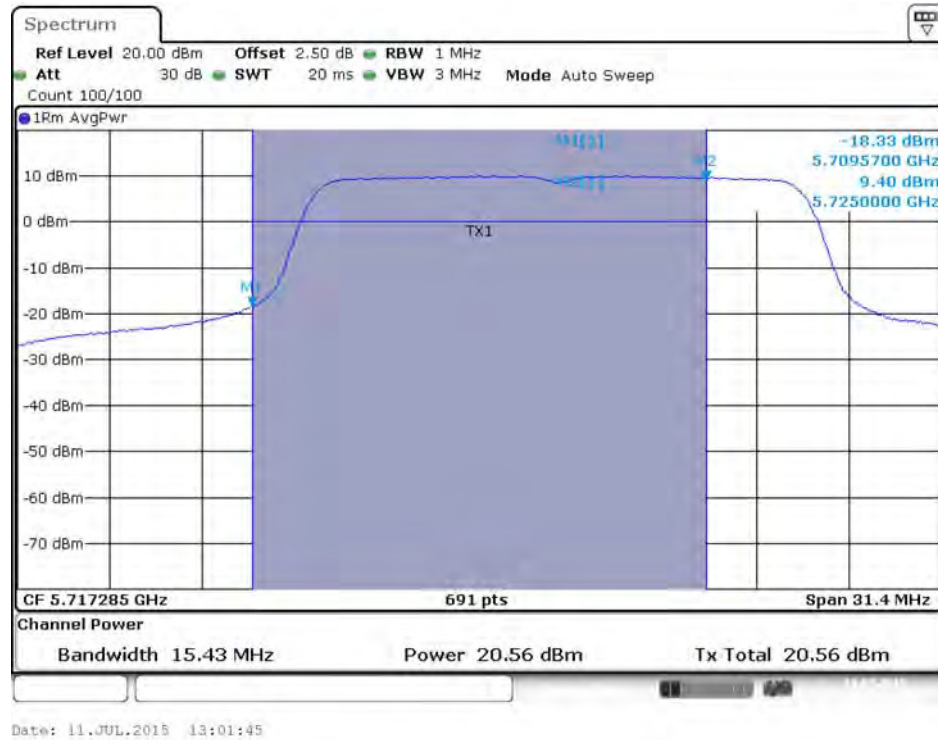
so power limit=22.84dBm

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

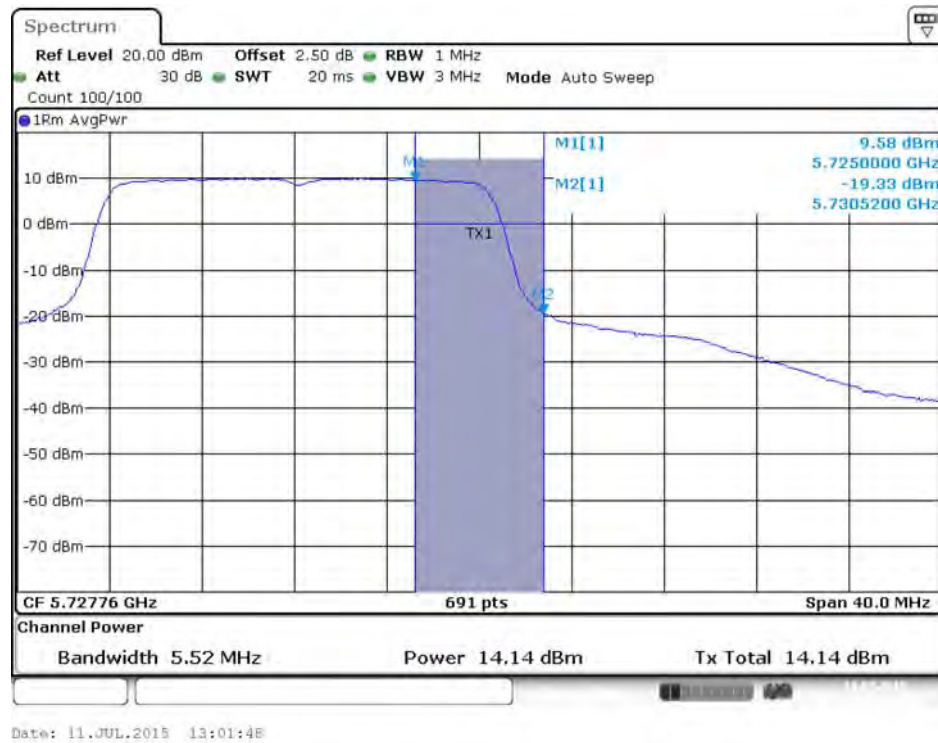
For plots, only the straddle channel result was shown.

Straddle Channel

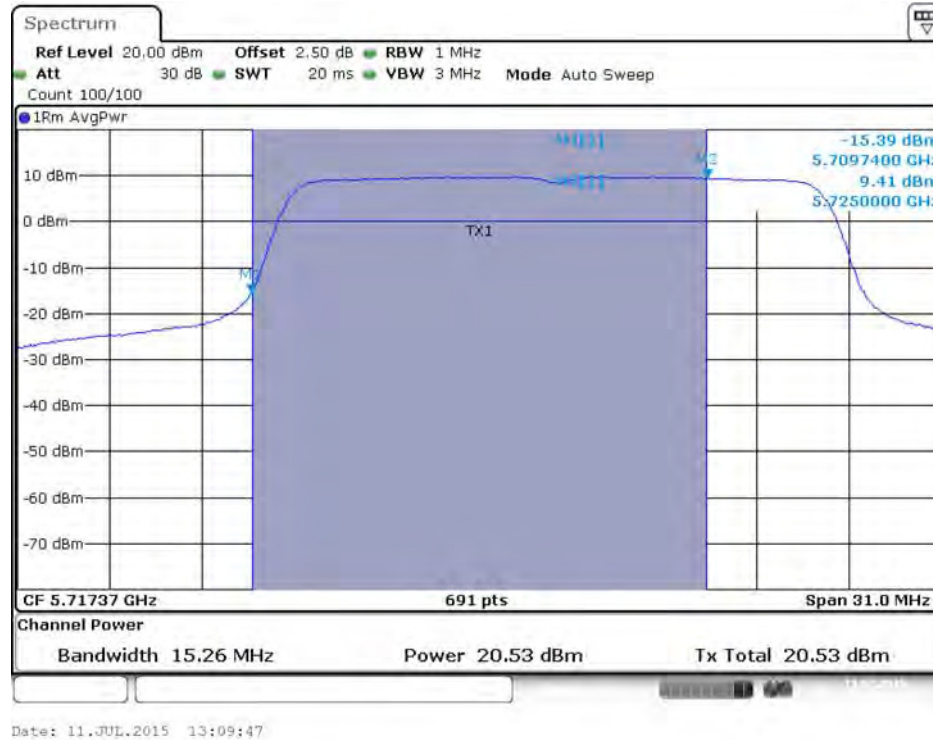
Conducted Output Power Plot on Configuration IEEE 802.11a / Chain 4 / 5720 MHz (UNII 2C)



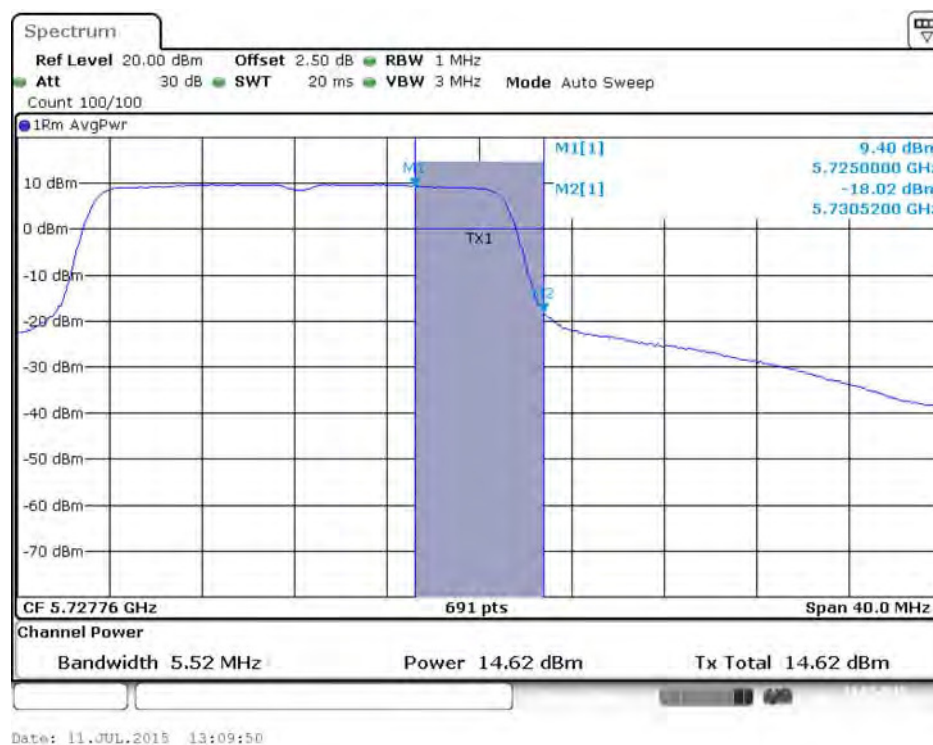
Conducted Output Power Plot on Configuration IEEE 802.11a / Chain 4 / 5720 MHz (UNII 3)



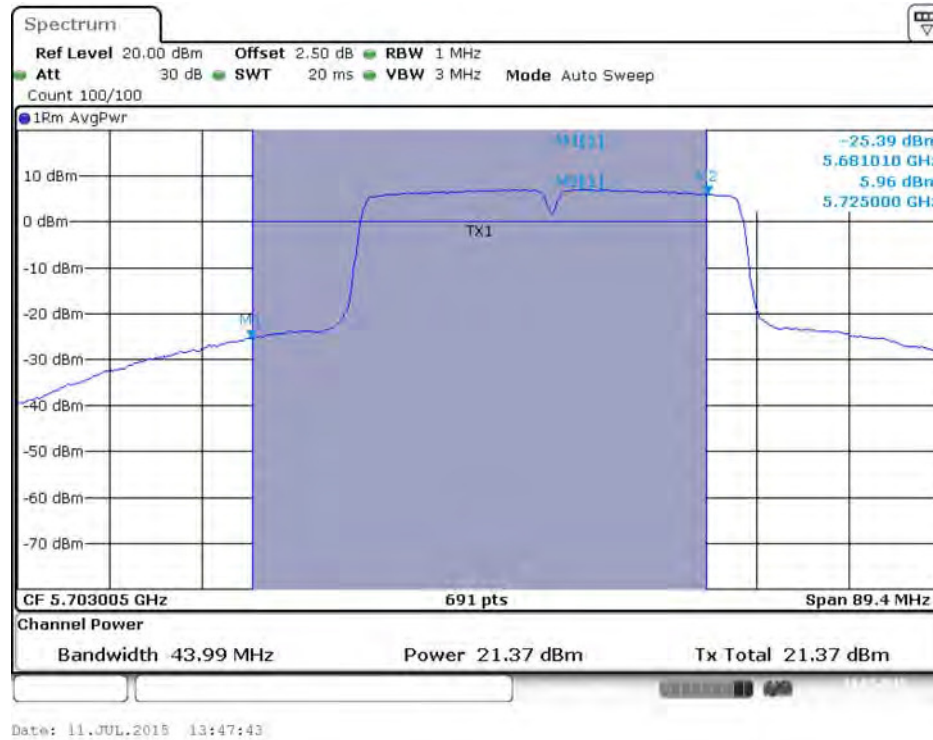
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 / 5720 MHz (UNII 2C)



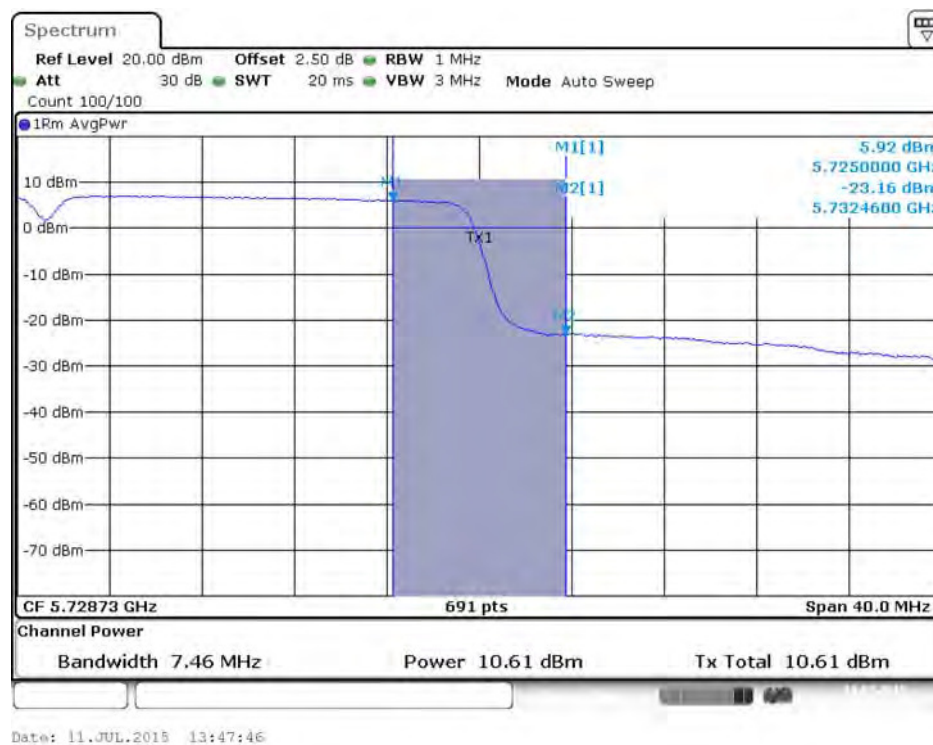
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 / 5720 MHz (UNII 3)



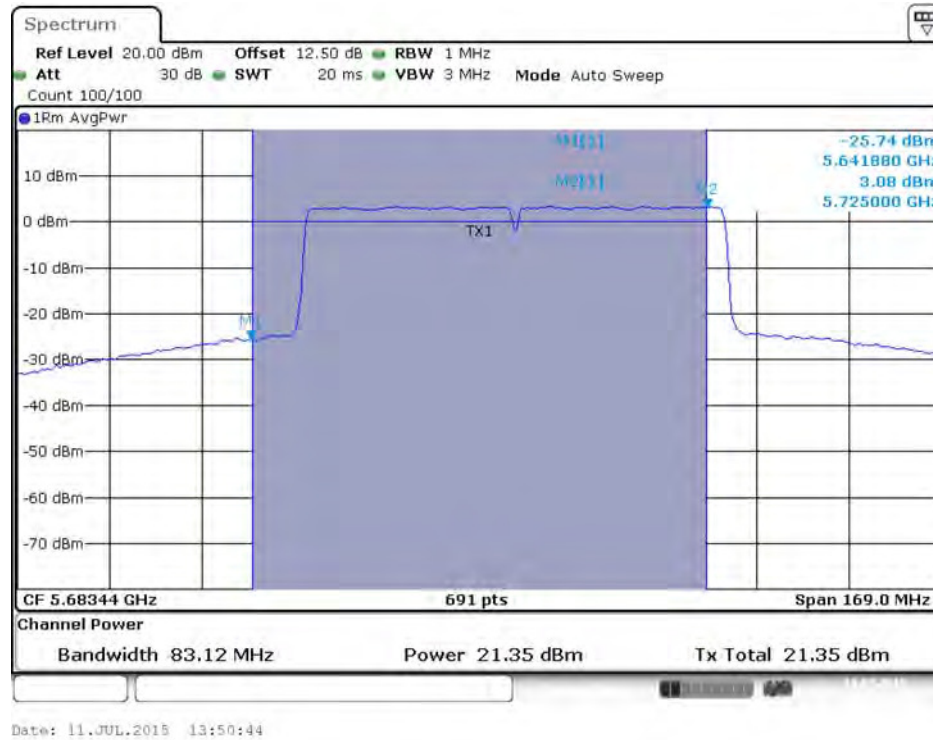
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 / 5710 MHz (UNII 2C)



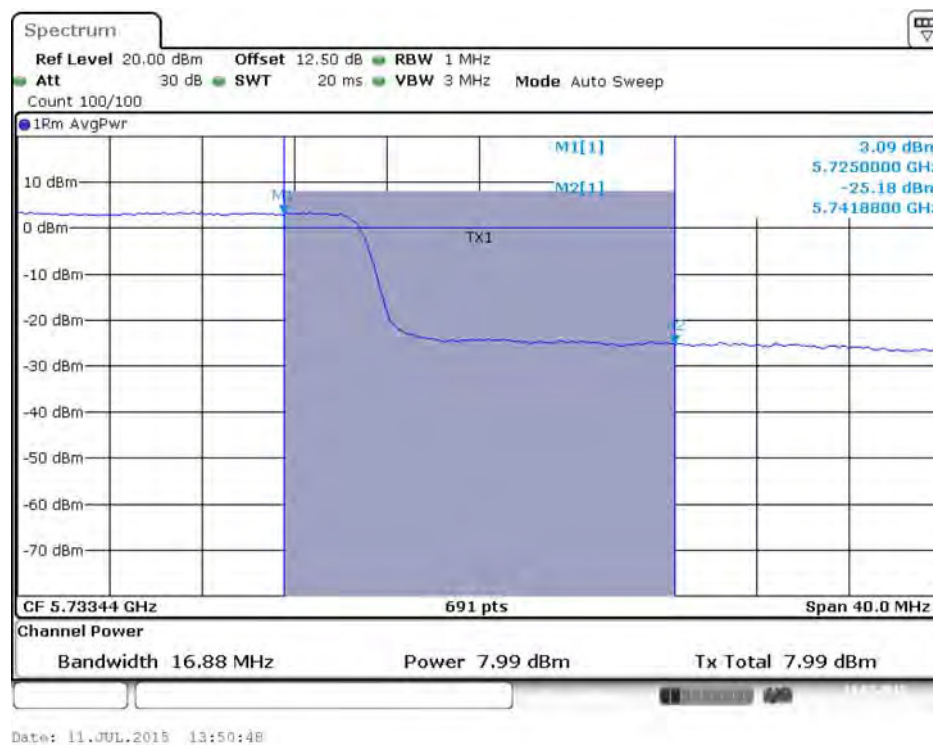
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 / 5710 MHz (UNII 3)



Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 / 5690 MHz (UNII 2C)



Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4/ 5690 MHz (UNII 3)



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

Temperature	25°C	Humidity	55%
Test Engineer	Lucas Huang	Test Date	Jul. 11, 2015

Mode	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Chain 4	Chain 5	Total		
802.11a	5260 MHz	20.31	19.87	23.11	24.00	Complies
	5300 MHz	20.16	19.97	23.08	24.00	Complies
	5320 MHz	19.94	20.08	23.02	24.00	Complies
	5500 MHz	20.01	20.26	23.15	24.00	Complies
	5580 MHz	19.91	20.24	23.09	24.00	Complies
	5700 MHz	15.88	16.18	19.04	24.00	Complies
802.11ac MCS0/Nss1 VHT20	5260 MHz	20.18	19.89	23.05	23.93	Complies
	5300 MHz	20.11	20.13	23.13	23.76	Complies
	5320 MHz	20.02	19.95	23.00	23.78	Complies
	5500 MHz	20.07	20.12	23.11	23.55	Complies
	5580 MHz	19.95	20.21	23.09	23.95	Complies
	5700 MHz	19.53	19.96	22.76	24.00	Complies
802.11ac MCS0/Nss1 VHT40	5270 MHz	20.95	20.54	23.76	24.00	Complies
	5310 MHz	17.71	17.57	20.65	24.00	Complies
	5510 MHz	19.93	20.24	23.10	24.00	Complies
	5550 MHz	20.51	20.72	23.63	24.00	Complies
	5670 MHz	20.90	21.02	23.97	24.00	Complies
802.11ac MCS0/Nss1 VHT80	5290 MHz	14.59	14.27	17.44	24.00	Complies
	5530 MHz	18.93	18.96	21.96	24.00	Complies
	5610 MHz	19.32	19.58	22.46	24.00	Complies

Note: The power limit=24dBm or $11 + 10\log(B)$

Note : 5260MHz power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(19.65)=23.93\text{dBm} < 24\text{dBm}$, so power limit=23.93dBm

Note : 5300MHz power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(18.87)=23.76\text{dBm} < 24\text{dBm}$, so power limit=23.76dBm

Note : 5320MHz power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(18.96)=23.78\text{dBm} < 24\text{dBm}$, so power limit=23.78dBm

Note : 5500MHz power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(18.00)=23.55\text{dBm} < 24\text{dBm}$, so power limit=23.55dBm

Note : 5580MHz power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(19.74)=23.95\text{dBm} < 24\text{dBm}$, so power limit=23.95dBm

Straddle Channel

Mode	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Chain 4	Chain 5	Total		
802.11a	5720 MHz (UNII 2C)	18.35	18.34	21.51	22.37	Complies
	5720 MHz (UNII 3)	11.95	12.01	15.14	30.00	Complies
802.11ac MCS0/Nss1 VHT20	5720 MHz (UNII 2C)	11.95	12.01	15.04	22.68	Complies
	5720 MHz (UNII 3)	12.37	12.27	15.38	30.00	Complies
802.11ac MCS0/Nss1 VHT40	5710 MHz (UNII 2C)	20.57	20.57	23.69	24.00	Complies
	5710 MHz (UNII 3)	9.55	10.76	13.32	30.00	Complies
802.11ac MCS0/Nss1 VHT80	5690 MHz (UNII 2C)	20.54	20.46	23.81	24.00	Complies
	5690 MHz (UNII 3)	6.83	7.88	10.70	30.00	Complies

Note: The power limit=24dBm or $11 + 10\log(B)$

Note : 5720MHz(802.11a / UNII 2C) power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(13.70) = 22.37\text{dBm} < 24\text{dBm}$,
so power limit=22.37dBm

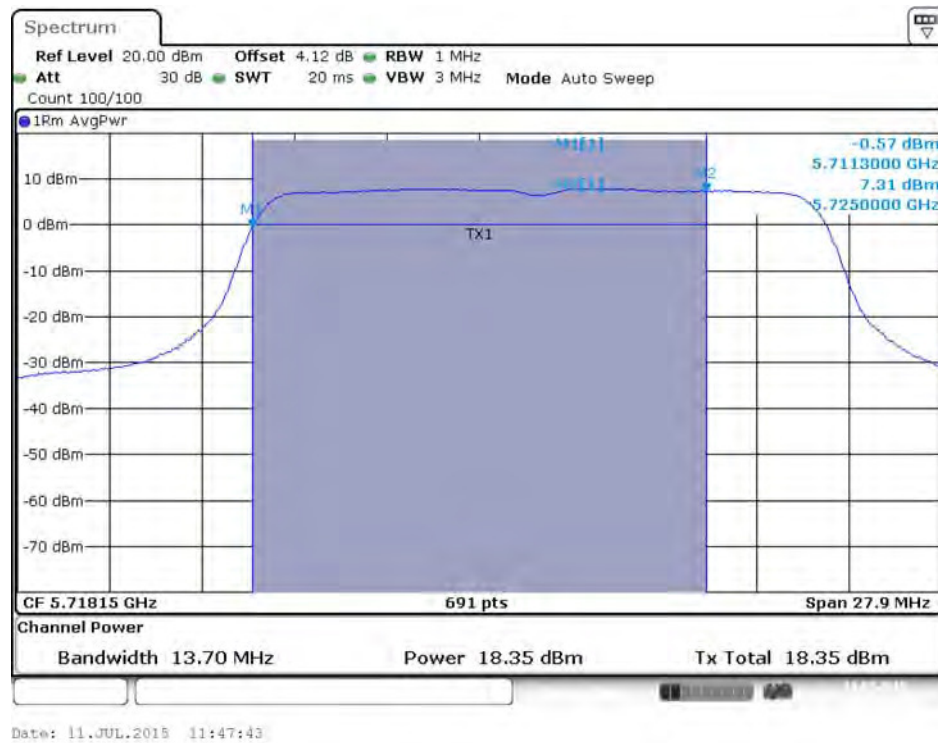
Note : 5720MHz(VHT20 / UNII 2C) power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(14.74) = 22.68\text{dBm} < 24\text{dBm}$,
so power limit=22.68dBm

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

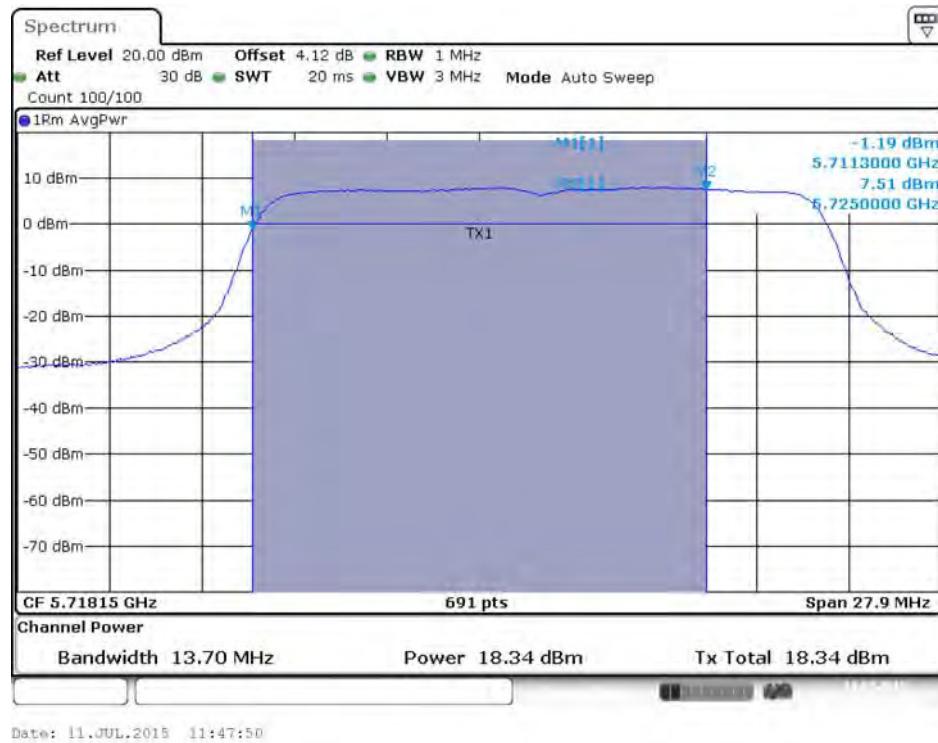
For plots, only the straddle channel result was shown.

Straddle Channel

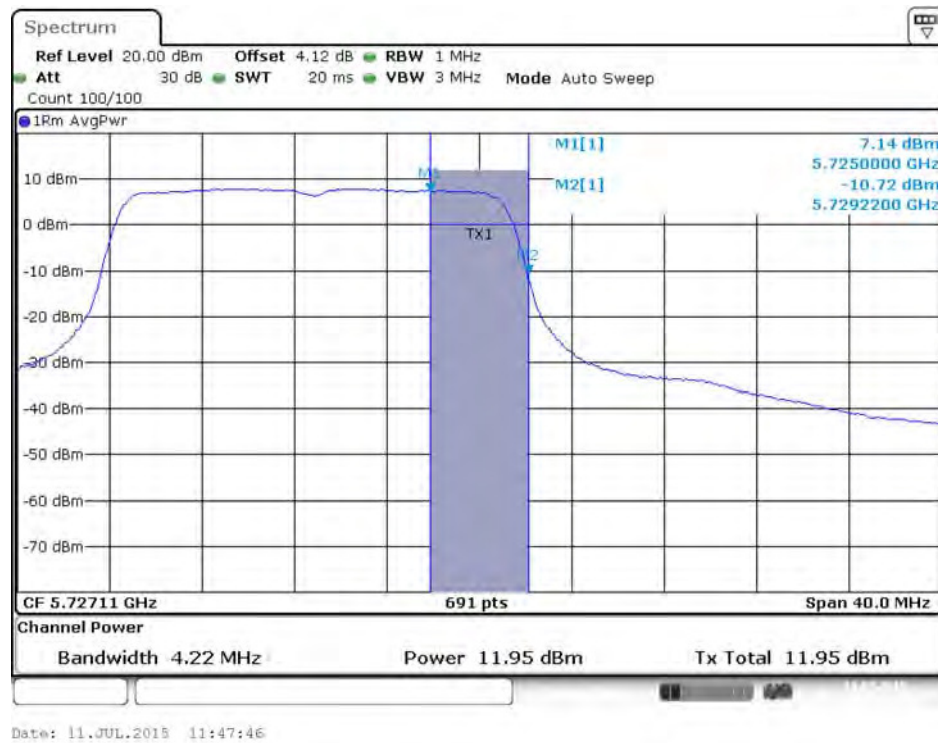
Conducted Output Power Plot on Configuration IEEE 802.11a / Chain 4 / 5720 MHz (UNII 2C)



Conducted Output Power Plot on Configuration IEEE 802.11a / Chain 5/ 5720 MHz (UNII 2C)



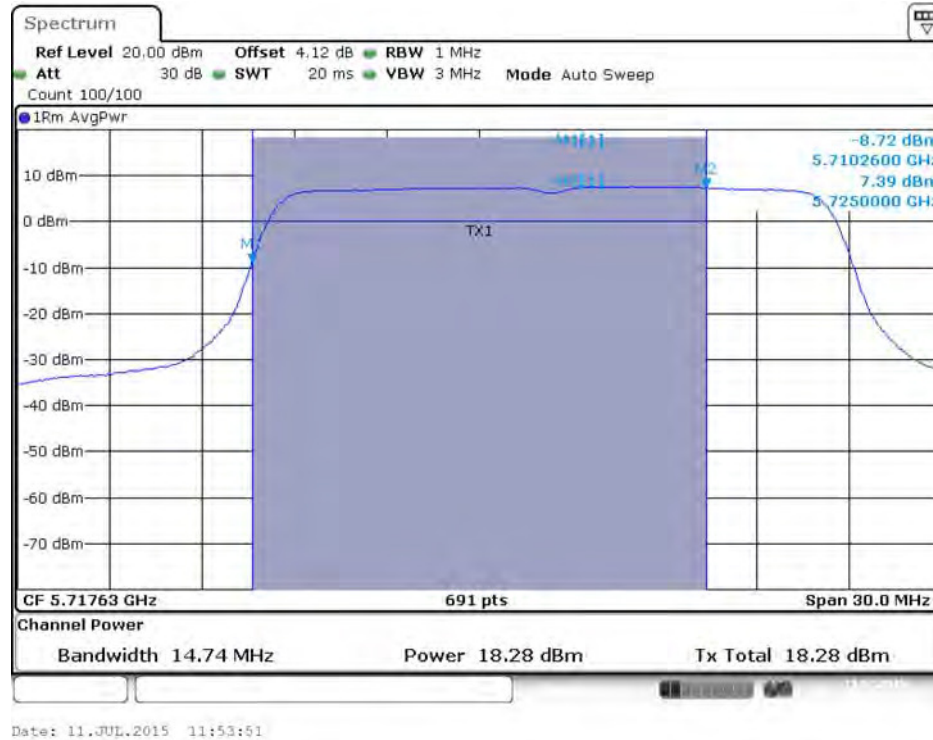
Conducted Output Power Plot on Configuration IEEE 802.11a / Chain 4 / 5720 MHz (UNII 3)



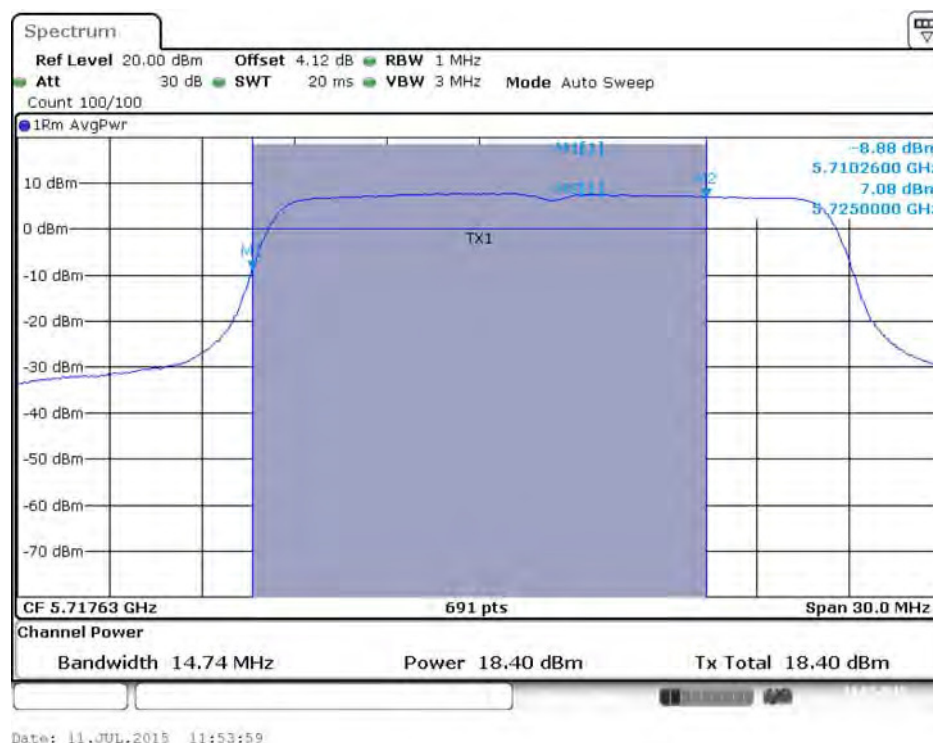
Conducted Output Power Plot on Configuration IEEE 802.11a / Chain 5 / 5720 MHz (UNII 3)



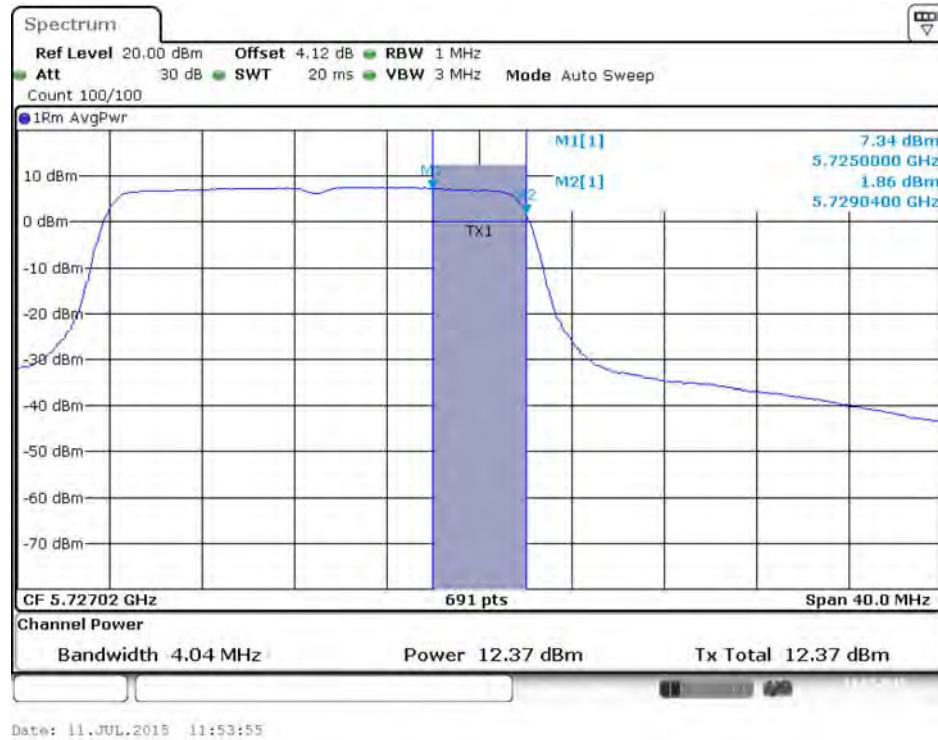
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 / 5720 MHz (UNII 2C)



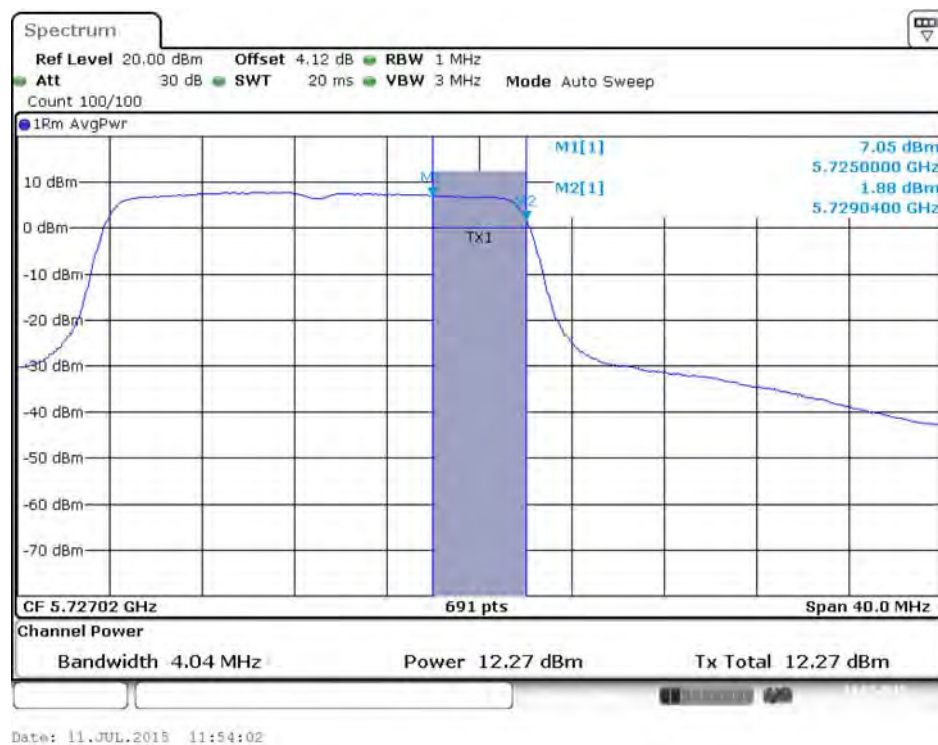
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 5 / 5720 MHz (UNII 2C)



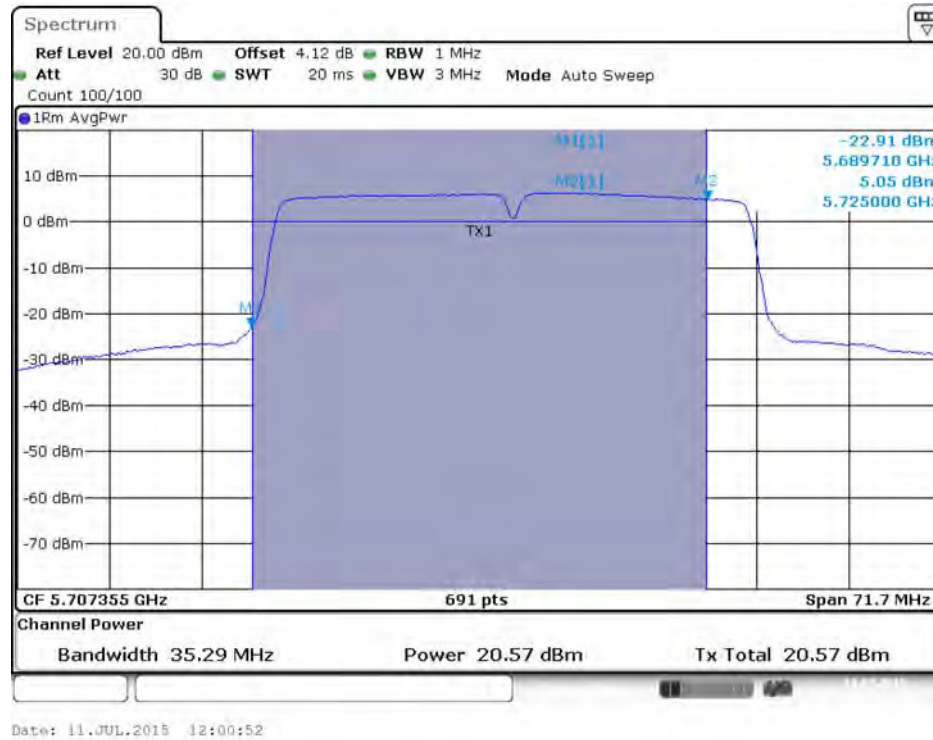
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4/ 5720 MHz (UNII 3)



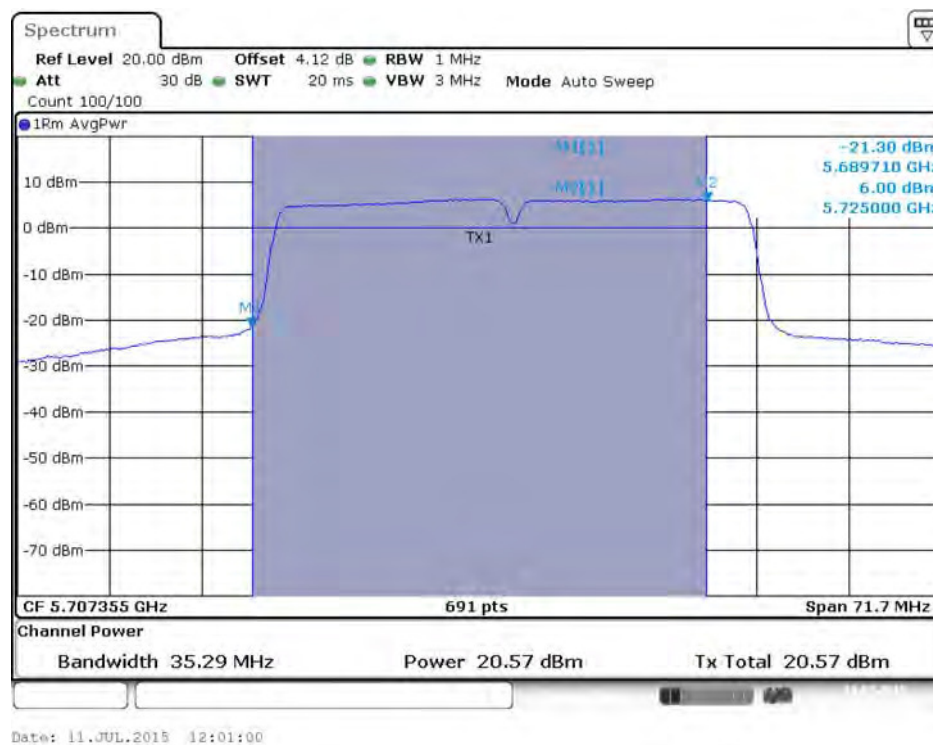
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 5 / 5720 MHz (UNII 3)



Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 /Chain 4 / 5710 MHz (UNII 2C)



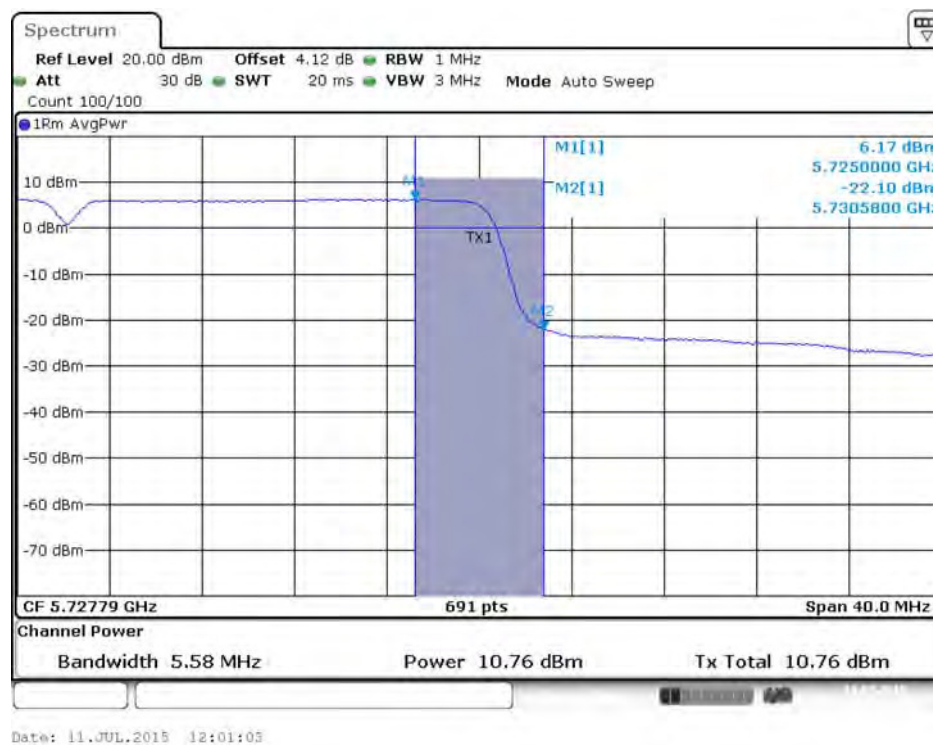
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 5/ 5710 MHz (UNII 2C)



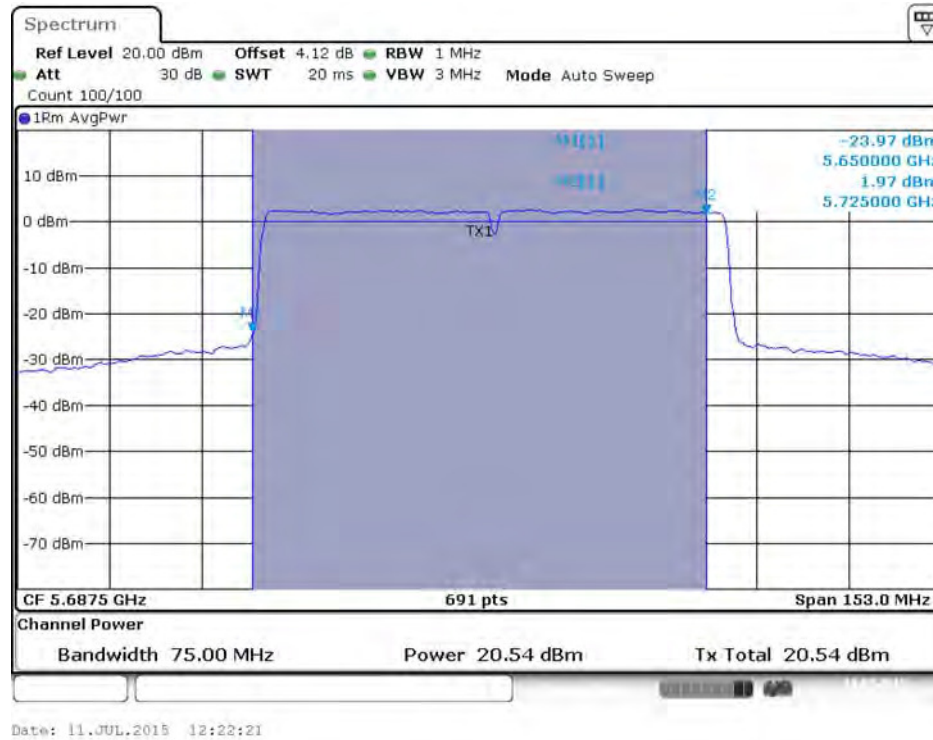
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 / 5710 MHz (UNII 3)



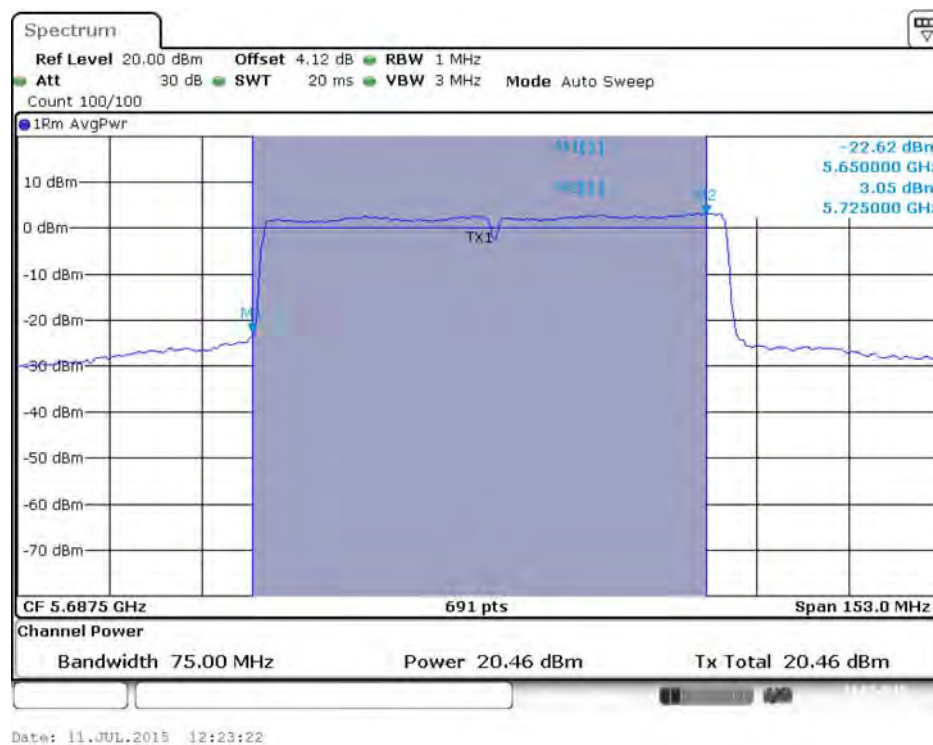
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 /Chain 5 / 5710 MHz (UNII 3)



Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4/ 5690 MHz (UNII 2C)



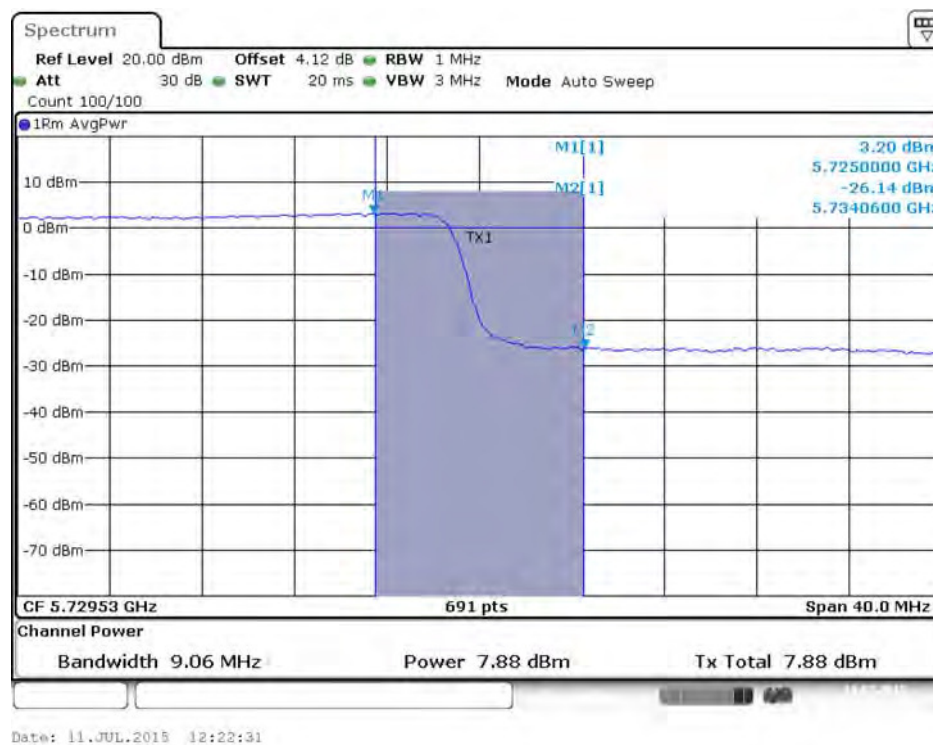
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 5/ 5690 MHz (UNII 2C)



Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 / 5690 MHz (UNII 3)



Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 5/ 5690 MHz (UNII 3)



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

Temperature	25°C	Humidity	55%
Test Engineer	Lucas Huang	Test Date	Jul. 11, 2015

Mode	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Chain 4	Chain 5	Total		
802.11ac MCS0/Nss2 VHT20	5260 MHz	20.79	20.34	23.58	23.99	Complies
	5300 MHz	21.04	20.78	23.92	24.00	Complies
	5320 MHz	20.78	20.75	23.78	24.00	Complies
	5500 MHz	20.54	20.65	23.61	23.99	Complies
	5580 MHz	20.43	20.76	23.61	23.99	Complies
	5700 MHz	20.56	20.94	23.76	24.00	Complies
802.11ac MCS0/Nss2 VHT40	5270 MHz	21.02	20.54	23.80	24.00	Complies
	5310 MHz	17.77	17.54	20.67	24.00	Complies
	5510 MHz	19.56	19.76	22.67	24.00	Complies
	5550 MHz	20.66	20.77	23.73	24.00	Complies
	5670 MHz	20.48	20.36	23.43	24.00	Complies
802.11ac MCS0/Nss2 VHT80	5290 MHz	16.09	15.85	18.98	24.00	Complies
	5530 MHz	18.92	18.99	21.97	24.00	Complies
	5610 MHz	19.34	19.57	22.47	24.00	Complies

Note : 5260MHz power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(19.91) = 23.99\text{dBm} < 24\text{dBm}$, so power limit=23.99dBm

Note : 5500MHz power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(19.91) = 23.99\text{dBm} < 24\text{dBm}$, so power limit=23.99dBm

Note : 5580MHz power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(19.91) = 23.99\text{dBm} < 24\text{dBm}$, so power limit=23.99dBm

Straddle Channel

Mode	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Chain 4	Chain 5	Total		
802.11ac MCS0/Nss2 VHT20	5720 MHz (UNII 2C)	19.26	19.28	22.41	22.79	Complies
	5720 MHz (UNII 3)	14.07	13.86	17.11	30.00	Complies
802.11ac MCS0/Nss2 VHT40	5710 MHz (UNII 2C)	20.51	20.51	23.88	24.00	Complies
	5710 MHz (UNII 3)	9.90	10.18	13.41	30.00	Complies
802.11ac MCS0/Nss2 VHT80	5690 MHz (UNII 2C)	20.13	20.10	23.82	24.00	Complies
	5690 MHz (UNII 3)	6.82	7.51	10.88	30.00	Complies

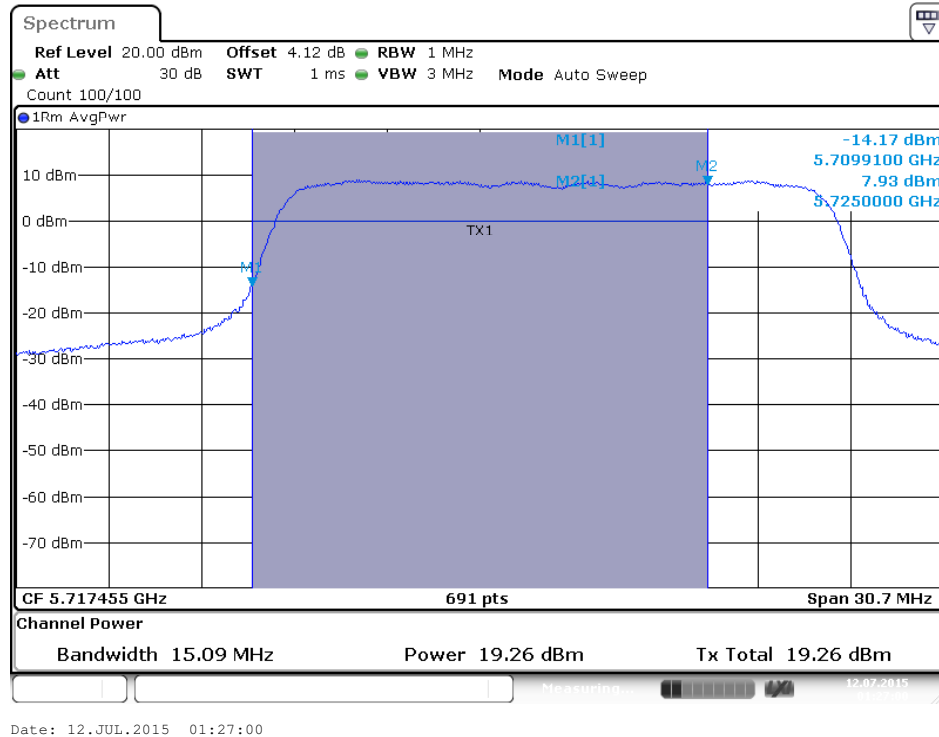
Note : 5720MHz (UNII 2C)power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(15.09) = 22.79\text{dBm} < 24\text{dBm}$,
so power limit=22.79dBm

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

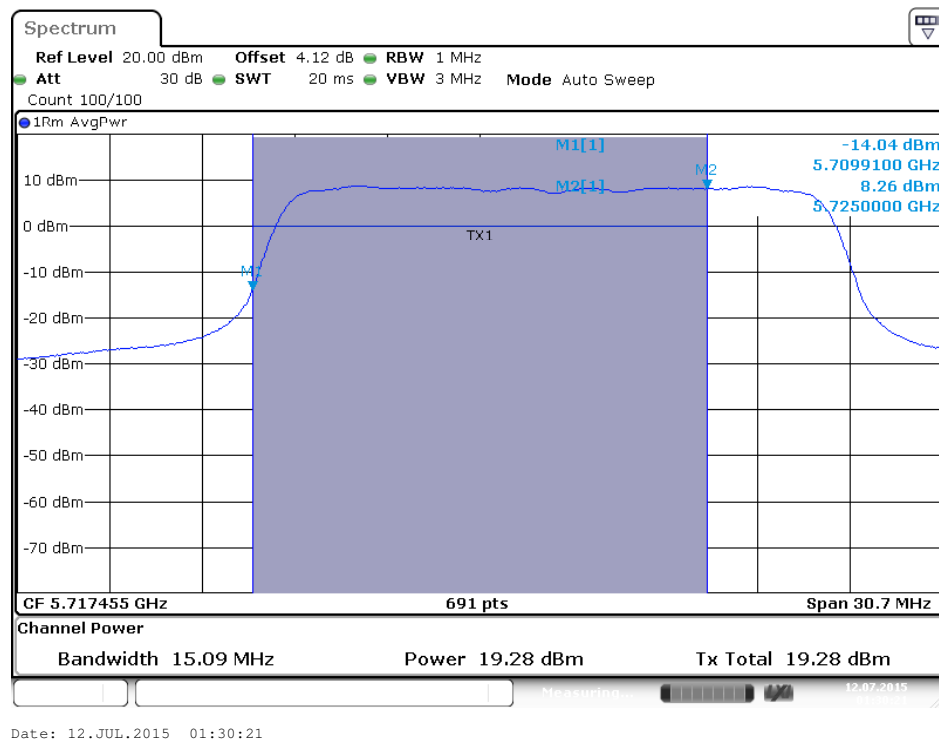
For plots, only the straddle channel result was shown.

Straddle Channel

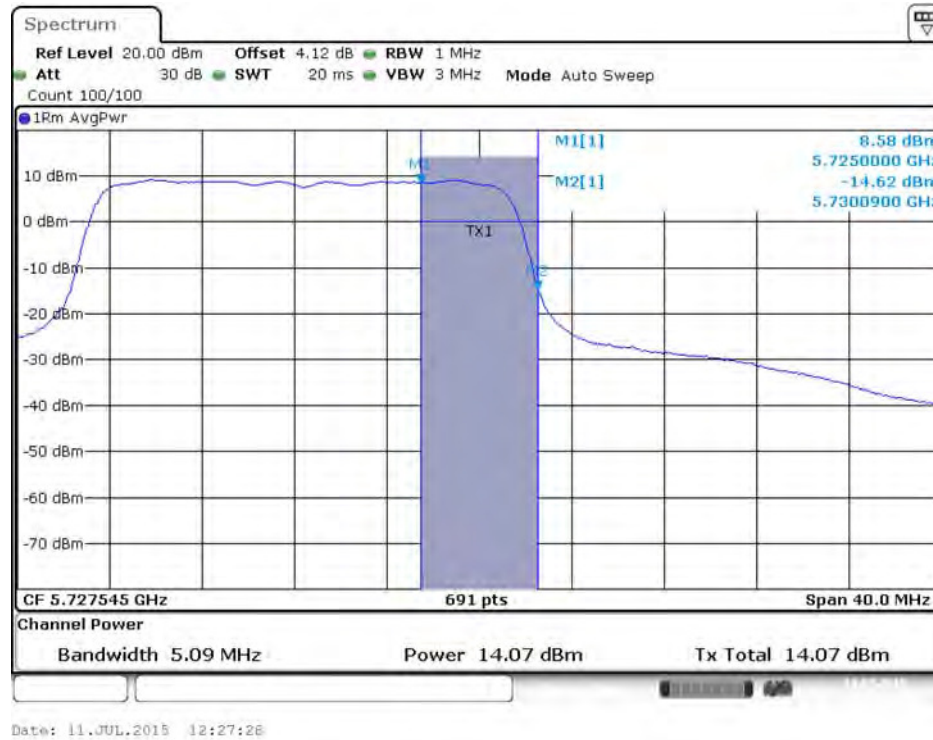
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4 / 5720 MHz (UNII 2C)



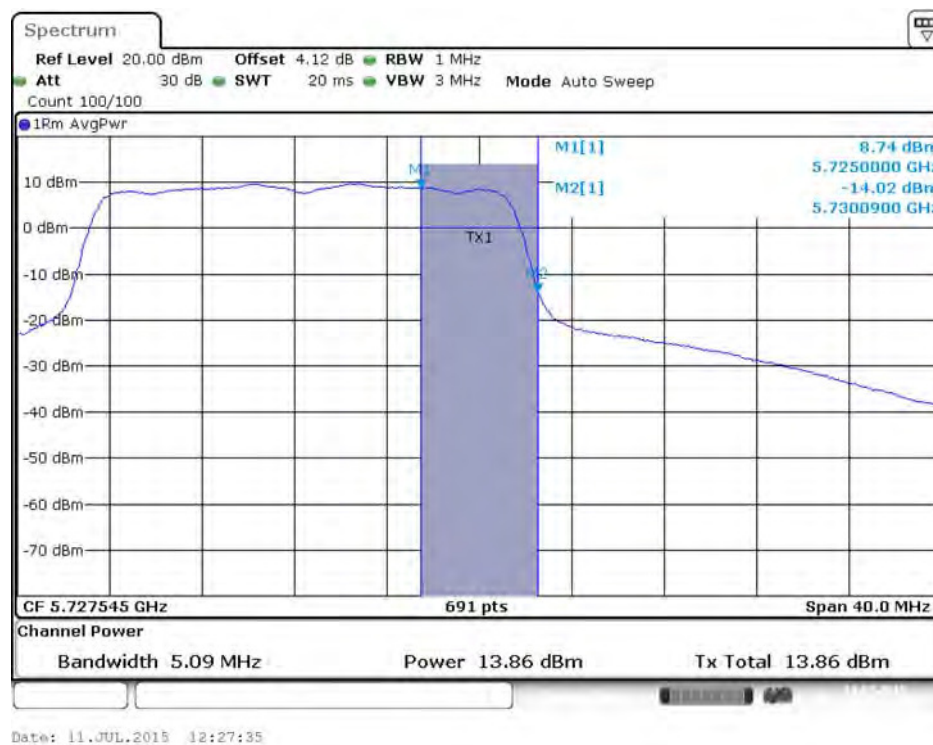
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 5 / 5720 MHz (UNII 2C)



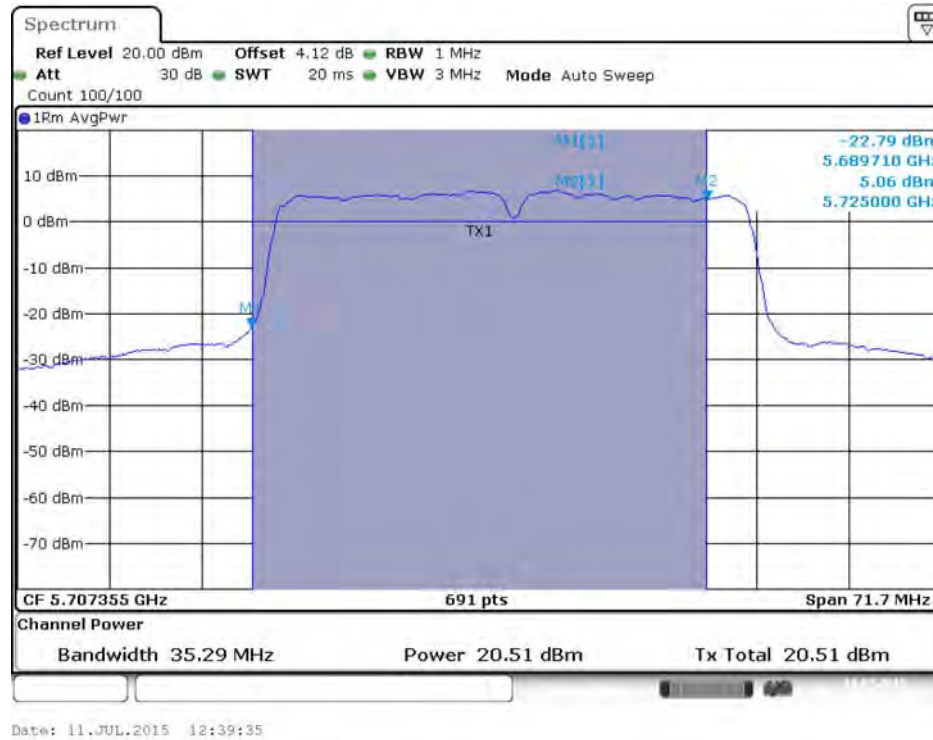
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4/ 5720 MHz (UNII 3)



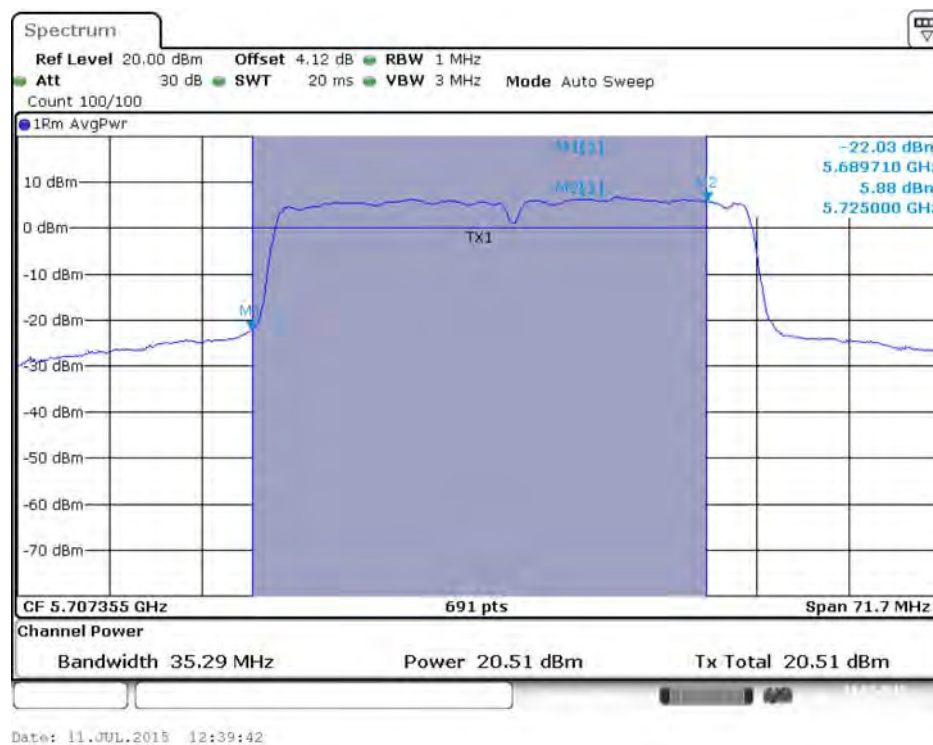
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 5 / 5720 MHz (UNII 3)



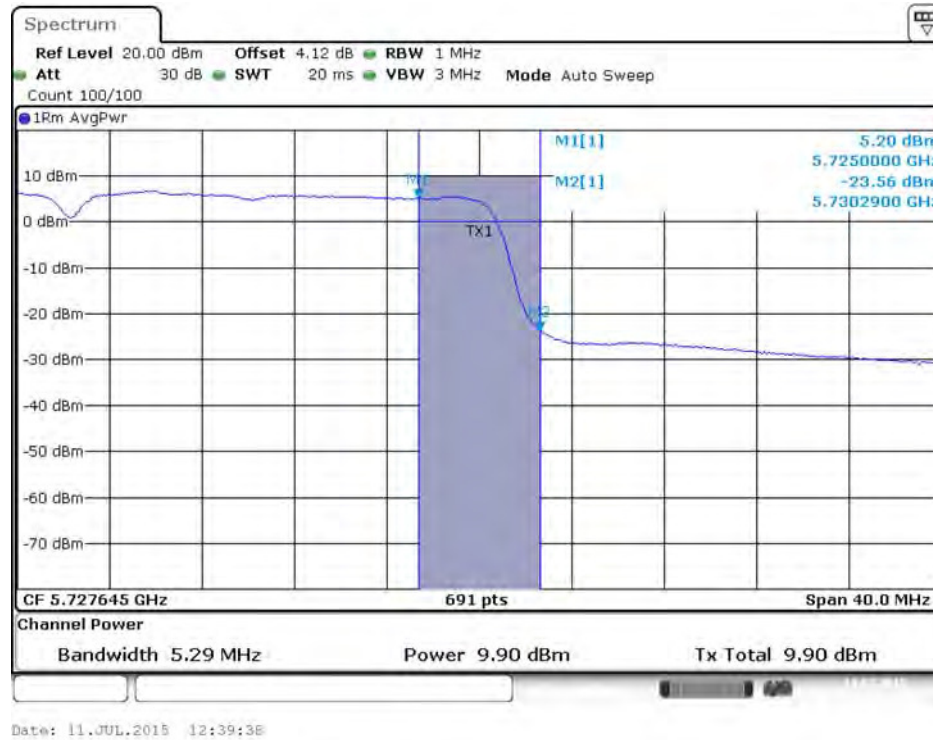
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4 / 5710 MHz (UNII 2C)



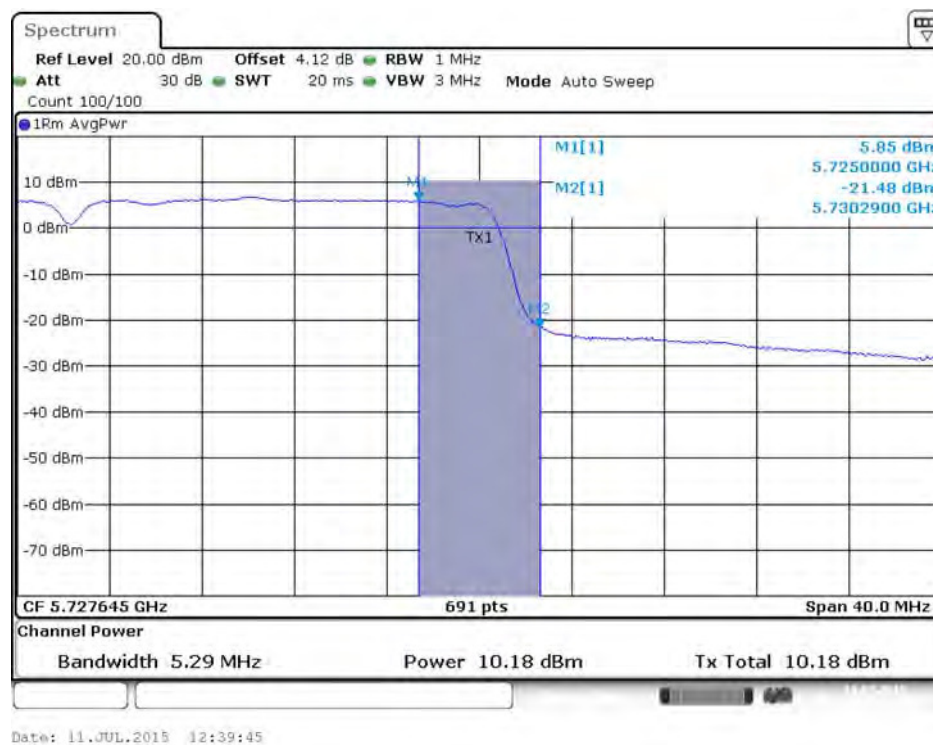
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 5/ 5710 MHz (UNII 2C)



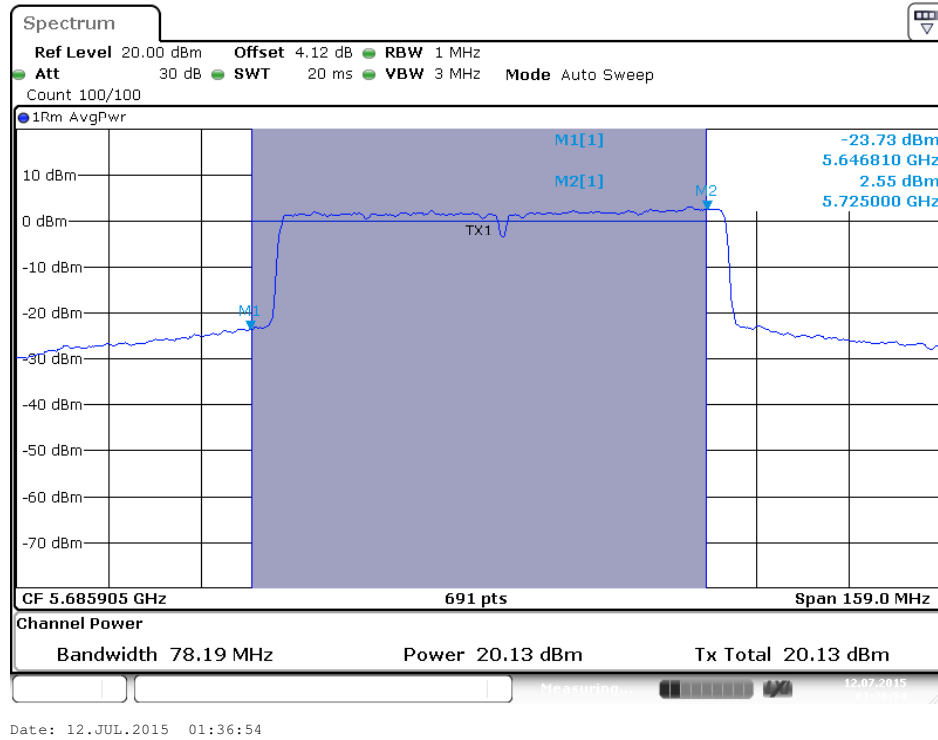
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4 / 5710 MHz (UNII 3)



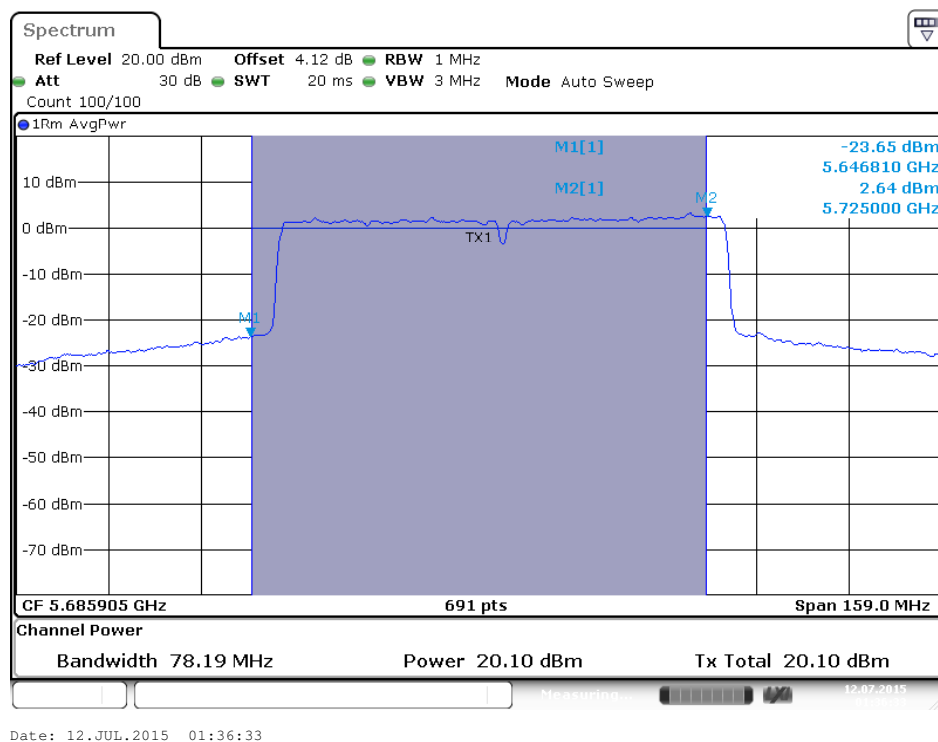
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 5 / 5710 MHz (UNII 3)



Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4/ 5690 MHz (UNII 2C)



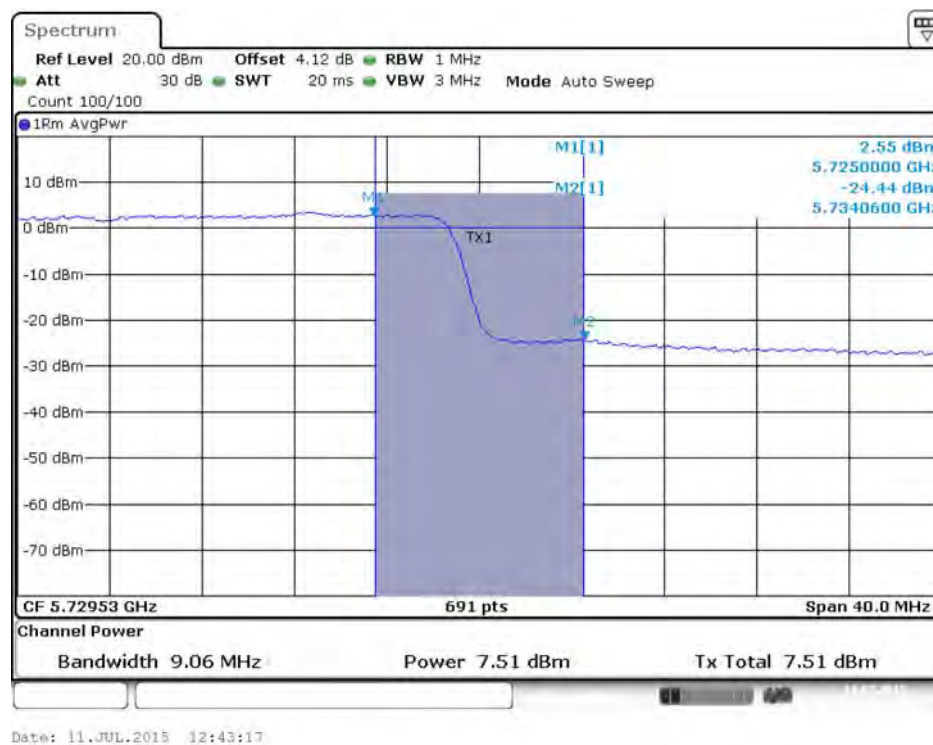
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 5/ 5690 MHz (UNII 2C)



Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4 / 5690 MHz (UNII 3)



Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 5/ 5690 MHz (UNII 3)



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

Temperature	25°C	Humidity	55%
Test Engineer	Lucas Huang	Test Date	Jul. 11, 2015

Mode	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 4	Chain 5	Chain 6	Total		
802.11a	5260 MHz	17.09	16.98	17.22	21.87	23.82	Complies
	5300 MHz	17.02	16.81	17.02	21.72	23.74	Complies
	5320 MHz	17.29	17.00	17.14	21.92	23.76	Complies
	5500 MHz	17.15	17.05	17.05	21.85	23.76	Complies
	5580 MHz	17.19	17.00	16.98	21.83	23.68	Complies
	5700 MHz	15.81	16.33	16.27	20.91	23.66	Complies
802.11ac MCS0/Nss1 VHT20	5260 MHz	11.71	11.86	11.86	16.40	24.00	Complies
	5300 MHz	10.82	10.71	10.71	15.35	24.00	Complies
	5320 MHz	12.21	12.34	12.34	16.86	24.00	Complies
	5500 MHz	11.71	11.86	11.86	16.40	24.00	Complies
	5580 MHz	10.82	10.71	10.71	15.35	24.00	Complies
	5700 MHz	12.21	12.34	12.34	16.86	24.00	Complies
802.11ac MCS0/Nss1 VHT40	5270 MHz	12.21	12.34	12.34	16.86	24.00	Complies
	5310 MHz	11.71	11.86	11.86	16.40	24.00	Complies
	5510 MHz	10.82	10.71	10.71	15.35	24.00	Complies
	5550 MHz	12.21	12.34	12.34	16.86	24.00	Complies
	5670 MHz	11.71	11.86	11.86	16.40	24.00	Complies
802.11ac MCS0/Nss1 VHT80	5290 MHz	10.82	10.71	10.71	15.35	24.00	Complies
	5530 MHz	12.21	12.34	12.34	16.86	24.00	Complies
	5610 MHz	12.21	12.34	12.34	16.86	24.00	Complies

Note : 5260MHz power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(19.13) = 23.82\text{dBm} < 24\text{dBm}$, so power limit=23.82dBm

Note : 5300MHz power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(18.78) = 23.74\text{dBm} < 24\text{dBm}$, so power limit=23.74dBm

Note : 5320MHz power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(18.87) = 23.76\text{dBm} < 24\text{dBm}$, so power limit=23.76dBm

Note : 5500MHz power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(18.87) = 23.76\text{dBm} < 24\text{dBm}$, so power limit=23.76dBm

Note : 5580MHz power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(18.52) = 23.68\text{dBm} < 24\text{dBm}$, so power limit=23.68dBm

Note : 5700MHz power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(18.43) = 23.66\text{dBm} < 24\text{dBm}$, so power limit=23.66dBm

Straddle Channel

Mode	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 4	Chain 5	Chain 6	Total		
802.11a	5720 MHz (UNII 2C)	16.37	16.45	16.23	21.30	22.61	Complies
	5720 MHz (UNII 3)	9.87	10.43	9.58	14.93	30.00	Complies
802.11ac MCS0/Nss1 VHT20	5720 MHz (UNII 2C)	16.35	16.57	16.11	21.30	22.78	Complies
	5720 MHz (UNII 3)	10.46	10.35	10.32	15.33	30.00	Complies
802.11ac MCS0/Nss1 VHT40	5710 MHz (UNII 2C)	19.22	19.15	18.85	23.97	24.00	Complies
	5710 MHz (UNII 3)	8.29	9.06	7.86	13.33	30.00	Complies
802.11ac MCS0/Nss1 VHT80	5690 MHz (UNII 2C)	19.00	18.82	18.72	23.93	24.00	Complies
	5690 MHz (UNII 3)	5.61	6.08	5.24	10.78	30.00	Complies

Note : 5720MHz (802.11a / UNII 2C)power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(14.48) = 22.61\text{dBm} < 24\text{dBm}$,

so power limit=22.61dBm

Note : 5720MHz(VHT20 / UNII 2C) power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(15.08) = 22.78\text{dBm} < 24\text{dBm}$,

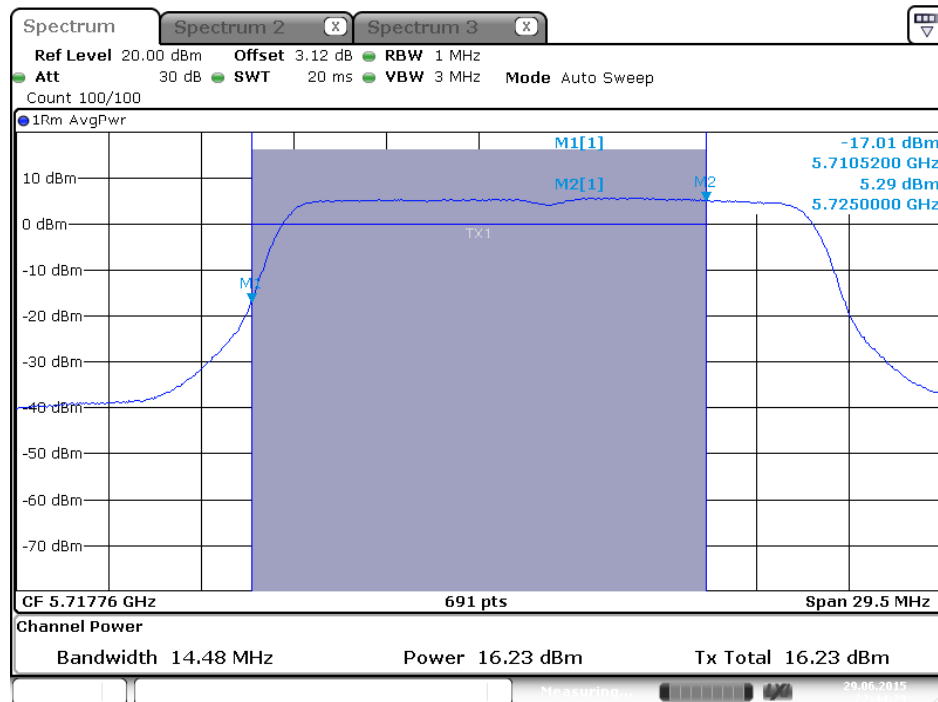
so power limit=22.78dBm

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

For plots, only the straddle channel result was shown.

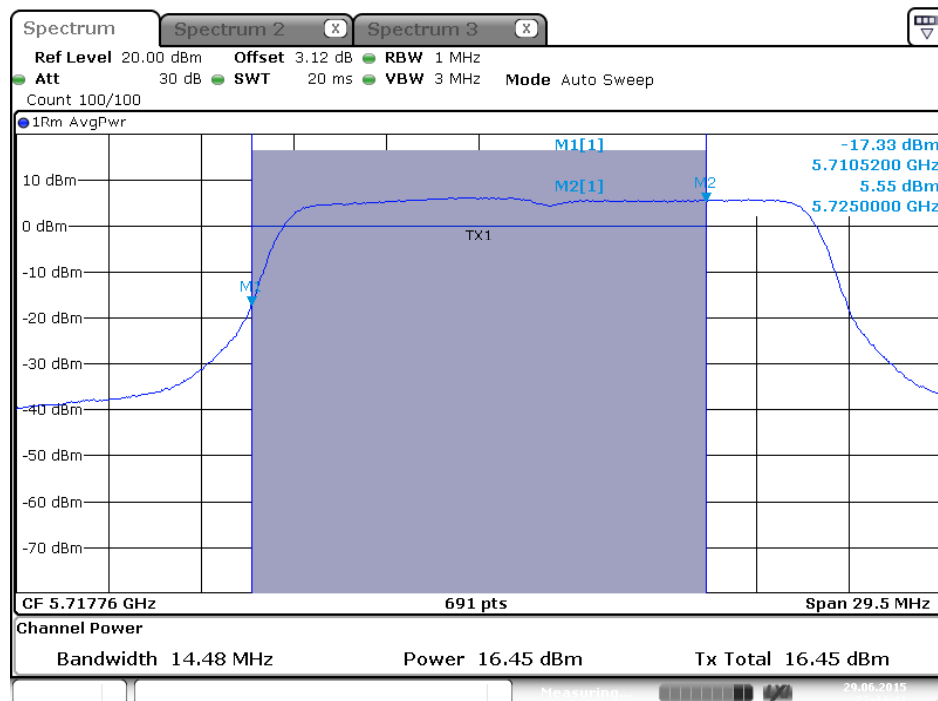
Straddle Channel

Conducted Output Power Plot on Configuration IEEE 802.11a / Chain 4 / 5720 MHz (UNII 2C)



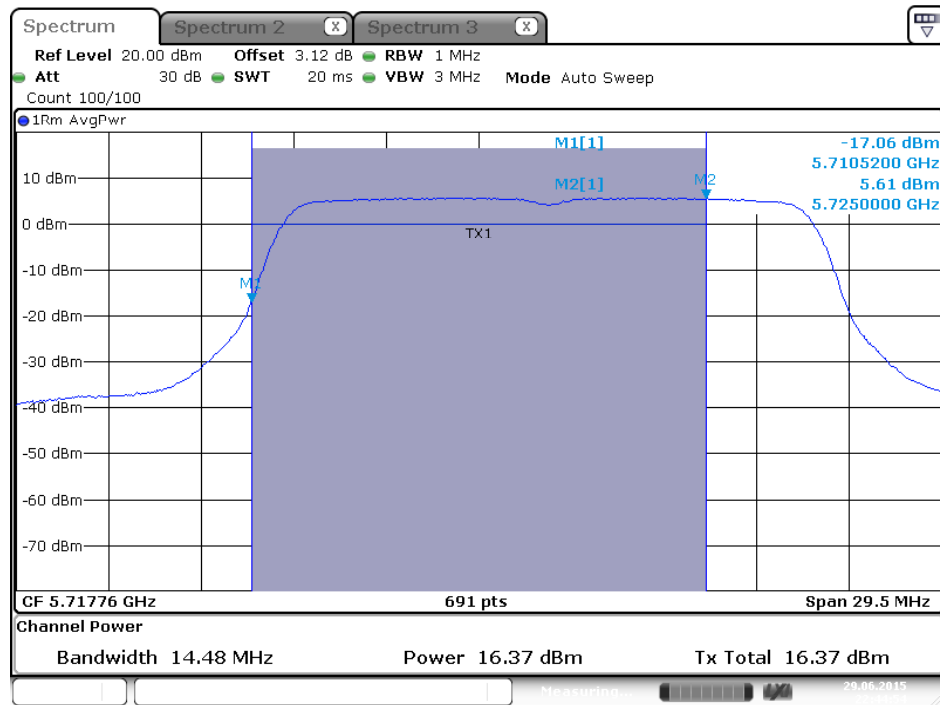
Date: 29 JUN 2015 22:44:29

Conducted Output Power Plot on Configuration IEEE 802.11a / Chain 5 / 5720 MHz (UNII 2C)



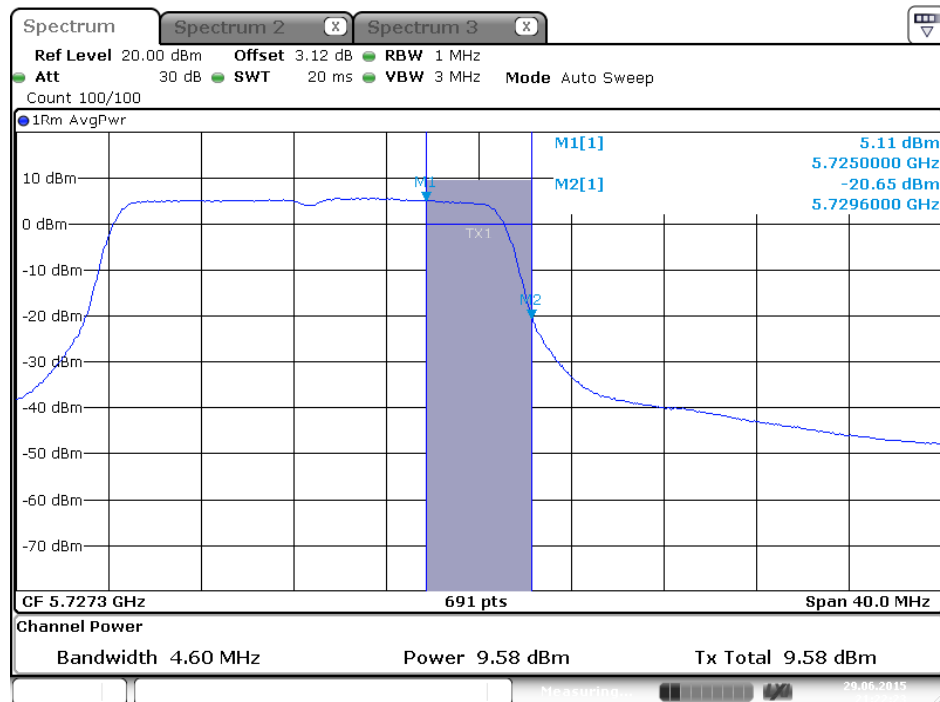
Date: 29 JUN 2015 22:44:41

Conducted Output Power Plot on Configuration IEEE 802.11a / Chain 6 / 5720 MHz (UNII 2C)



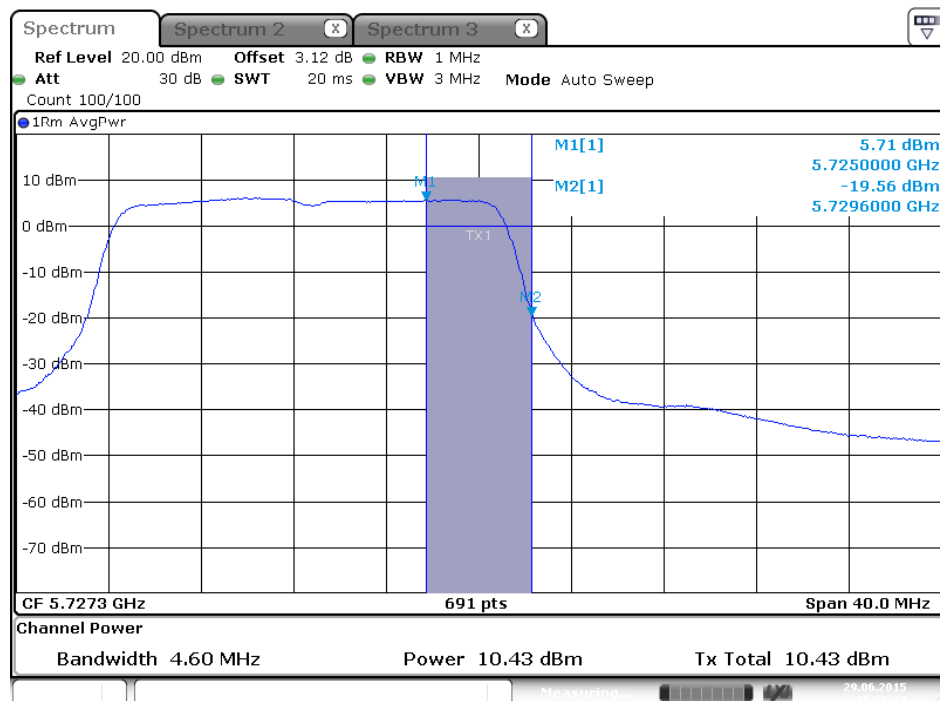
Date: 29 JUN 2015 22:44:54

Conducted Output Power Plot on Configuration IEEE 802.11a / Chain 4/ 5720 MHz (UNII 3)



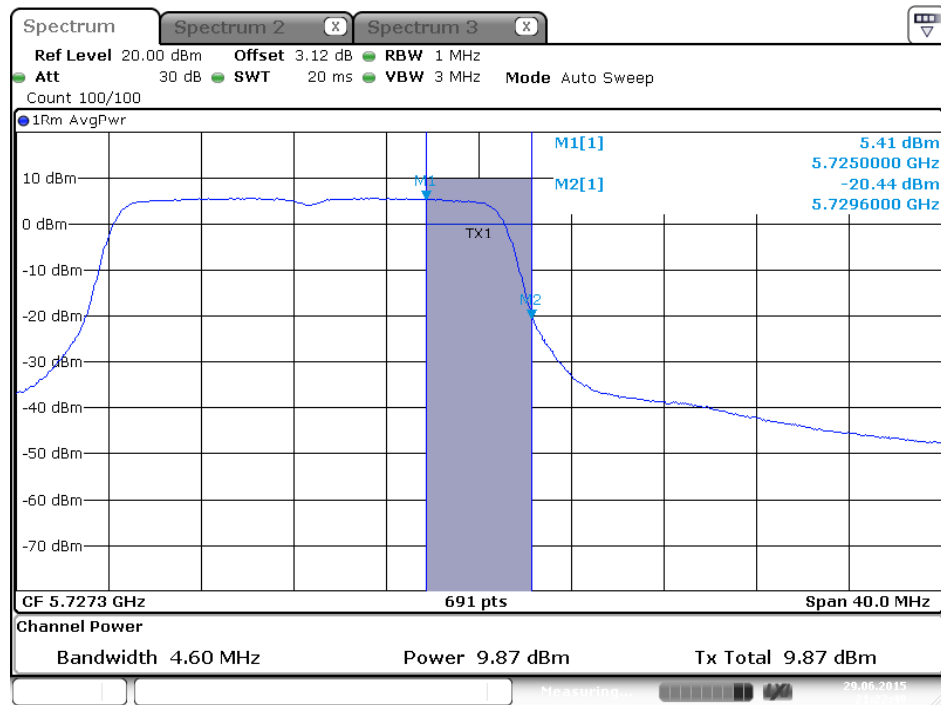
Date: 29 JUN 2015 21:22:24

Conducted Output Power Plot on Configuration IEEE 802.11a / Chain 5 / 5720 MHz (UNII 3)



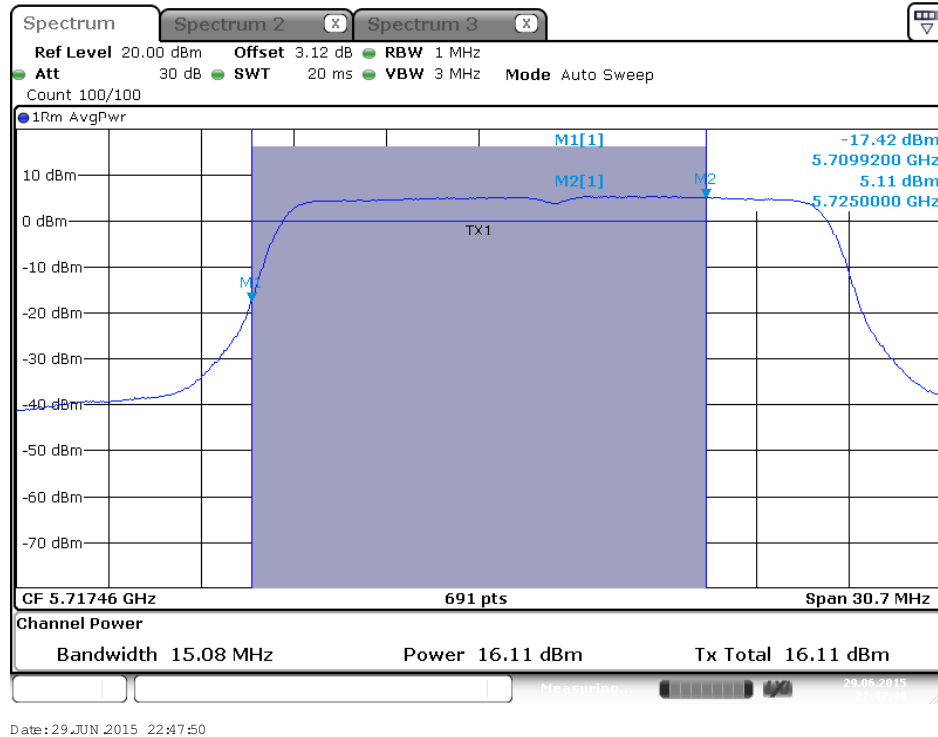
Date: 29 JUN 2015 21:22:36

Conducted Output Power Plot on Configuration IEEE 802.11a / Chain 6 / 5720 MHz (UNII 3)

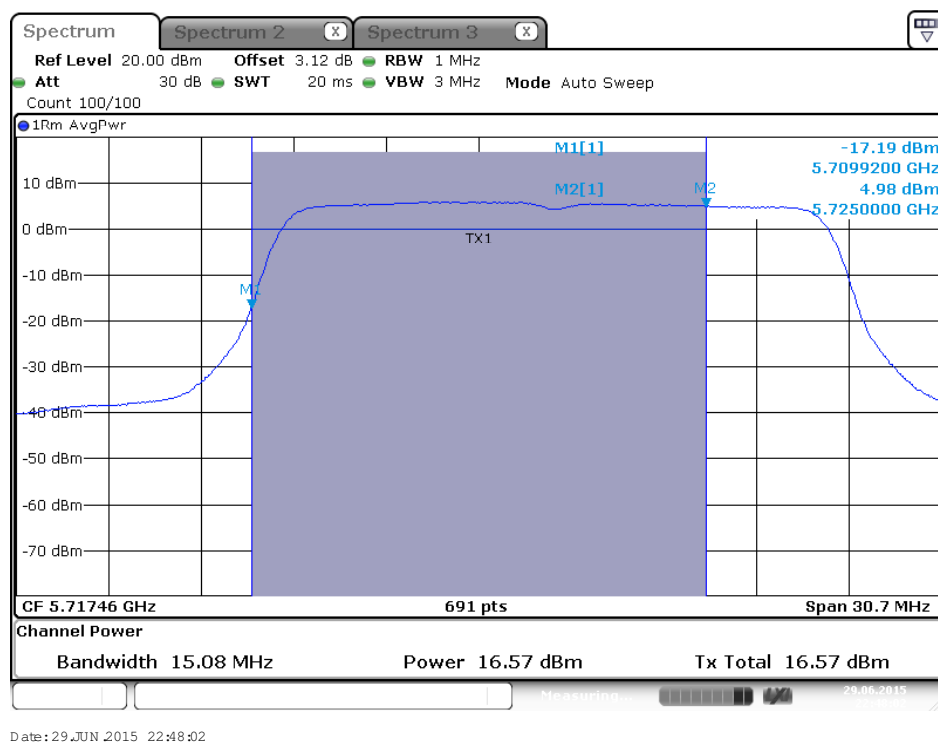


Date: 29 JUN 2015 21:22:49

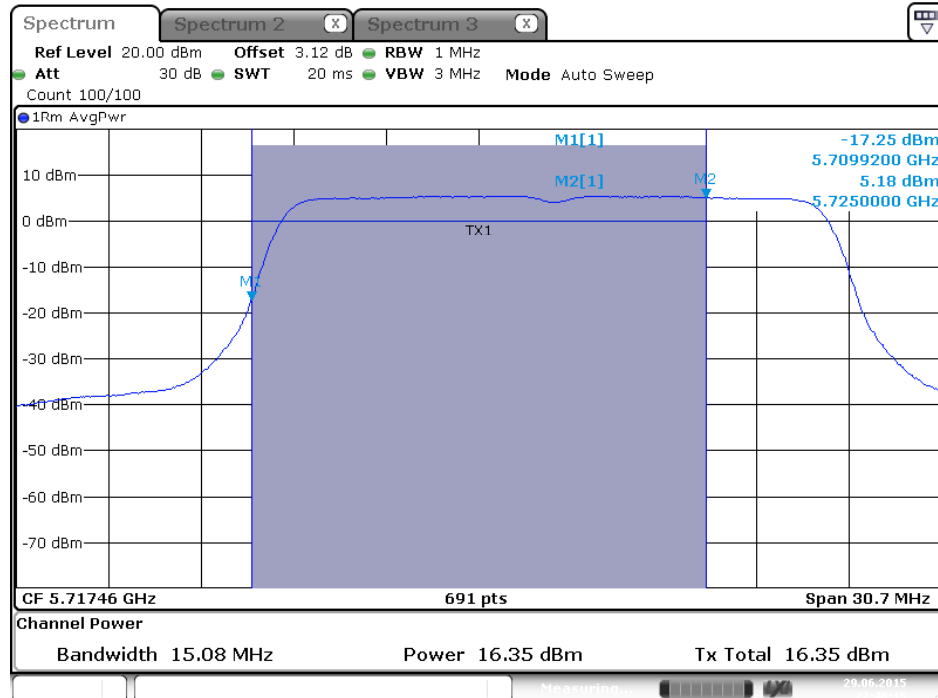
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 / 5720 MHz (UNII 2C)



Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 5/ 5720 MHz (UNII 2C)



Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 6/ 5720 MHz (UNII 2C)



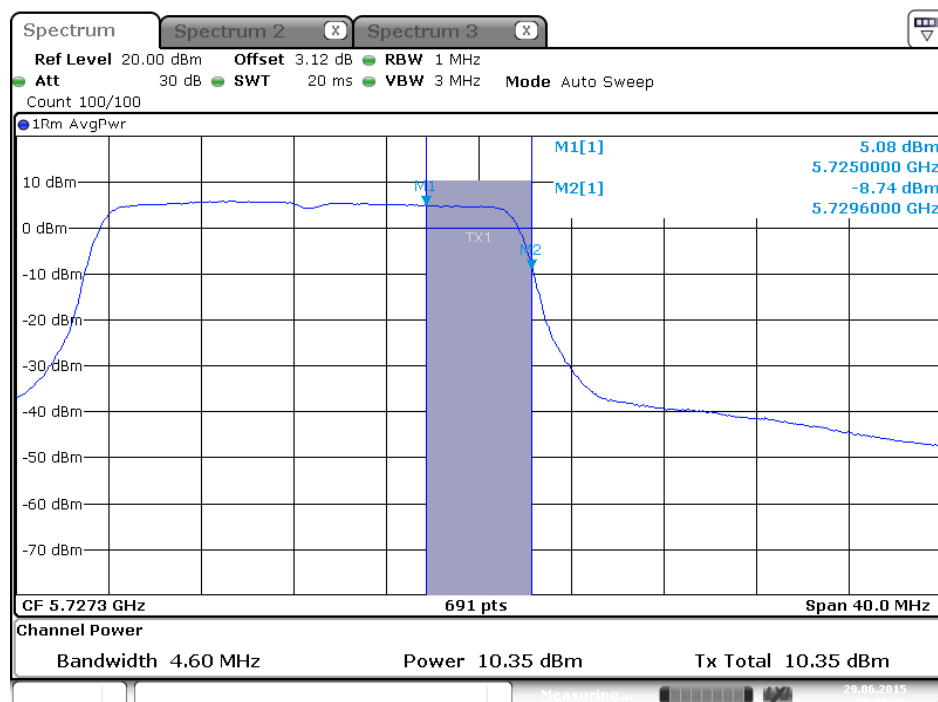
Date: 29 JUN 2015 22:48:15

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 / 5720 MHz (UNII 3)



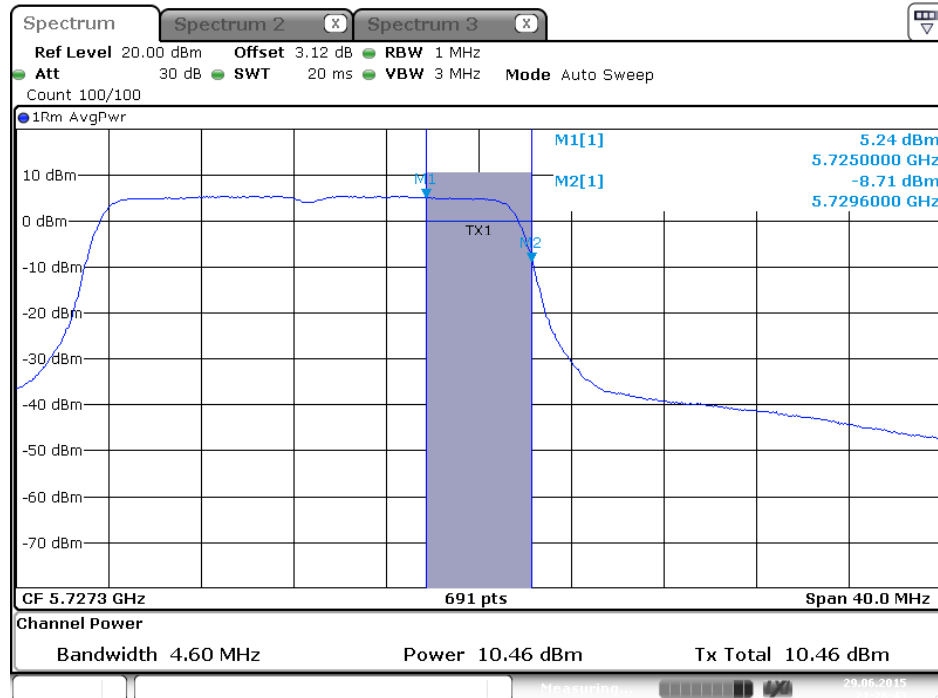
Date: 29 JUN 2015 21:26:17

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 5 / 5720 MHz (UNII 3)



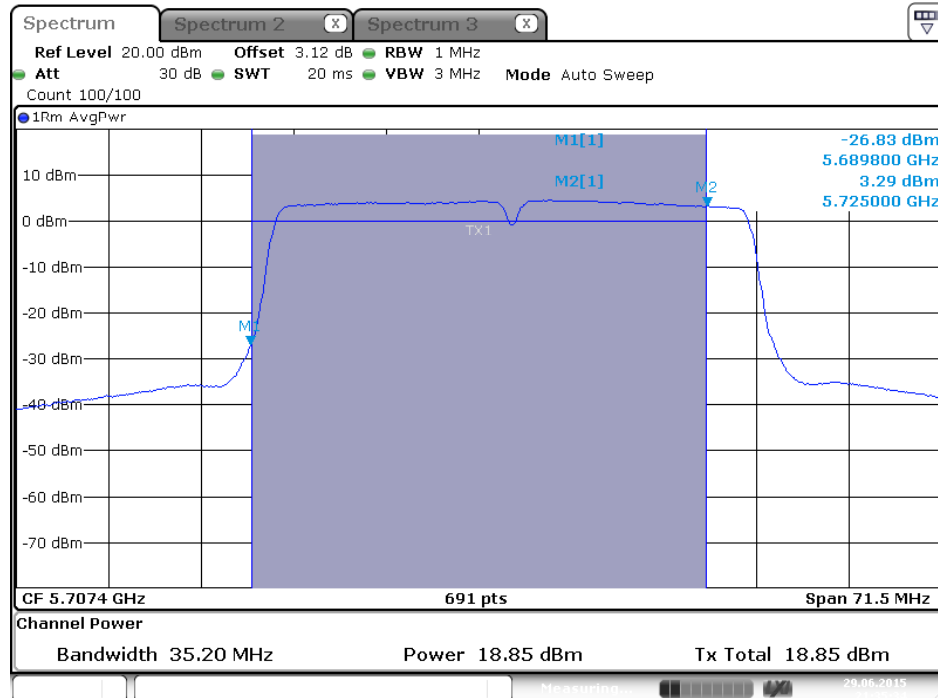
Date: 29 JUN 2015 21:26:30

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 6 / 5720 MHz (UNII 3)



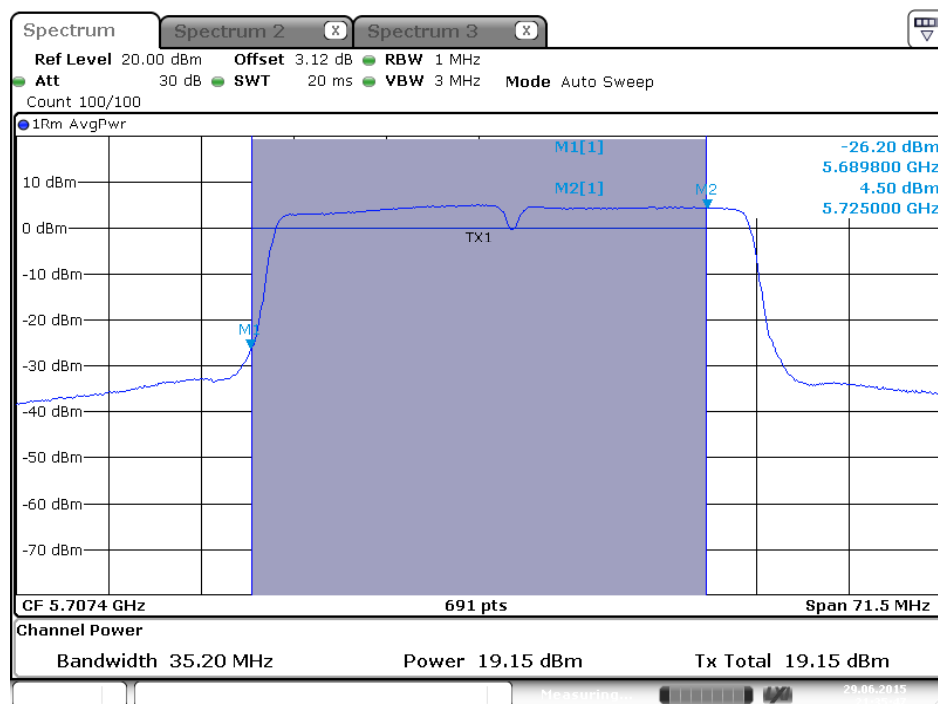
Date: 29 JUN 2015 21:26:43

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 / 5710 MHz (UNII 2C)



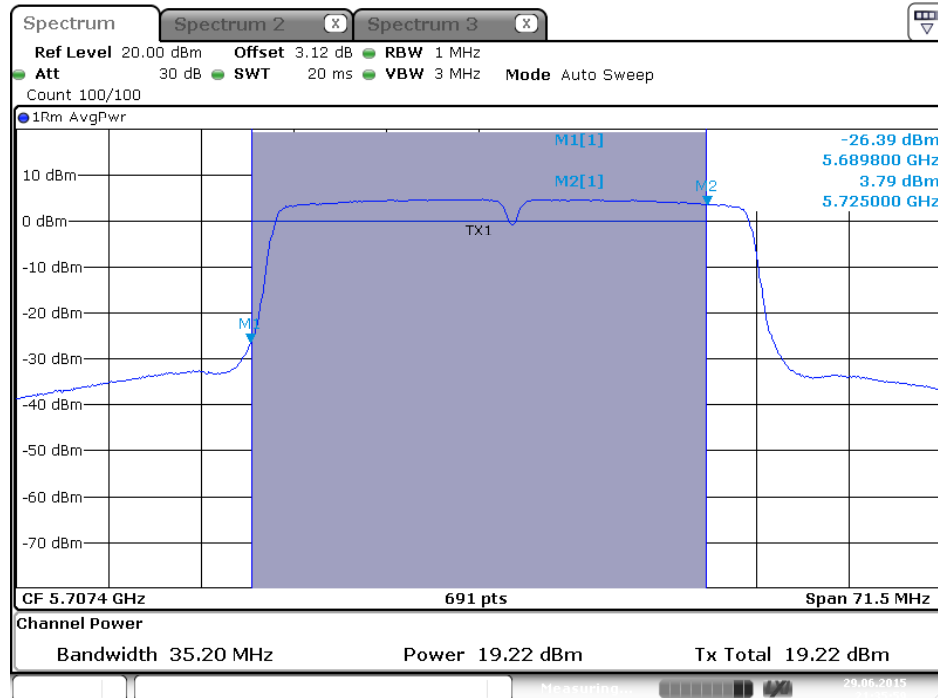
Date: 29 JUN 2015 21:35:34

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 5 / 5710 MHz (UNII 2C)



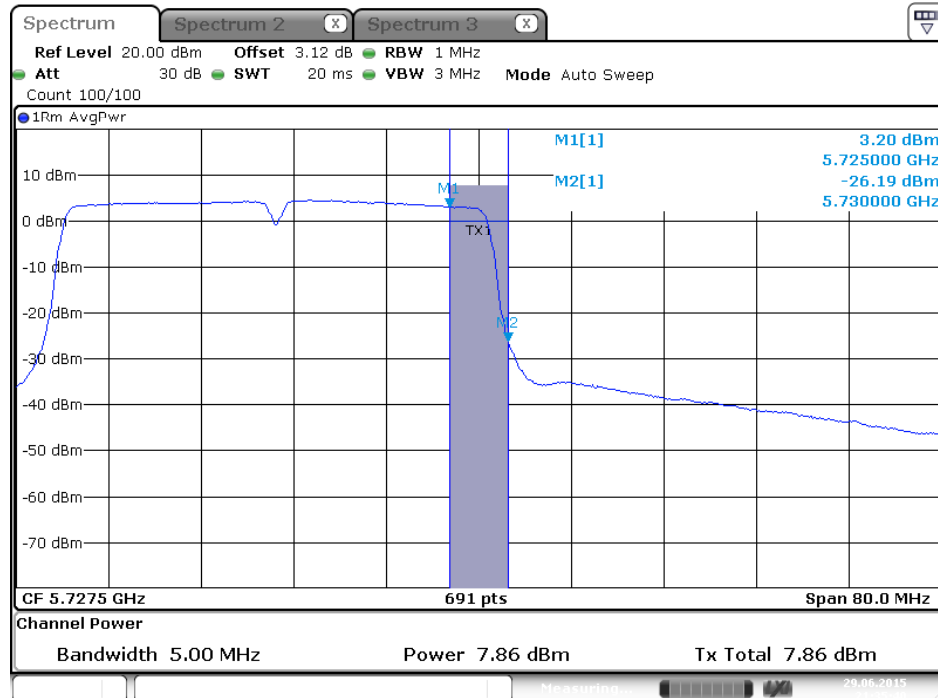
Date: 29 JUN 2015 21:35:47

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 6 / 5710 MHz (UNII 2C)



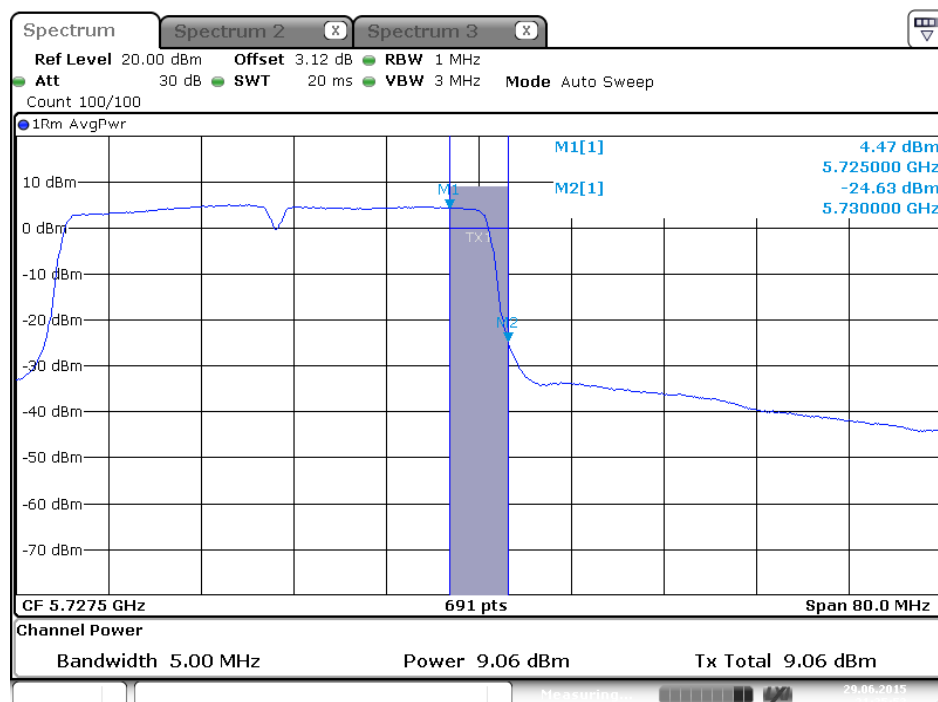
Date: 29 JUN 2015 21:35:59

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 / 5710 MHz (UNII 3)



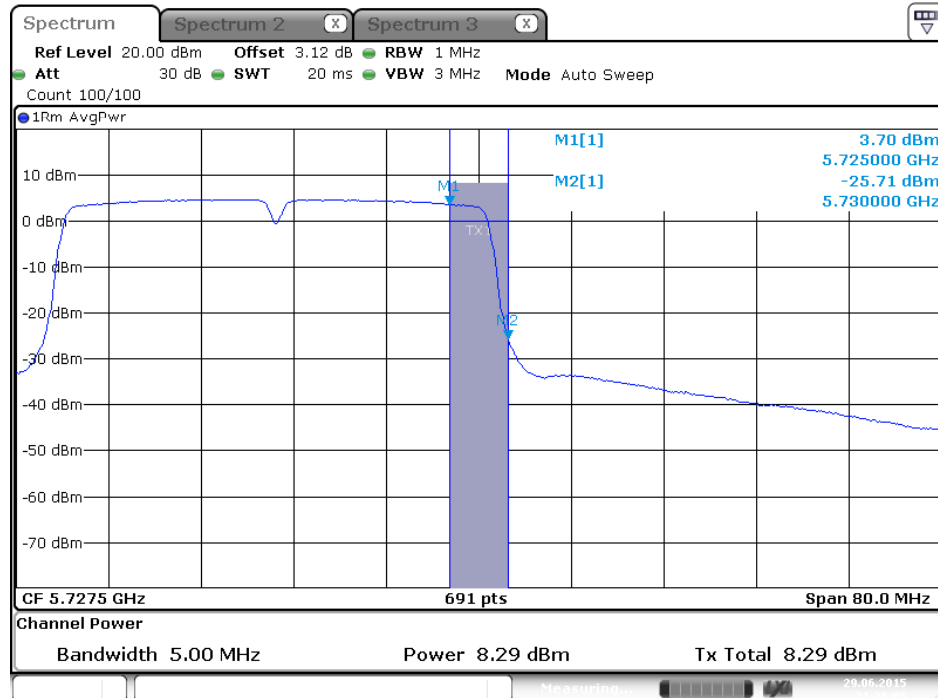
Date: 29 JUN 2015 21:35:40

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 5 / 5710 MHz (UNII 3)



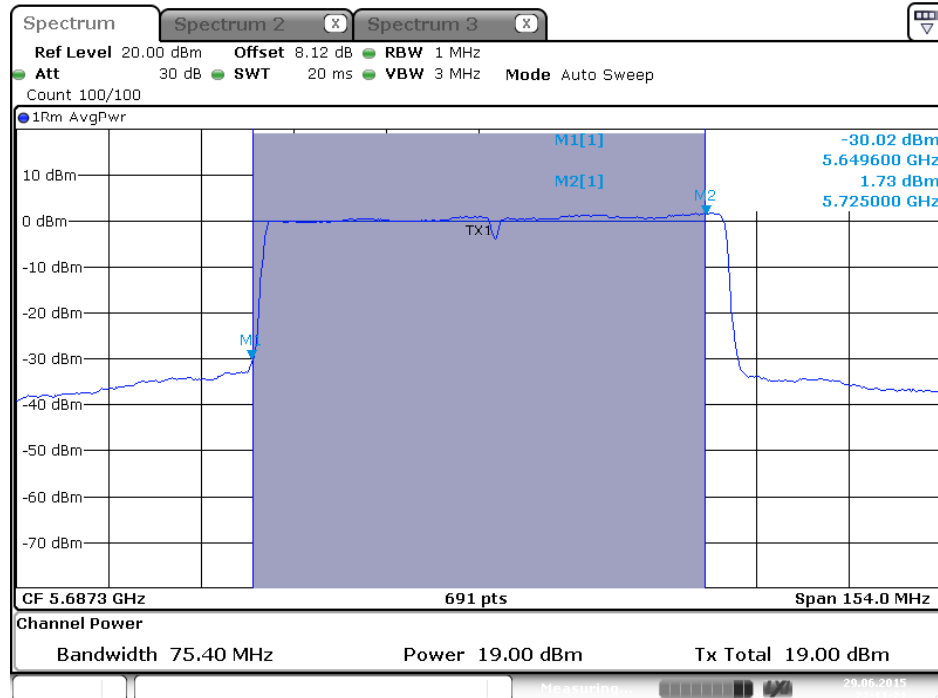
Date: 29 JUN 2015 21:35:53

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 6 / 5710 MHz (UNII 3)



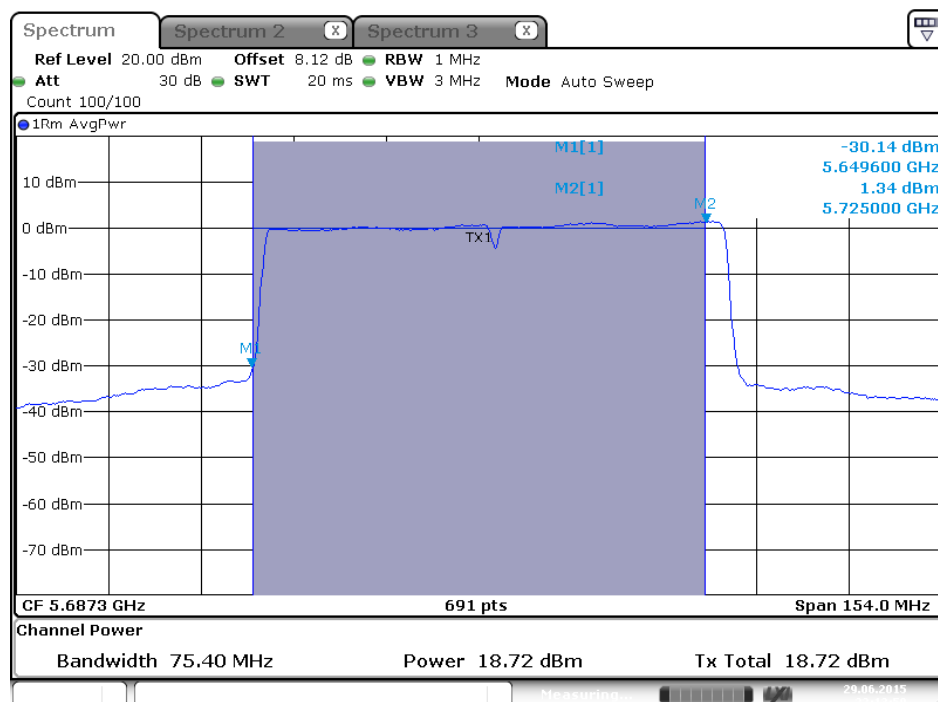
Date: 29 JUN 2015 21:36:05

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4/ 5690 MHz (UNII 2C)



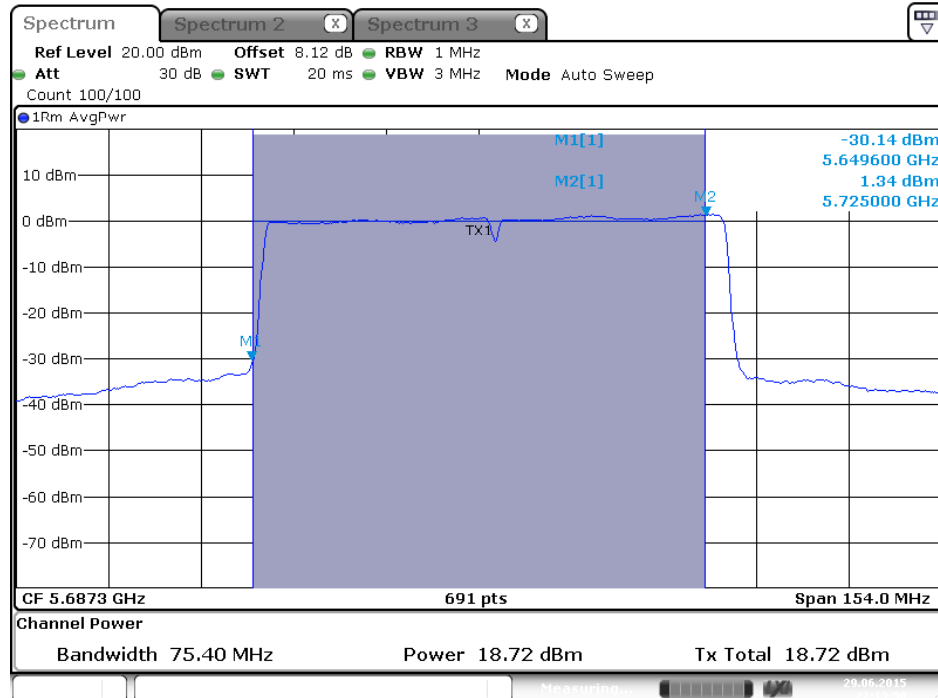
Date: 29 JUN 2015 22:11:21

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 5/ 5690 MHz (UNII 2C)



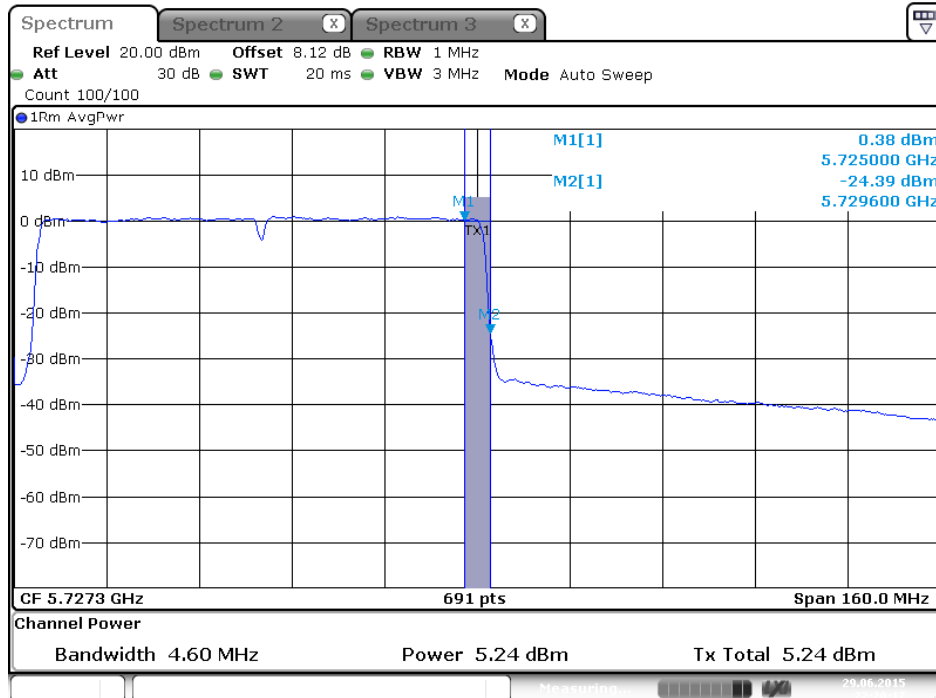
Date: 29 JUN 2015 22:13:50

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 6/ 5690 MHz (UNII 2C)



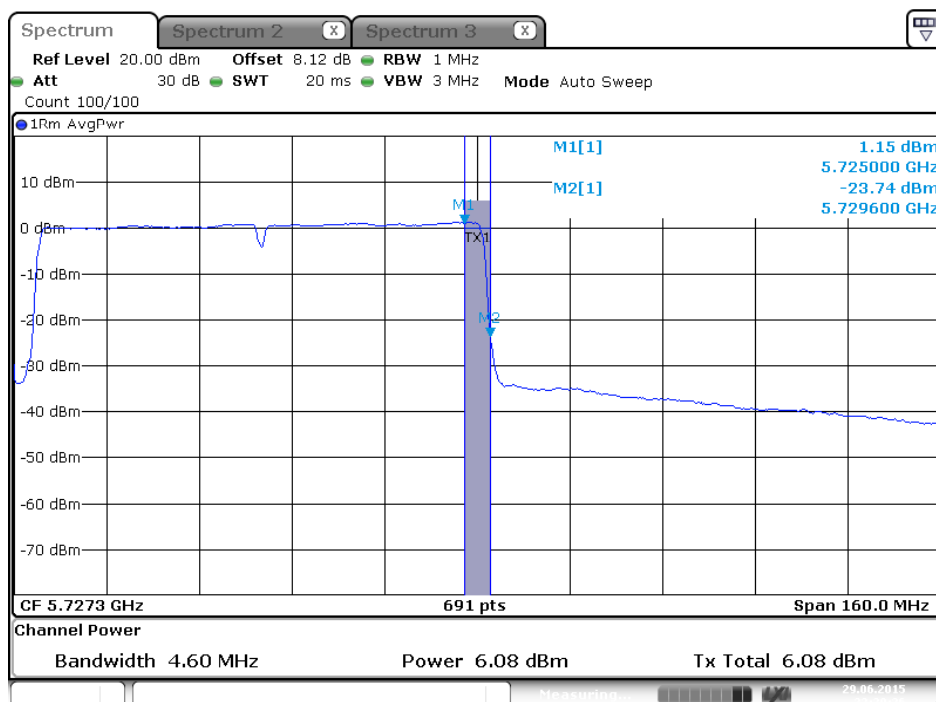
Date: 29 JUN 2015 22:13:50

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 / 5690 MHz (UNII 3)



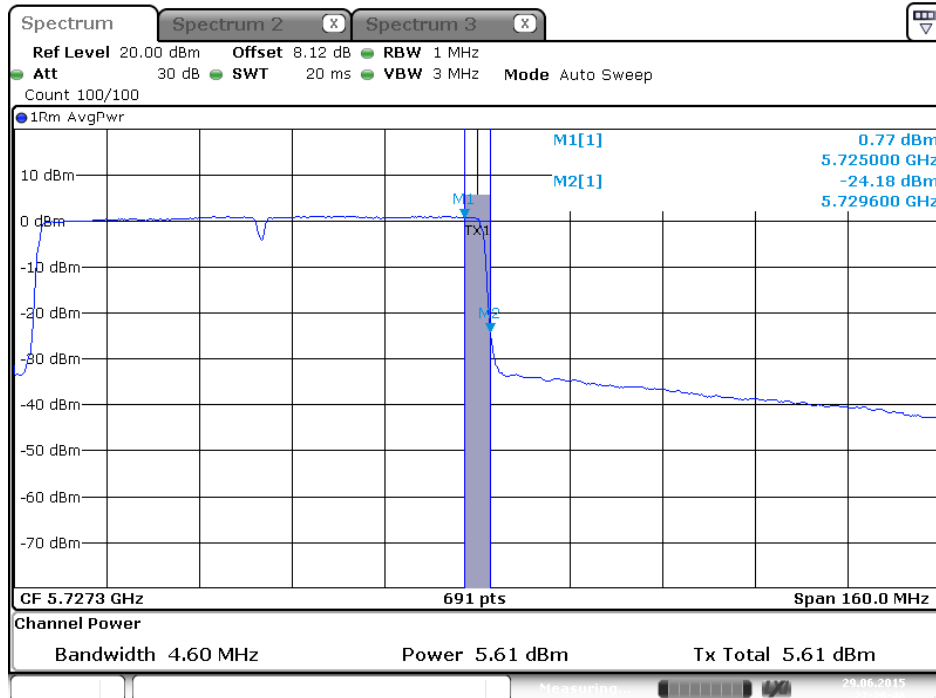
Date: 29 JUN 2015 22:20:18

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 5 / 5690 MHz (UNII 3)



Date: 29 JUN 2015 22:20:25

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 6 / 5690 MHz (UNII 3)



Date: 29 JUN 2015 22:20:48

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

Temperature	25°C	Humidity	55%
Test Engineer	Lucas Huang	Test Date	Jul. 11, 2015

Mode	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 4	Chain 5	Chain 6	Total		
802.11ac MCS0/Nss2 VHT20	5260 MHz	19.35	18.91	19.12	23.90	23.91	Complies
	5300 MHz	19.05	19.05	19.23	23.88	24.00	Complies
	5320 MHz	19.05	19.12	19.23	23.91	24.00	Complies
	5500 MHz	19.05	19.18	19.12	23.89	23.97	Complies
	5580 MHz	19.03	19.26	19.30	23.97	24.00	Complies
	5700 MHz	17.91	18.20	18.12	22.85	23.99	Complies
802.11ac MCS0/Nss2 VHT40	5270 MHz	19.34	19.05	19.21	23.97	24.00	Complies
	5310 MHz	14.33	14.02	14.17	18.95	24.00	Complies
	5510 MHz	17.14	17.37	17.07	21.97	24.00	Complies
	5550 MHz	19.03	19.22	19.16	23.91	24.00	Complies
	5670 MHz	17.95	17.89	18.03	22.73	24.00	Complies
802.11ac MCS0/Nss2 VHT80	5290 MHz	12.29	12.02	12.33	16.99	24.00	Complies
	5530 MHz	16.67	16.69	16.82	21.50	24.00	Complies
	5610 MHz	17.12	17.43	17.29	22.05	24.00	Complies

Note : 5260MHz power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(19.57) = 23.91\text{dBm} < 24\text{dBm}$, so power limit=23.91dBm

Note : 5500MHz power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(19.83) = 23.97\text{dBm} < 24\text{dBm}$, so power limit=23.97dBm

Note : 5700MHz power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(19.91) = 23.99\text{dBm} < 24\text{dBm}$, so power limit=23.99dBm

Straddle Channel

Mode	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 4	Chain 5	Chain 6	Total		
802.11ac MCS0/Nss2 VHT20	5720 MHz (UNII 2C)	17.15	17.24	16.86	22.01	22.68	Complies
	5720 MHz (UNII 3)	10.92	11.23	11.27	16.07	30.00	Complies
802.11ac MCS0/Nss2 VHT40	5710 MHz (UNII 2C)	18.74	19.02	18.74	23.95	24.00	Complies
	5710 MHz (UNII 3)	7.66	8.71	8.22	13.33	30.00	Complies
802.11ac MCS0/Nss2 VHT80	5690 MHz (UNII 2C)	19.35	19.07	19.07	23.94	24.00	Complies
	5690 MHz (UNII 3)	5.65	6.31	5.27	10.92	30.00	Complies

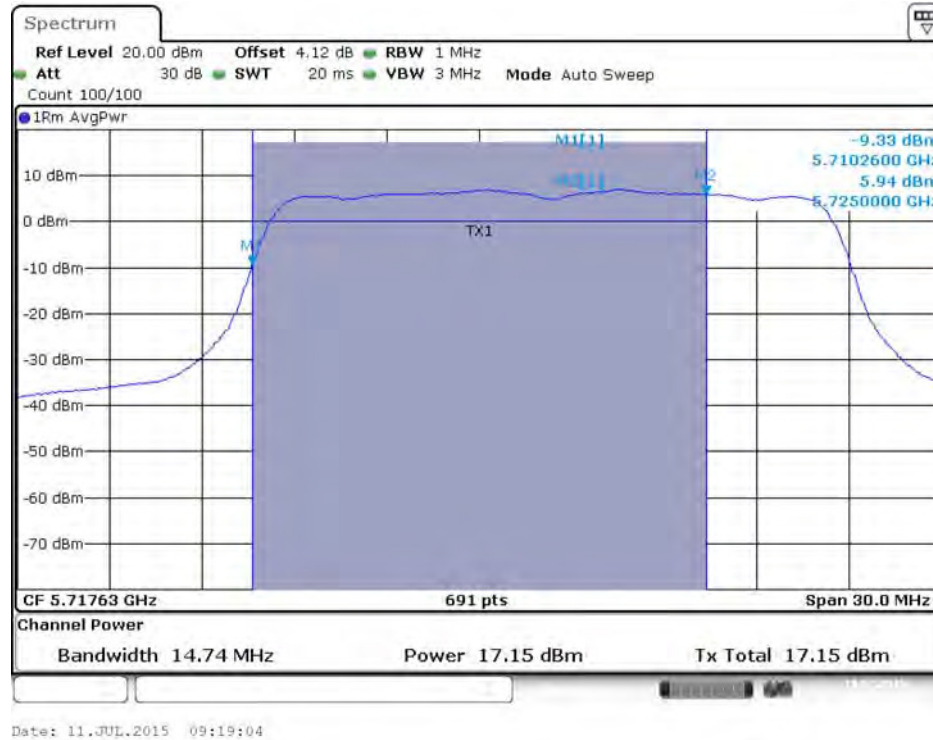
Note : 5720MHz (UNII 2C)power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(14.74) = 22.68\text{dBm} < 24\text{dBm}$,
so power limit=22.68dBm

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

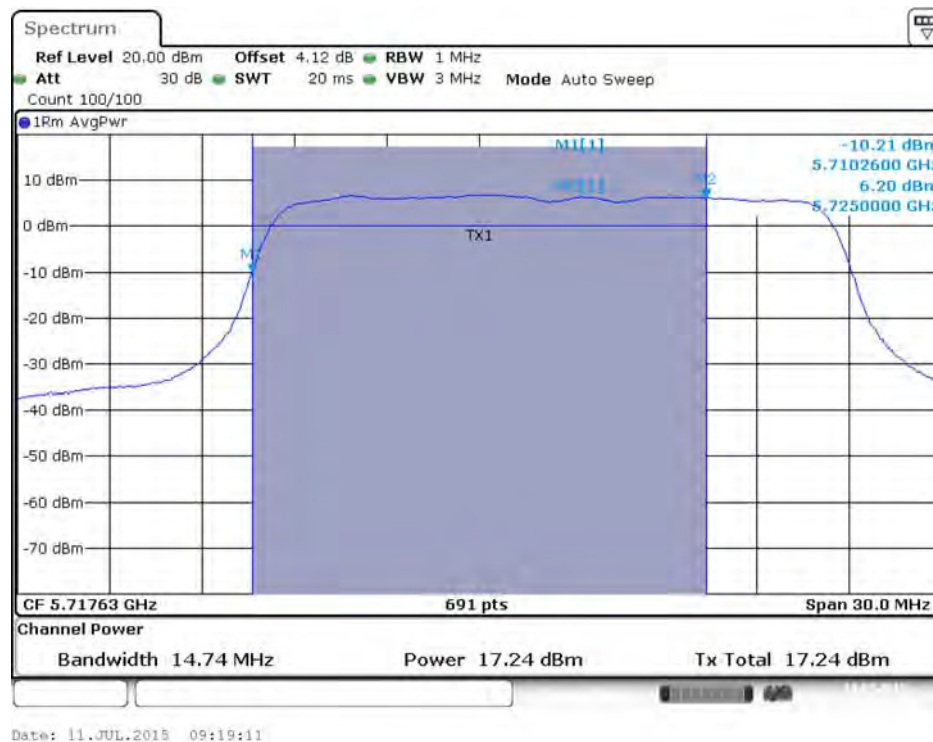
For plots, only the straddle channel result was shown.

Straddle Channel

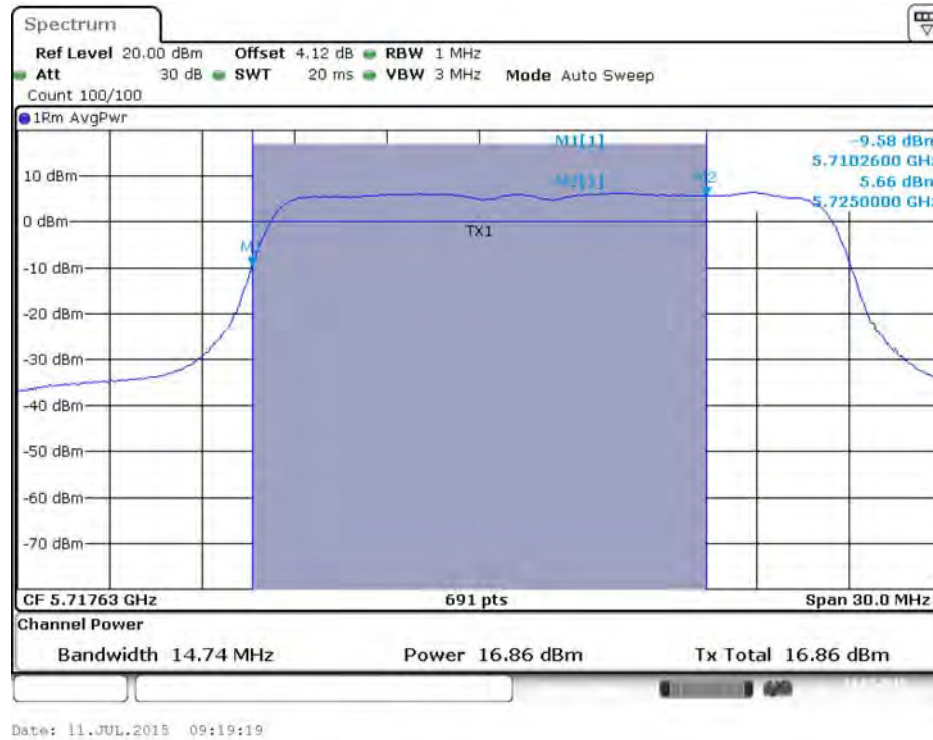
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4 / 5720 MHz
(UNII 2C)



Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 5/ 5720 MHz
(UNII 2C)



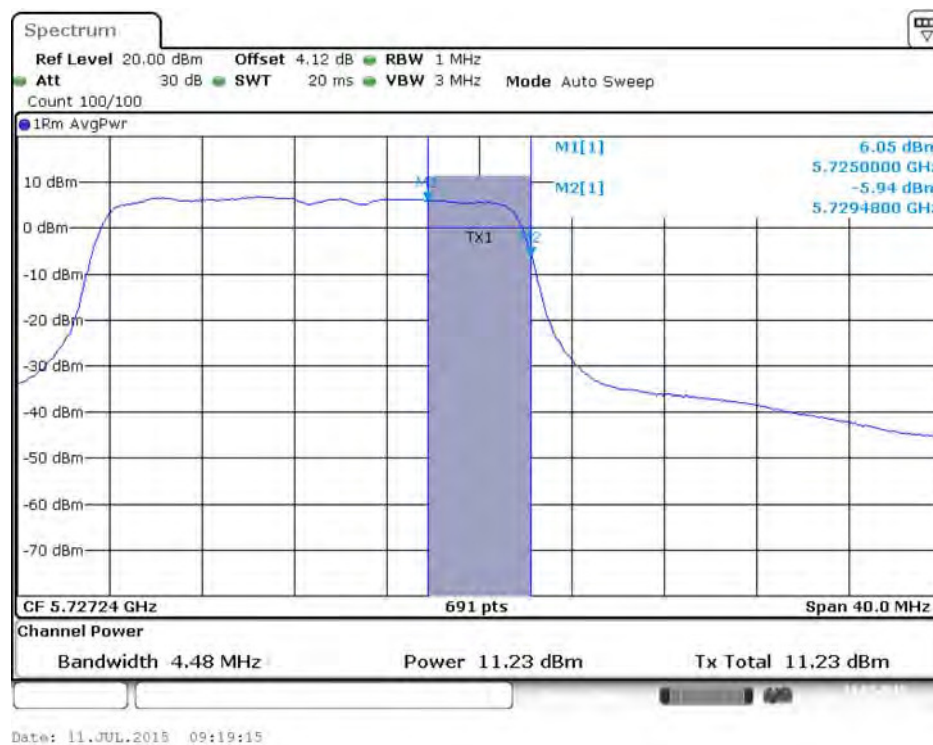
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 6/ 5720 MHz (UNII 2C)



Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4 / 5720 MHz (UNII 3)



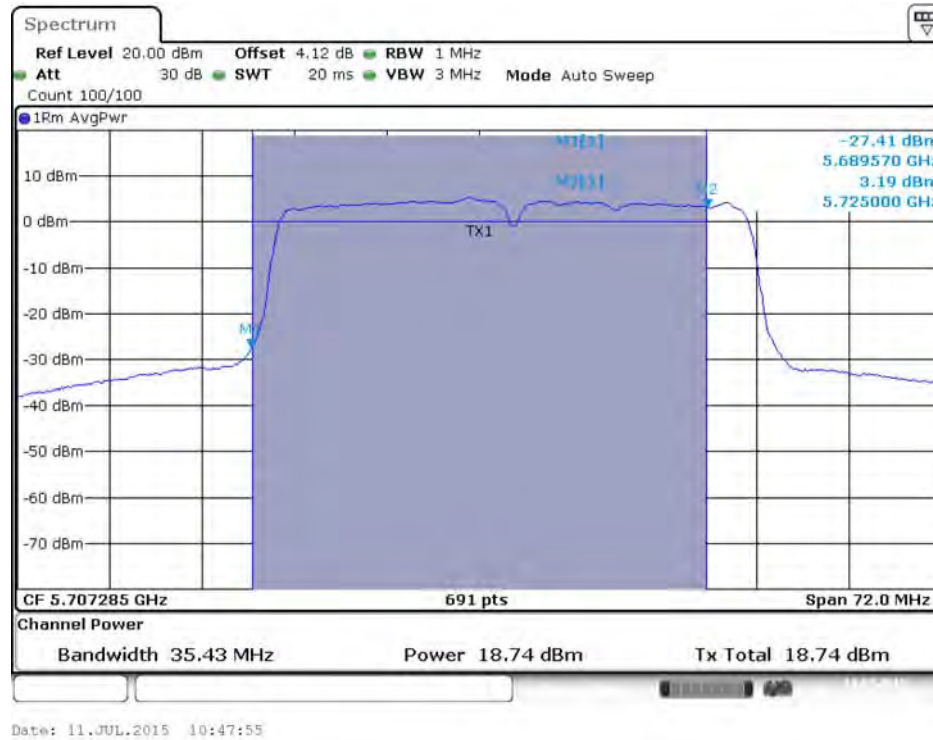
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 5 / 5720 MHz (UNII 3)



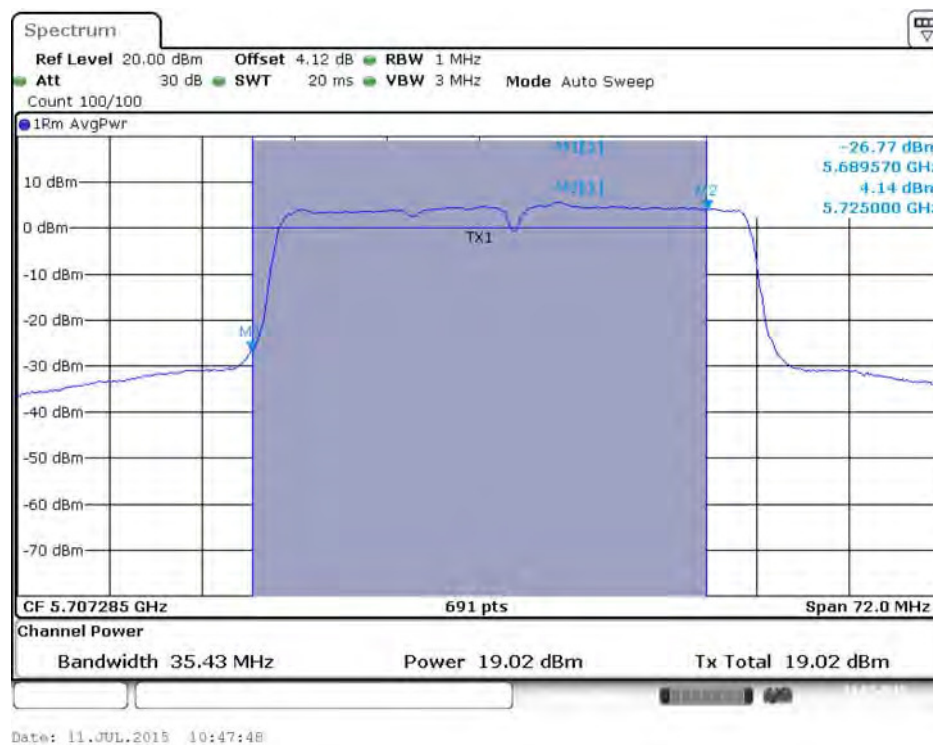
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 6 / 5720 MHz
(UNII 3)



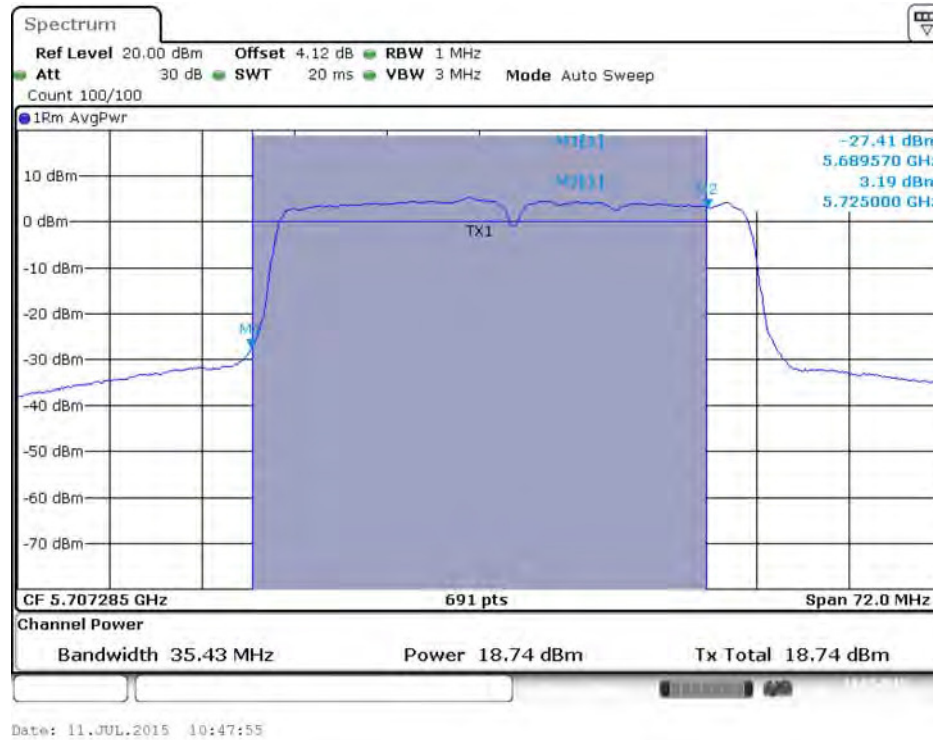
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4 / 5710 MHz (UNII 2C)



Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 5 / 5710 MHz (UNII 2C)



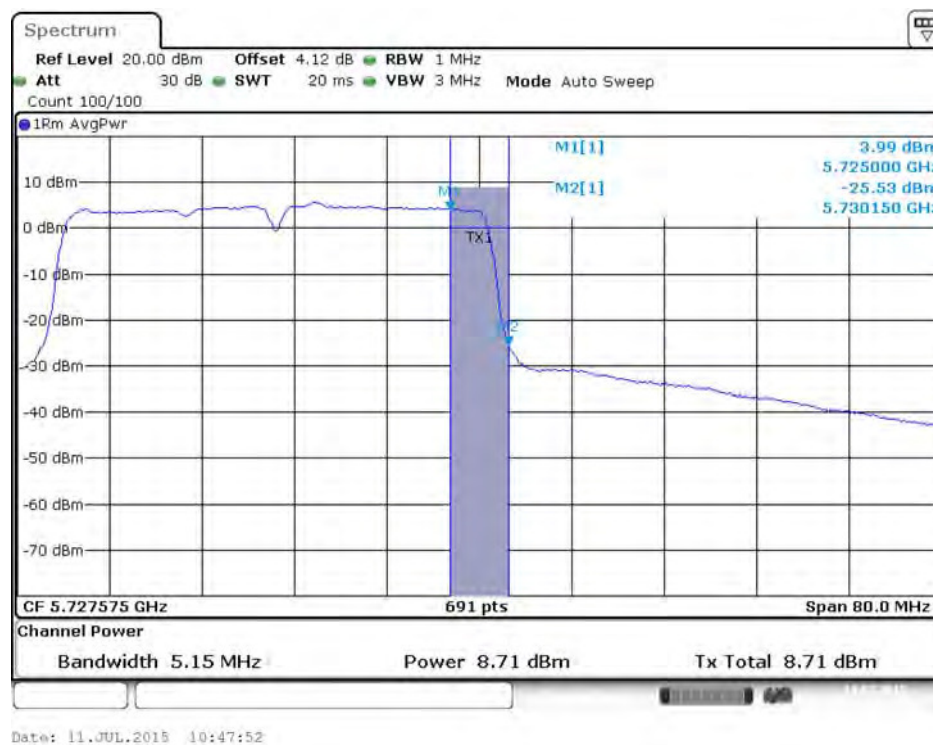
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 6 / 5710 MHz
(UNII 2C)



Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4 / 5710 MHz (UNII 3)



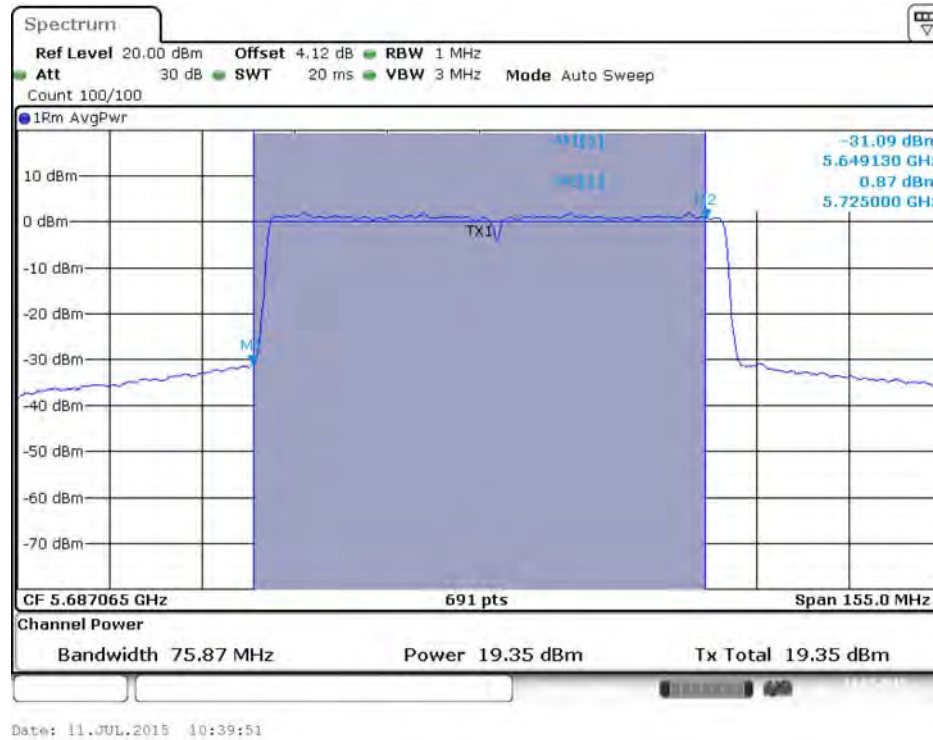
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 5 / 5710 MHz (UNII 3)



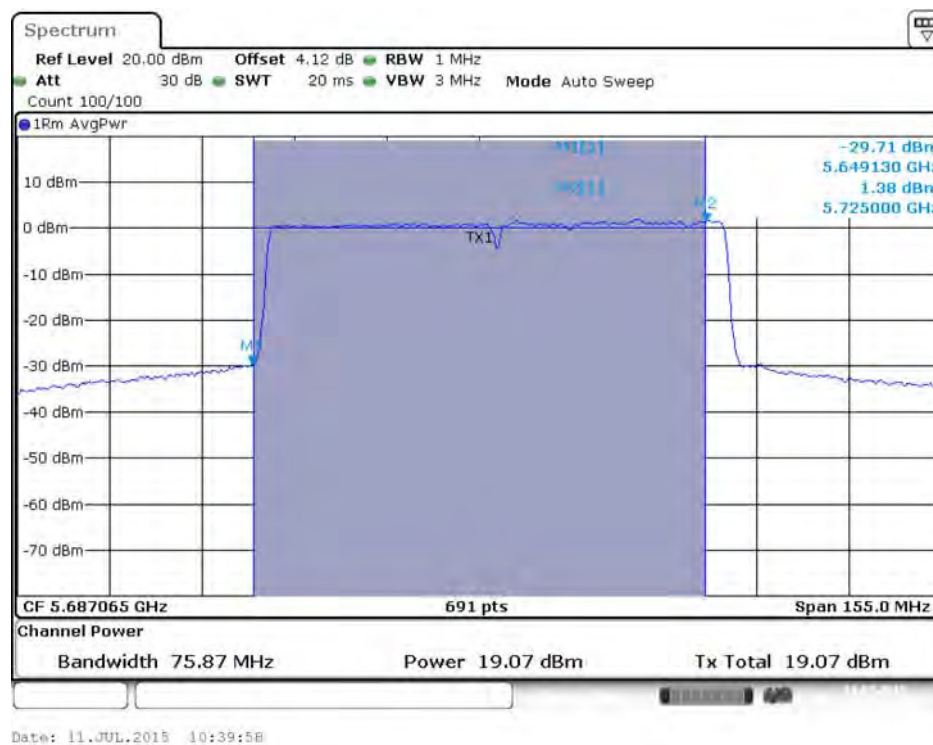
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 6 / 5710 MHz (UNII 3)



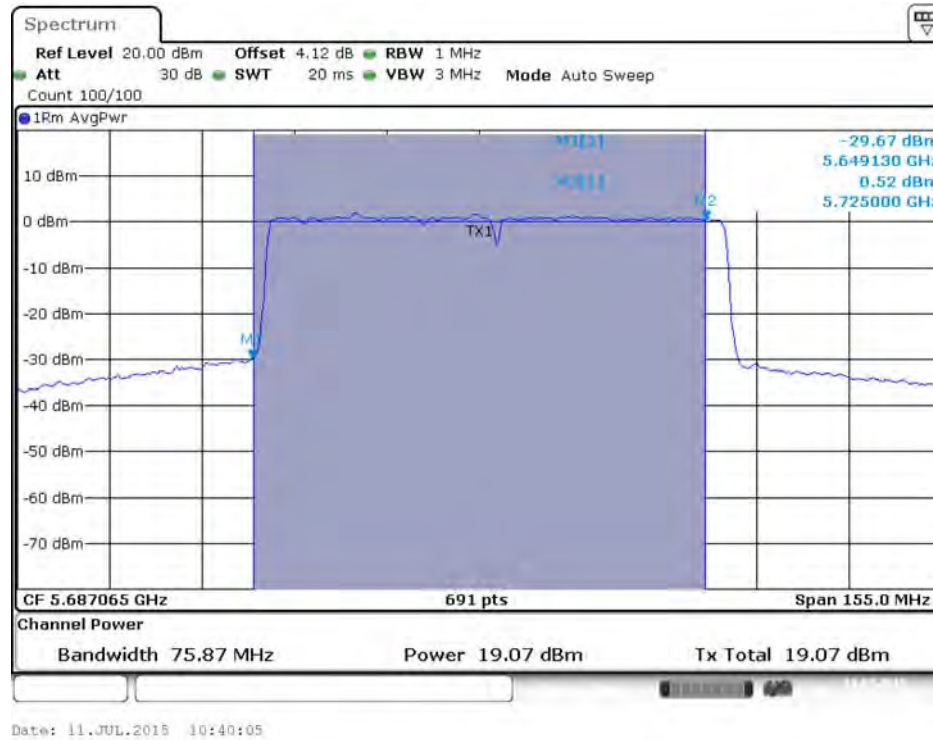
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4/ 5690 MHz (UNII 2C)



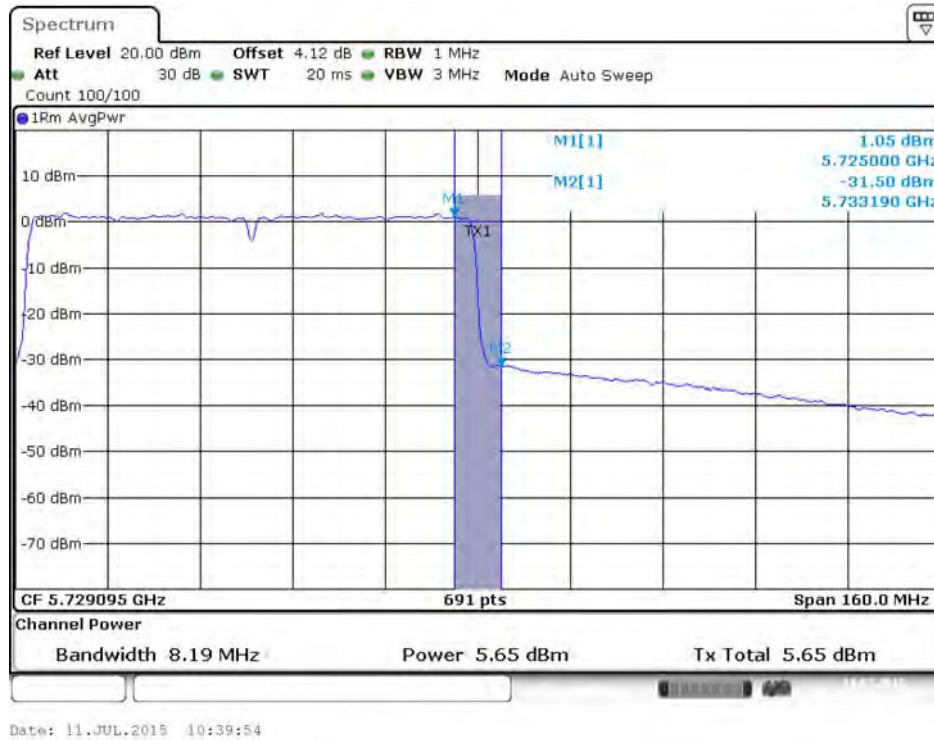
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 5/ 5690 MHz (UNII 2C)



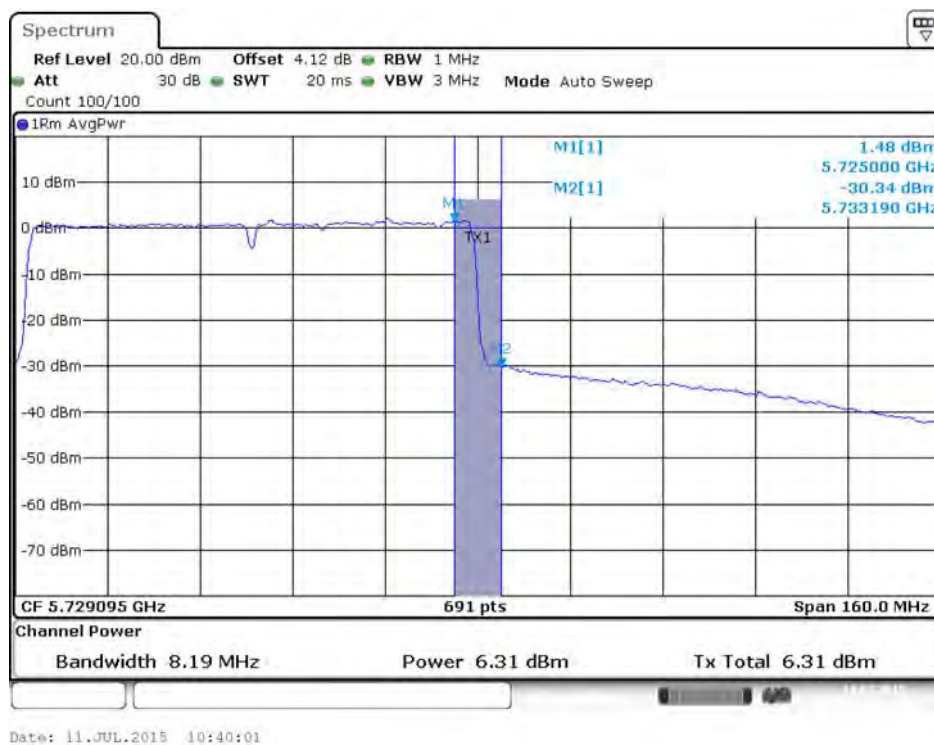
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 6/ 5690 MHz
(UNII 2C)



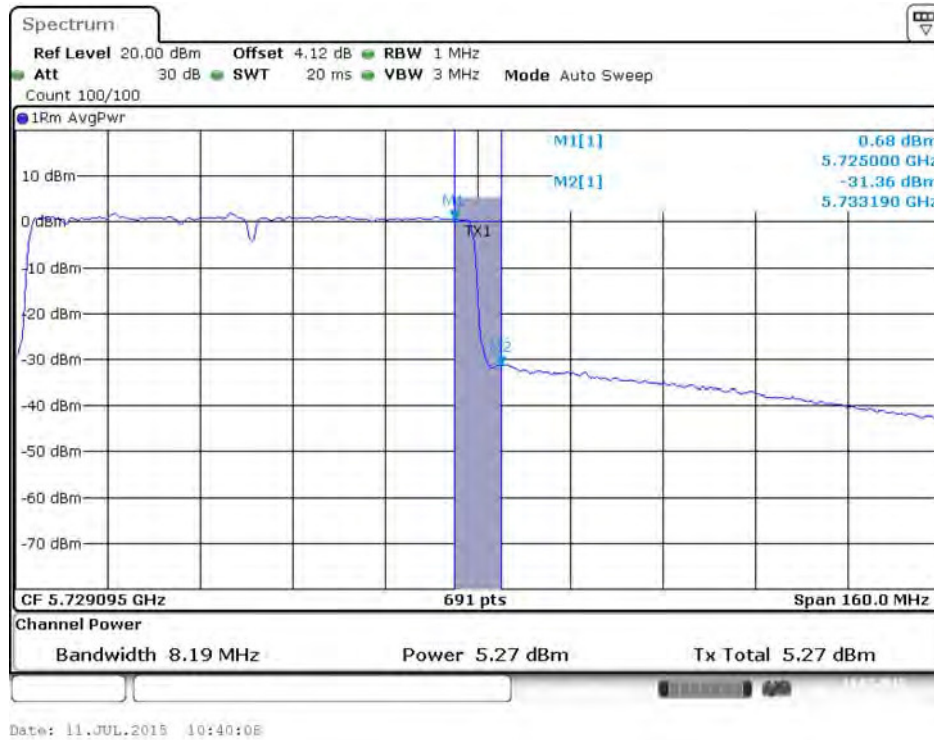
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4 / 5690 MHz
(UNII 3)



Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 5 / 5690 MHz
(UNII 3)



Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 6 / 5690 MHz
(UNII 3)



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

Temperature	25°C	Humidity	55%
Test Engineer	Lucas Huang	Test Date	Jul. 11, 2015

Mode	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 4	Chain 5	Chain 6	Total		
802.11ac MCS0/Nss3 VHT20	5260 MHz	19.15	19.11	19.23	23.93	24.00	Complies
	5300 MHz	19.03	19.15	19.41	23.97	24.00	Complies
	5320 MHz	18.91	19.17	19.36	23.92	24.00	Complies
	5500 MHz	18.85	19.31	19.31	23.93	24.00	Complies
	5580 MHz	18.52	19.04	19.05	23.65	24.00	Complies
	5700 MHz	17.71	18.42	18.32	22.93	24.00	Complies
802.11ac MCS0/Nss3 VHT40	5270 MHz	19.18	19.17	19.24	23.97	24.00	Complies
	5310 MHz	14.23	14.28	14.42	19.08	24.00	Complies
	5510 MHz	16.93	17.31	17.41	21.99	24.00	Complies
	5550 MHz	18.57	19.11	19.16	23.73	24.00	Complies
	5670 MHz	17.95	18.12	18.32	22.90	24.00	Complies
802.11ac MCS0/Nss3 VHT80	5290 MHz	12.24	12.12	12.49	17.06	24.00	Complies
	5530 MHz	16.54	16.74	16.81	21.47	24.00	Complies
	5610 MHz	17.43	17.85	17.85	22.49	24.00	Complies

Straddle Channel

Mode	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 4	Chain 5	Chain 6	Total		
802.11ac MCS0/Nss3 VHT20	5720 MHz (UNII 2C)	17.02	17.43	17.02	22.11	23.10	Complies
	5720 MHz (UNII 3)	10.97	11.23	11.77	16.28	30.00	Complies
802.11ac MCS0/Nss3 VHT40	5710 MHz (UNII 2C)	18.53	18.72	18.72	23.93	24.00	Complies
	5710 MHz (UNII 3)	7.68	8.74	8.31	15.53	30.00	Complies
802.11ac MCS0/Nss3 VHT80	5690 MHz (UNII 2C)	17.97	17.72	18.16	23.72	24.00	Complies
	5690 MHz (UNII 3)	4.42	4.12	5.35	10.42	30.00	Complies

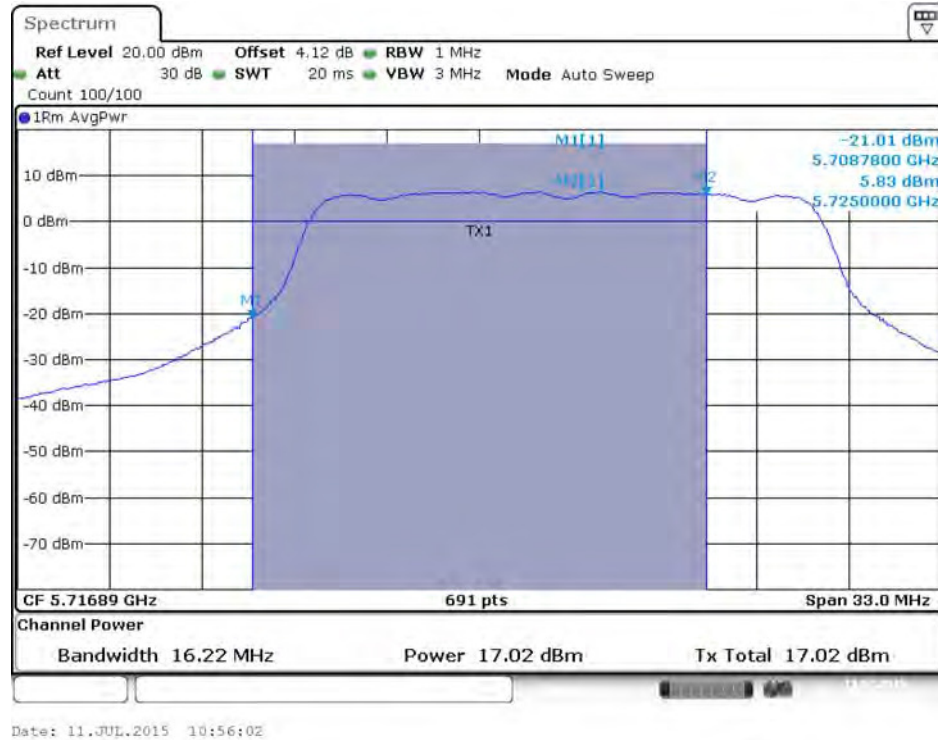
Note : 5720MHz (UNII 2C) power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(16.22) = 23.10\text{dBm} < 24\text{dBm}$,
so power limit=23.10dBm

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

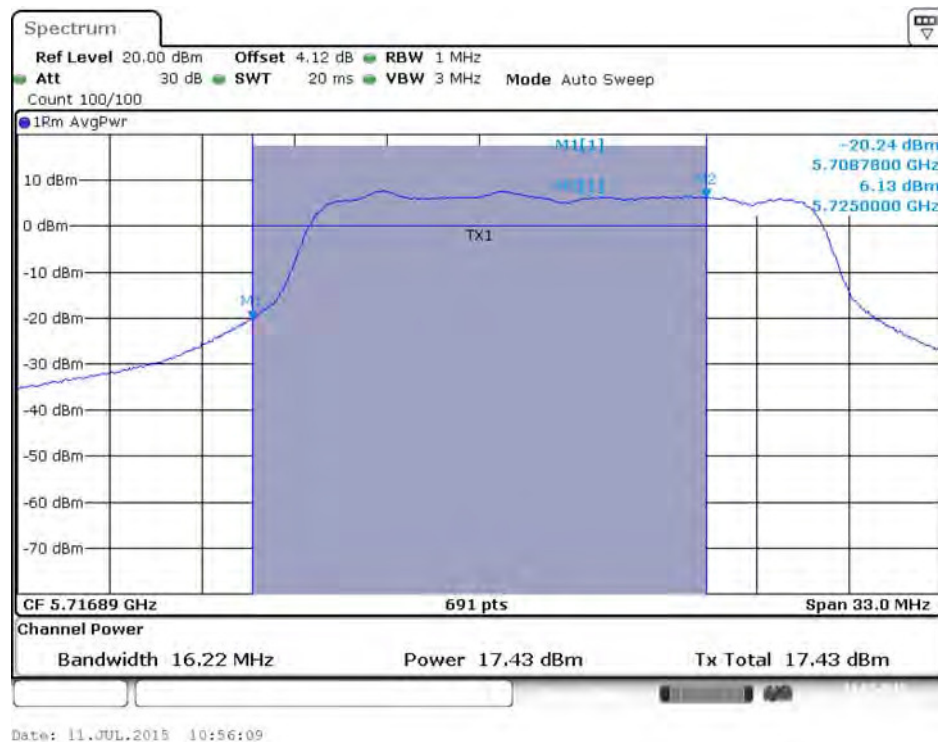
For plots, only the straddle channel result was shown.

Straddle Channel

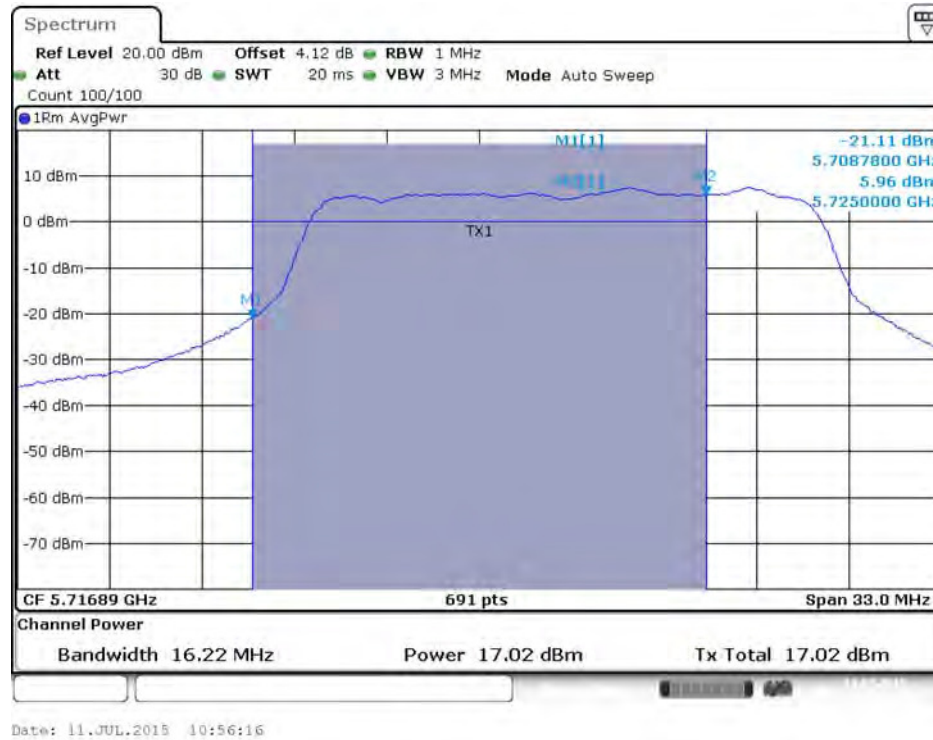
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT20 / Chain 4 / 5720 MHz (UNII 2C)



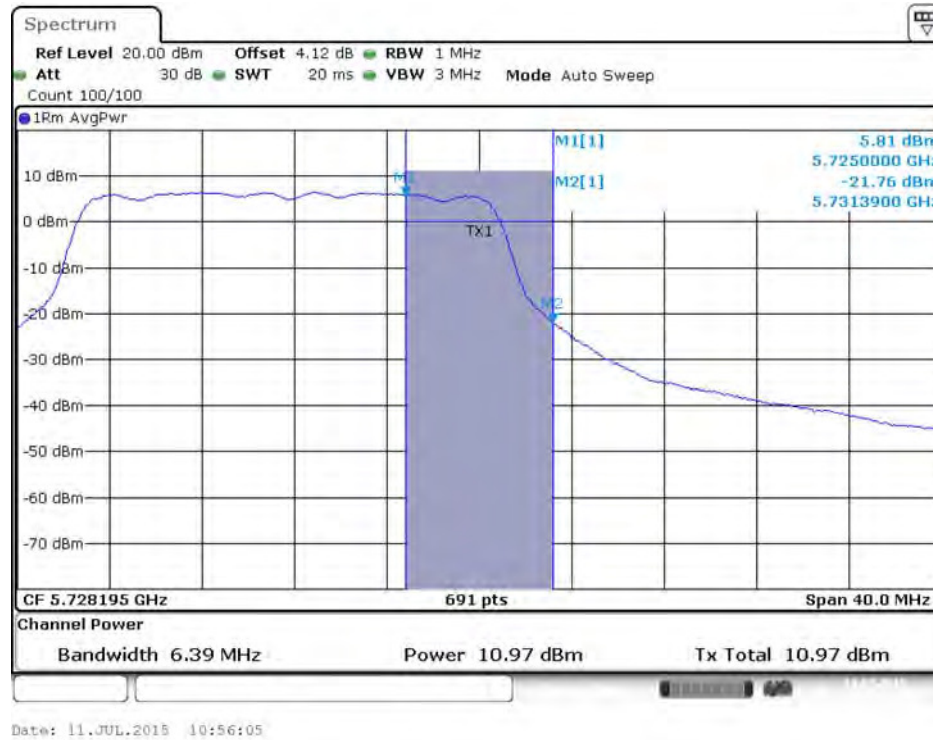
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT20 / Chain 5/ 5720 MHz (UNII 2C)



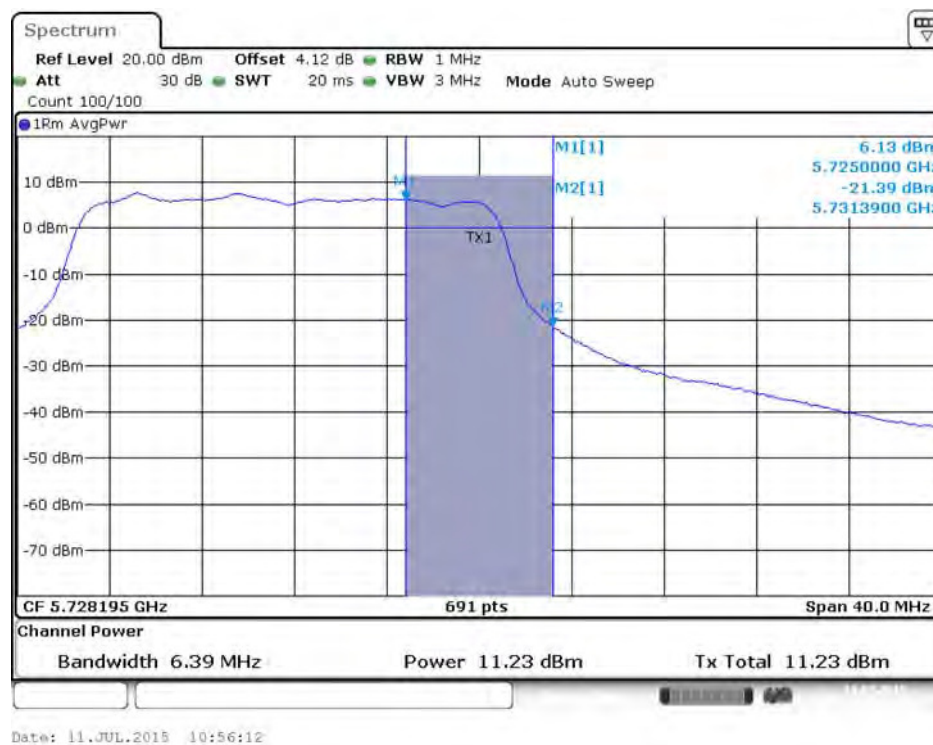
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT20 / Chain 6/ 5720 MHz
(UNII 2C)



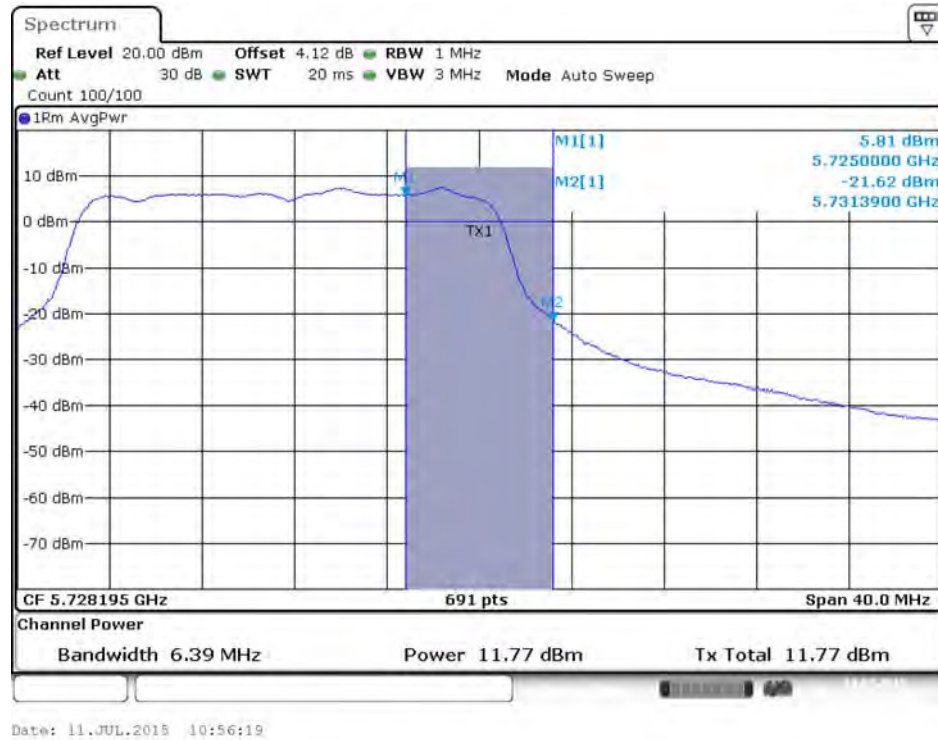
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT20 / Chain 4 / 5720 MHz (UNII 3)



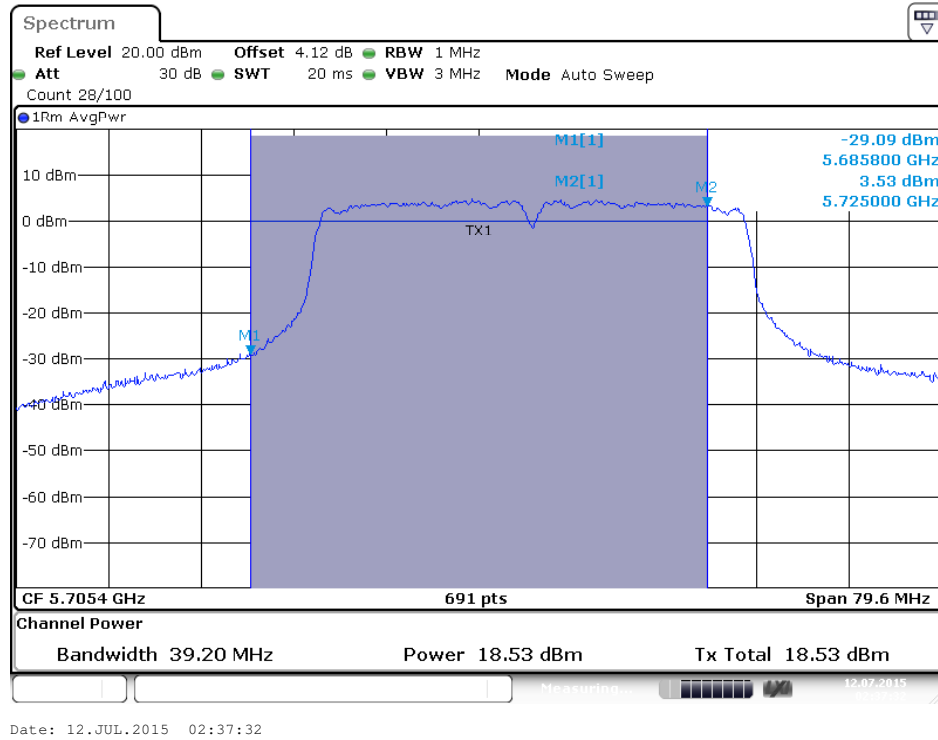
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT20 / Chain 5 / 5720 MHz (UNII 3)



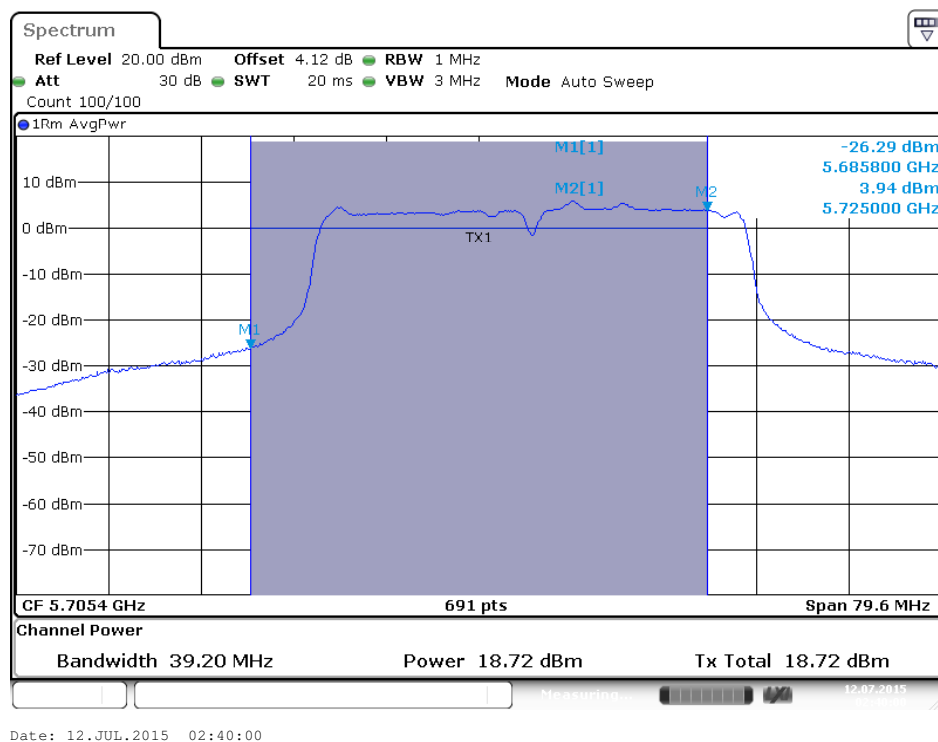
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT20 / Chain 6 / 5720 MHz (UNII 3)



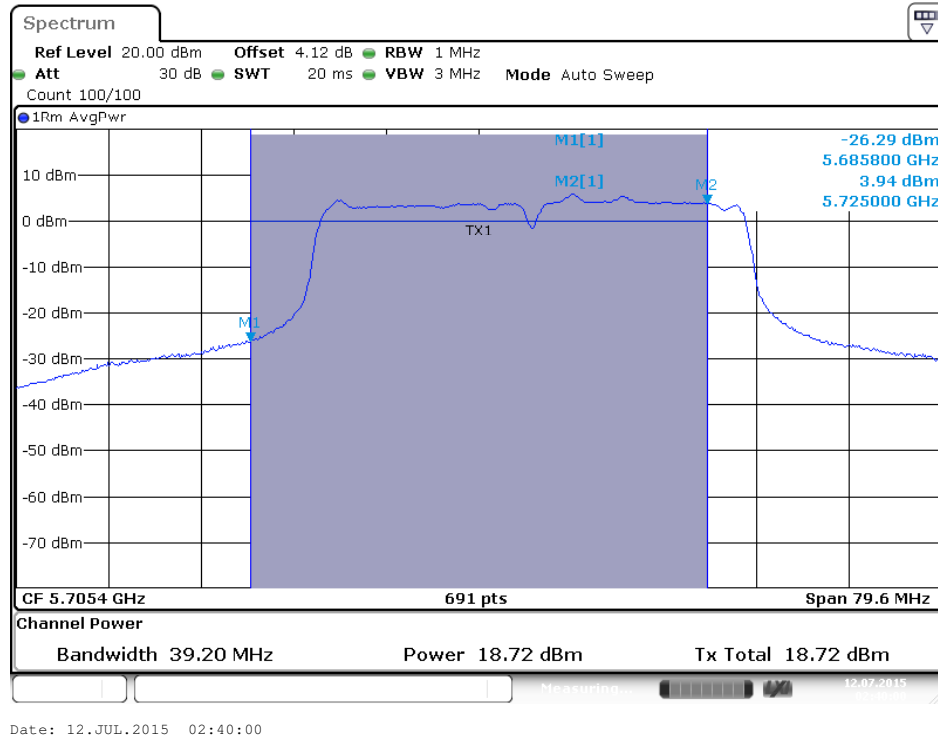
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT40 / Chain 4 / 5710 MHz (UNII 2C)



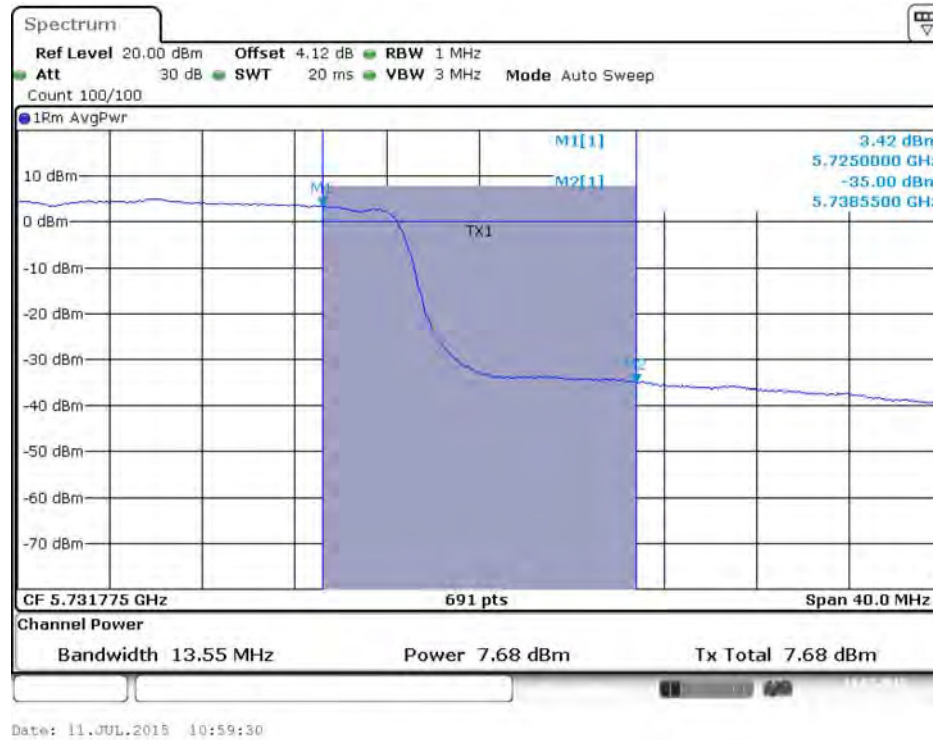
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT40 / Chain 5 / 5710 MHz (UNII 2C)



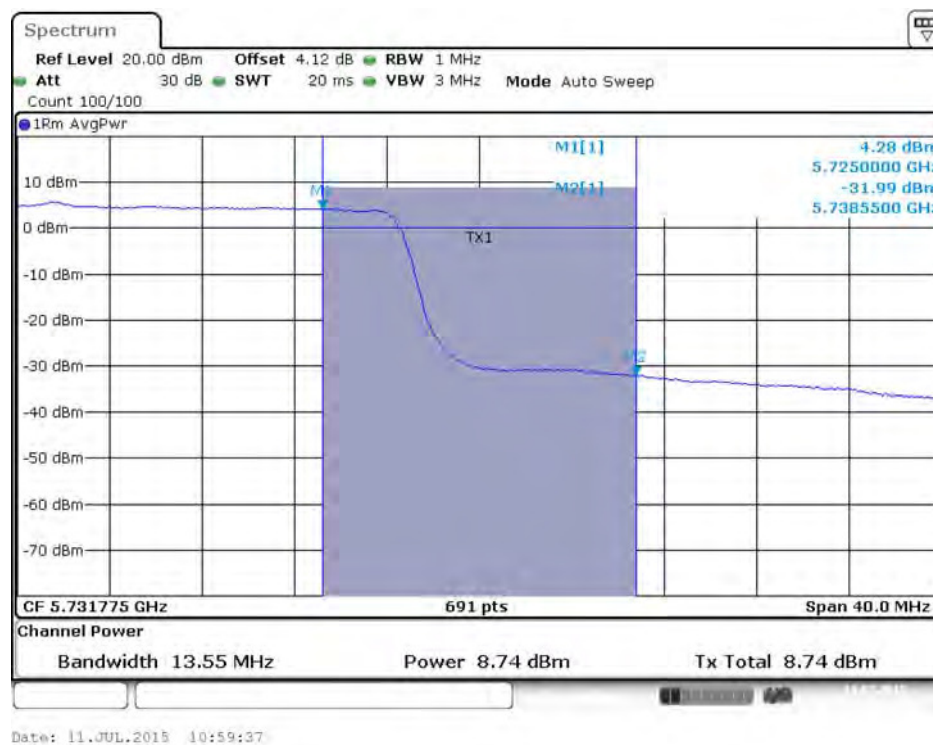
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT40 / Chain 6 / 5710 MHz (UNII 2C)



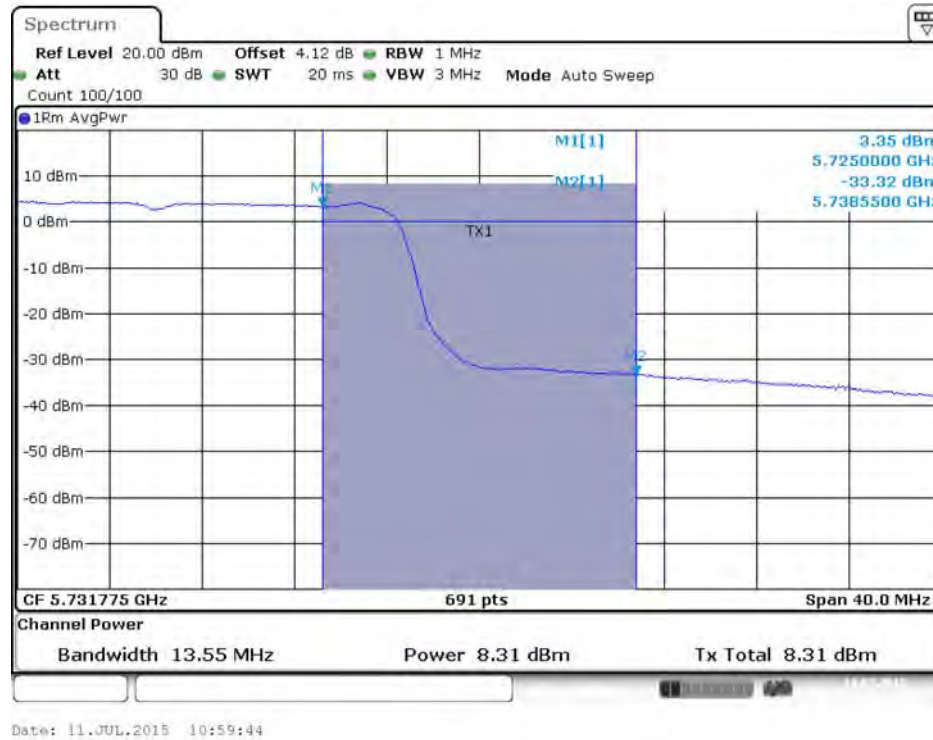
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT40 / Chain 4 / 5710 MHz (UNII 3)



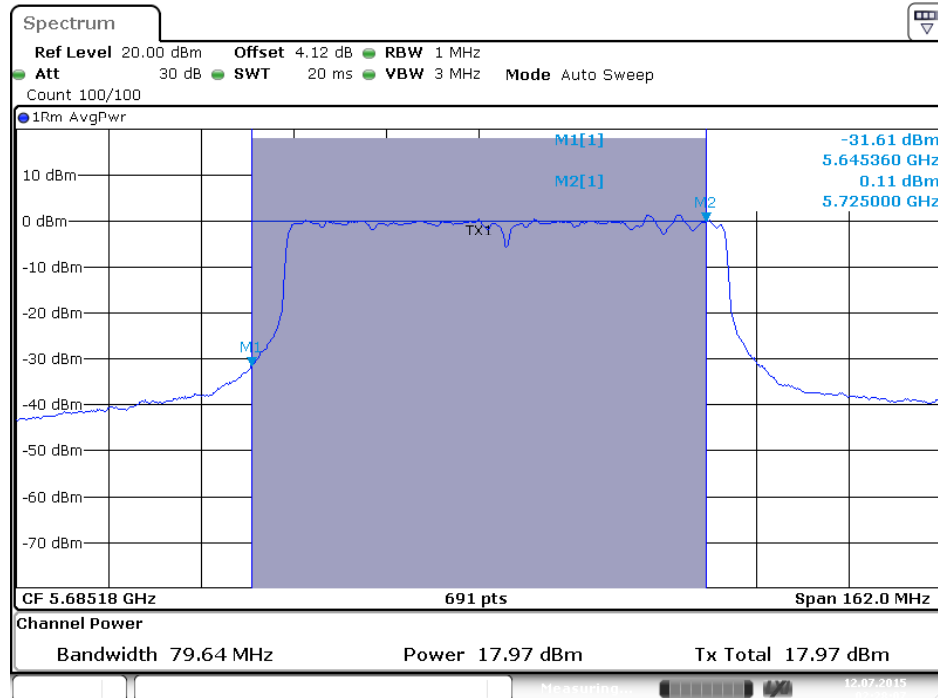
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT40 / Chain 5 / 5710 MHz (UNII 3)



Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT40 / Chain 6 / 5710 MHz (UNII 3)

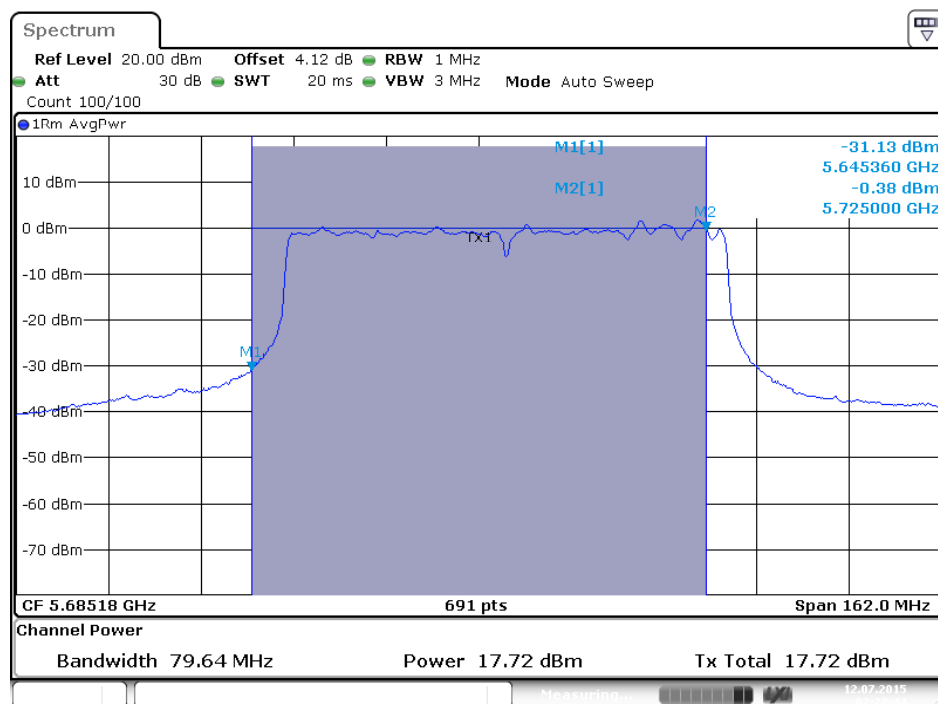


Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT80 / Chain 4/ 5690 MHz (UNII 2C)



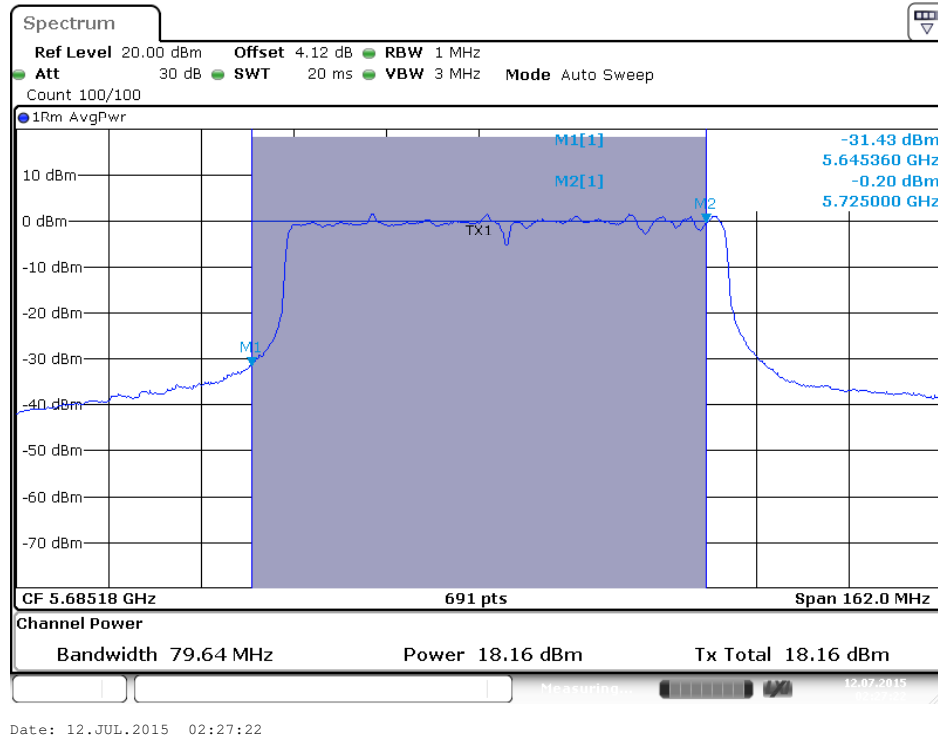
Date: 12.JUL.2015 02:28:07

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT80 / Chain 5/ 5690 MHz (UNII 2C)

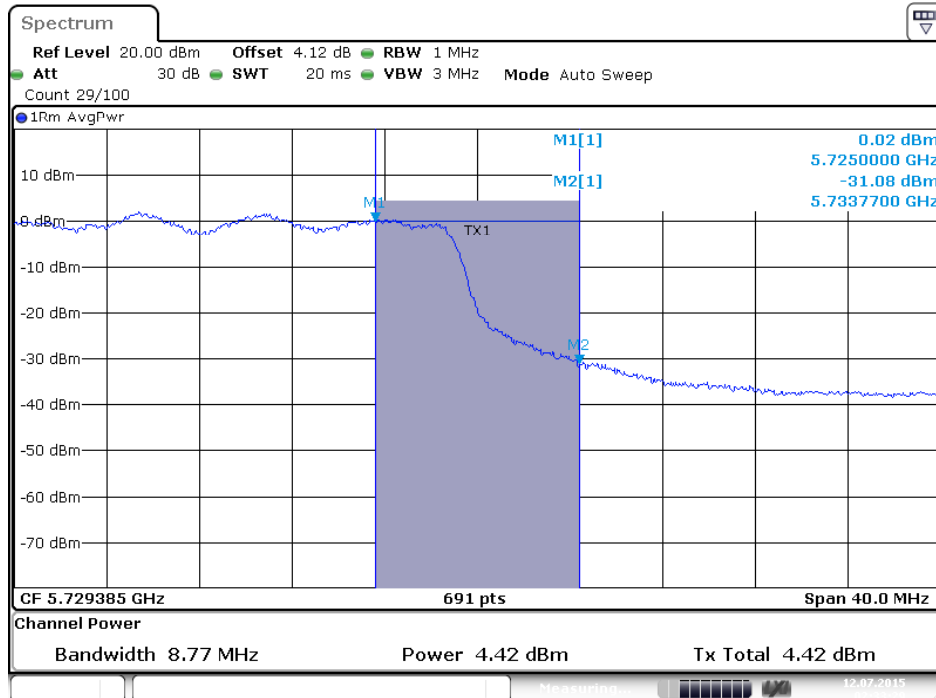


Date: 12.JUL.2015 02:27:44

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT80 / Chain 6/ 5690 MHz (UNII 2C)

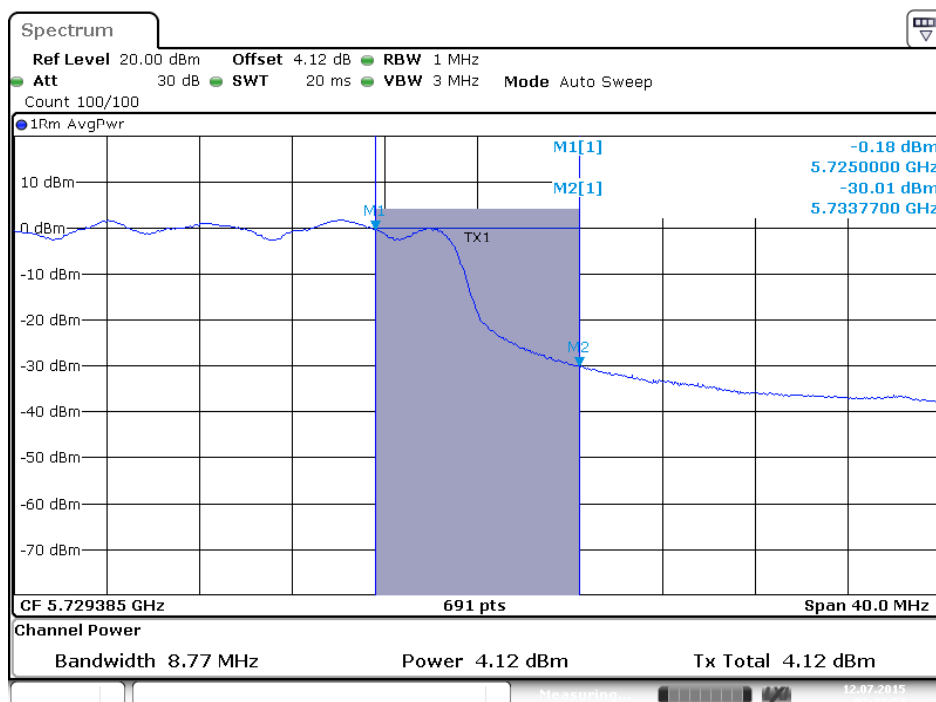


Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT80 / Chain 4 / 5690 MHz (UNII 3)



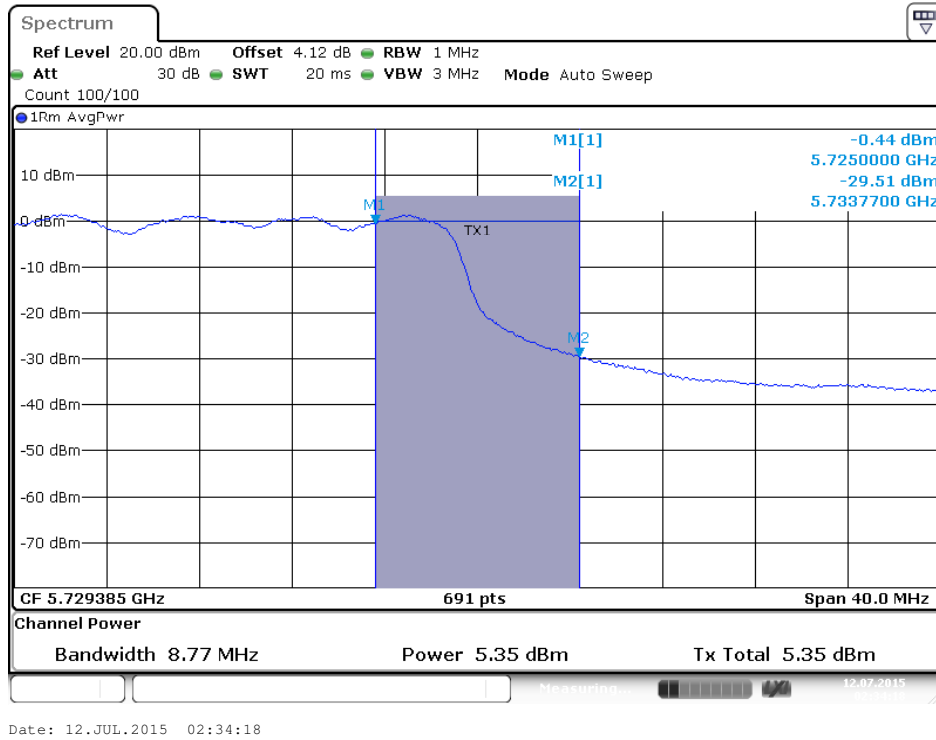
Date: 12.JUL.2015 02:33:29

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT80 / Chain 5 / 5690 MHz (UNII 3)



Date: 12.JUL.2015 02:33:57

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT80 / Chain 6 / 5690 MHz (UNII 3)



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

Temperature	25°C	Humidity	55%
Test Engineer	Eddie Weng	Test Date	Jul. 11, 2015

Mode	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Chain 4	Chain 5	Total		
802.11ac MCS0/Nss1 VHT20	5260 MHz	19.92	19.49	22.72	22.96	Complies
	5300 MHz	19.88	19.47	22.69	22.96	Complies
	5320 MHz	19.83	19.55	22.70	22.96	Complies
	5500 MHz	19.85	19.56	22.72	22.95	Complies
	5580 MHz	19.94	19.65	22.81	22.96	Complies
	5700 MHz	19.82	19.68	22.76	22.96	Complies
802.11ac MCS0/Nss1 VHT40	5270 MHz	19.92	19.48	22.72	22.96	Complies
	5310 MHz	17.41	16.97	20.21	22.96	Complies
	5510 MHz	19.83	19.54	22.70	22.96	Complies
	5550 MHz	19.88	19.59	22.75	22.96	Complies
	5670 MHz	20.11	19.63	22.89	22.96	Complies
802.11ac MCS0/Nss1 VHT80	5290 MHz	16.95	16.42	19.70	22.96	Complies
	5530 MHz	18.79	18.51	21.66	22.96	Complies
	5610 MHz	19.83	19.64	22.75	22.96	Complies

Note : 5500MHz power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(19.91) = 23.99\text{dBm} < 24\text{dBm}$,

so power limit=23.99dBm & $= 7.04\text{dBi}$, so power limit=23.99-(7.04-6)=22.95dBm

Note : Other channel Test

$$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left(\sum_{k=1}^{N_{ANT}} g_{j,k} \right)^2}{N_{ANT}} \right] = 7.04\text{dBi}, \text{ so limit} = 24 - (7.04 - 6) = 22.96 \text{ dBm}$$

Straddle Channel

Mode	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Chain 4	Chain 5	Total		
802.11ac MCS0/Nss1 VHT20	5720 MHz (UNII 2C)	17.86	17.94	20.91	21.72	Complies
	5720 MHz (UNII 3)	12.23	11.86	15.06	28.96	Complies
802.11ac MCS0/Nss1 VHT40	5710 MHz (UNII 2C)	19.68	19.33	22.52	22.96	Complies
	5710 MHz (UNII 3)	9.02	8.55	11.80	28.96	Complies
802.11ac MCS0/Nss1 VHT80	5690 MHz (UNII 2C)	19.94	19.43	22.70	22.96	Complies
	5690 MHz (UNII 3)	6.07	6.44	9.27	28.96	Complies

Note : 5720MHz power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(15.00)=22.76\text{dBm} < 24\text{dBm}$, so power limit=22.76dBm

$$\& \text{Directional Gain} = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{AS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.04 \text{ dBi, so power limit} = 22.76 - (7.04 - 6) = 21.72 \text{ dBm}$$

Note : Other channel Test to UNII 2C

$$\text{Directional Gain} = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{AS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.04 \text{ dBi, so limit} = 24 - (7.04 - 6) = 22.96 \text{ dBm}$$

Note : Other channel Test to UNII 3

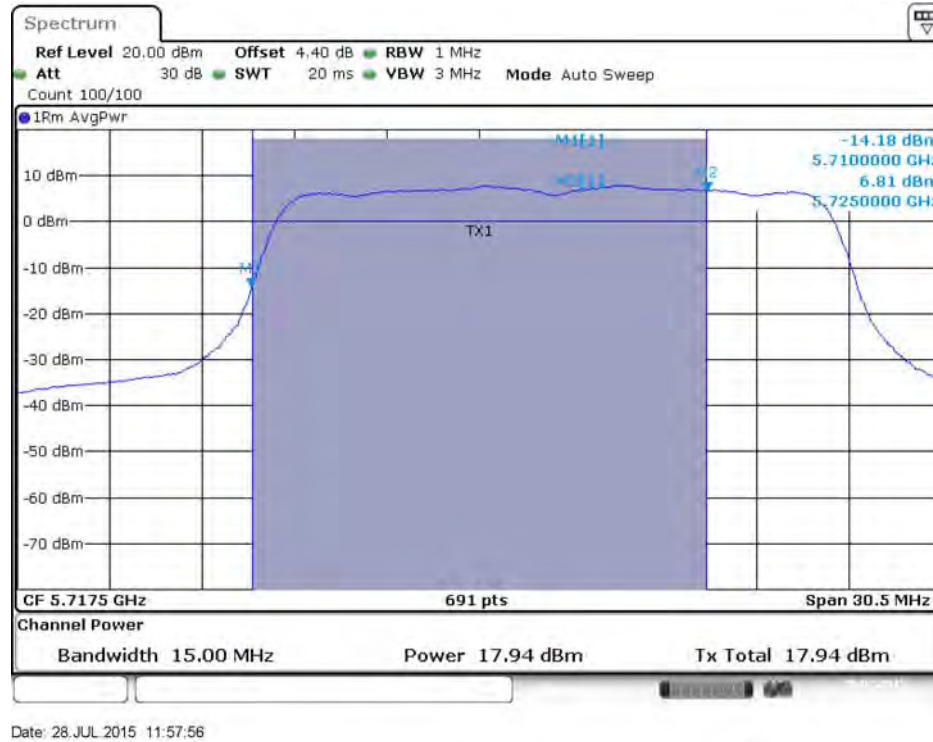
$$\text{Directional Gain} = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{AS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.04 \text{ dBi, so limit} = 30 - (7.04 - 6) = 28.96 \text{ dBm}$$

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

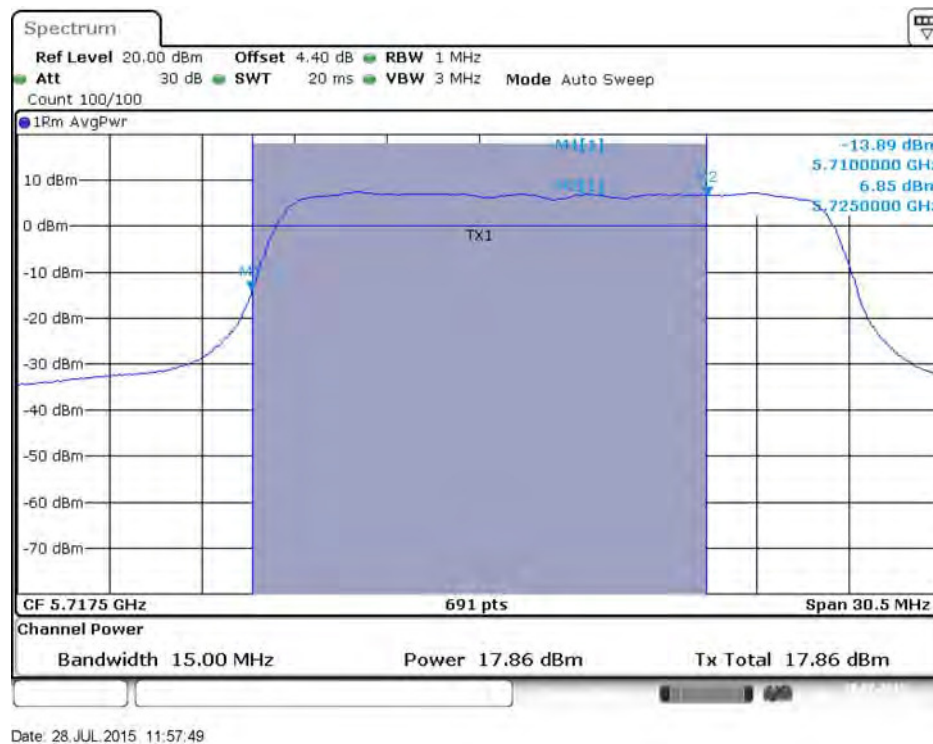
For plots, only the straddle channel result was shown.

Straddle Channel

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 / 5720 MHz (UNII 2C)



Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 5 / 5720 MHz (UNII 2C)



Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4/ 5720 MHz (UNII 3)



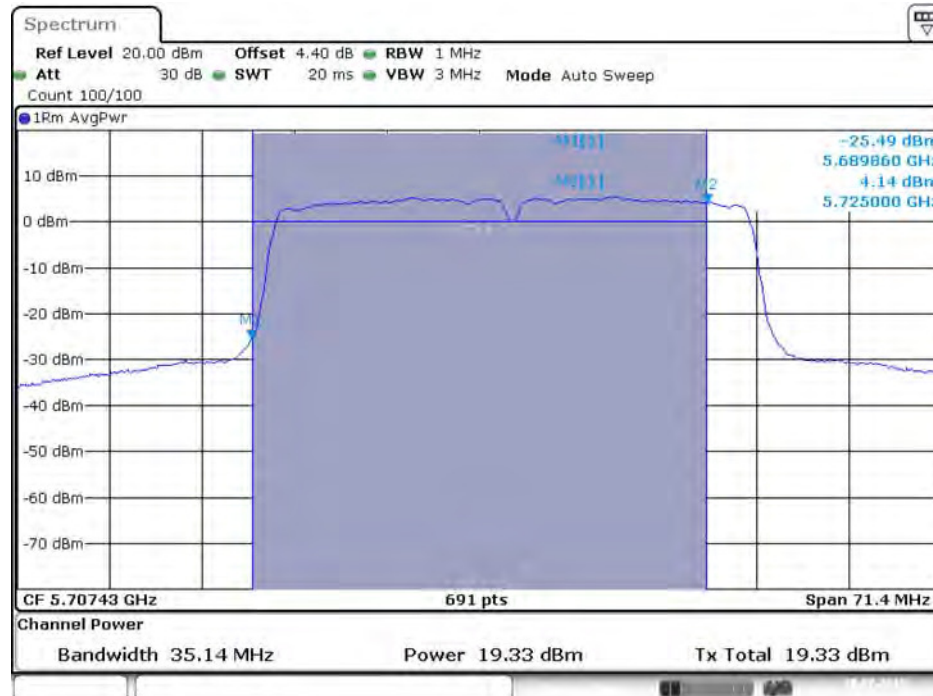
Date: 28 JUL 2015 11:57:59

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 5 / 5720 MHz (UNII 3)



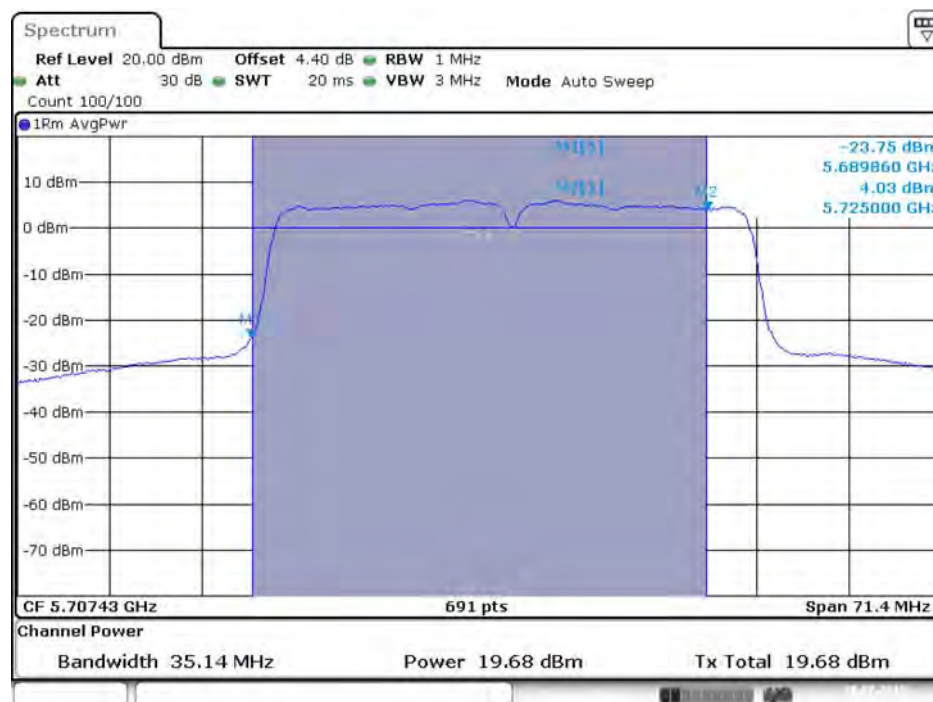
Date: 28 JUL 2015 11:57:52

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 /Chain 4 / 5710 MHz (UNII 2C)



Date: 28 JUL 2015 13:39:28

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 5/ 5710 MHz (UNII 2C)



Date: 28 JUL 2015 13:39:22

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 / 5710 MHz (UNII 3)



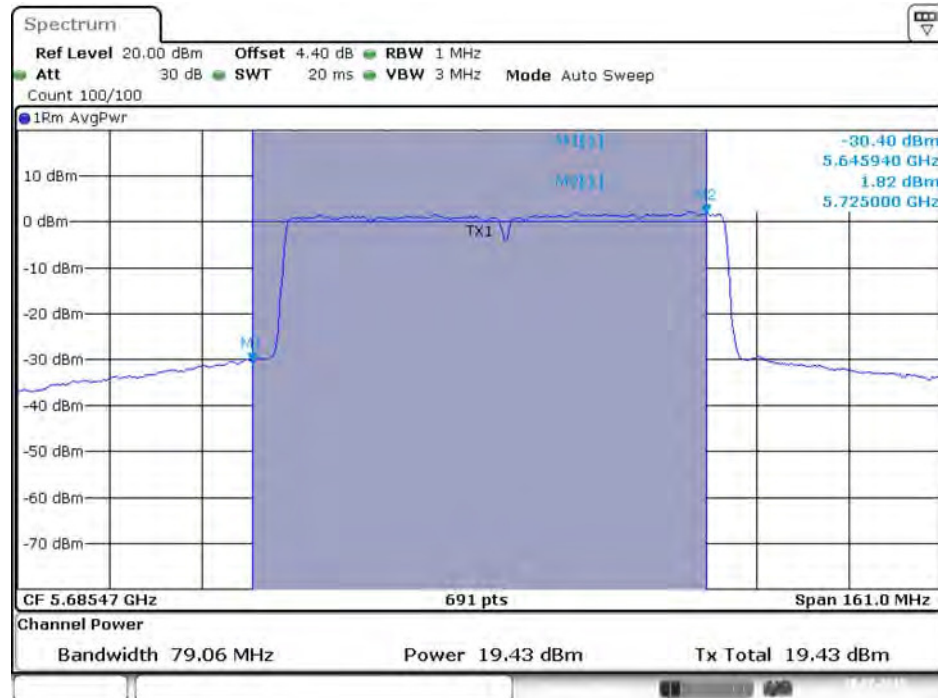
Date: 28 JUL 2015 13:39:32

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 /Chain 5 / 5710 MHz (UNII 3)



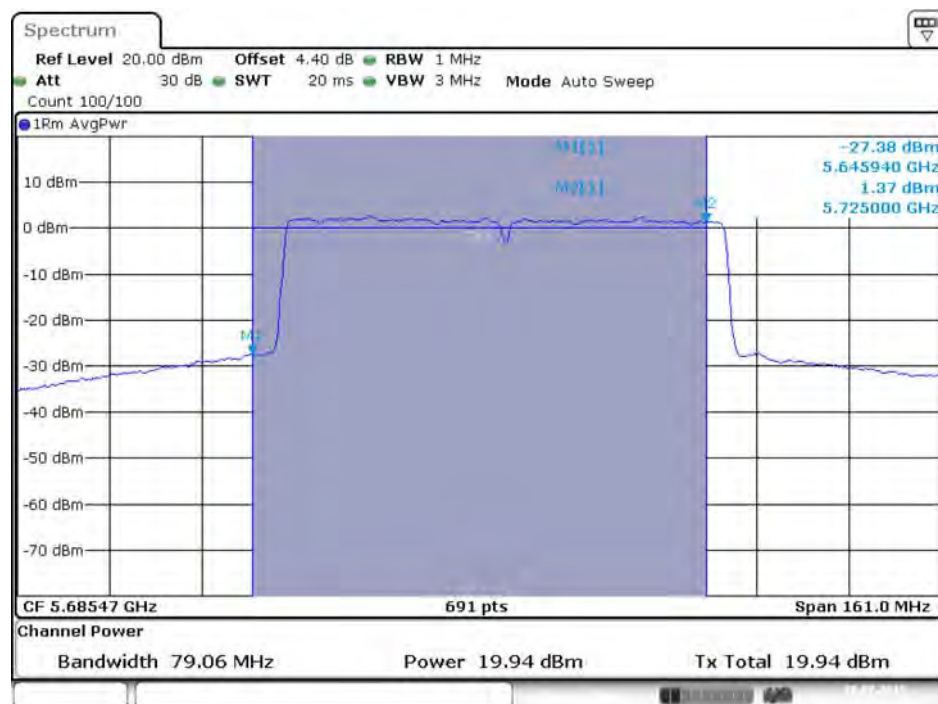
Date: 28 JUL 2015 13:39:25

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4/ 5690 MHz (UNII 2C)



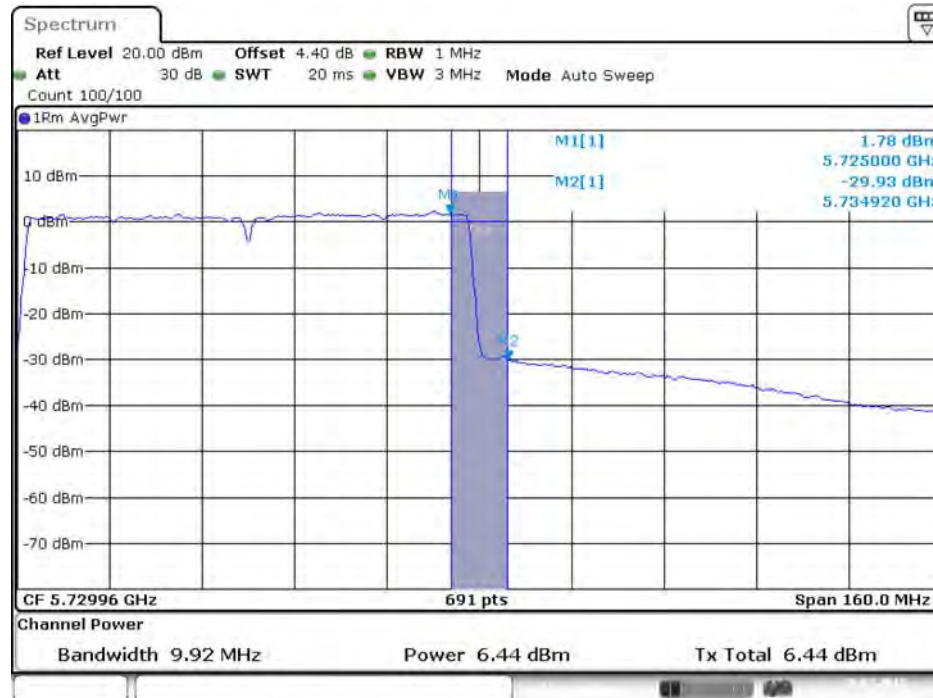
Date: 28 JUL 2015 14:46:24

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 5/ 5690 MHz (UNII 2C)



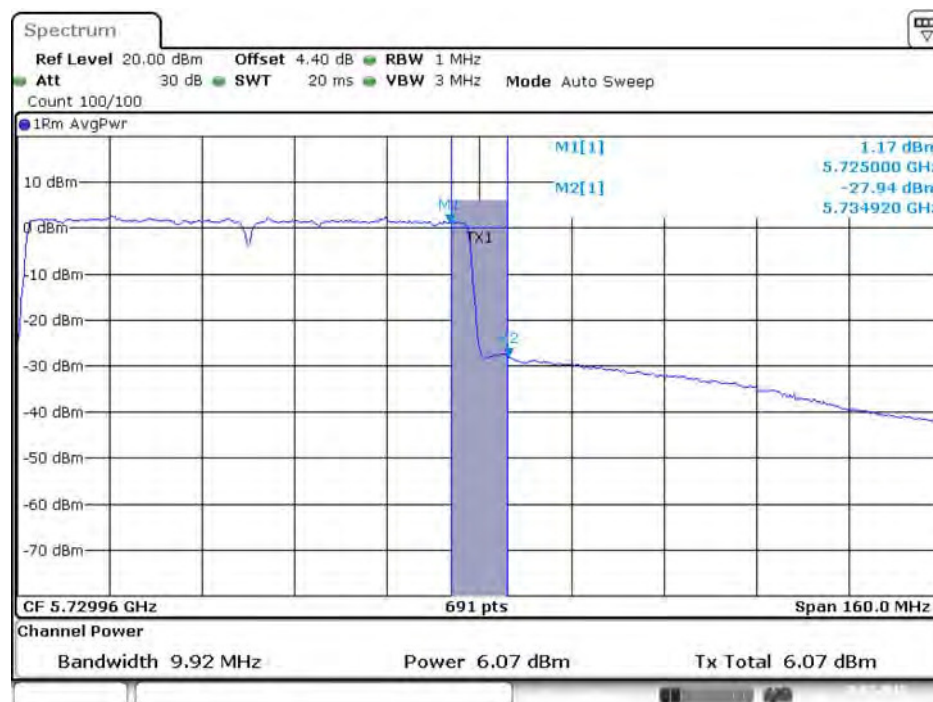
Date: 28 JUL 2015 14:46:17

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 / 5690 MHz (UNII 3)



Date: 28. JUL 2015 14:46:27

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 5/ 5690 MHz (UNII 3)



Date: 28. JUL 2015 14:46:20

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

Temperature	25°C	Humidity	55%
Test Engineer	Eddie Weng	Test Date	Jul. 11, 2015

Mode	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 4	Chain 5	Chain 6	Total		
802.11ac MCS0/Nss1 VHT20	5260 MHz	16.92	16.32	16.58	21.38	21.46	Complies
	5300 MHz	16.71	16.36	16.81	21.40	21.46	Complies
	5320 MHz	16.69	16.38	16.67	21.35	21.46	Complies
	5500 MHz	16.55	16.59	16.81	21.42	21.46	Complies
	5580 MHz	16.38	16.06	16.67	21.15	21.41	Complies
	5700 MHz	16.61	16.73	16.54	21.40	21.41	Complies
802.11ac MCS0/Nss1 VHT40	5270 MHz	17.04	16.45	16.49	21.44	21.46	Complies
	5310 MHz	15.62	15.05	15.31	20.10	21.46	Complies
	5510 MHz	16.33	16.32	16.52	21.16	21.46	Complies
	5550 MHz	16.35	16.24	16.66	21.19	21.46	Complies
	5670 MHz	16.61	16.27	16.52	21.24	21.46	Complies
802.11ac MCS0/Nss1 VHT80	5290 MHz	15.56	14.85	15.02	19.93	21.46	Complies
	5530 MHz	16.34	16.15	16.51	21.11	21.46	Complies
	5610 MHz	16.37	16.35	16.36	21.13	21.46	Complies

Note : 5580MHz power limit=24dBm or $11 + 10\log(B); 11 + 10\log(19.74) = 23.95\text{dBm} < 24\text{dBm}$,

so power limit=23.95dBm & $\text{Directional Gain} = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.54\text{dBi}$, so power limit=23.95-(8.54-6)=21.41dBm

Note : 5700MHz power limit=24dBm or $11 + 10\log(B); 11 + 10\log(19.74) = 23.95\text{dBm} < 24\text{dBm}$,

so power limit=23.95dBm & $\text{Directional Gain} = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.54\text{dBi}$, so power limit=23.95-(8.54-6)=21.41dBm

Note : Other channel Test

$\text{Directional Gain} = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.54\text{dBi}$, so limit=24-(8.54-6)= 21.46dBm

Straddle Channel

Mode	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 4	Chain 5	Chain 6	Total		
802.11ac MCS0/Nss1 VHT20	5720 MHz (UNII 2C)	14.98	14.64	14.68	19.54	20.56	Complies
	5720 MHz (UNII 3)	8.88	8.72	9.43	13.79	27.46	Complies
802.11ac MCS0/Nss1 VHT40	5710 MHz (UNII 2C)	16.74	16.48	16.37	21.30	21.46	Complies
	5710 MHz (UNII 3)	5.48	6.00	5.91	10.57	27.46	Complies
802.11ac MCS0/Nss1 VHT80	5690 MHz (UNII 2C)	16.66	16.53	16.66	21.39	21.46	Complies
	5690 MHz (UNII 3)	2.91	3.81	3.04	8.04	27.46	Complies

Note : 5720MHz power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(16.22) = 23.10\text{dBm} < 24\text{dBm}$,

so power limit=23.10dBm & $\text{Directional Gain} = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left(\sum_{k=1}^{N_{ANT}} g_{j,k} \right)^2}{N_{ANT}} \right] = 8.54\text{dBi}$, so power limit=23.10-(8.54-6)=20.56dBm

Note : Other channel Test to UNII 2C

$$\text{Directional Gain} = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left(\sum_{k=1}^{N_{ANT}} g_{j,k} \right)^2}{N_{ANT}} \right] = 8.54\text{dBi}, \text{ so limit} = 24 - (8.54 - 6) = 21.46 \text{ dBm}$$

Note : Other channel Test to UNII 3

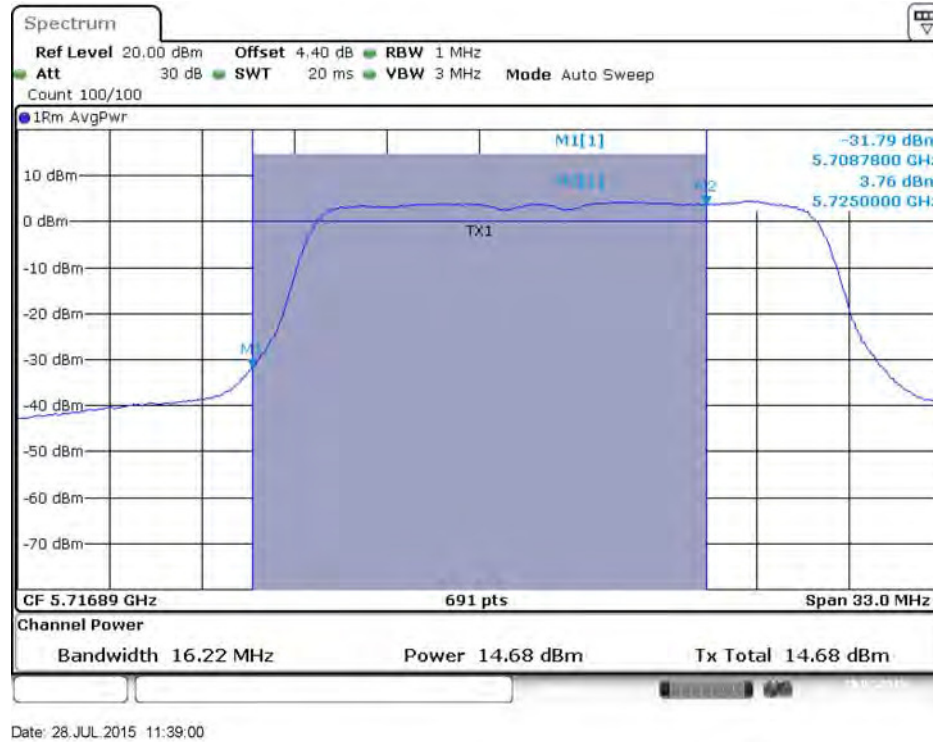
$$\text{Directional Gain} = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left(\sum_{k=1}^{N_{ANT}} g_{j,k} \right)^2}{N_{ANT}} \right] = 8.54\text{dBi}, \text{ so limit} = 30 - (8.54 - 6) = 27.46 \text{ dBm}$$

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

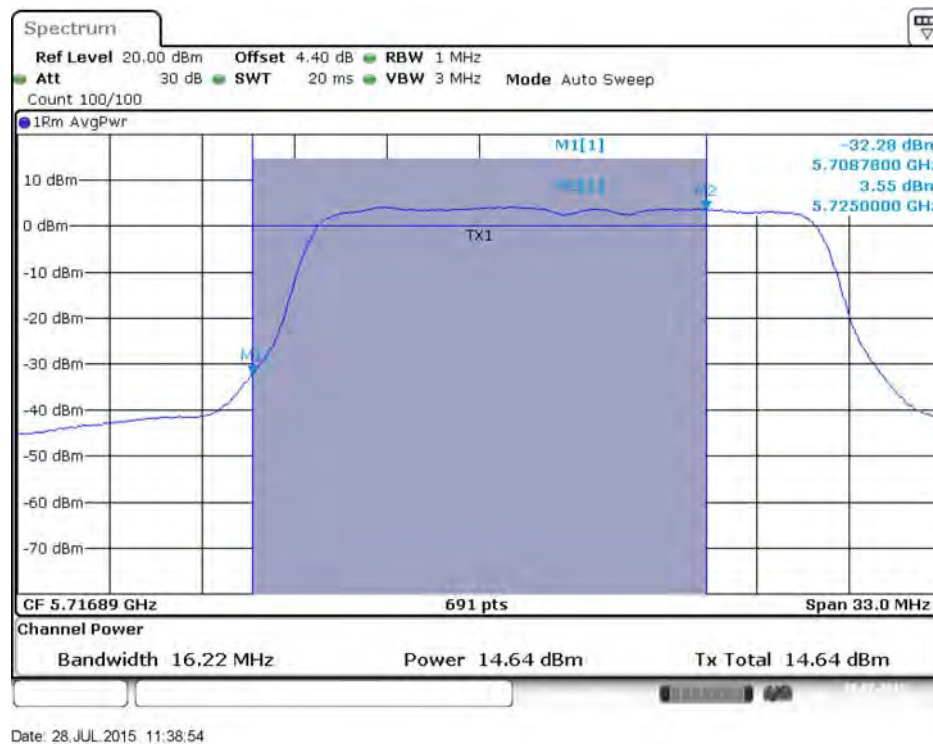
For plots, only the straddle channel result was shown.

Straddle Channel

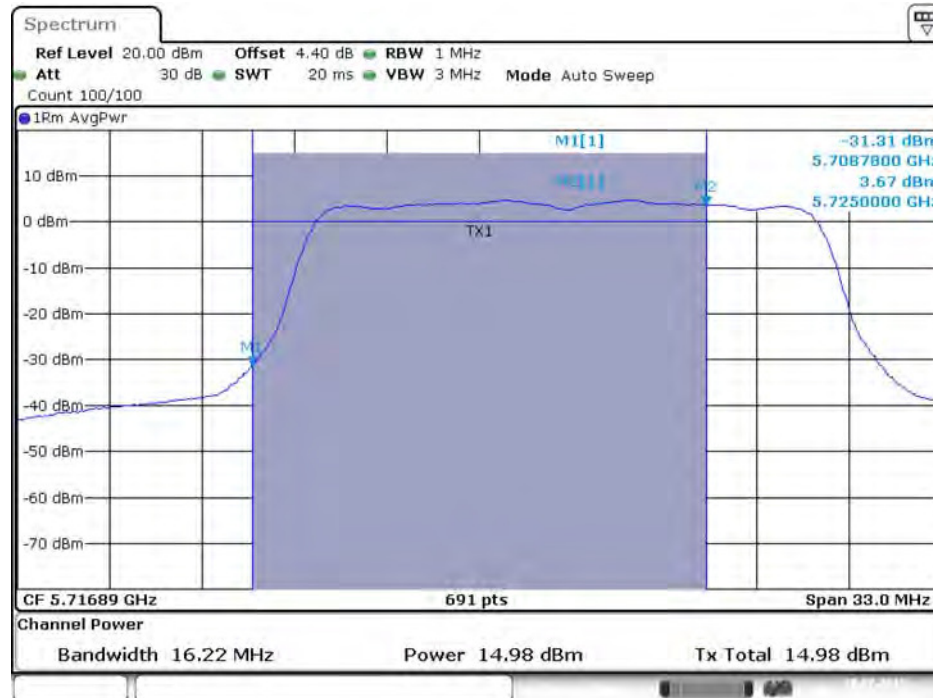
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 / 5720 MHz
(UNII 2C)



Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 5/ 5720 MHz
(UNII 2C)



Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 6/ 5720 MHz (UNII 2C)



Date: 28 JUL 2015 11:38:47

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 / 5720 MHz (UNII 3)



Date: 28 JUL 2015 11:39:04

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 5 / 5720 MHz (UNII 3)

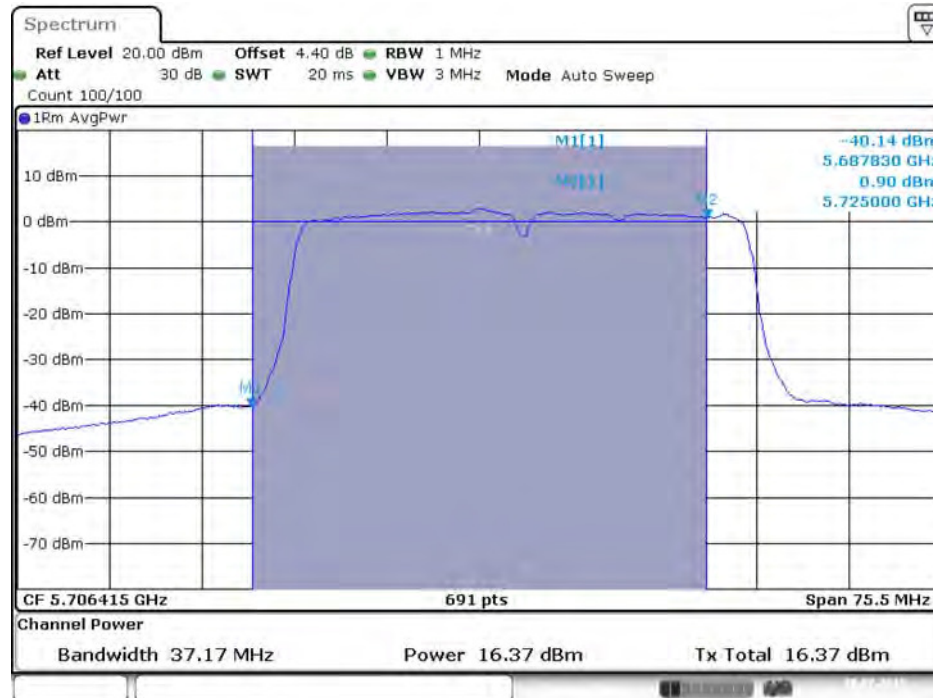


Date: 28 JUL 2015 11:38:57

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 6 / 5720 MHz (UNII 3)

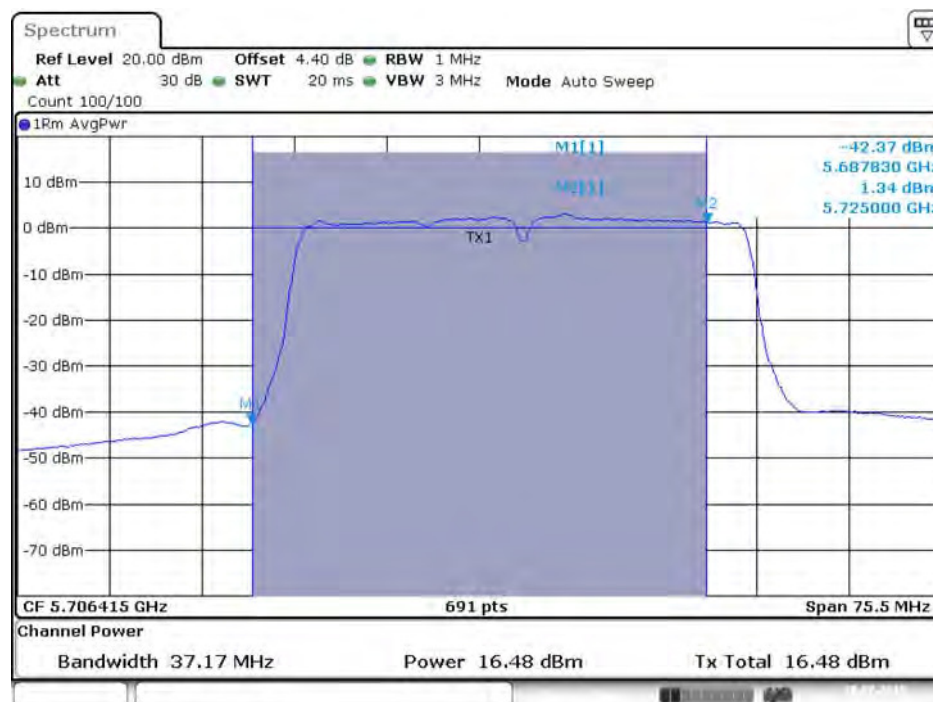


Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 / 5710 MHz (UNII 2C)



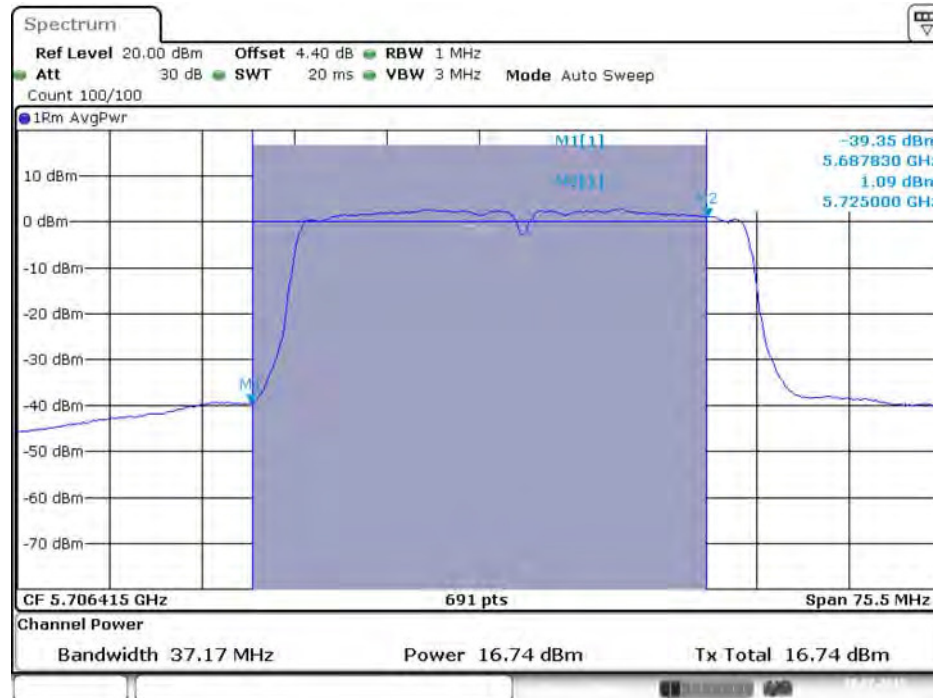
Date: 28. JUL 2015 14:05:38

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 5 / 5710 MHz (UNII 2C)



Date: 28. JUL 2015 14:05:31

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 6 / 5710 MHz (UNII 2C)



Date: 28 JUL 2015 14:05:24

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 / 5710 MHz (UNII 3)



Date: 28 JUL 2015 14:05:41

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 5 / 5710 MHz (UNII 3)



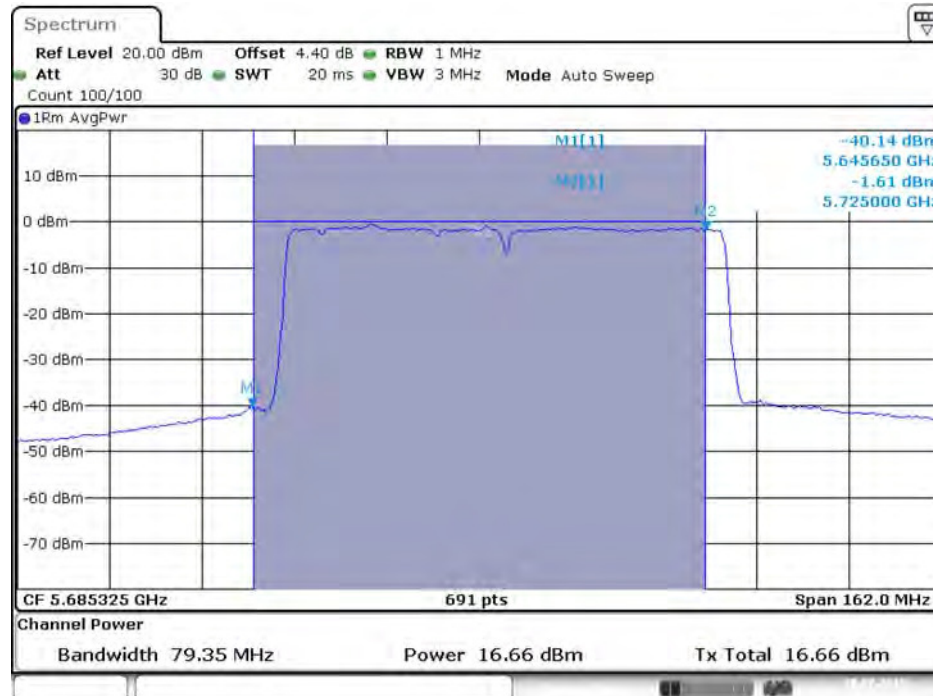
Date: 28 JUL 2015 14:05:34

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 6 / 5710 MHz
(UNII 3)



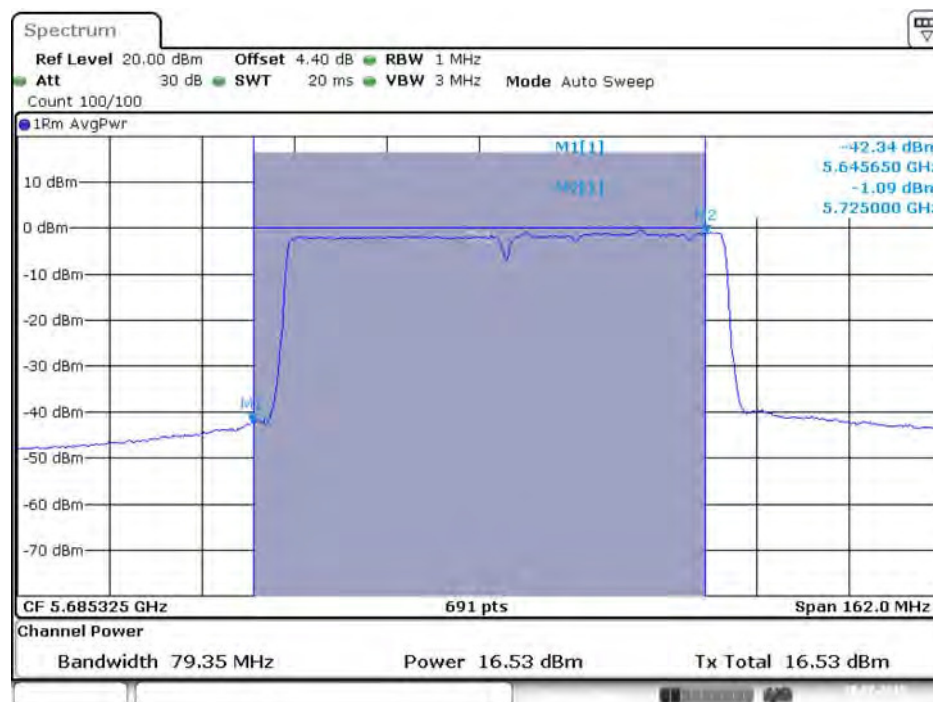
Date: 28 JUL 2015 14:05:27

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4/ 5690 MHz (UNII 2C)



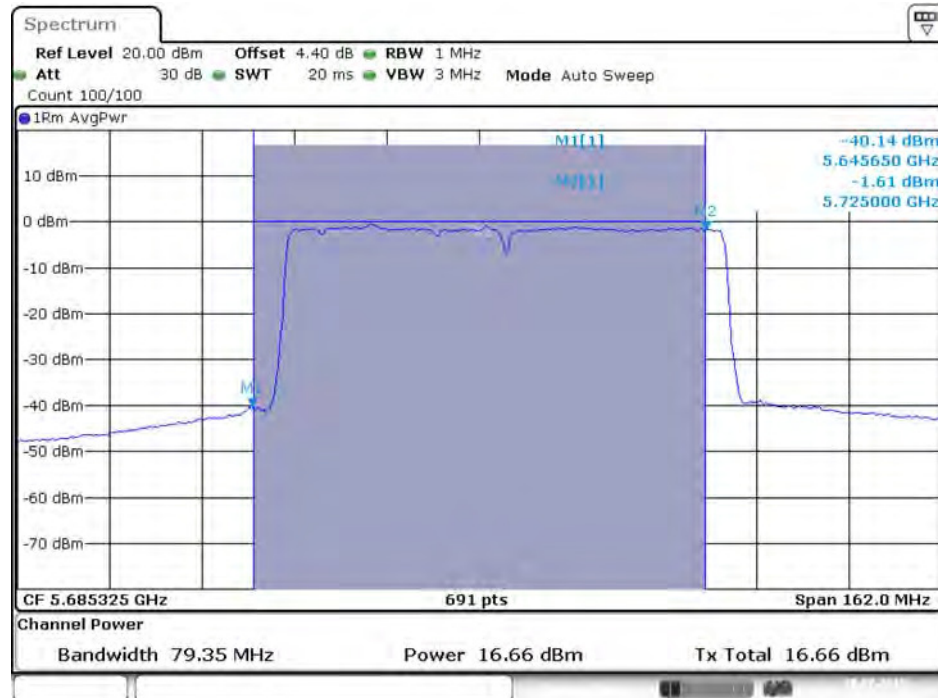
Date: 28 JUL 2015 14:17:07

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 5/ 5690 MHz (UNII 2C)



Date: 28 JUL 2015 14:17:00

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 6/ 5690 MHz
(UNII 2C)



Date: 28 JUL 2015 14:17:07

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 / 5690 MHz (UNII 3)



Date: 28 JUL 2015 14:17:10

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 5 / 5690 MHz (UNII 3)



Date: 28 JUL 2015 14:17:03

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 6 / 5690 MHz
(UNII 3)



Date: 28 JUL 2015 14:16:56

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

Temperature	25°C	Humidity	55%
Test Engineer	Eddie Weng	Test Date	Jul. 11, 2015

Mode	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 4	Chain 5	Chain 6	Total		
802.11ac MCS0/Nss2 VHT20	5260 MHz	19.29	18.81	18.93	23.79	24.00	Complies
	5300 MHz	19.17	18.8	19.13	23.81	24.00	Complies
	5320 MHz	19.23	18.94	19.04	23.84	23.99	Complies
	5500 MHz	19.15	18.98	19.05	23.83	23.99	Complies
	5580 MHz	19.14	19.02	19.19	23.89	23.99	Complies
	5700 MHz	18.02	18.01	17.78	22.71	23.95	Complies
802.11ac MCS0/Nss2 VHT40	5270 MHz	19.36	18.94	18.91	23.85	24.00	Complies
	5310 MHz	15.38	14.93	15.13	19.92	24.00	Complies
	5510 MHz	19.11	19.13	19.09	23.88	24.00	Complies
	5550 MHz	19.24	19.10	19.25	23.97	24.00	Complies
	5670 MHz	18.99	18.59	18.68	23.53	24.00	Complies
802.11ac MCS0/Nss2 VHT80	5290 MHz	15.89	15.21	15.36	20.27	24.00	Complies
	5530 MHz	17.22	16.86	17.15	21.85	24.00	Complies
	5610 MHz	18.72	18.52	18.49	23.35	24.00	Complies

Note : 5320MHz power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(19.91) = 23.99\text{dBm} < 24\text{dBm}$, so power limit=23.99dBm

Note : 5500MHz power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(19.91) = 23.99\text{dBm} < 24\text{dBm}$, so power limit=23.99dBm

Note : 5580MHz power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(19.91) = 23.99\text{dBm} < 24\text{dBm}$, so power limit=23.99dBm

Note : 5700MHz power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(19.74) = 23.95\text{dBm} < 24\text{dBm}$, so power limit=23.95dBm

Straddle Channel

Mode	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 4	Chain 5	Chain 6	Total		
802.11ac MCS0/Nss2 VHT20	5720 MHz (UNII 2C)	17.09	16.86	16.83	21.70	23.01	Complies
	5720 MHz (UNII 3)	10.87	10.80	11.48	15.83	30.00	Complies
802.11ac MCS0/Nss2 VHT40	5710 MHz (UNII 2C)	19.30	19.09	18.98	23.90	24.00	Complies
	5710 MHz (UNII 3)	8.04	8.61	8.57	13.19	30.00	Complies
802.11ac MCS0/Nss2 VHT80	5690 MHz (UNII 2C)	8.04	8.61	8.57	13.19	24.00	Complies
	5690 MHz (UNII 3)	4.51	5.19	4.51	9.52	30.00	Complies

Note : 5720MHz(UNII 2C) power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(15.87) = 23.01\text{dBm} < 24\text{dBm}$,
so power limit=23.01dBm

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

For plots, only the straddle channel result was shown.

Straddle Channel

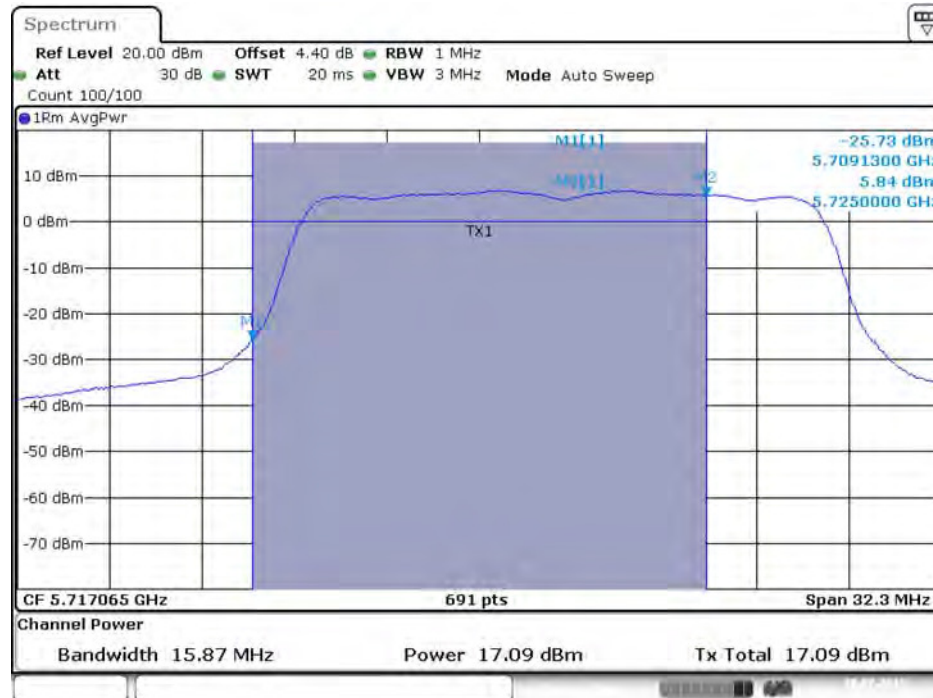
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4 / 5720 MHz
(UNII 2C)



Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 5/ 5720 MHz
(UNII 2C)

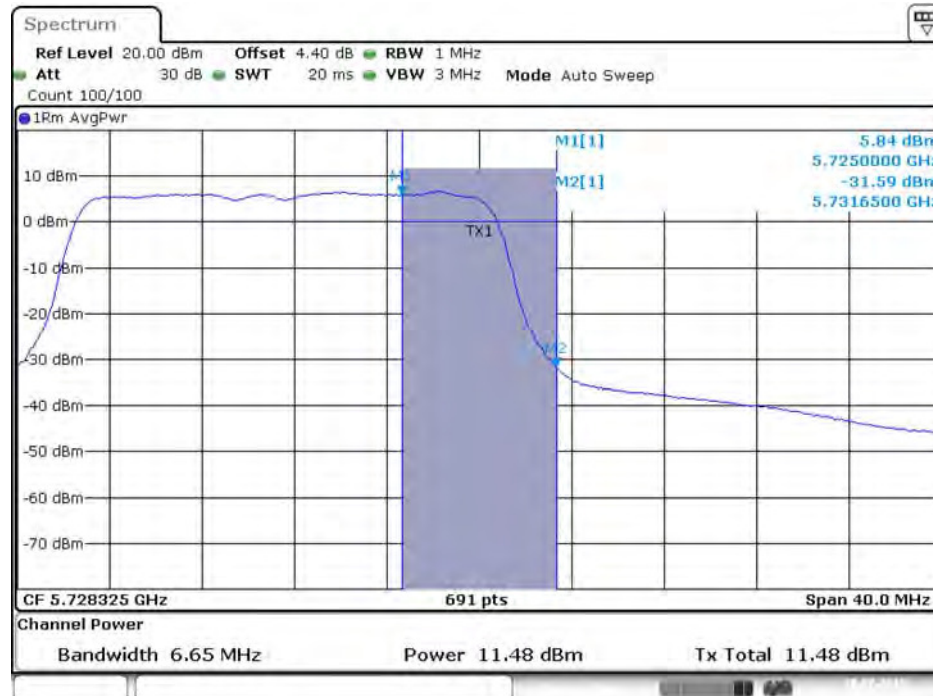


Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 6/ 5720 MHz
(UNII 2C)



Date: 28 JUL 2015 11:52:39

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4 / 5720 MHz (UNII 3)



Date: 28 JUL 2015 11:52:55

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 5 / 5720 MHz (UNII 3)



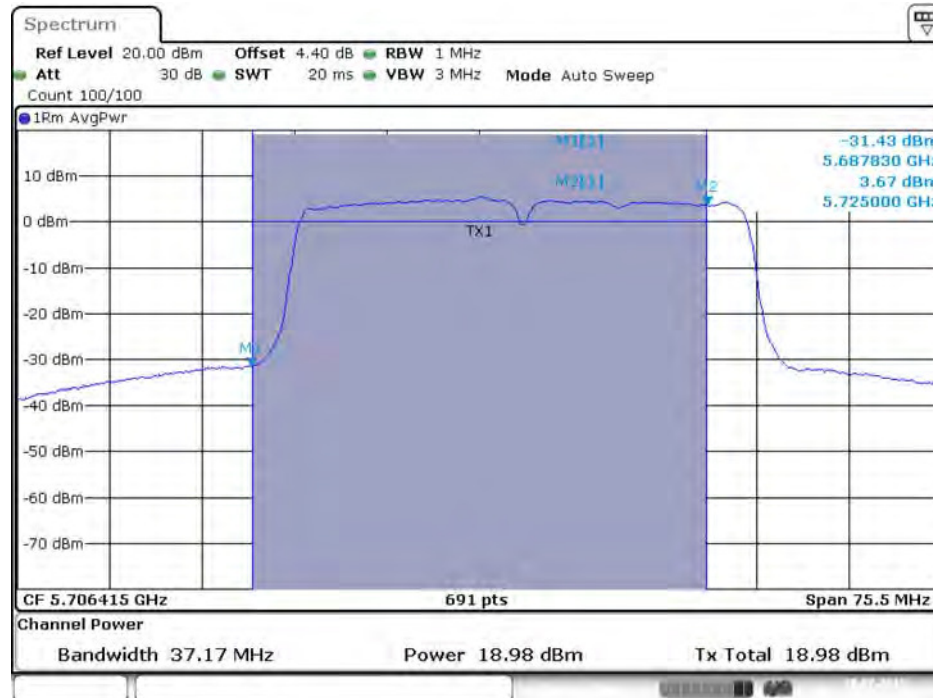
Date: 28 JUL 2015 11:52:49

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 6 / 5720 MHz (UNII 3)



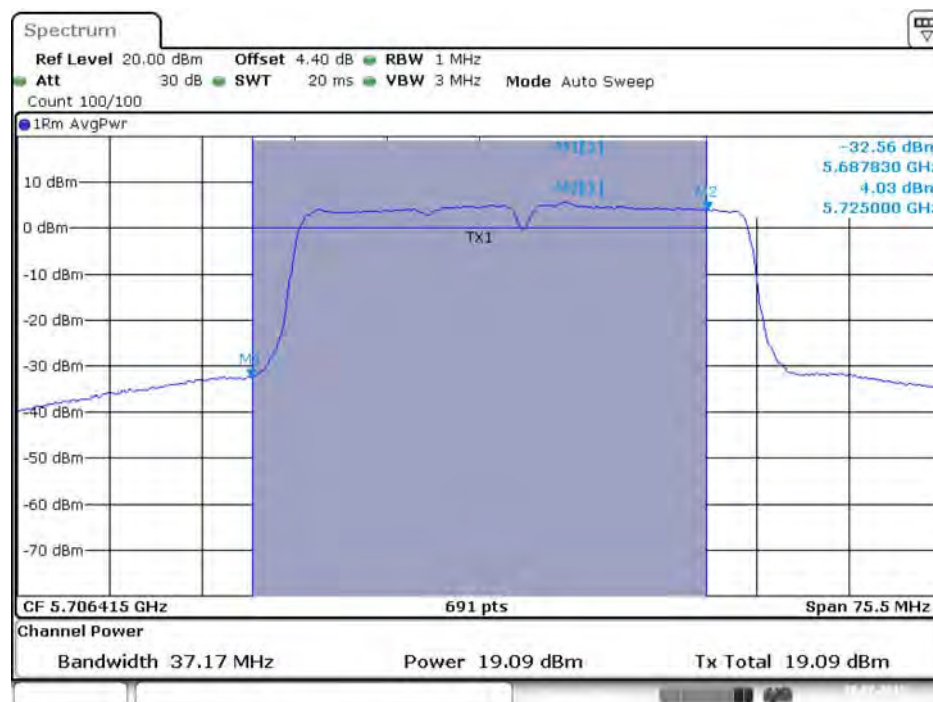
Date: 28 JUL 2015 11:52:42

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4 / 5710 MHz (UNII 2C)



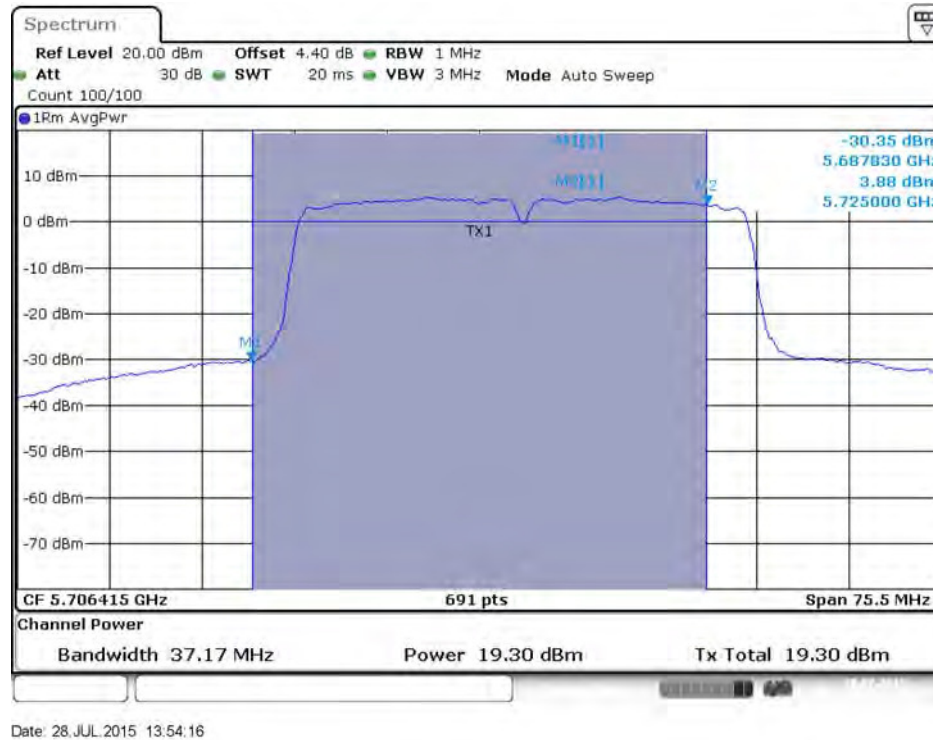
Date: 28 JUL 2015 13:54:30

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 5 / 5710 MHz (UNII 2C)



Date: 28 JUL 2015 13:54:23

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 6 / 5710 MHz
(UNII 2C)



Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4 / 5710 MHz (UNII 3)



Date: 28. JUL 2015 13:54:33

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 5 / 5710 MHz (UNII 3)



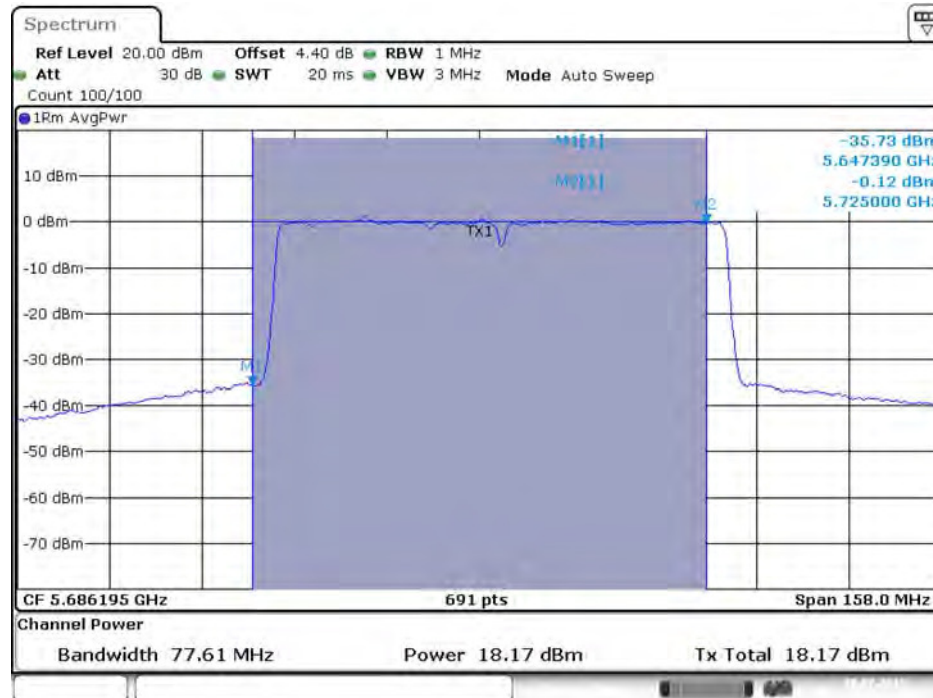
Date: 28. JUL 2015 13:54:26

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 6 / 5710 MHz
(UNII 3)



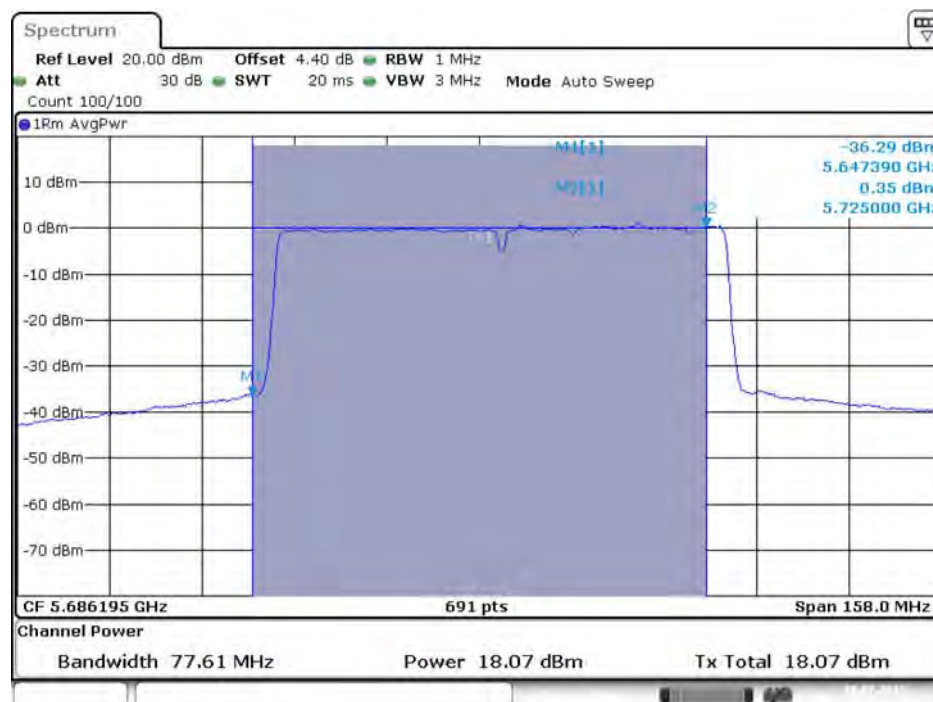
Date: 28 JUL 2015 13:54:19

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4/ 5690 MHz (UNII 2C)



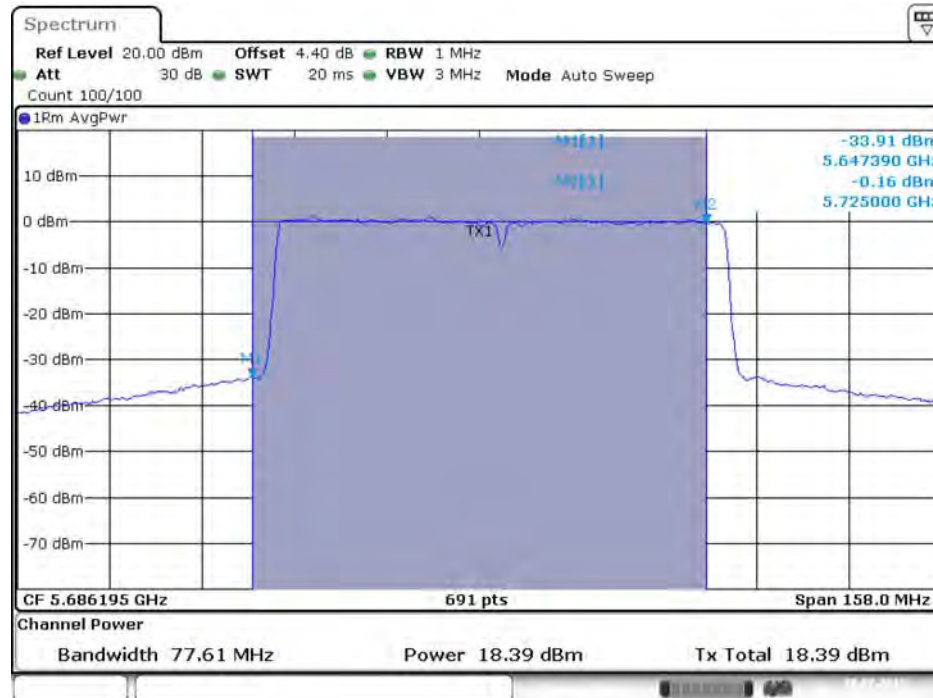
Date: 28 JUL 2015 14:28:08

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 5/ 5690 MHz (UNII 2C)



Date: 28 JUL 2015 14:28:01

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 6/ 5690 MHz
(UNII 2C)



Date: 28 JUL 2015 14:27:54

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4 / 5690 MHz
(UNII 3)



Date: 28 JUL 2015 14:28:11

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 5 / 5690 MHz
(UNII 3)



Date: 28 JUL 2015 14:28:04

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 6 / 5690 MHz (UNII 3)



Date: 28.JUL.2015 14:27:57

<For Radio 3>

Temperature	25°C	Humidity	55%
Test Engineer	Clemens Fang	Test Date	Jul. 08, 2015

Mode	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 7		
802.11a	5260 MHz	13.75	24.00	Complies
	5300 MHz	13.81	24.00	Complies
	5320 MHz	13.76	24.00	Complies
	5500 MHz	13.98	24.00	Complies
	5580 MHz	13.69	24.00	Complies
	5700 MHz	13.71	24.00	Complies
802.11ac MCS0/Nss1 VHT20	5260 MHz	13.74	24.00	Complies
	5300 MHz	13.85	24.00	Complies
	5320 MHz	13.64	24.00	Complies
	5500 MHz	13.79	24.00	Complies
	5580 MHz	13.59	24.00	Complies
	5700 MHz	13.57	24.00	Complies
802.11ac MCS0/Nss1 VHT40	5270 MHz	13.57	24.00	Complies
	5310 MHz	12.62	24.00	Complies
	5510 MHz	13.43	24.00	Complies
	5550 MHz	13.62	24.00	Complies
	5670 MHz	13.71	24.00	Complies
802.11ac MCS0/Nss1 VHT80	5290 MHz	10.04	24.00	Complies
	5530 MHz	11.65	24.00	Complies
	5610 MHz	13.84	24.00	Complies

Straddle Channel

Mode	Frequency	Conducted Power (dBm)		Max. Limit (dBm)	Result
		Chain 7	Total		
802.11a	5720 MHz (UNII 2C)	12.56	12.68	23.87	Complies
	5720 MHz (UNII 3)	6.48	6.60	30.00	Complies
802.11ac MCS0/Nss1 VHT20	5720 MHz (UNII 2C)	12.36	12.54	23.69	Complies
	5720 MHz (UNII 3)	6.78	6.96	30.00	Complies
802.11ac MCS0/Nss1 VHT40	5710 MHz (UNII 2C)	12.72	13.17	24.00	Complies
	5710 MHz (UNII 3)	2.33	2.78	30.00	Complies
802.11ac MCS0/Nss1 VHT80	5690 MHz (UNII 2C)	12.76	13.37	24.00	Complies
	5690 MHz (UNII 3)	-1.46	-0.85	30.00	Complies

Note : 5720MHz(UNII 2C) power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(19.35) = 23.87\text{dBm} < 24\text{dBm}$,

so power limit=23.87dBm

Note : 5720MHz(UNII 2C) power limit=24dBm or $11 + 10\log(B)$; $11 + 10\log(18.57) = 23.69\text{dBm} < 24\text{dBm}$,

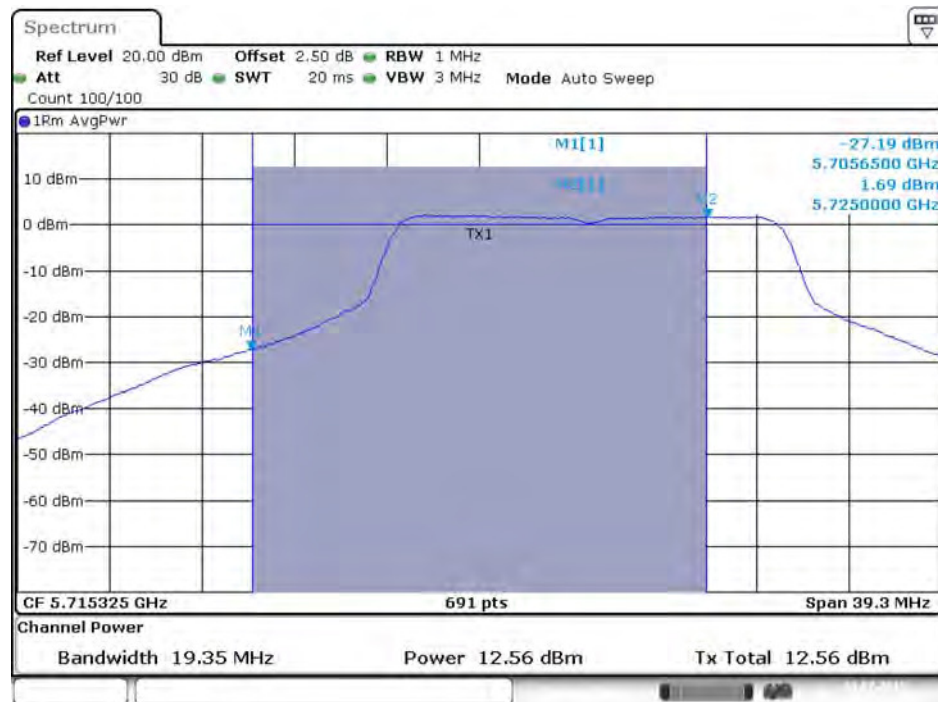
so power limit=23.69dBm

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

For plots, only the straddle channel result was shown.

Straddle Channel

Conducted Output Power Plot on Configuration IEEE 802.11a / Chain 7 / 5720 MHz (UNII 2C)



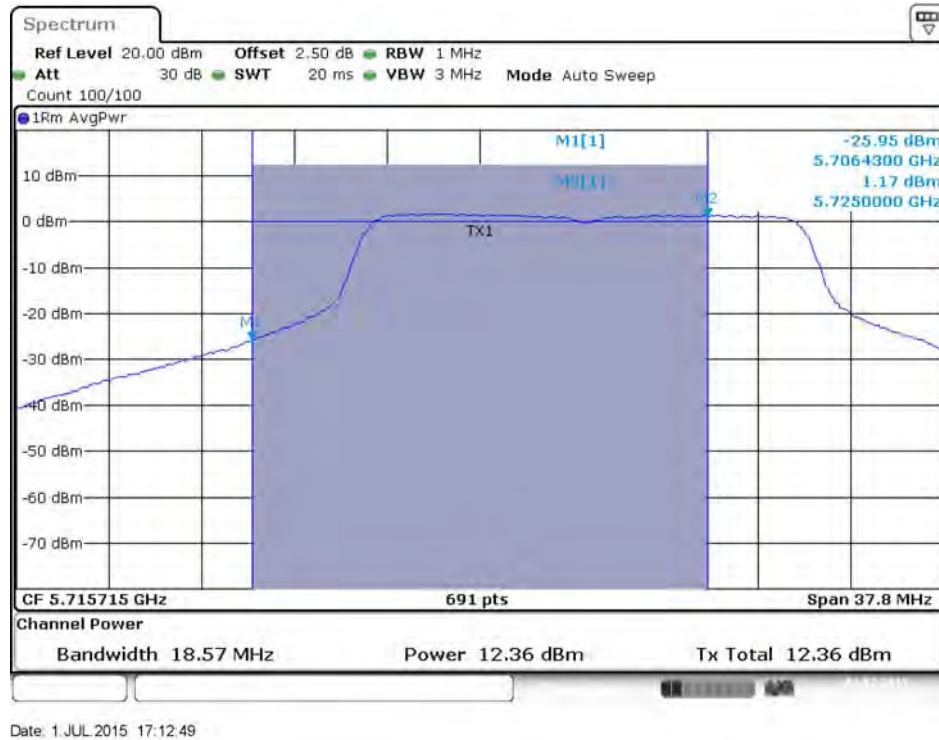
Date: 1.JUL.2015 16:38:44

Conducted Output Power Plot on Configuration IEEE 802.11a / Chain 7 / 5720 MHz (UNII 3)

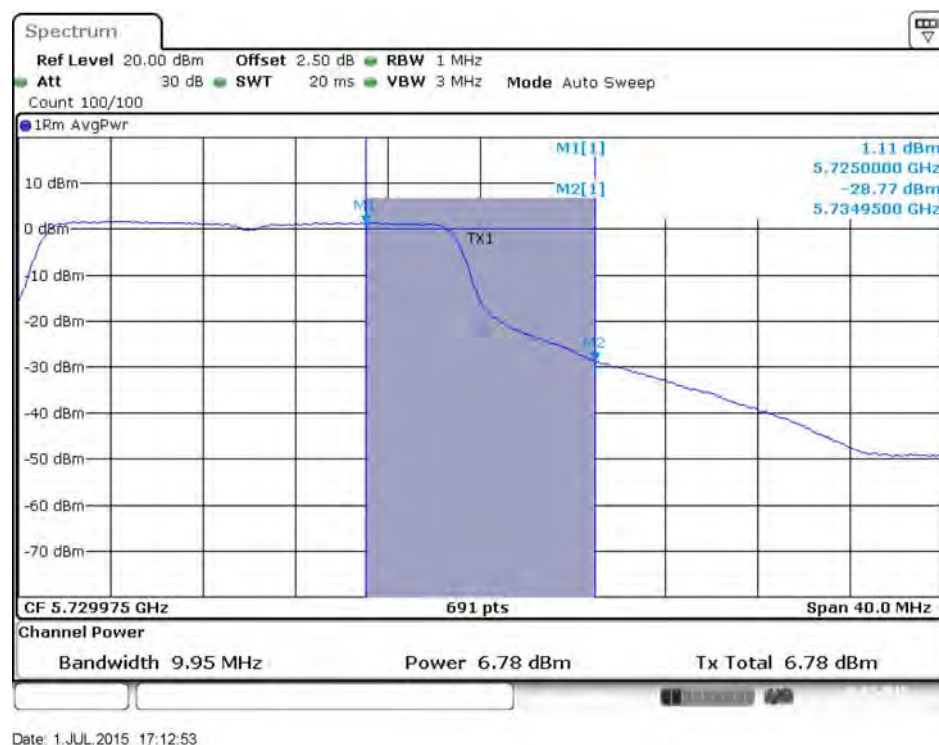


Date: 1.JUL.2015 16:38:47

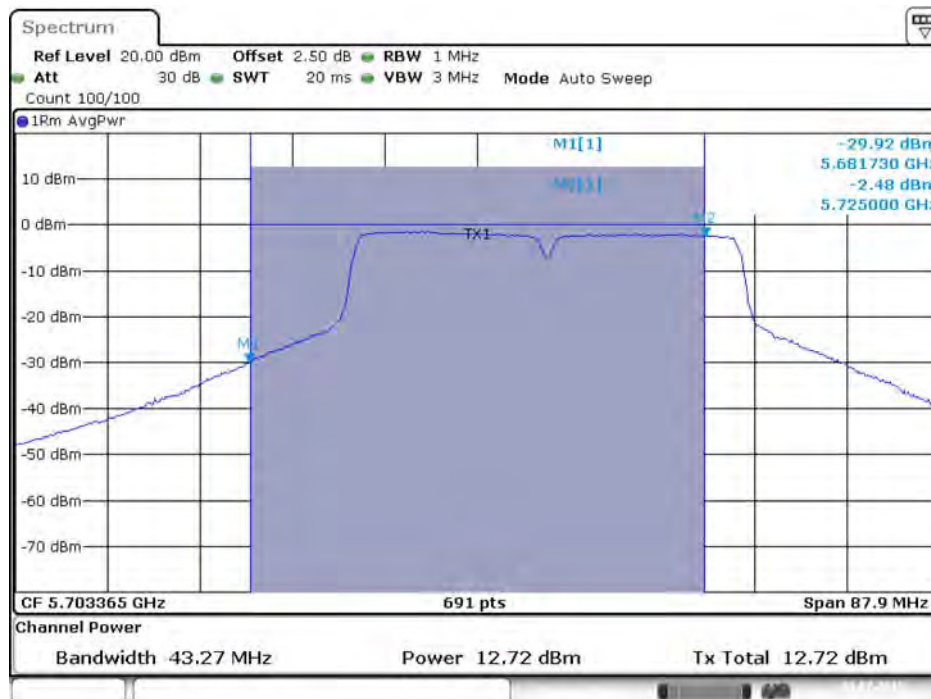
Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 7 / 5720 MHz (UNII 2C)



Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 7 / 5720 MHz (UNII 3)



Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 7 / 5710 MHz (UNII 2C)



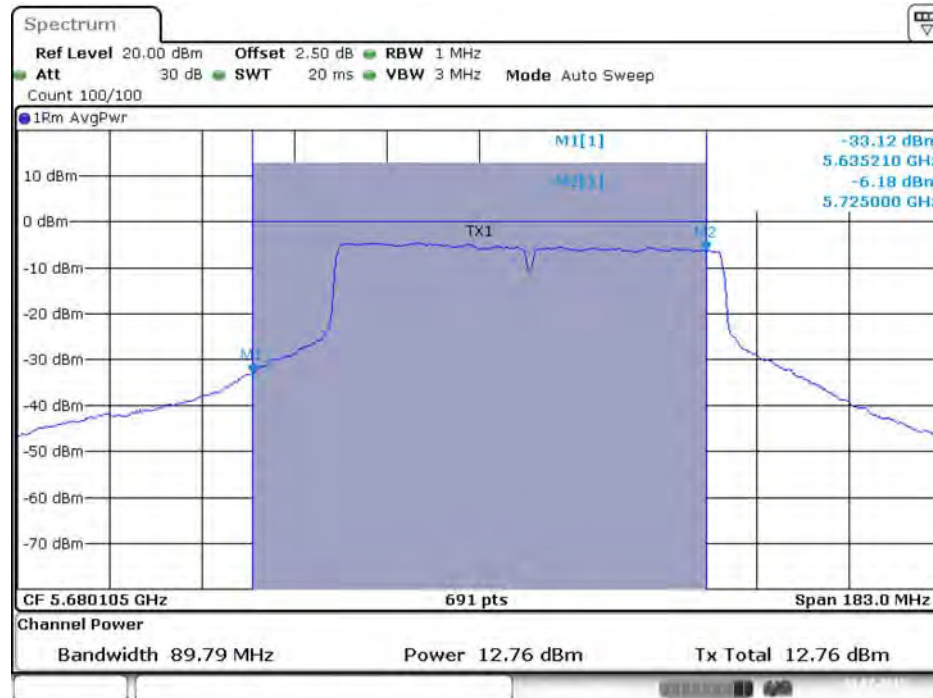
Date: 1.JUL 2015 17:22:59

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 7 / 5710 MHz (UNII 3)



Date: 1.JUL 2015 17:23:02

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 7 / 5690 MHz (UNII 2C)



Date: 1.JUL.2015 17:34:40

Conducted Output Power Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 7 / 5690 MHz (UNII 3)



Date: 1.JUL.2015 17:34:43

4.5. Power Spectral Density Measurement

4.5.1. Limit

The following table is power spectral density limits and decrease power density limit rule refer to section 4.4.1.

Frequency Band		Limit
☒	5.25-5.35 GHz	11 dBm/MHz
☒	5.470-5.725 GHz	11 dBm/MHz

4.5.2. Measuring Instruments and Setting

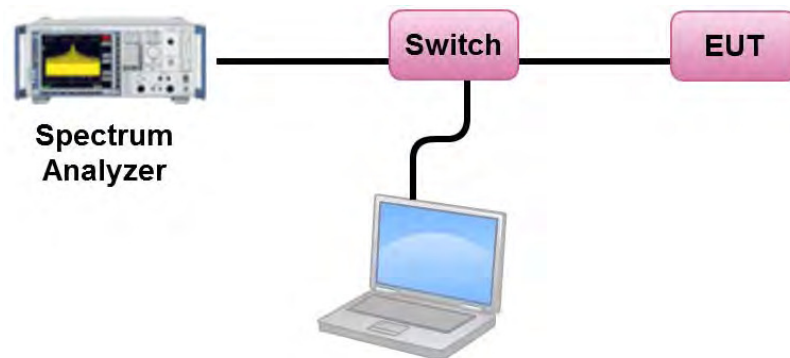
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

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

4.5.3. Test Procedures

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

4.5.4. Test Setup Layout



4.5.5. Test Deviation

There is no deviation with the original standard.

4.5.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.5.7. Test Result of Power Spectral Density

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

Temperature	25°C	Humidity	55%
Test Engineer	Lucas Huang	Test Date	Jul. 11, 2015

Mode	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
802.11a	5260 MHz	8.62	11.00	Complies
	5300 MHz	8.52	11.00	Complies
	5320 MHz	8.29	11.00	Complies
	5500 MHz	8.44	11.00	Complies
	5580 MHz	8.95	11.00	Complies
	5700 MHz	7.53	11.00	Complies
802.11ac MCS0/Nss1 VHT20	5260 MHz	8.68	11.00	Complies
	5300 MHz	8.60	11.00	Complies
	5320 MHz	8.89	11.00	Complies
	5500 MHz	8.95	11.00	Complies
	5580 MHz	9.00	11.00	Complies
	5700 MHz	7.63	11.00	Complies
802.11ac MCS0/Nss1 VHT40	5270 MHz	5.46	11.00	Complies
	5310 MHz	3.21	11.00	Complies
	5510 MHz	4.70	11.00	Complies
	5550 MHz	5.70	11.00	Complies
	5670 MHz	5.53	11.00	Complies
802.11ac MCS0/Nss1 VHT80	5290 MHz	-1.86	11.00	Complies
	5530 MHz	0.93	11.00	Complies
	5610 MHz	1.51	11.00	Complies

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

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

Straddle Channel

Configuration IEEE 802.11a / Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
144	5720 MHz (UNII 2C)	8.14	11.00	Complies

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/R BW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
144	5720 MHz (UNII 3)	7.78	-3.01	4.77	30.00	Complies

Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
144	5720 MHz (UNII 2C)	7.82	11.00	Complies

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/R BW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
144	5720 MHz (UNII 3)	7.57	-3.01	4.56	30.00	Complies

Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
142	5710 MHz (UNII 2C)	4.92	11.00	Complies

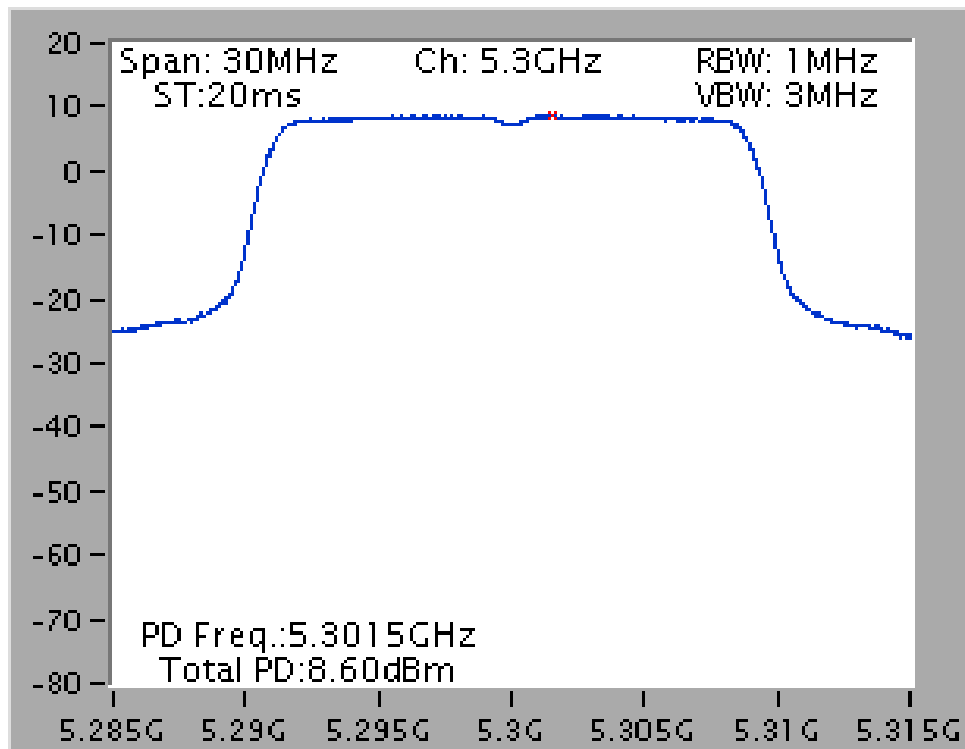
Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/R BW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
142	5710 MHz (UNII 3)	3.97	-3.01	0.96	30.00	Complies

Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4

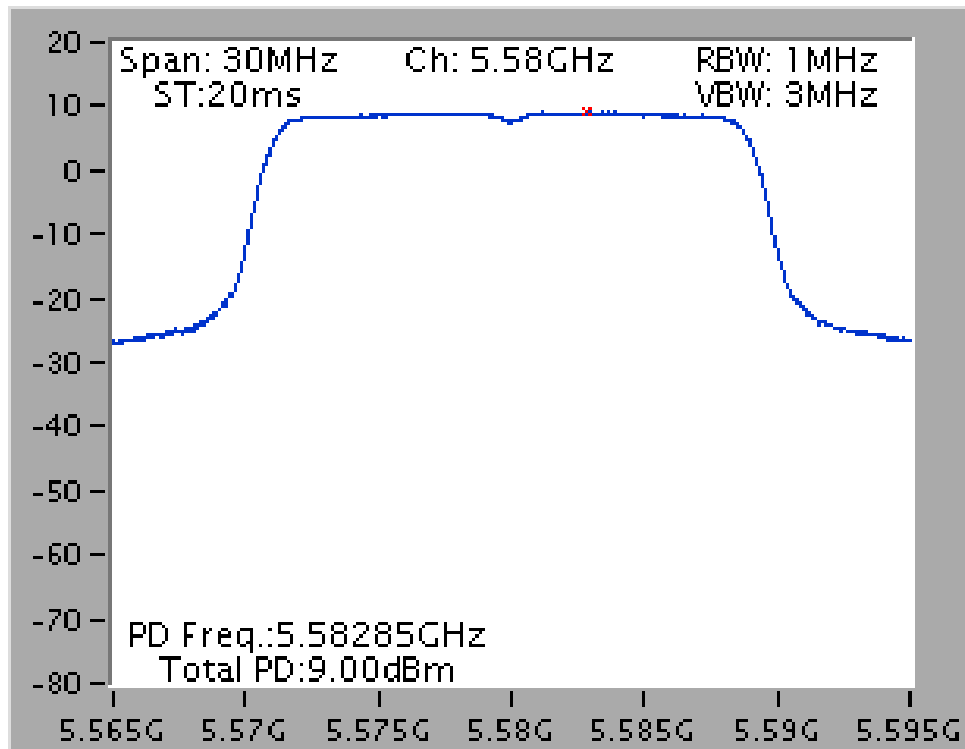
Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
138	5690 MHz (UNII 2C)	2.51	11.00	Complies

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/R BW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
138	5690 MHz (UNII 3)	2.36	-3.01	-0.65	30.00	Complies

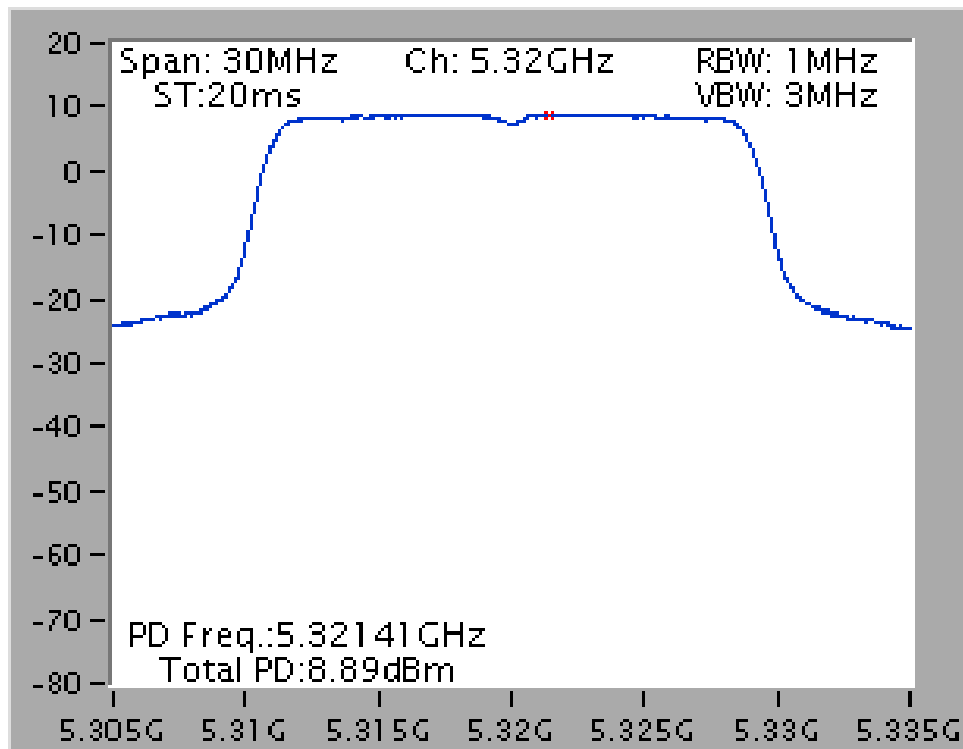
Power Density Plot on Configuration IEEE 802.11a / Chain 4 / 5300 MHz



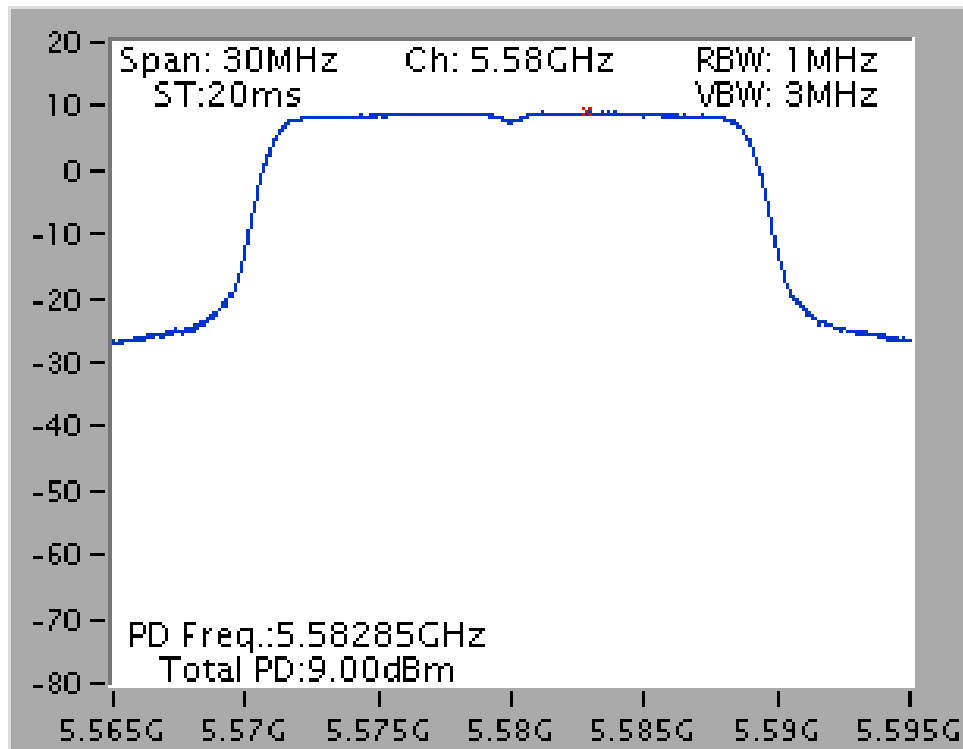
Power Density Plot on Configuration IEEE 802.11a / Chain 4 / 5580 MHz



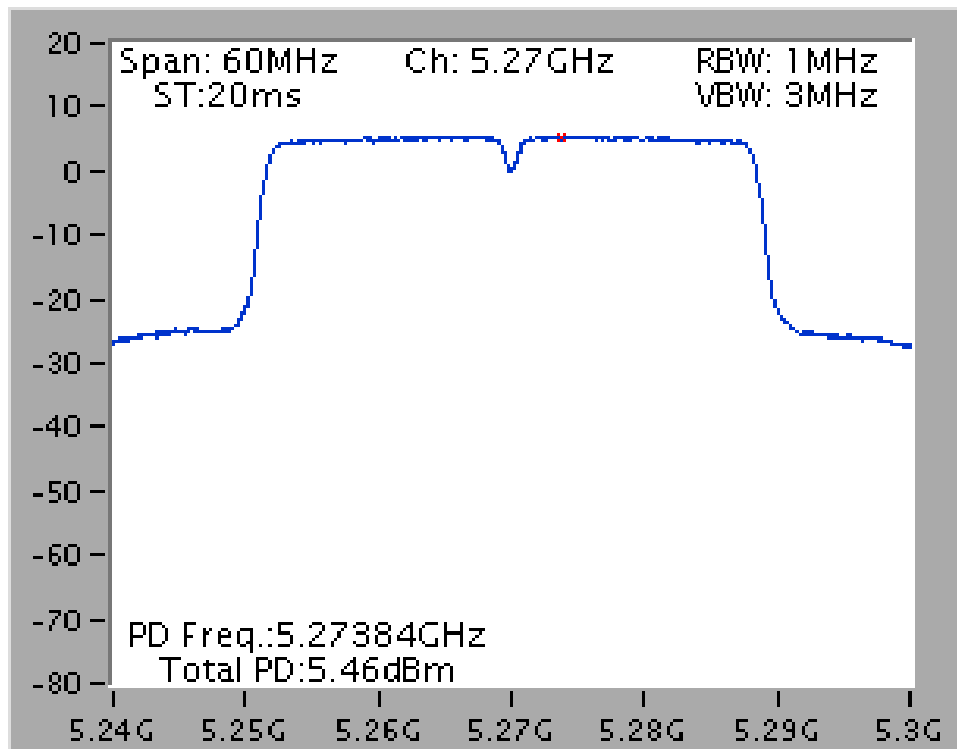
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4/ 5320 MHz



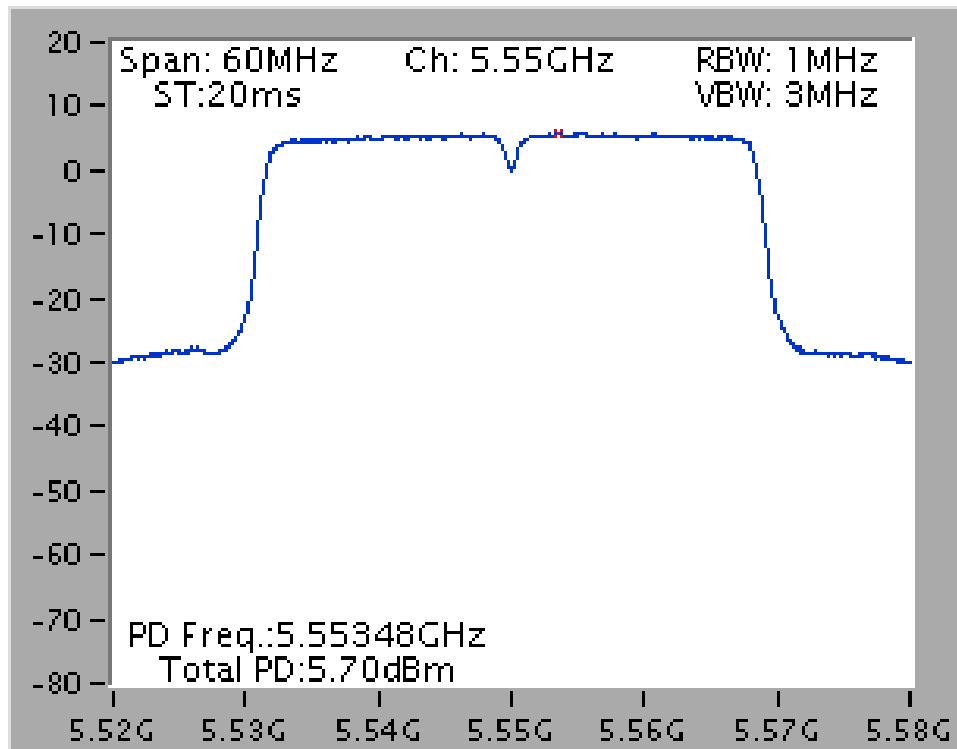
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 / 5580 MHz



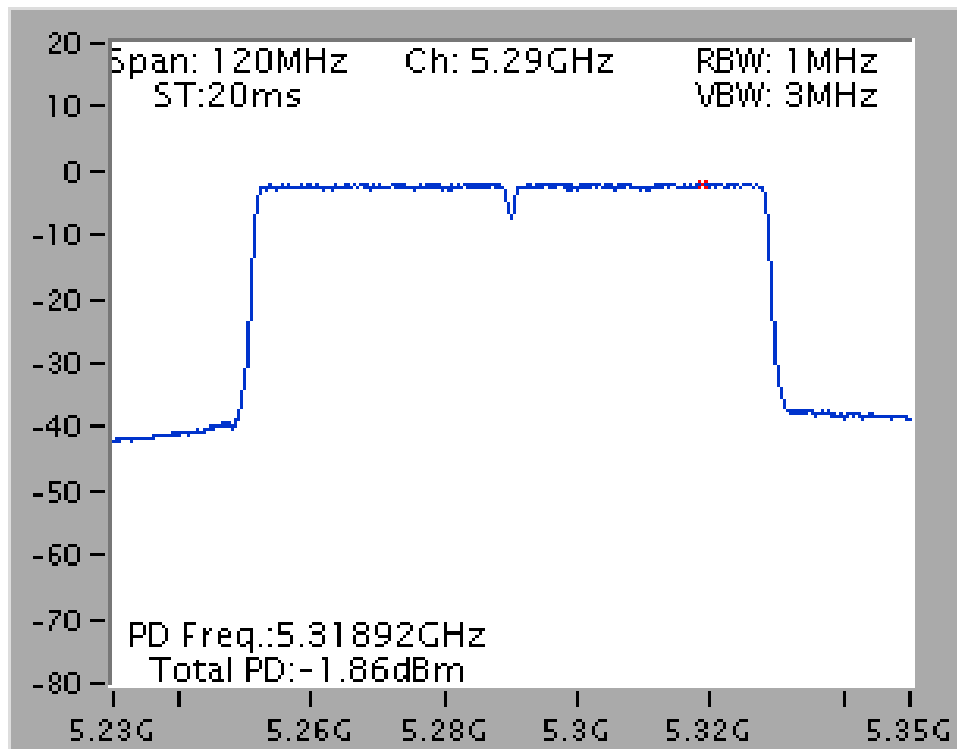
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4/ 5270 MHz



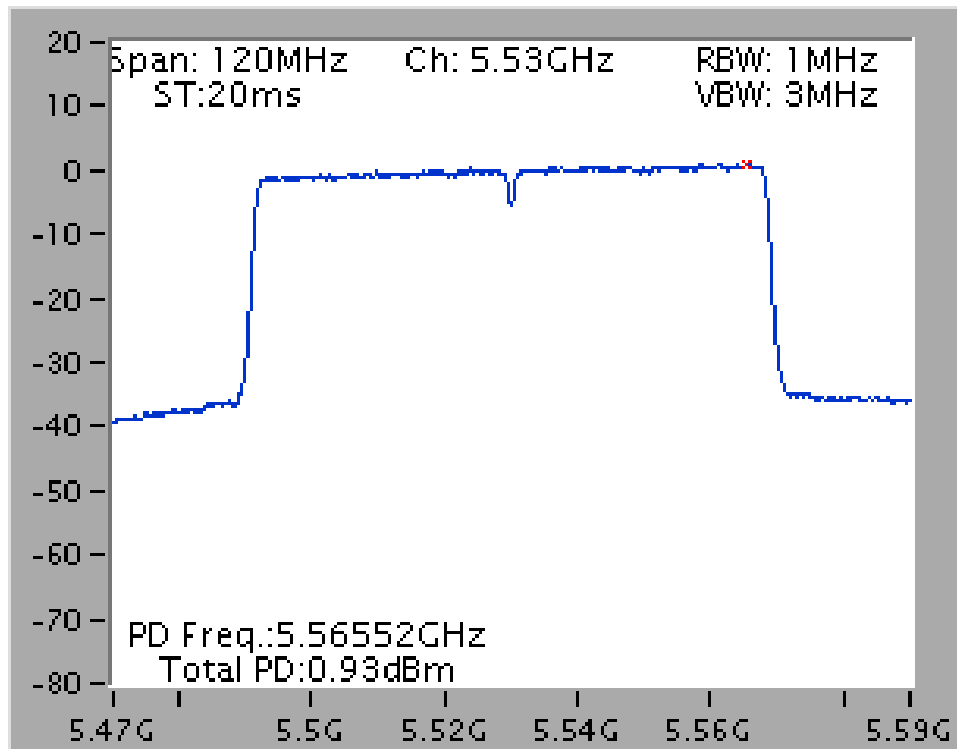
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4/ 5550 MHz



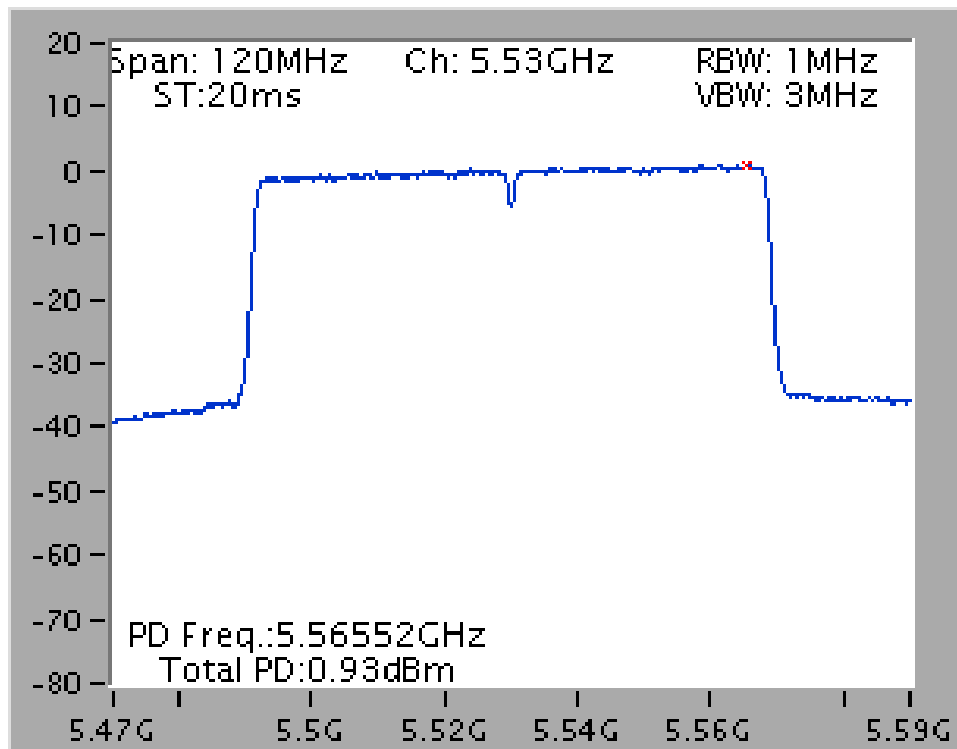
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 / 5290 MHz

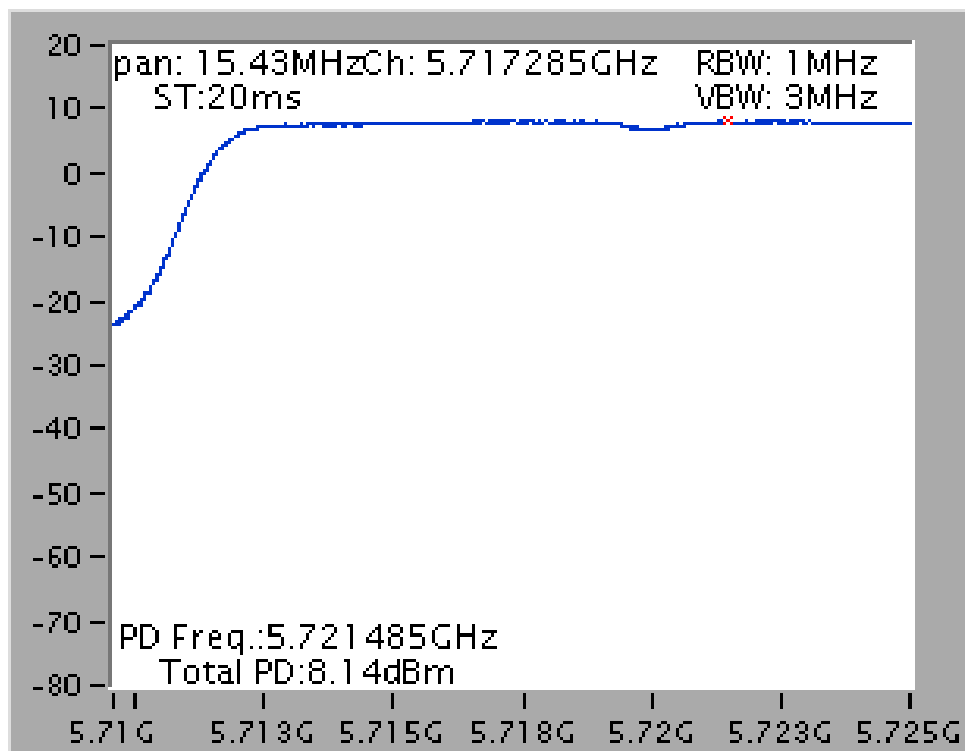
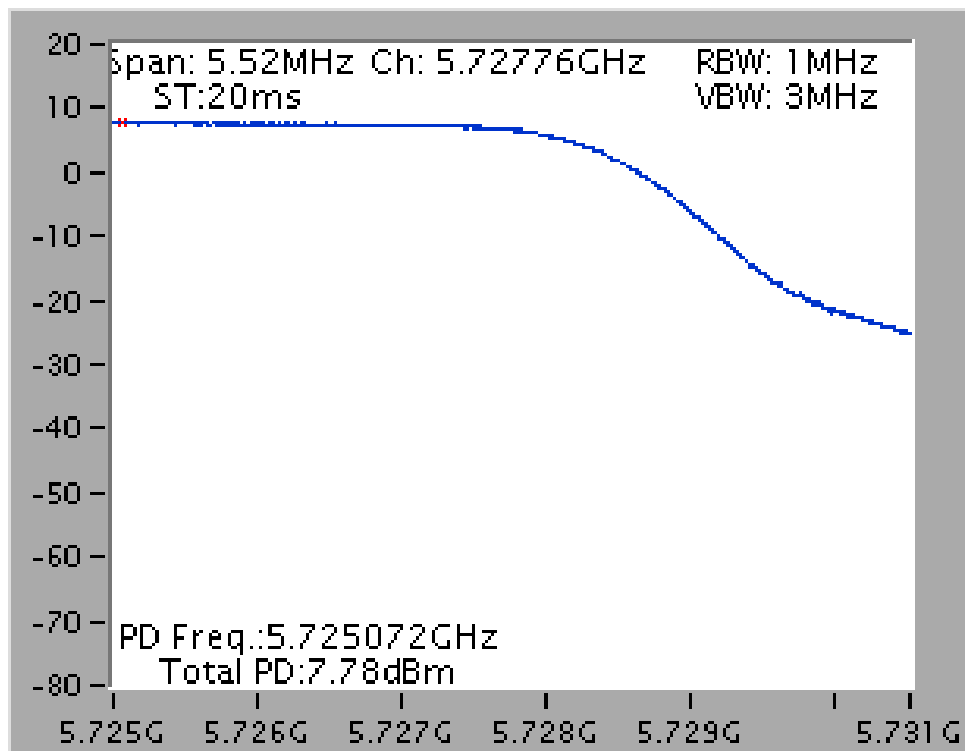


Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 / 5530 MHz

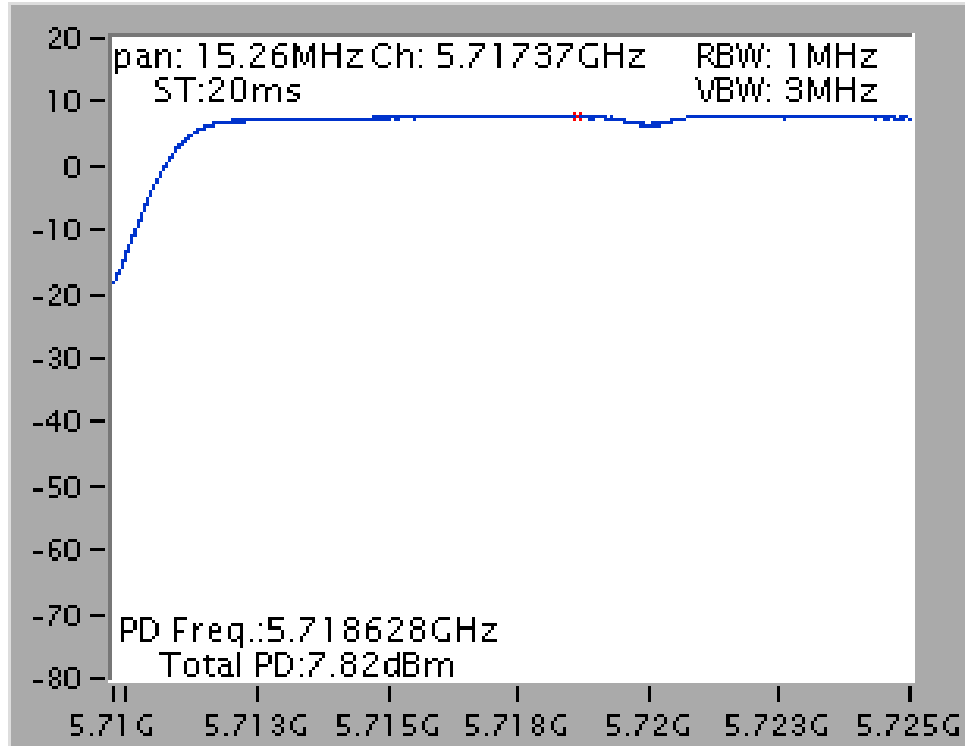


Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 / 5610 MHz

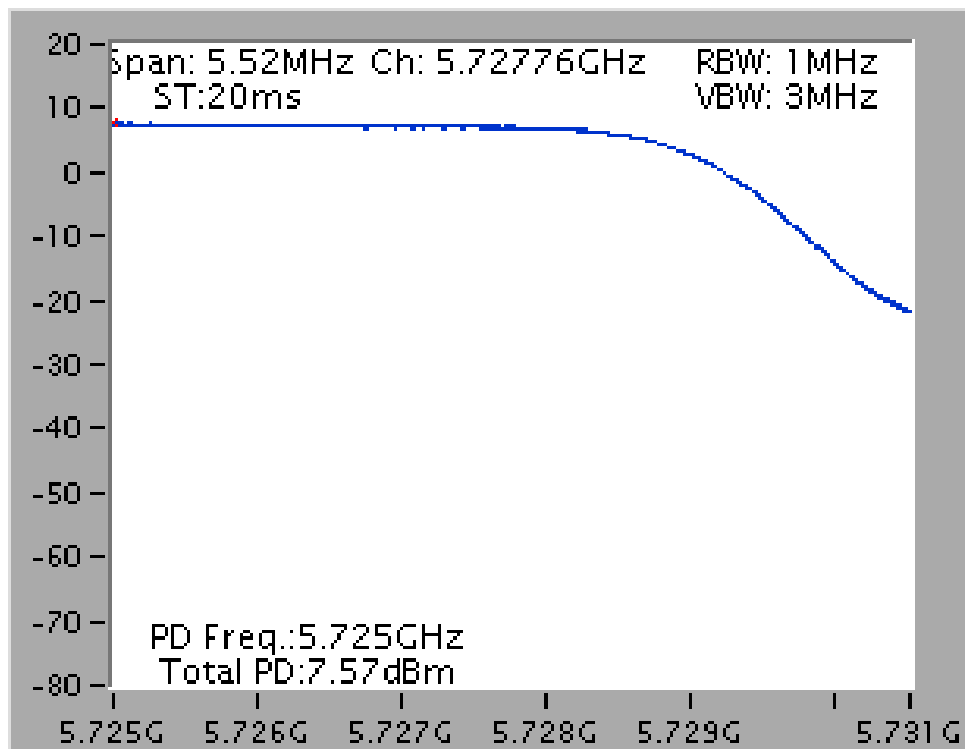


Straddle Channel**Power Density Plot on Configuration IEEE 802.11a / Chain 4 / 5720 MHz (UNII 2C)****Power Density Plot on Configuration IEEE 802.11a / Chain 4 / 5720 MHz (UNII 3)**

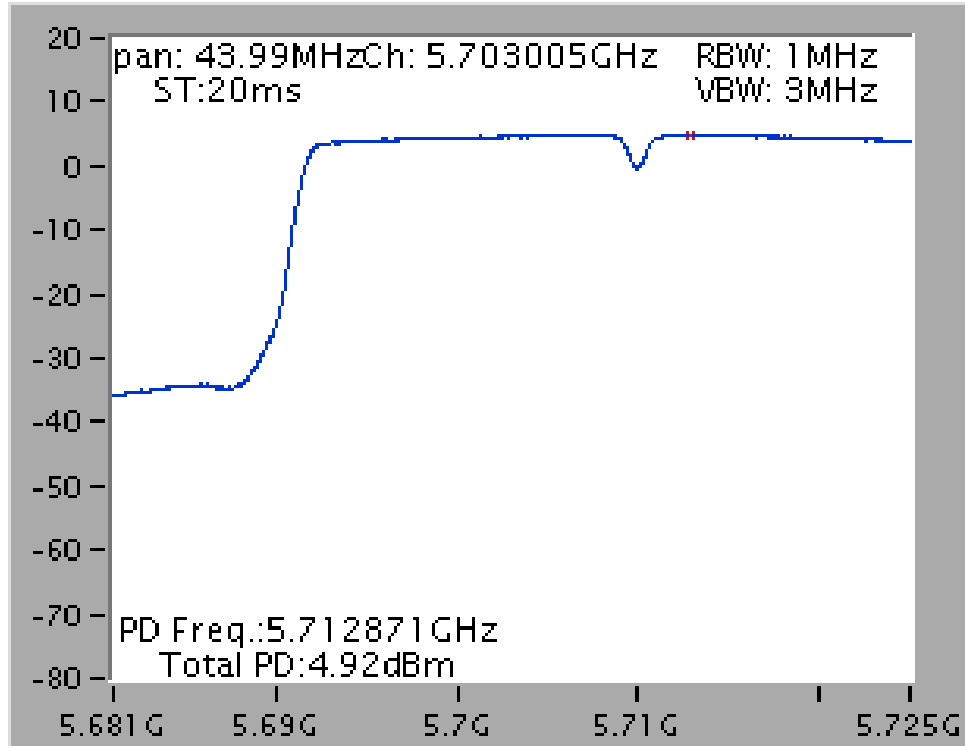
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4 /
5720 MHz (UNII 2C)



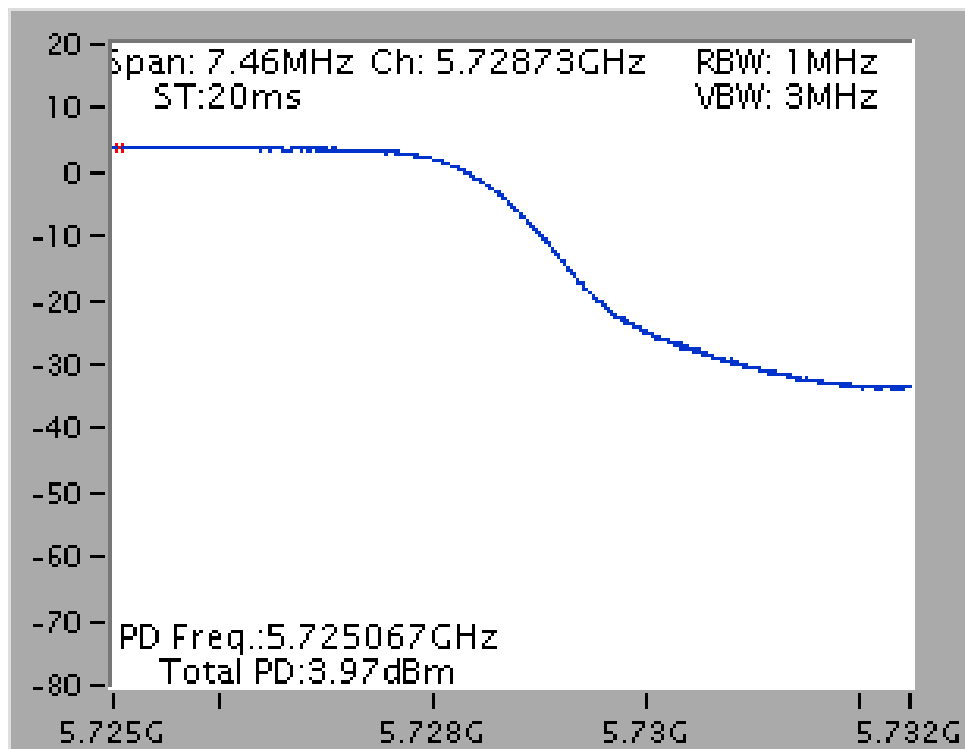
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4/
5720 MHz (UNII 3)



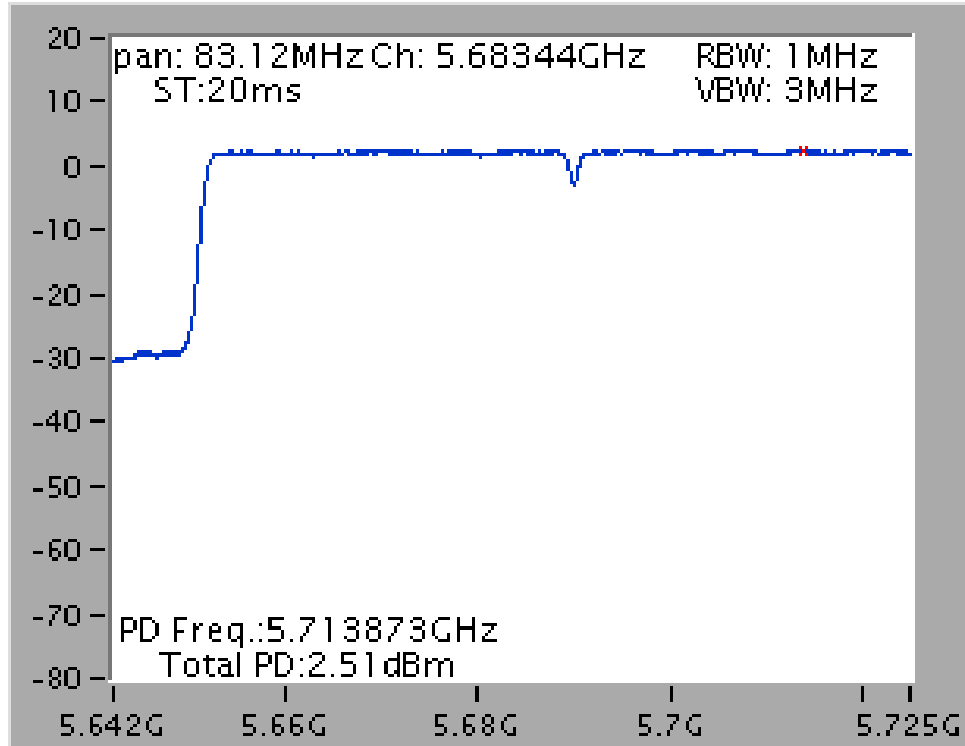
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 /
5710 MHz (UNII 2C)



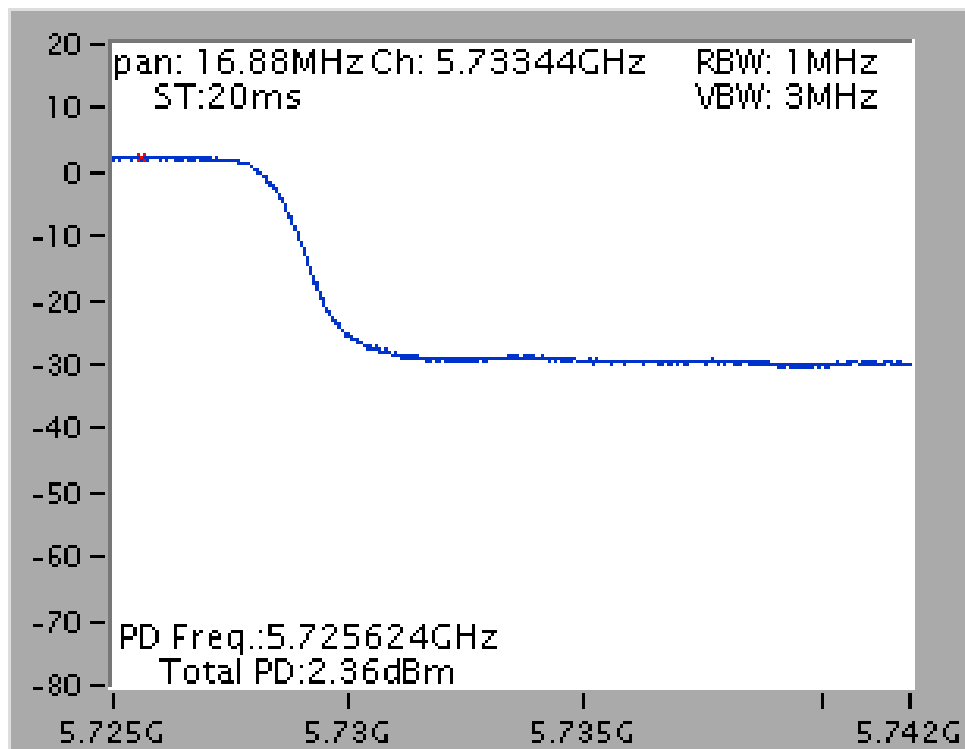
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4 /
5710 MHz (UNII 3)



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 /
5690 MHz (UNII 2C)



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4 /
5690 MHz (UNII 3)



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

Temperature	25°C	Humidity	55%
Test Engineer	Lucas Huang	Test Date	Jul. 11, 2015

Mode	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
802.11a	5260 MHz	9.75	9.96	Complies
	5300 MHz	9.85	9.96	Complies
	5320 MHz	9.75	9.96	Complies
	5500 MHz	9.74	9.96	Complies
	5580 MHz	9.70	9.96	Complies
	5700 MHz	5.93	9.96	Complies
802.11ac MCS0/Nss1 VHT20	5260 MHz	9.88	9.96	Complies
	5300 MHz	9.95	9.96	Complies
	5320 MHz	9.73	9.96	Complies
	5500 MHz	9.85	9.96	Complies
	5580 MHz	9.62	9.96	Complies
	5700 MHz	9.73	9.96	Complies
802.11ac MCS0/Nss1 VHT40	5270 MHz	7.66	9.96	Complies
	5310 MHz	4.65	9.96	Complies
	5510 MHz	6.93	9.96	Complies
	5550 MHz	7.58	9.96	Complies
	5670 MHz	7.80	9.96	Complies
802.11ac MCS0/Nss1 VHT80	5290 MHz	-1.55	9.96	Complies
	5530 MHz	2.12	9.96	Complies
	5610 MHz	3.61	9.96	Complies

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

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

Straddle Channel

Configuration IEEE 802.11a / Chain 4+Chain 5

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
144	5720 MHz (UNII 2C)	9.91	9.96	Complies

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/R BW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
144	5720 MHz (UNII 3)	9.66	-3.01	6.65	28.96	Complies

Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
144	5720 MHz (UNII 2C)	9.83	9.96	Complies

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/R BW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
144	5720 MHz (UNII 3)	9.07	-3.01	6.06	28.96	Complies

Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
142	5710 MHz (UNII 2C)	8.32	9.96	Complies

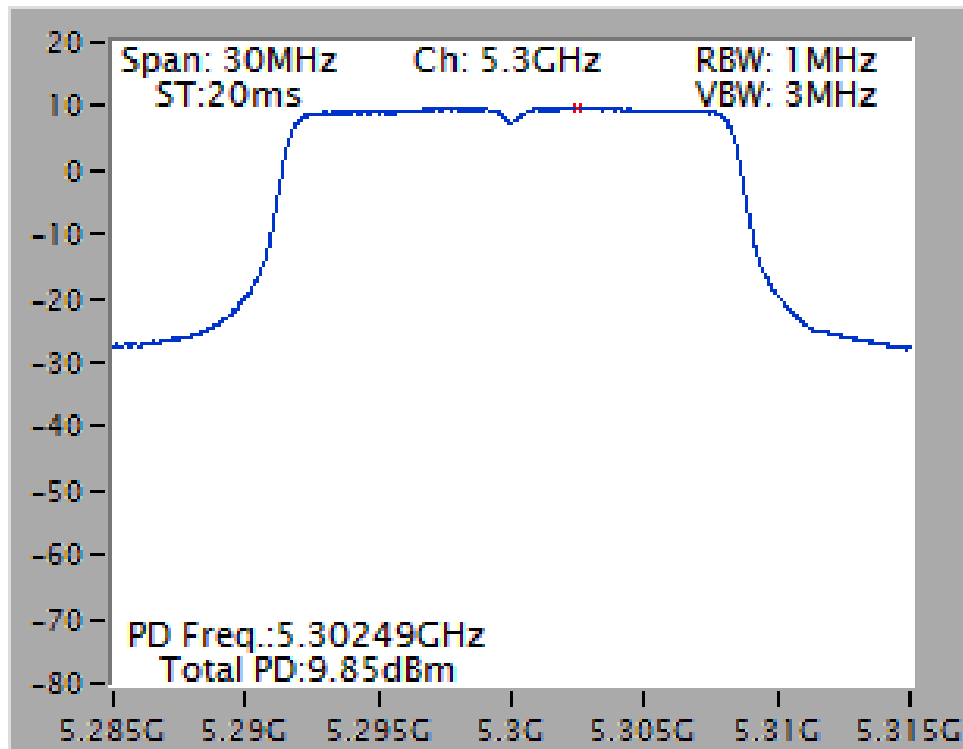
Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/R BW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
142	5710 MHz (UNII 3)	8.38	-3.01	5.37	28.96	Complies

Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5

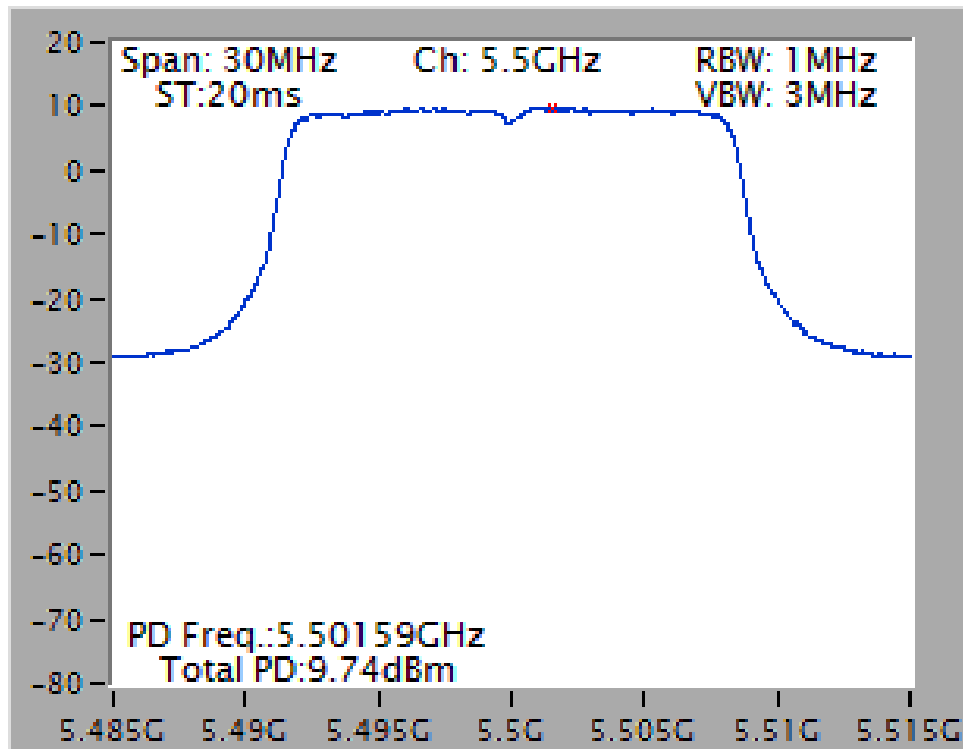
Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
138	5690 MHz (UNII 2C)	5.32	9.96	Complies

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/R BW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
138	5690 MHz (UNII 3)	5.25	-3.01	2.24	28.96	Complies

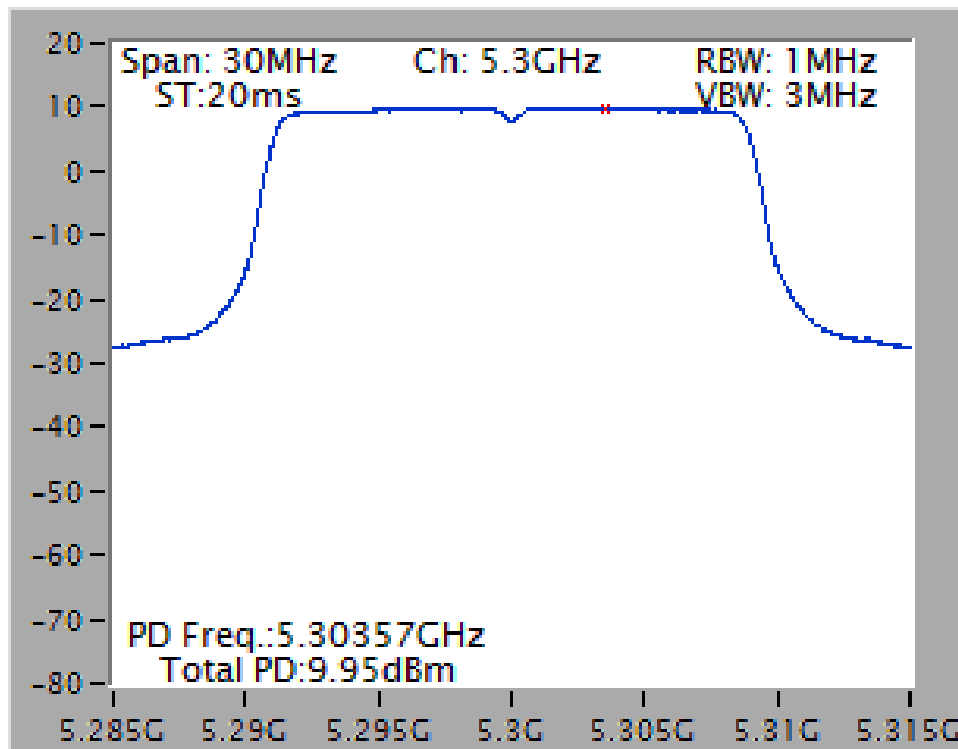
Power Density Plot on Configuration IEEE 802.11a / Chain 4+Chain 5 / 5300 MHz



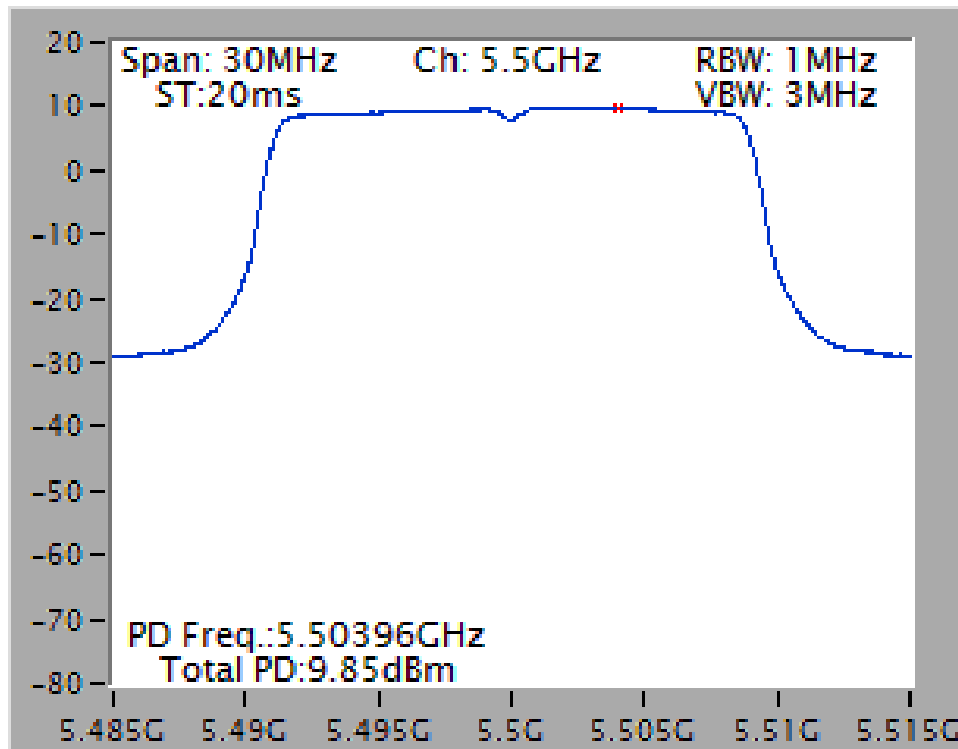
Power Density Plot on Configuration IEEE 802.11a / Chain 4+Chain 5 / 5500 MHz



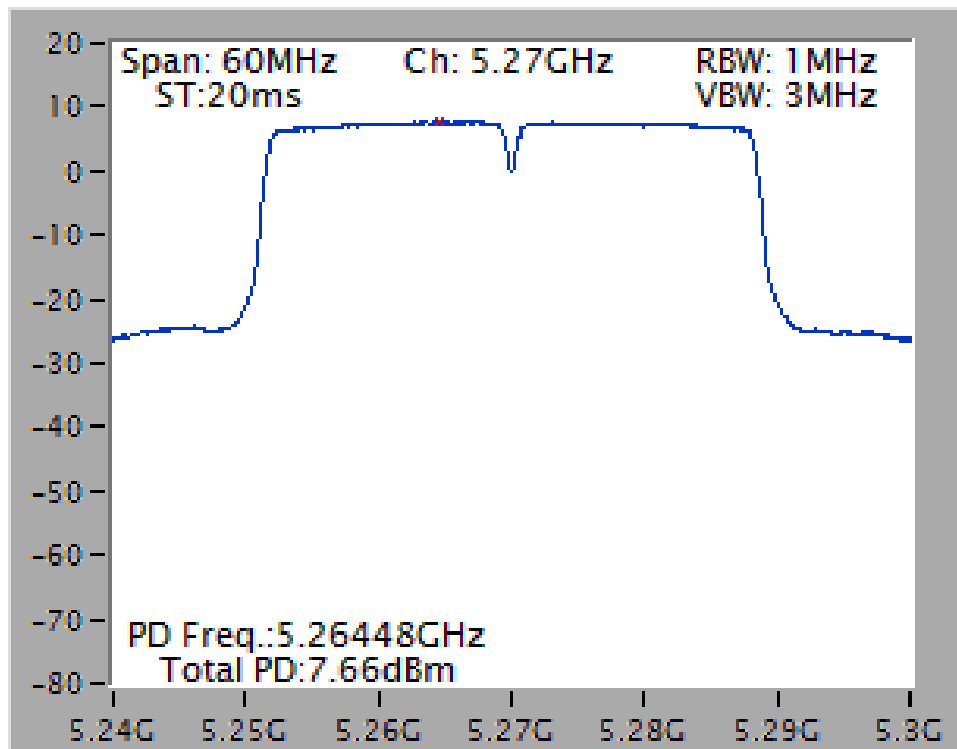
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5/ 5300 MHz



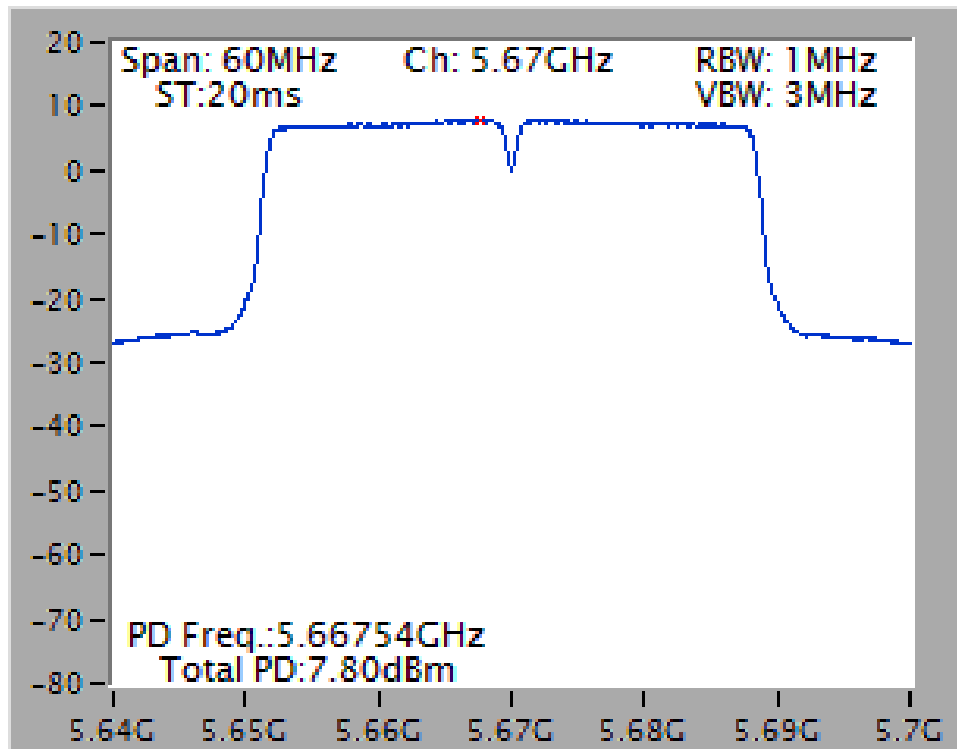
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5/ 5500 MHz



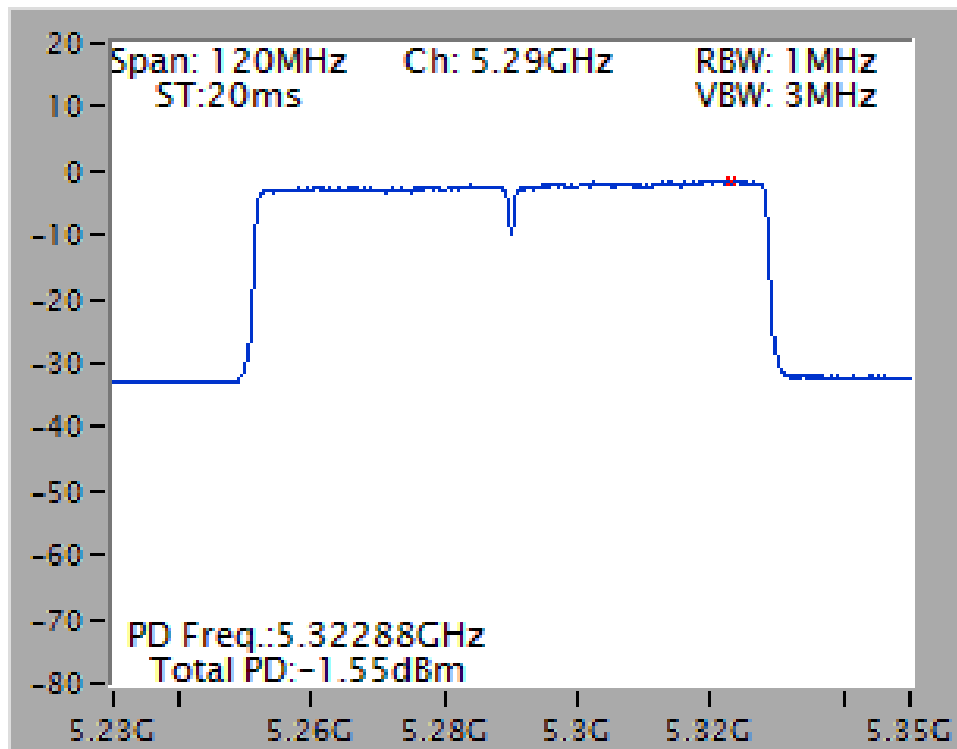
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5 / 5270 MHz



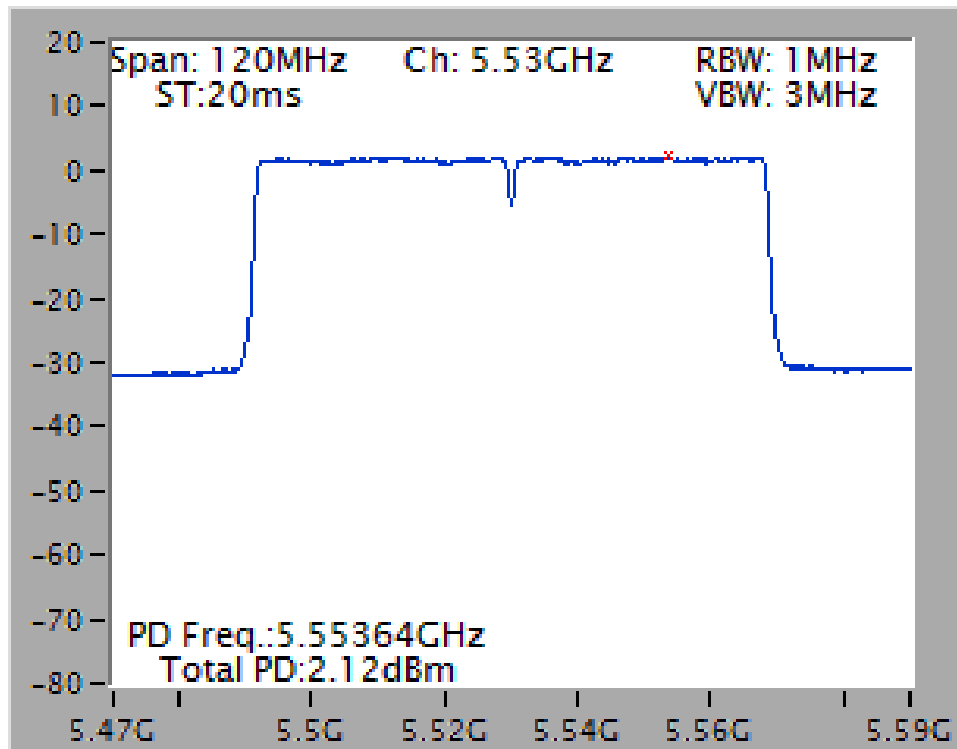
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5 / 5670 MHz



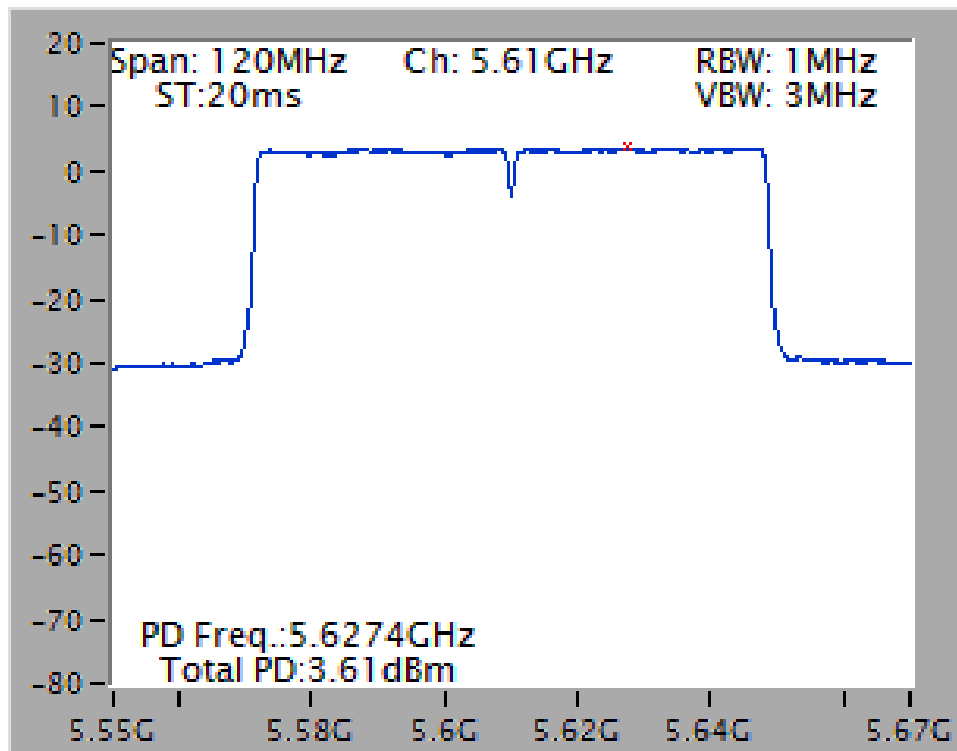
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5 / 5290 MHz



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5 / 5530 MHz

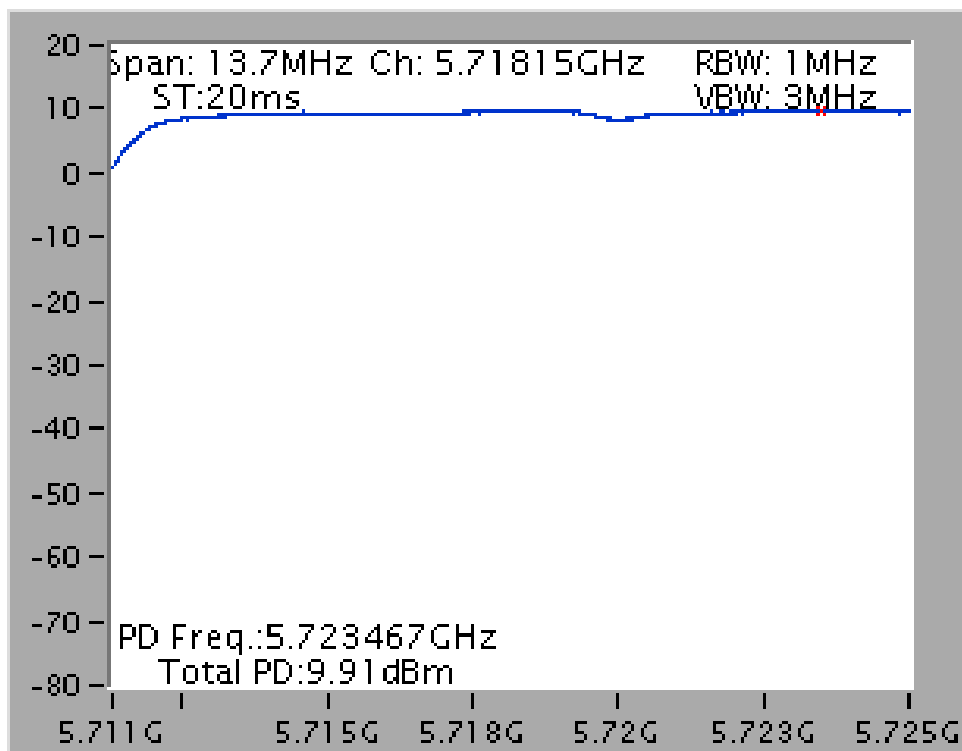


Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5 / 5610 MHz

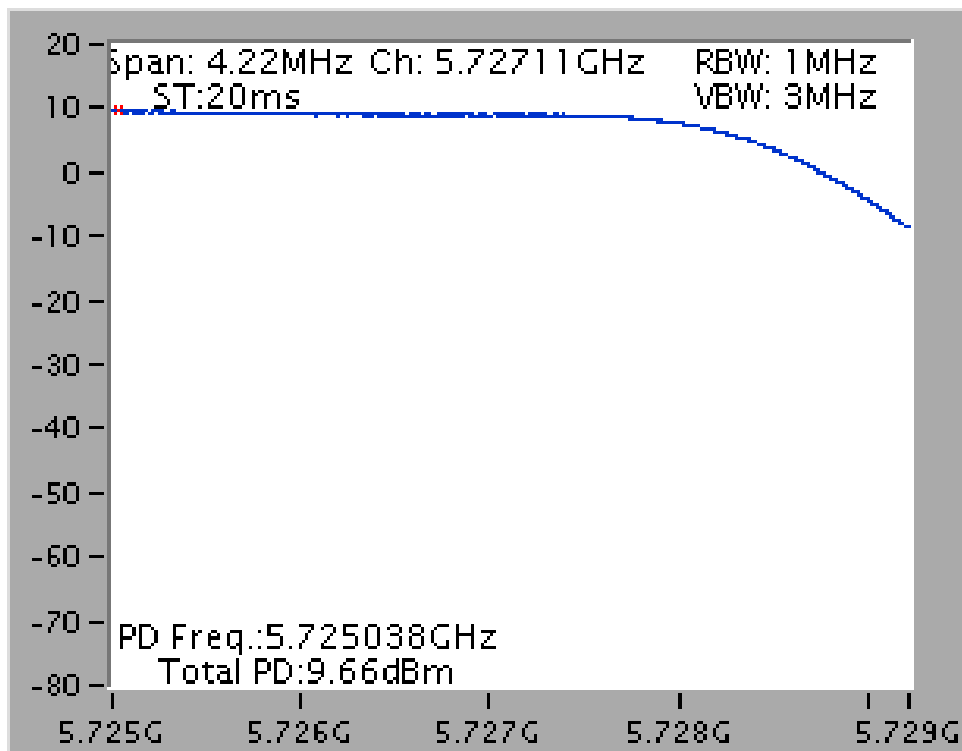


Straddle Channel

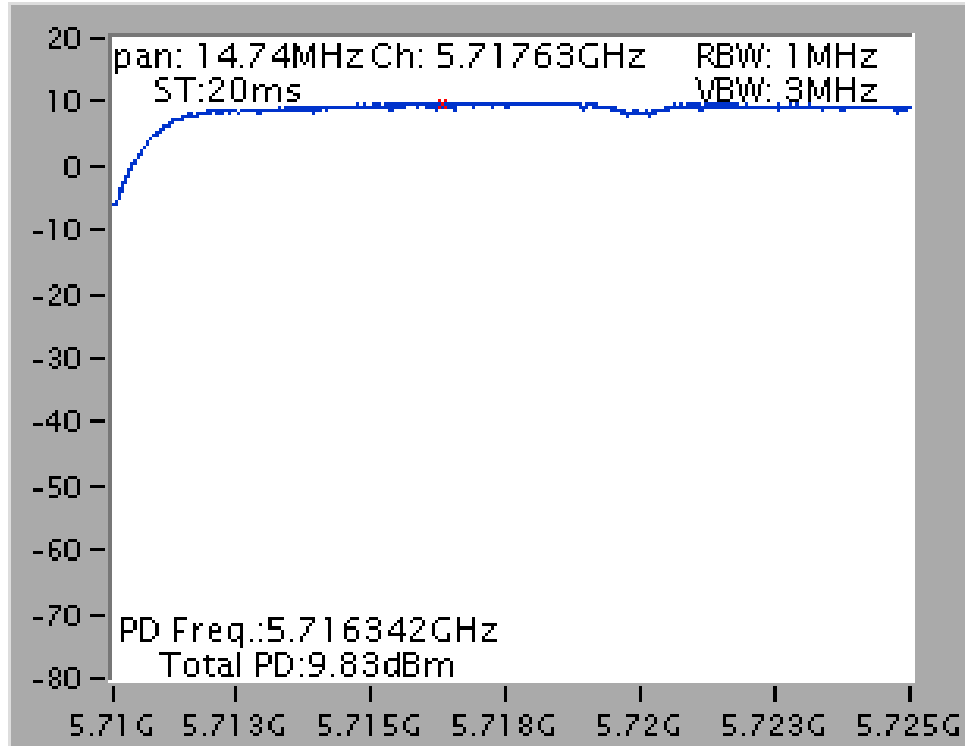
Power Density Plot on Configuration IEEE 802.11a / Chain 4+Chain 5 / 5720 MHz (UNII 2C)



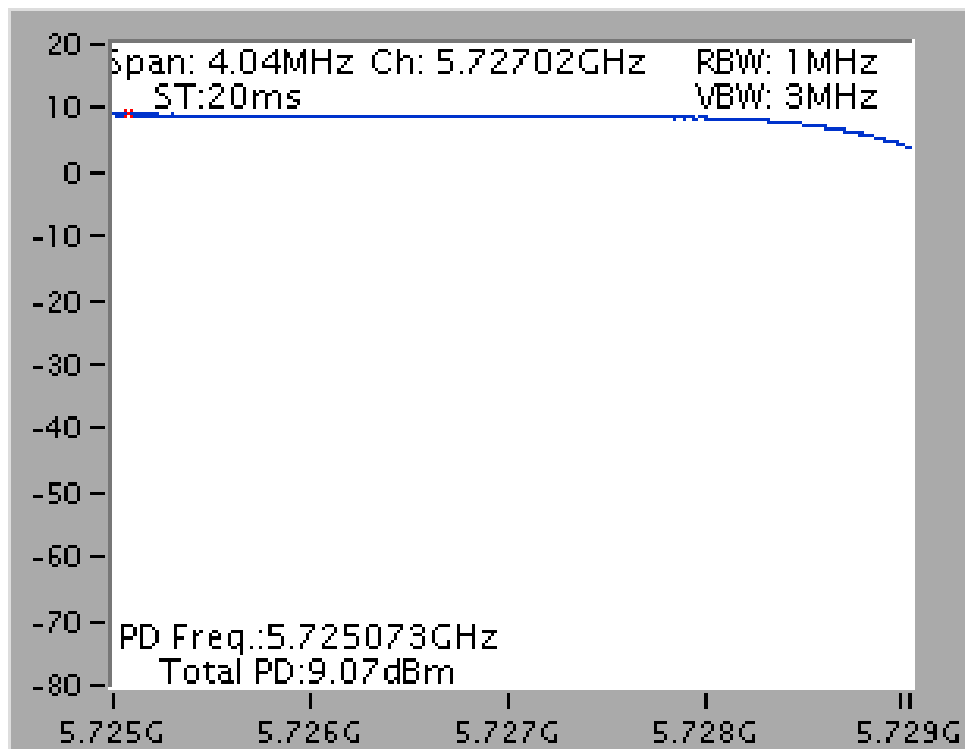
Power Density Plot on Configuration IEEE 802.11a / Chain 4+Chain 5 / 5720 MHz (UNII 3)



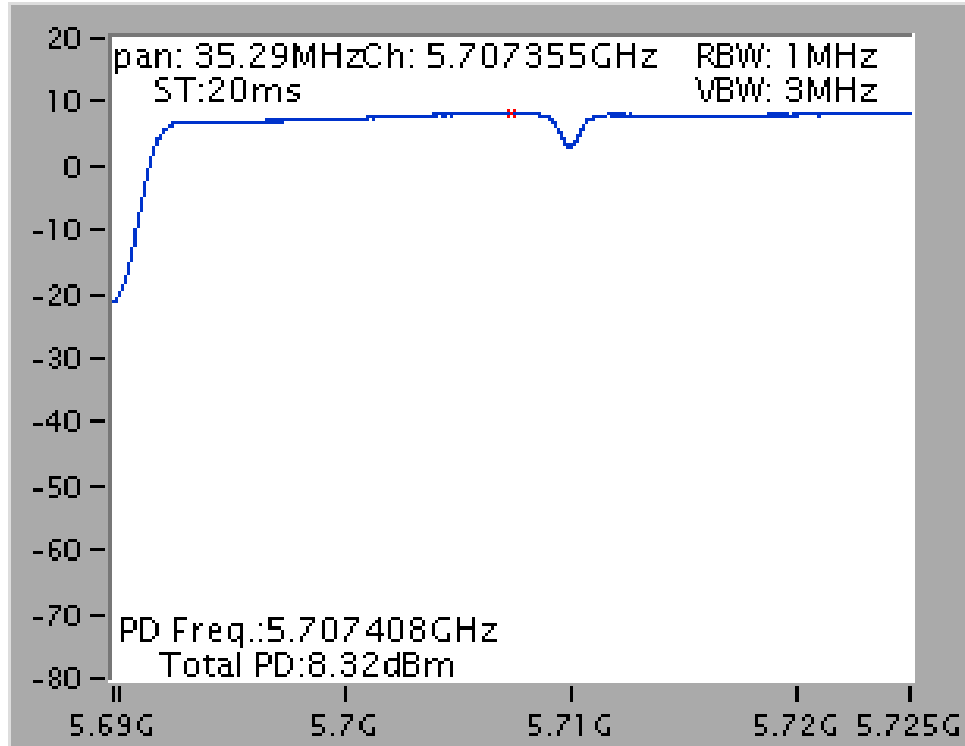
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5 /
5720 MHz (UNII 2C)



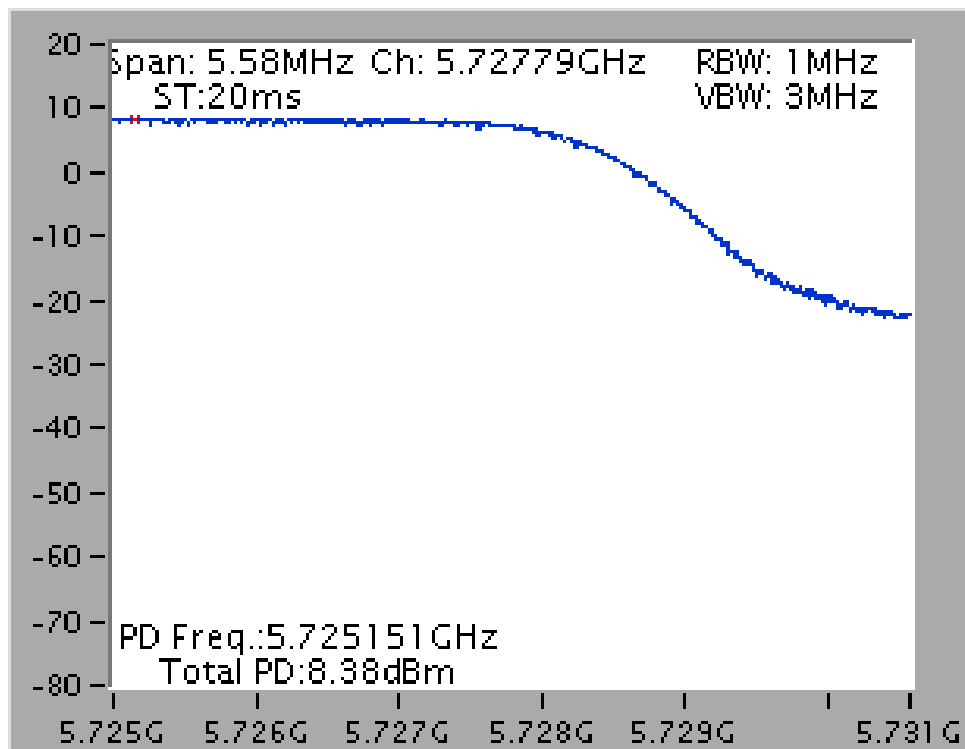
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5 /
5720 MHz (UNII 3)



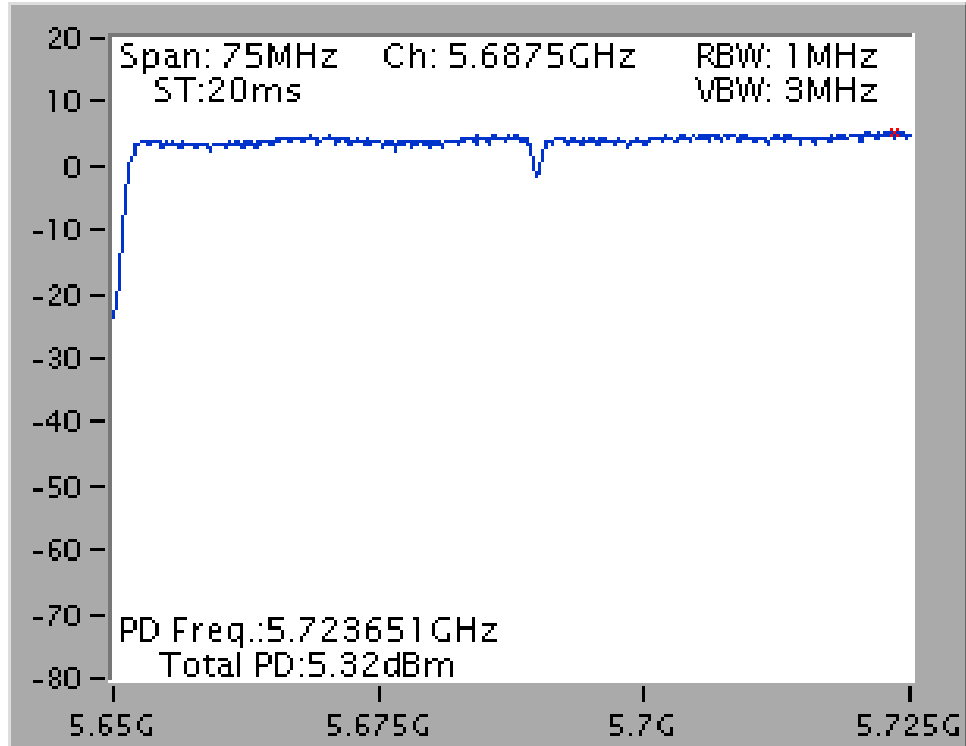
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5 /
5710 MHz (UNII 2C)



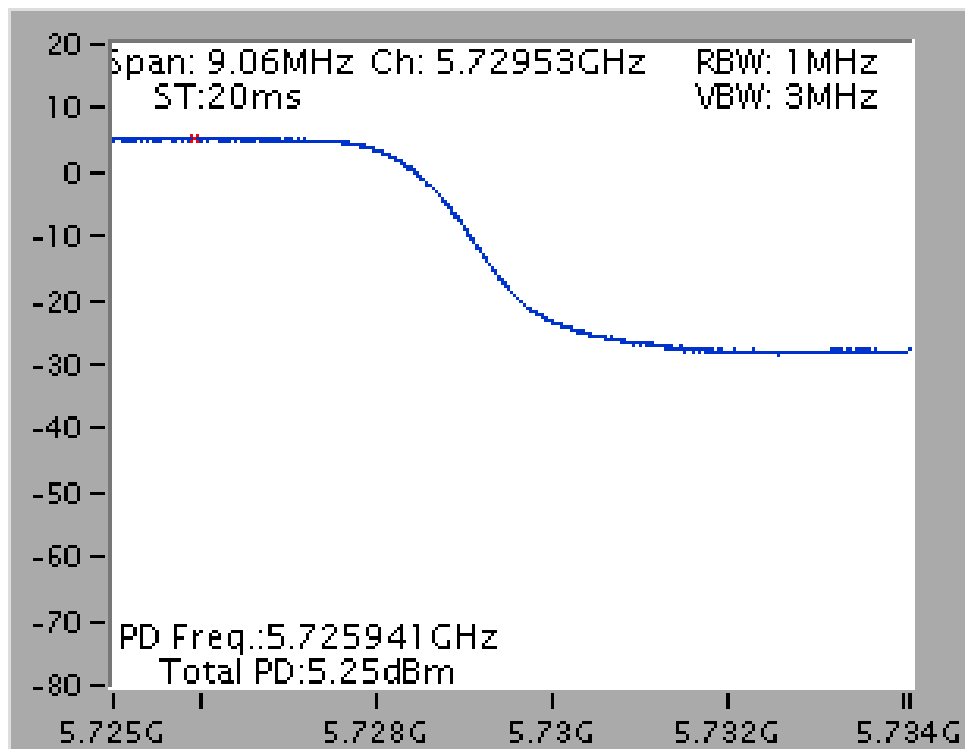
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5 /
5710 MHz (UNII 3)



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5 /
5690 MHz (UNII 2C)



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5 /
5690 MHz (UNII 3)



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

Temperature	25°C	Humidity	55%
Test Engineer	Lucas Huang	Test Date	Jul. 11, 2015

Mode	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
802.11ac MCS0/Nss2 VHT20	5260 MHz	10.54	11.00	Complies
	5300 MHz	10.45	11.00	Complies
	5320 MHz	10.72	11.00	Complies
	5500 MHz	10.59	11.00	Complies
	5580 MHz	10.47	11.00	Complies
	5700 MHz	10.70	11.00	Complies
802.11ac MCS0/Nss2 VHT40	5270 MHz	7.57	11.00	Complies
	5310 MHz	4.69	11.00	Complies
	5510 MHz	6.79	11.00	Complies
	5550 MHz	7.90	11.00	Complies
	5670 MHz	7.60	11.00	Complies
802.11ac MCS0/Nss2 VHT80	5290 MHz	-0.19	11.00	Complies
	5530 MHz	3.06	11.00	Complies
	5610 MHz	3.63	11.00	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 4.03\text{dBi} < 6\text{dBi}$, so the limit doesn't reduce.

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

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

Straddle Channel

Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4+Chain 5

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
144	5720 MHz (UNII 2C)	10.82	11.00	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{IS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 4.03\text{dBi} < 6\text{dBi}$, so the limit doesn't reduce.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/R BW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
144	5720 MHz (UNII 3)	9.81	-3.01	6.80	30.00	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{IS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 4.03\text{dBi} < 6\text{dBi}$, so the limit doesn't reduce.

Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4+Chain 5

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
142	5710 MHz (UNII 2C)	8.96	11.00	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{IS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 4.03\text{dBi} < 6\text{dBi}$, so the limit doesn't reduce.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/R BW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
142	5710 MHz (UNII 3)	8.13	-3.01	5.12	30.00	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{IS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 4.03\text{dBi} < 6\text{dBi}$, so the limit doesn't reduce.

Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4+Chain 5

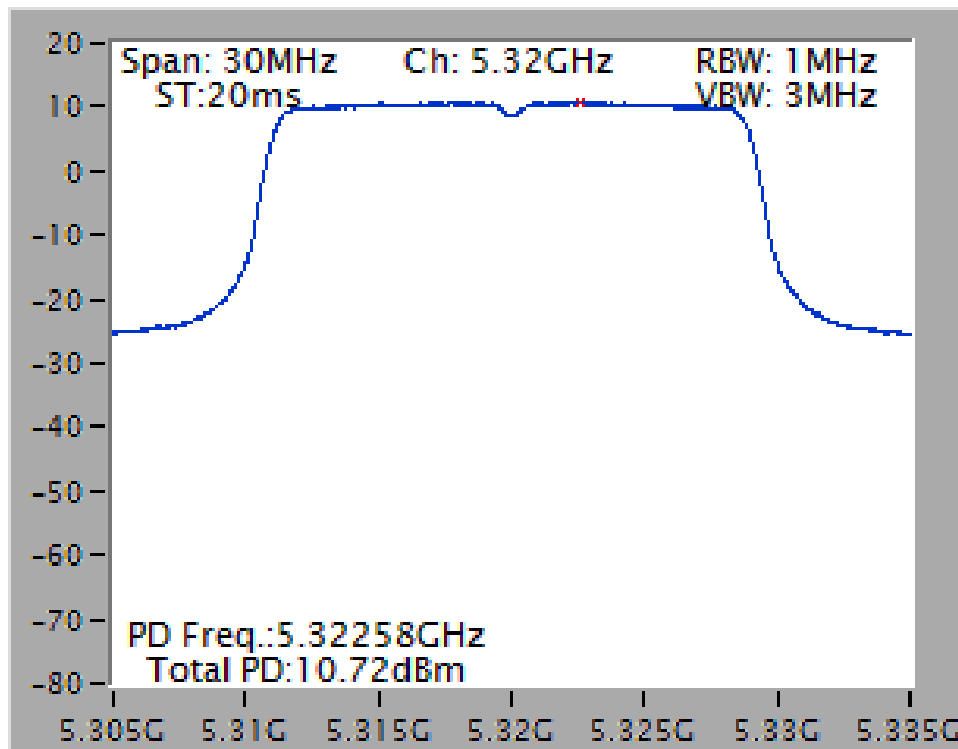
Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
138	5690 MHz (UNII 2C)	5.78	11.00	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{IS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 4.03\text{dBi} < 6\text{dBi}$, so the limit doesn't reduce.

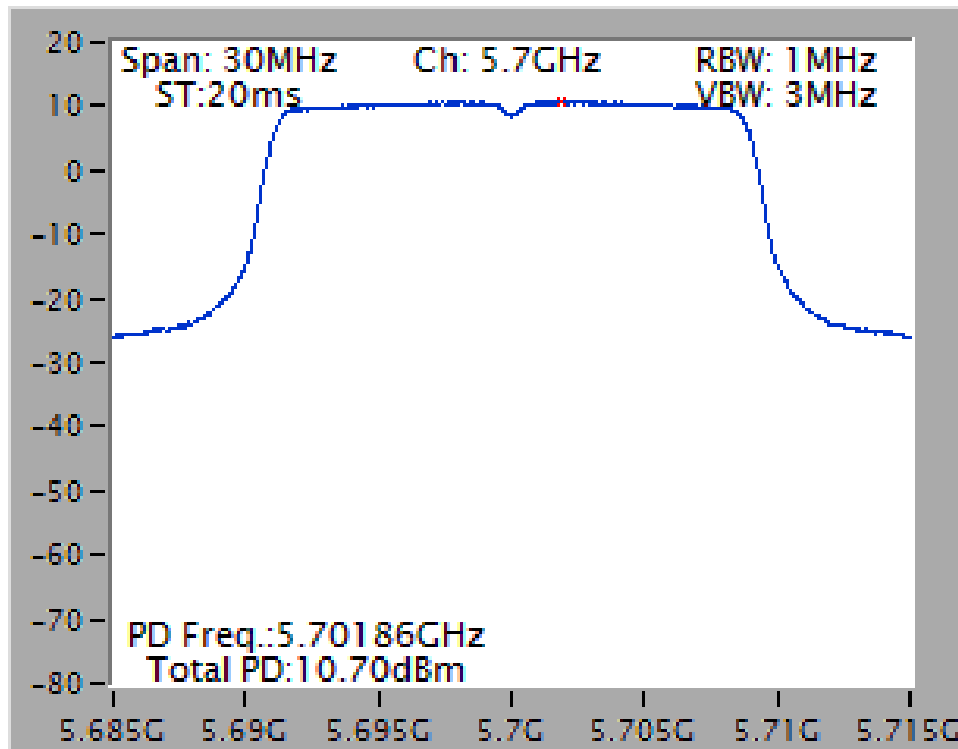
Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/R BW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
138	5690 MHz (UNII 3)	4.88	-3.01	1.87	30.00	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{IS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 4.03\text{dBi} < 6\text{dBi}$, so the limit doesn't reduce.

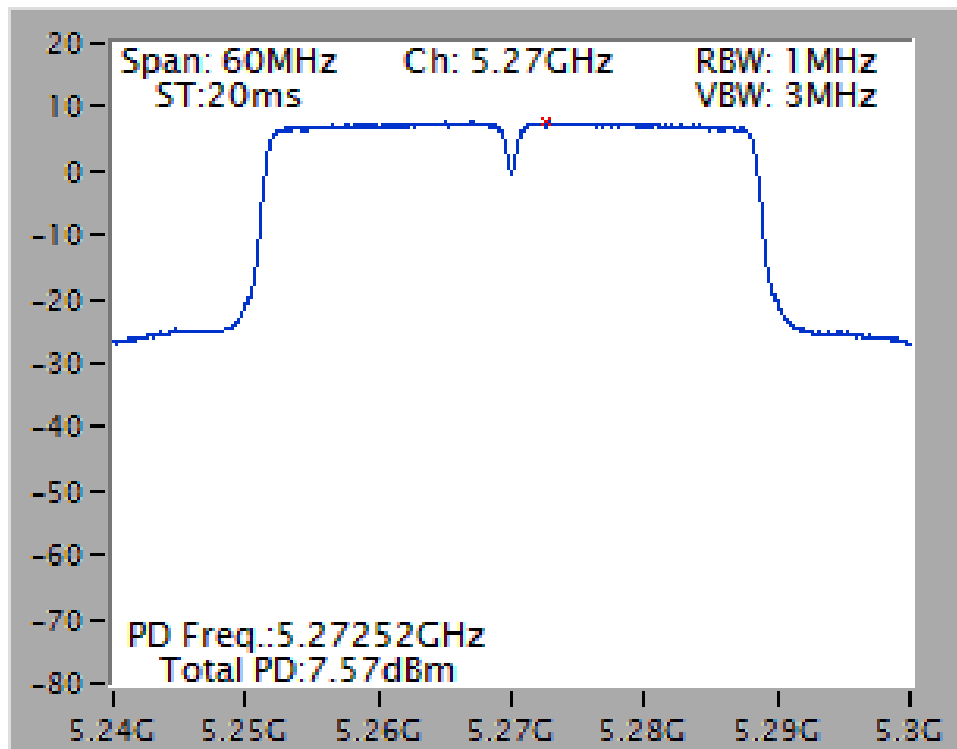
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5/ 5320 MHz



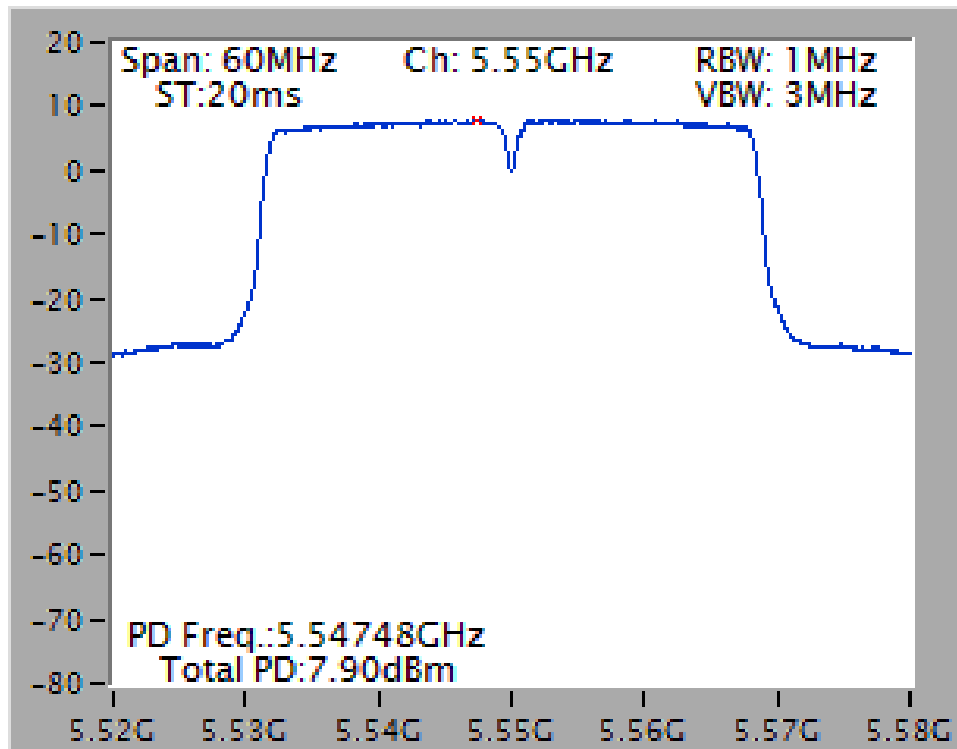
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5/ 5700 MHz



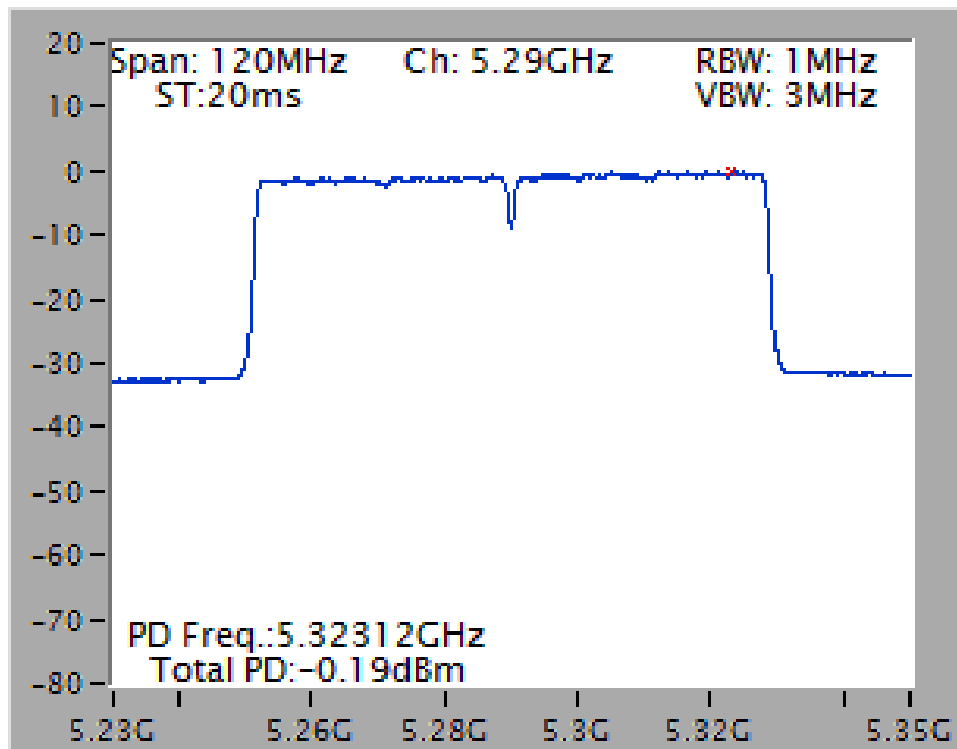
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5 / 5270 MHz



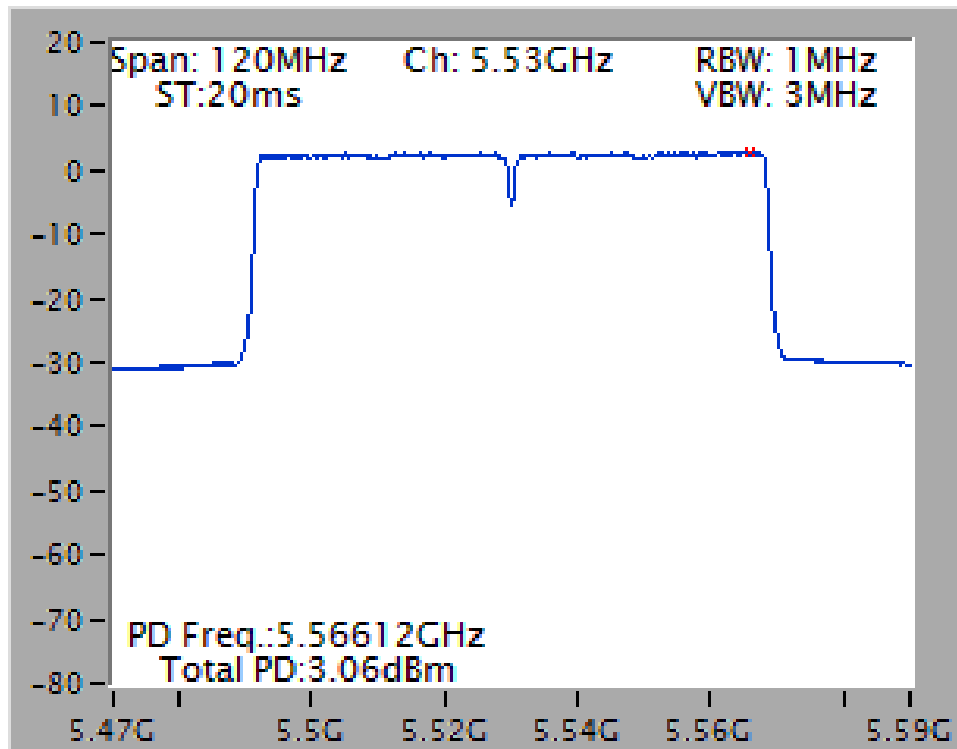
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5 / 5550 MHz



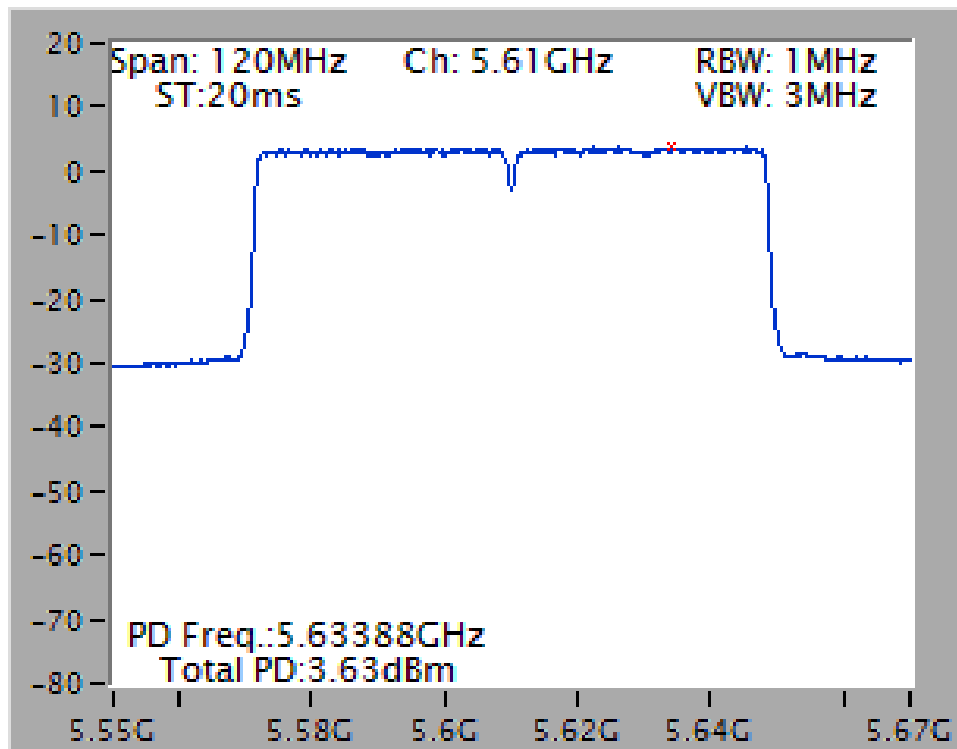
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5/ 5290 MHz



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5 / 5530 MHz



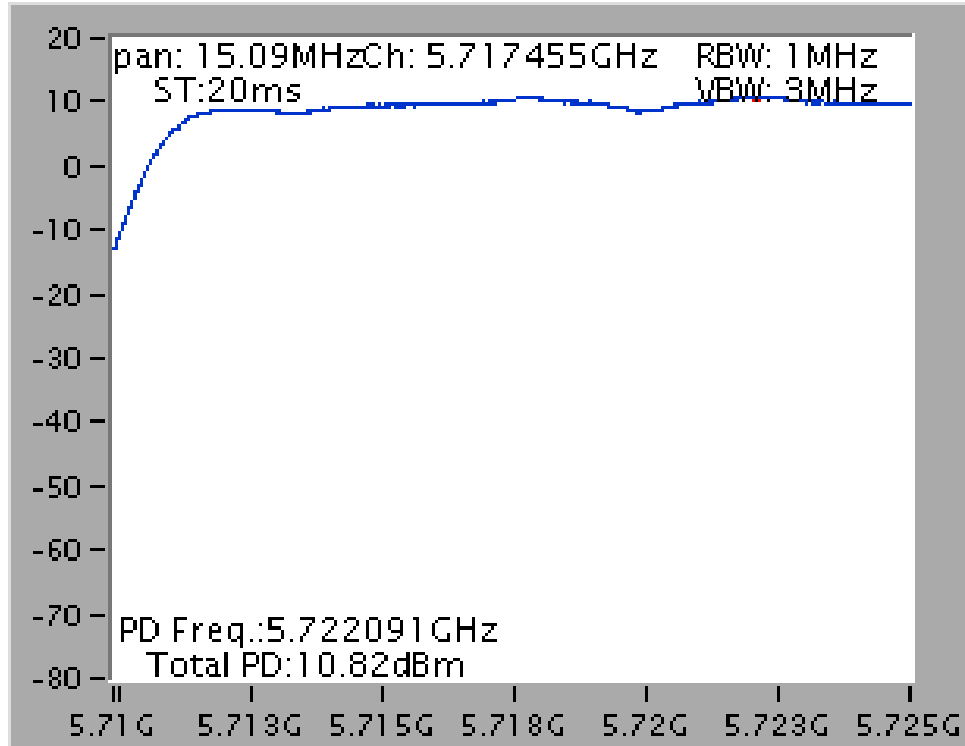
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5 / 5610 MHz



Straddle Channel

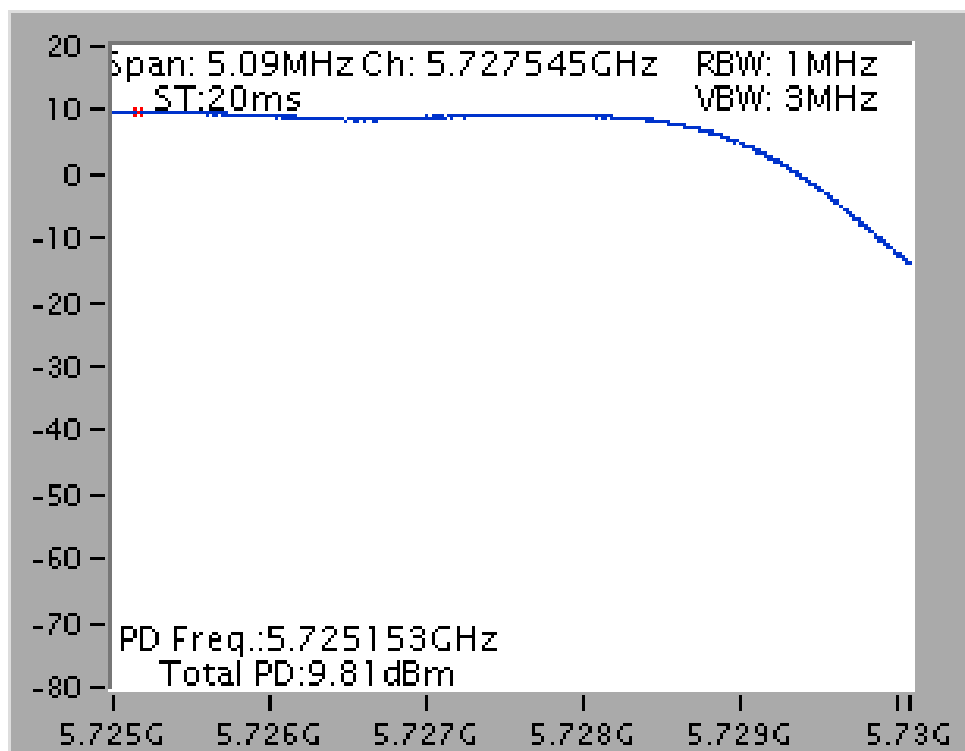
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5 /

5720 MHz (UNII 2C)

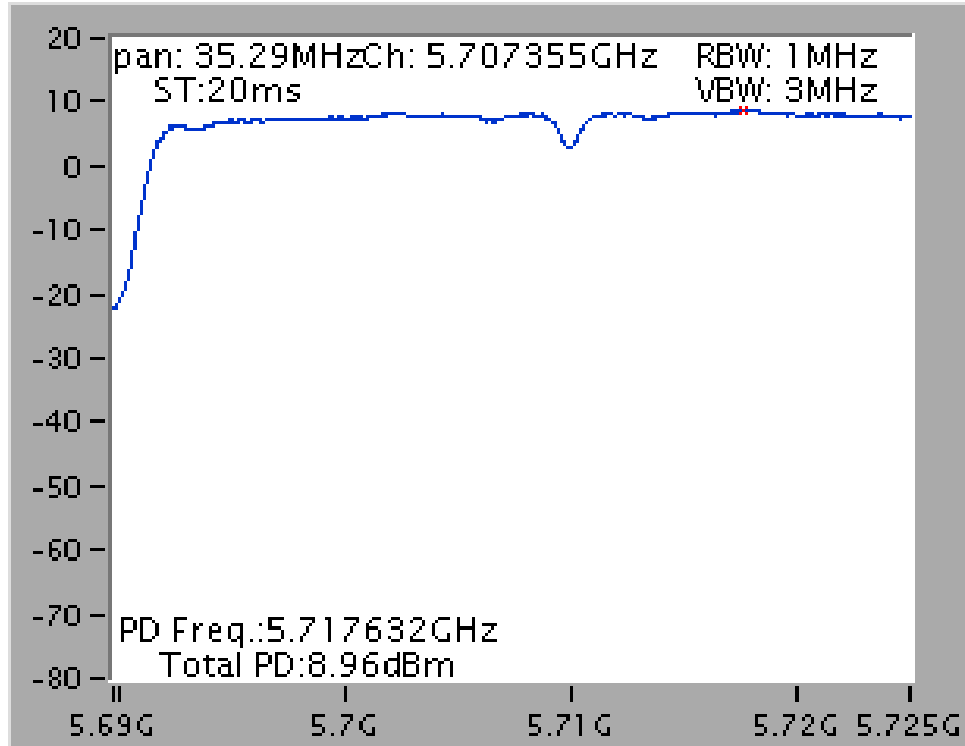


Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5 /

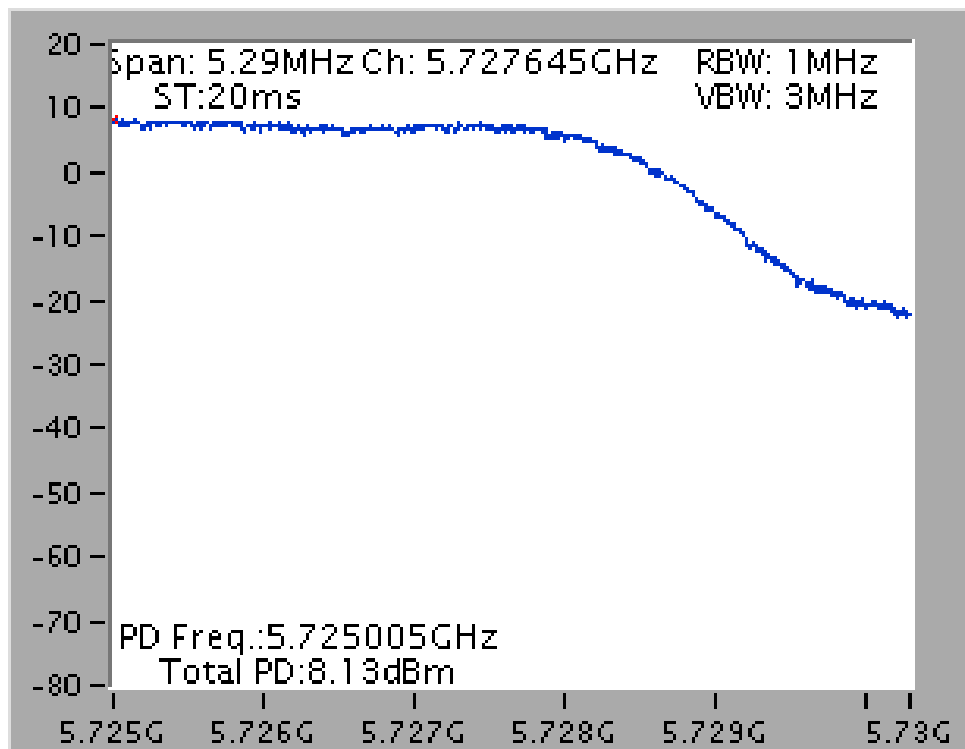
5720 MHz (UNII 3)



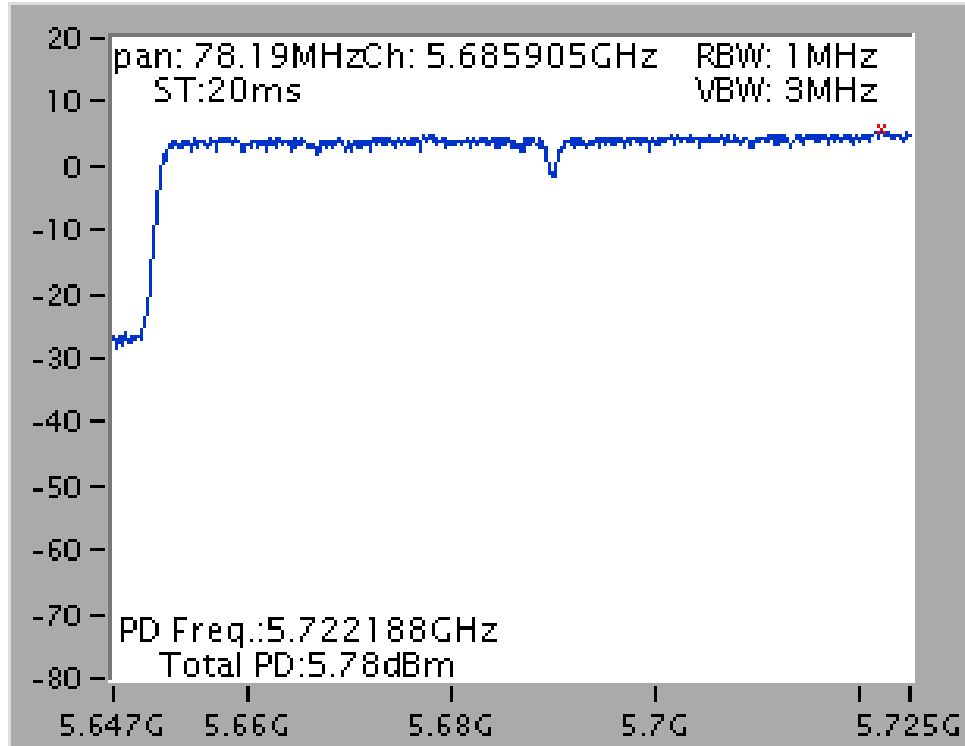
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5 /
5710 MHz (UNII 2C)



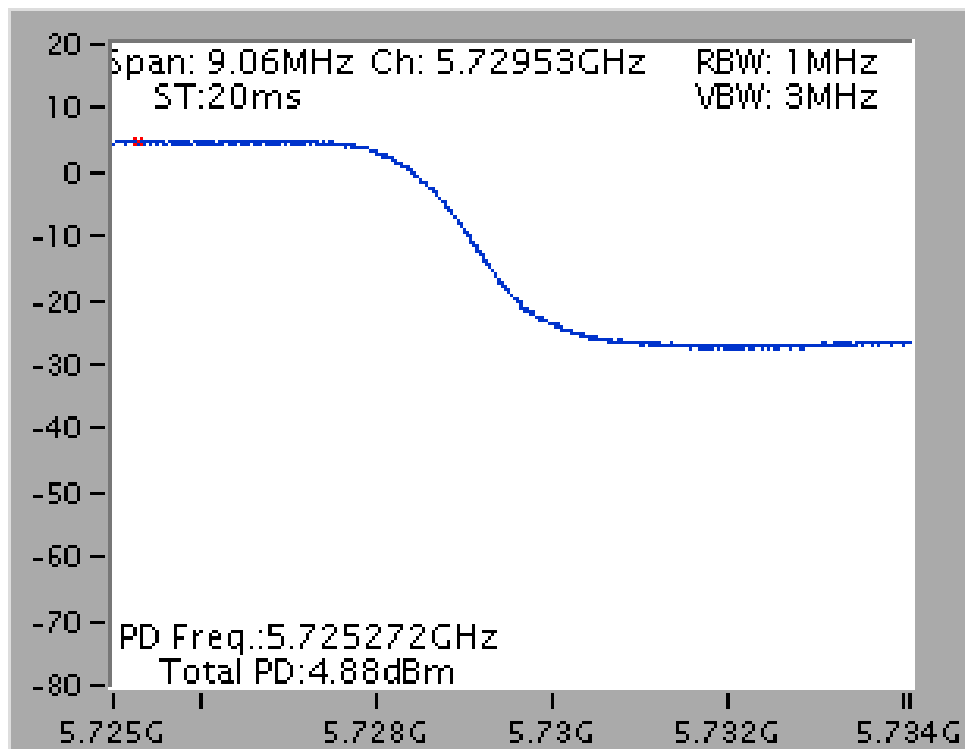
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5 /
5710 MHz (UNII 3)



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5 /
5690 MHz (UNII 2C)



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5 /
5690 MHz (UNII 3)



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

Temperature	25°C	Humidity	55%
Test Engineer	Lucas Huang	Test Date	Jul. 11, 2015

Mode	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
802.11a	5260 MHz	8.35	8.46	Complies
	5300 MHz	8.39	8.46	Complies
	5320 MHz	8.34	8.46	Complies
	5500 MHz	8.37	8.46	Complies
	5580 MHz	8.36	8.46	Complies
	5700 MHz	7.44	8.46	Complies
802.11ac MCS0/Nss1 VHT20	5260 MHz	8.43	8.46	Complies
	5300 MHz	8.36	8.46	Complies
	5320 MHz	8.42	8.46	Complies
	5500 MHz	8.32	8.46	Complies
	5580 MHz	8.30	8.46	Complies
	5700 MHz	8.42	8.46	Complies
802.11ac MCS0/Nss1 VHT40	5270 MHz	7.03	8.46	Complies
	5310 MHz	2.66	8.46	Complies
	5510 MHz	5.68	8.46	Complies
	5550 MHz	7.26	8.46	Complies
	5670 MHz	7.11	8.46	Complies
802.11ac MCS0/Nss1 VHT80	5290 MHz	-2.54	8.46	Complies
	5530 MHz	1.89	8.46	Complies
	5610 MHz	2.67	8.46	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{\text{RX}}} \left\{ \sum_{k=1}^{N_{\text{ANT}}} g_{j,k} \right\}^2}{N_{\text{ANT}}} \right] = 8.54\text{dBi}$, so limit= 11-(8.54-6)=8.46 dBm/MHz.

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

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

Straddle Channel

Configuration IEEE 802.11a / Chain 4+Chain 5+Chain 6

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
144	5720 MHz (UNII 2C)	8.36	8.46	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.54\text{dBi}$, so limit = $11 - (8.54 - 6) = 8.46$ dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	$10\log(500\text{kHz}/\text{R BW})$ Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
144	5720 MHz (UNII 3)	8.16	-3.01	5.15	27.46	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.54\text{dBi}$, so limit = $30 - (8.54 - 6) = 27.46$ dBm/500kHz

Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5+Chain 6

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
144	5720 MHz (UNII 2C)	8.31	8.46	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.54\text{dBi}$, so limit = $11 - (8.54 - 6) = 8.46$ dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	$10\log(500\text{kHz}/\text{R BW})$ Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
144	5720 MHz (UNII 3)	8.23	-3.01	5.22	27.46	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.54\text{dBi}$, so limit = $30 - (8.54 - 6) = 27.46$ dBm/500kHz

Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5+Chain 6

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
142	5710 MHz (UNII 2C)	7.98	8.46	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ch}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.54\text{dBi}$, so limit = 11-(8.54-6)=8.46 dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/R BW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
142	5710 MHz (UNII 3)	7.04	-3.01	4.03	27.46	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ch}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.54\text{dBi}$, so limit = 30-(8.54-6)=27.46 dBm/500kHz

Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5+Chain 6

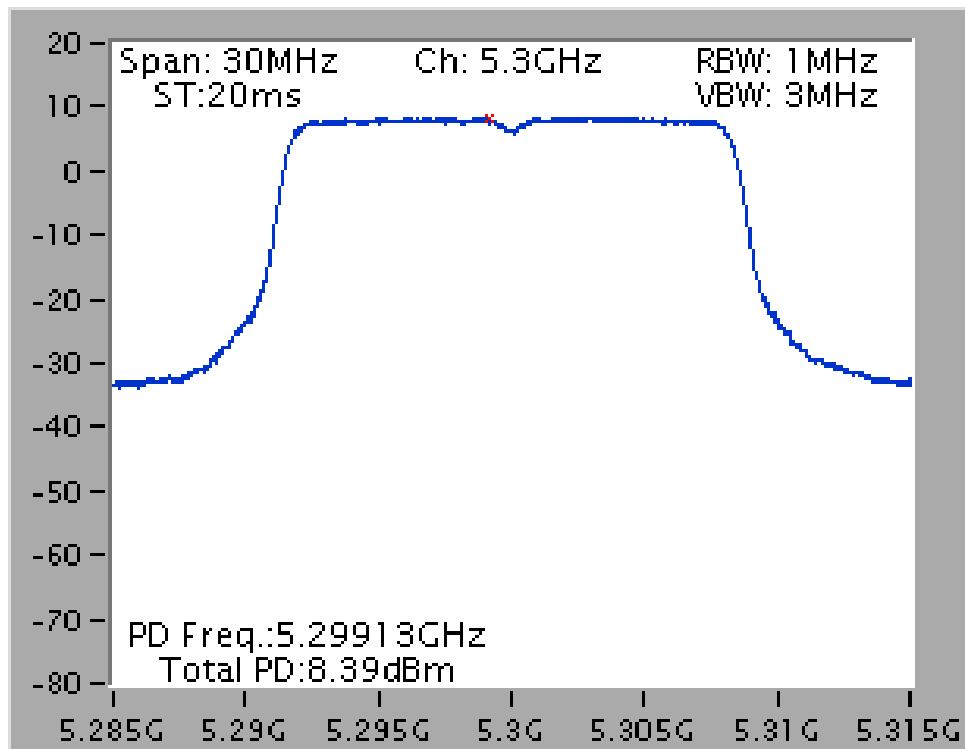
Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
138	5690 MHz (UNII 2C)	4.09	8.46	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ch}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.54\text{dBi}$, so limit = 11-(8.54-6)=8.46 dBm/MHz.

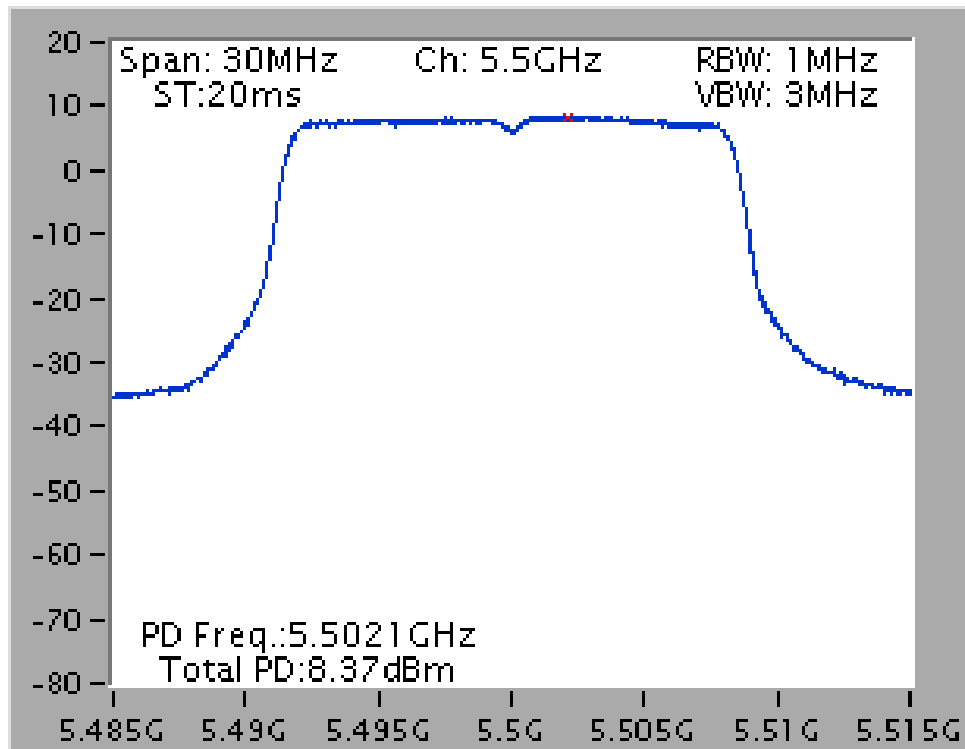
Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/R BW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
138	5690 MHz (UNII 3)	4.09	-3.01	1.08	27.46	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ch}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.54\text{dBi}$, so limit = 30-(8.54-6)=27.46 dBm/500kHz

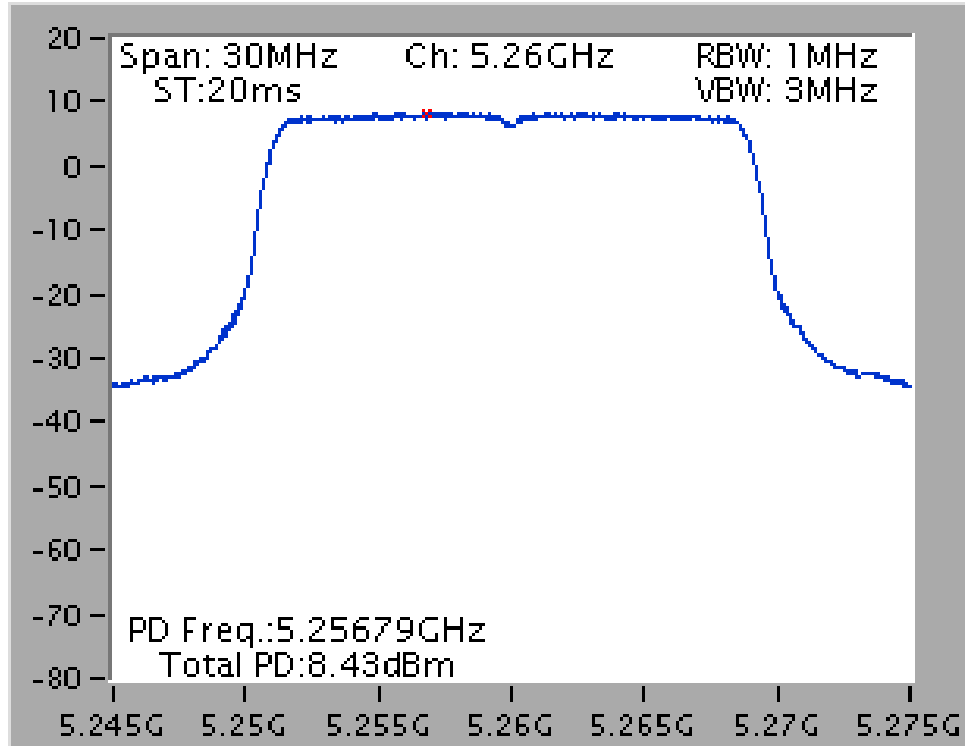
Power Density Plot on Configuration IEEE 802.11a / Chain 4+Chain 5+Chain 6 / 5300 MHz



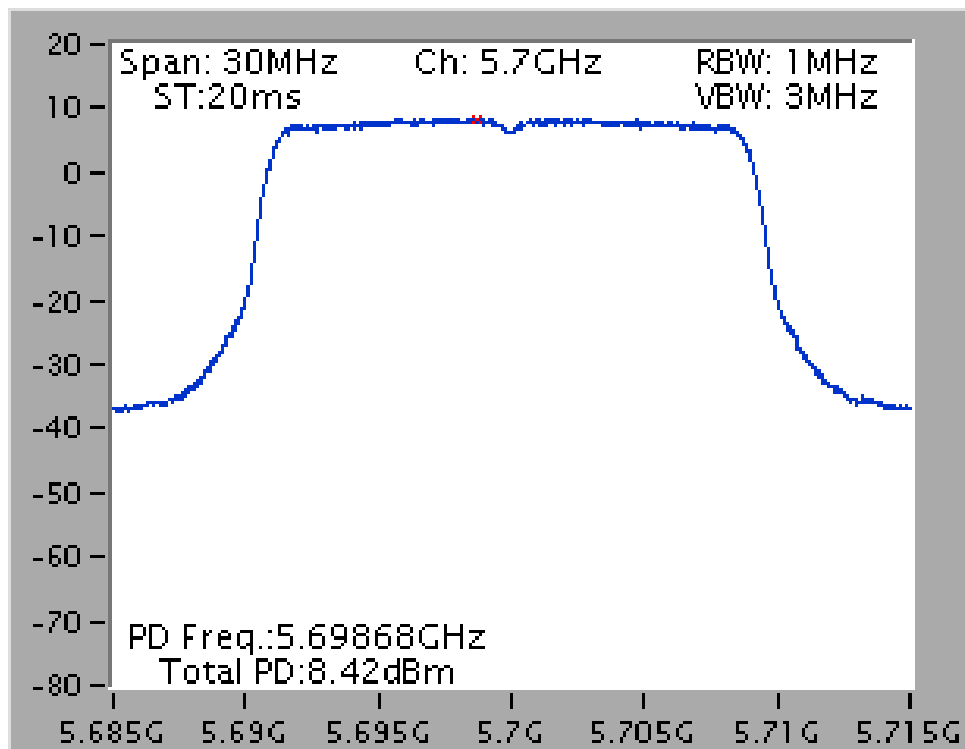
Power Density Plot on Configuration IEEE 802.11a / Chain 4+Chain 5+Chain 6 / 5500 MHz



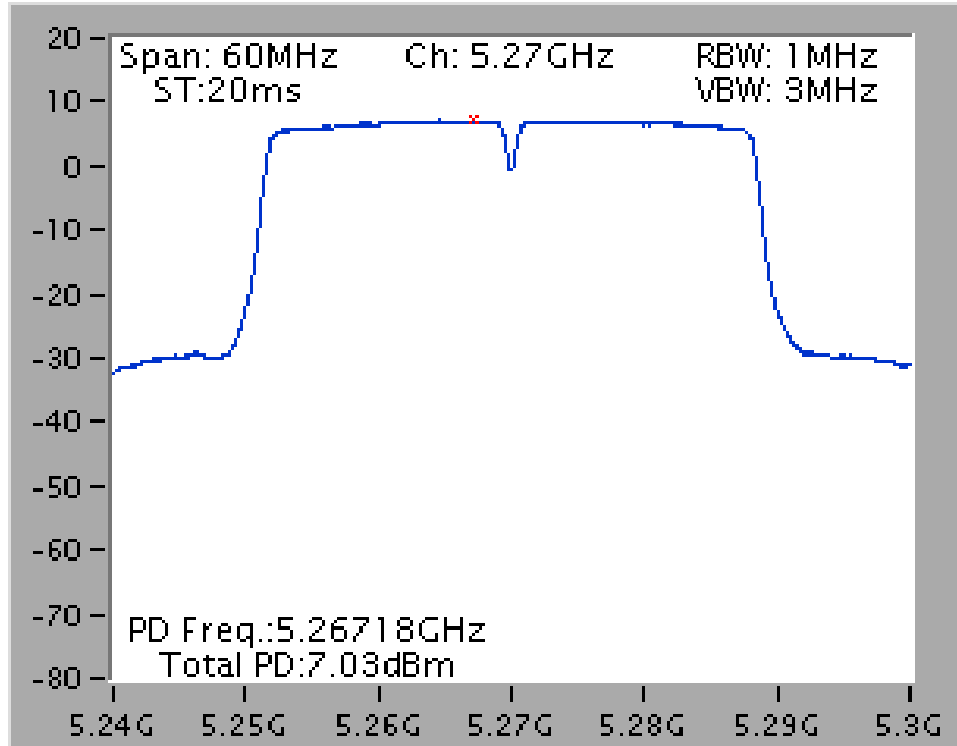
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5+Chain 6
/ 5260 MHz



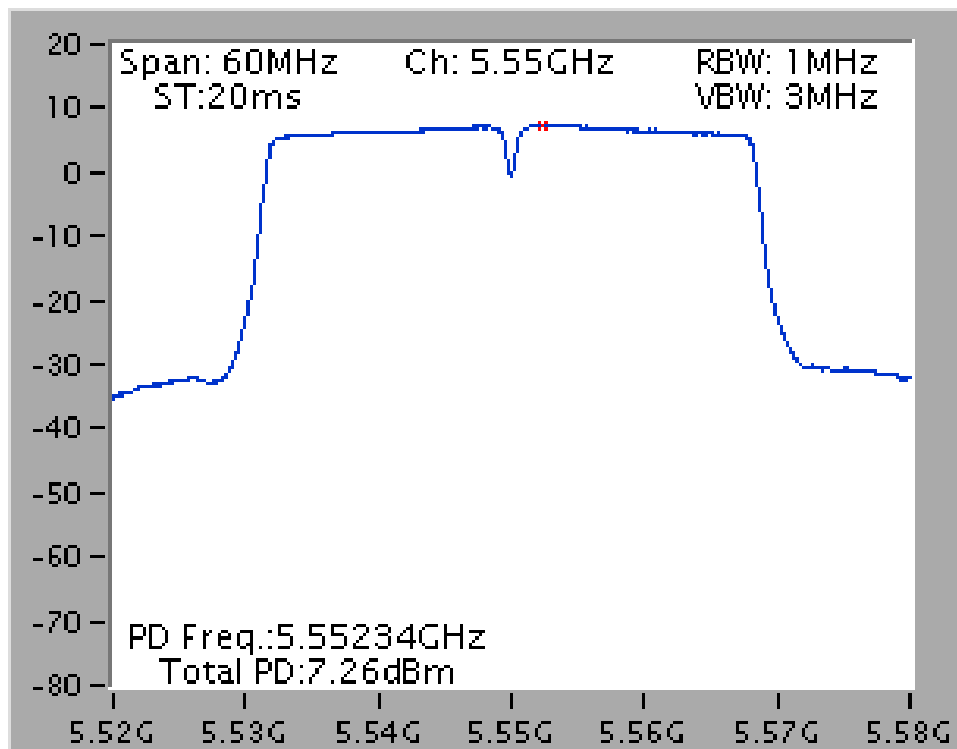
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5+Chain 6 /
5700 MHz



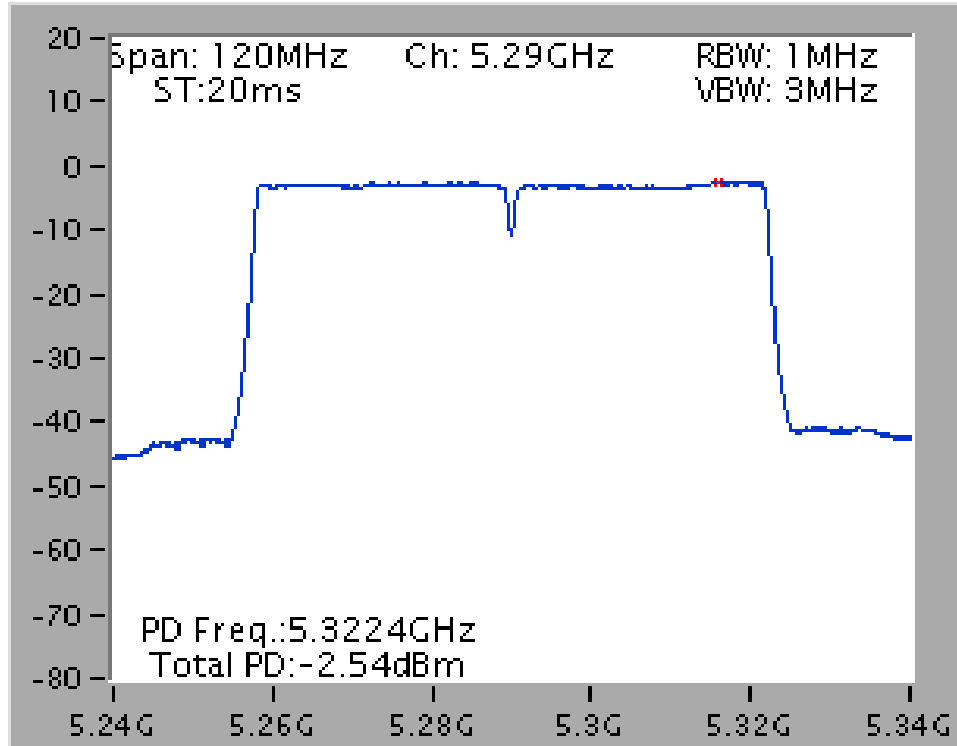
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5+Chain 6 /
5270 MHz



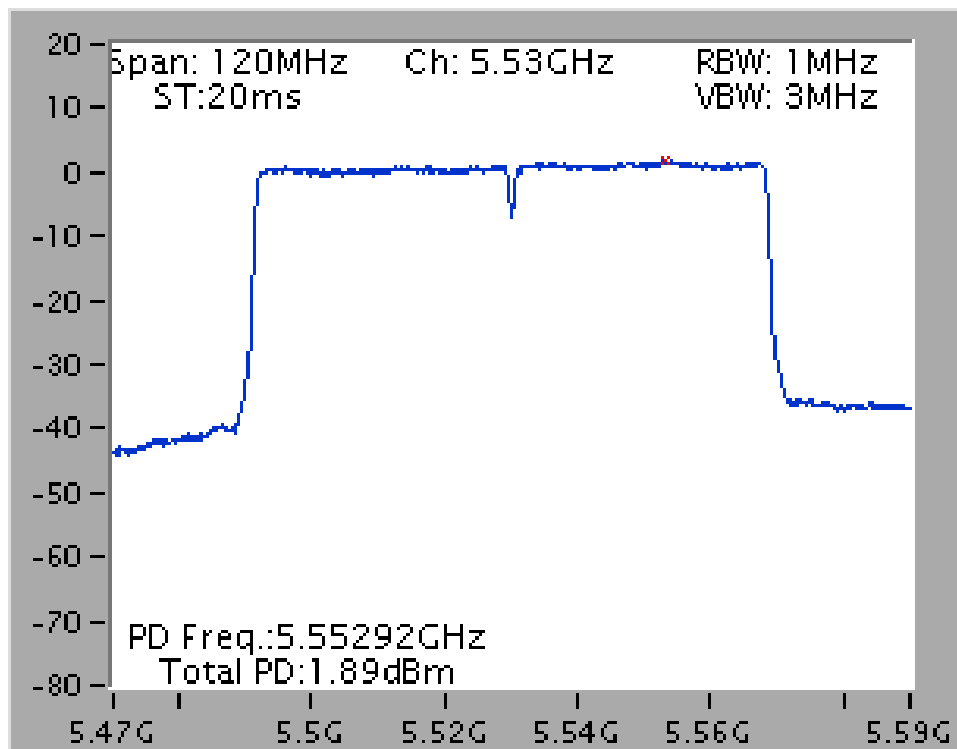
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5+Chain 6 /
5550 MHz



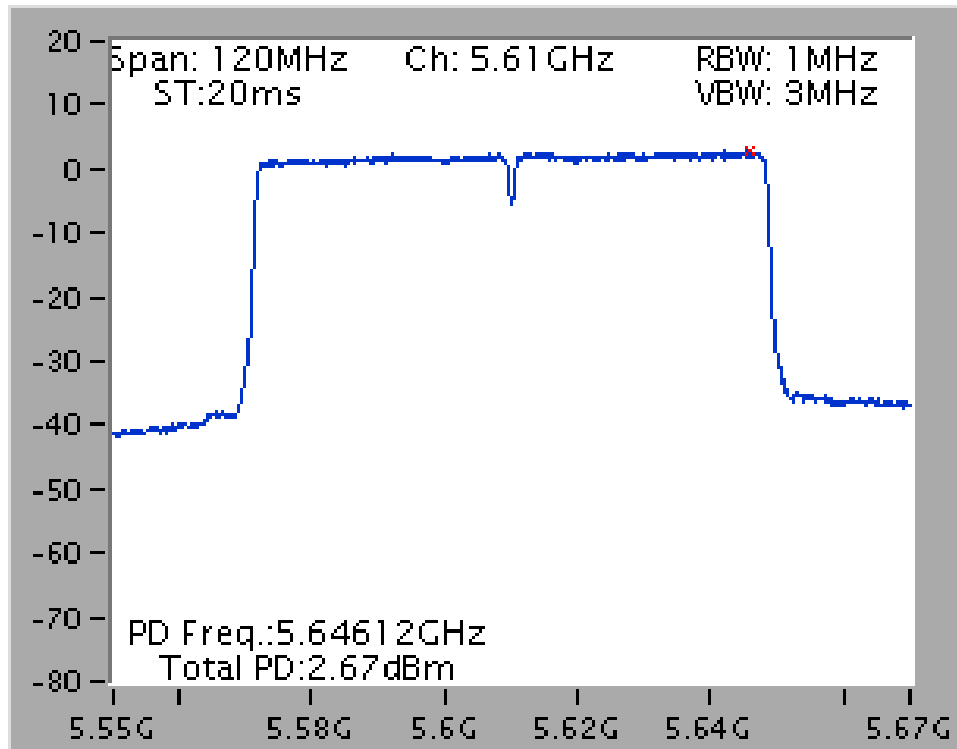
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5+Chain 6 /
5290 MHz



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5+Chain 6 /
5530 MHz

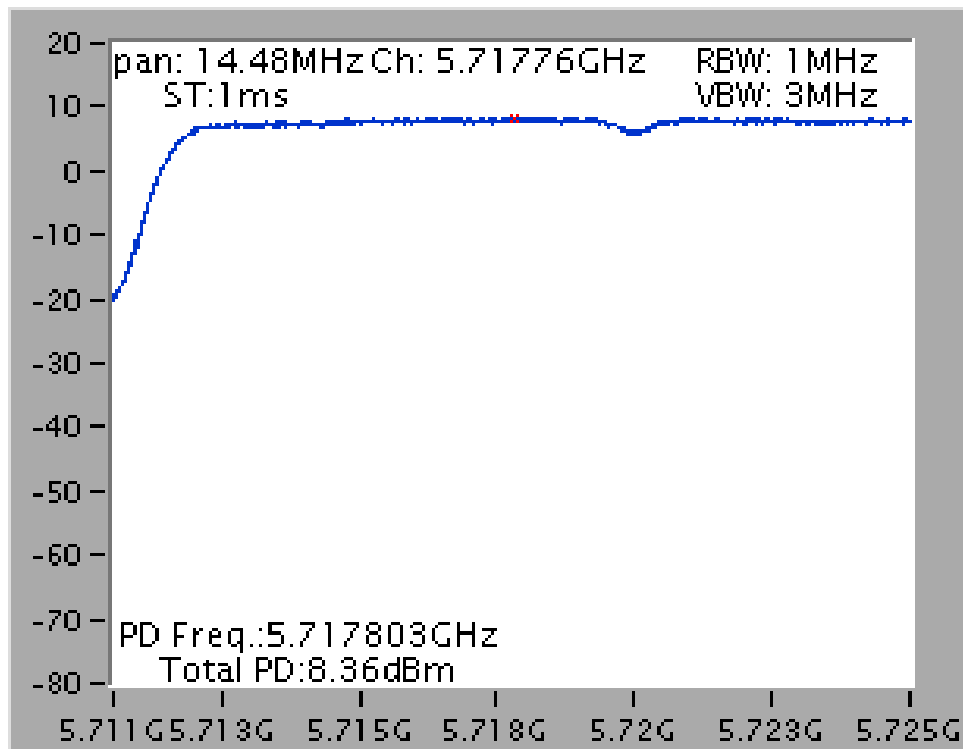


Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5+Chain 6 /
5610 MHz

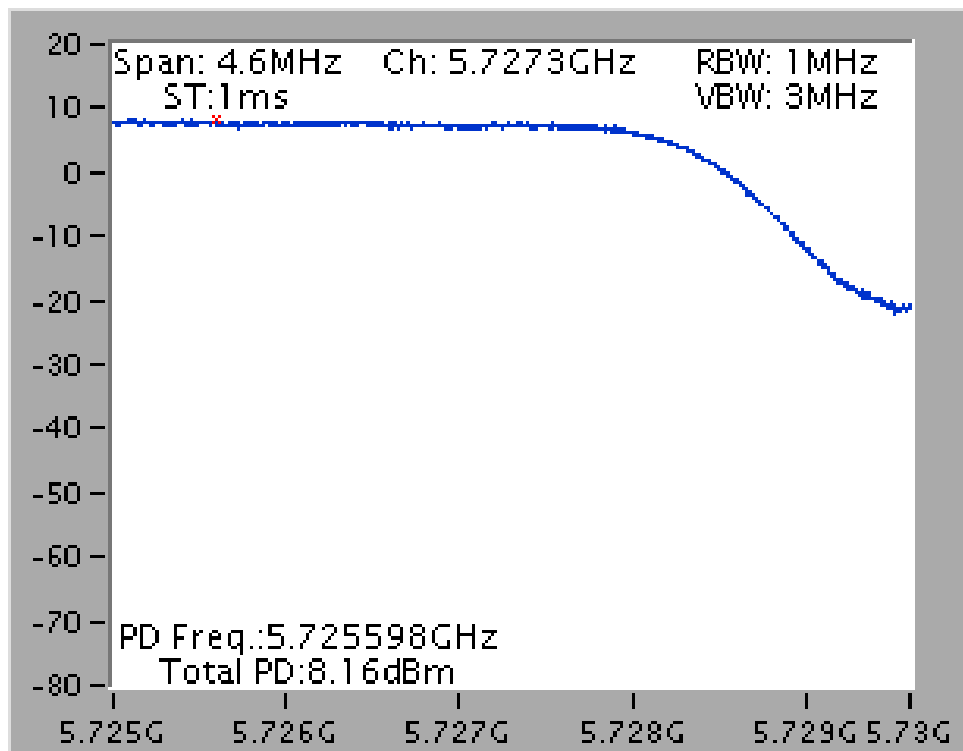


Straddle Channel

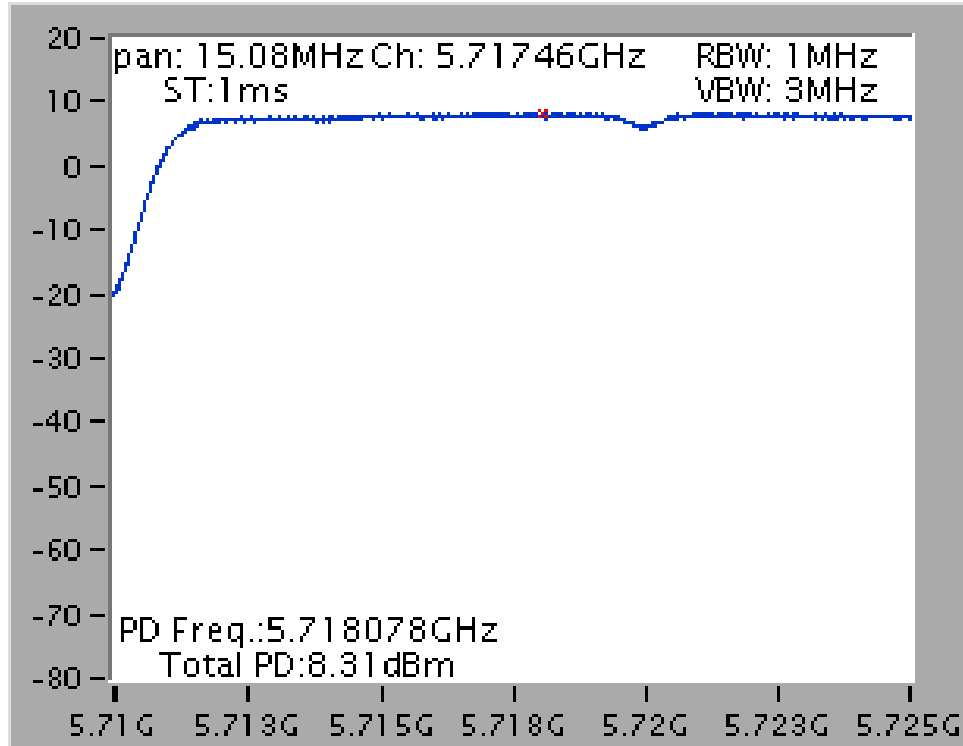
Power Density Plot on Configuration IEEE 802.11a / Chain 4+Chain 5+Chain 6 / 5720 MHz (UNII 2C)



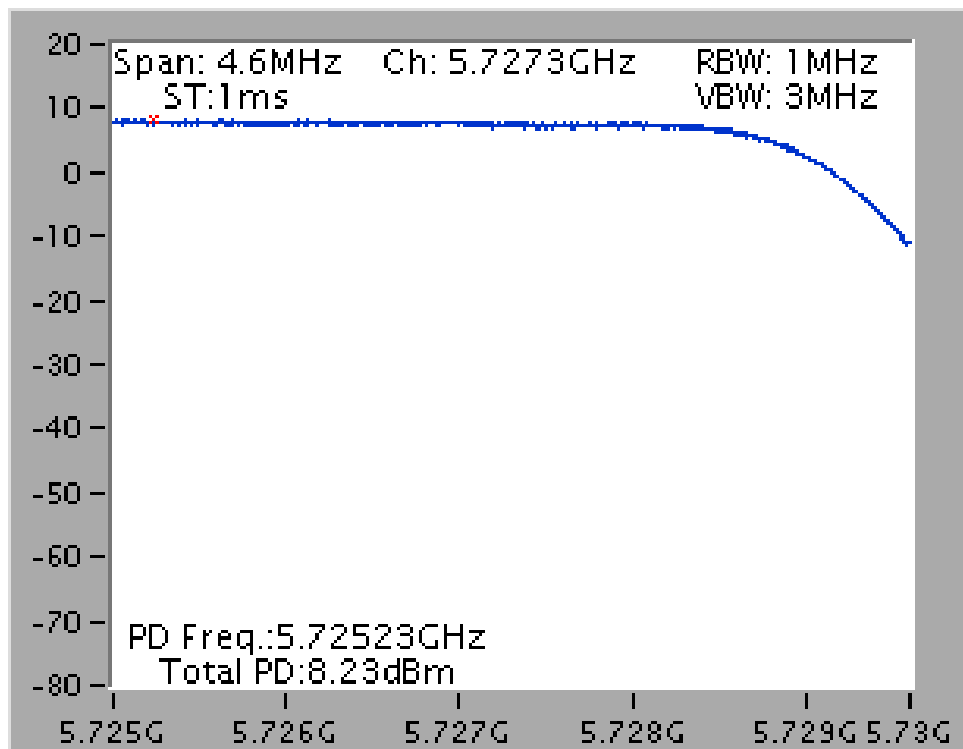
Power Density Plot on Configuration IEEE 802.11a / Chain 4+Chain 5+Chain 6 / 5720 MHz (UNII 3)



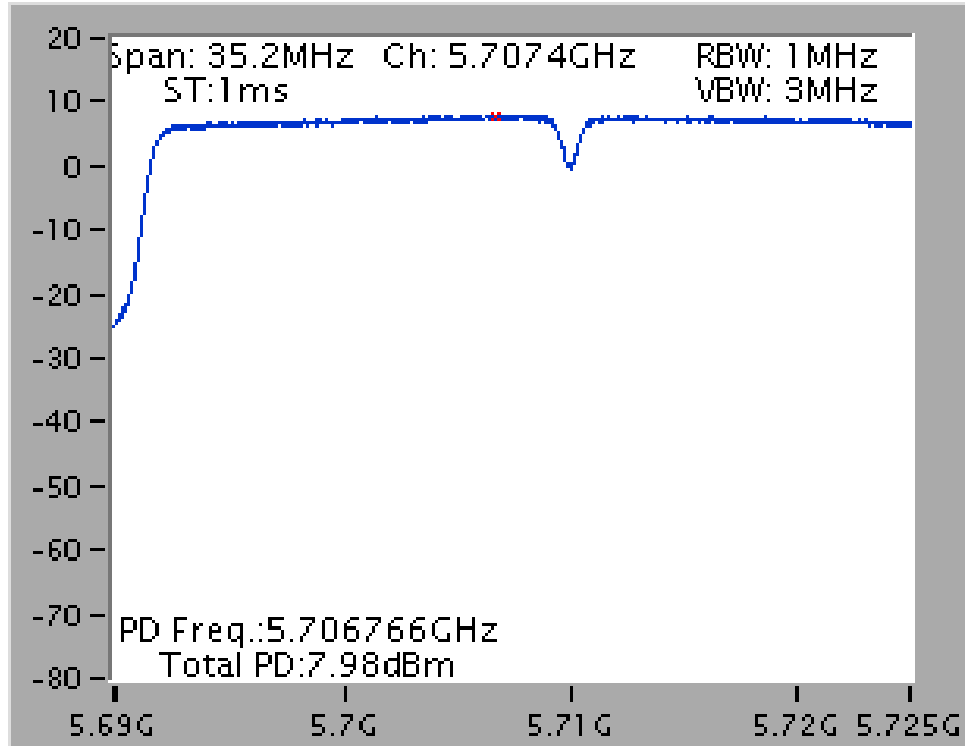
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5+Chain 6 /
5720 MHz (UNII 2C)



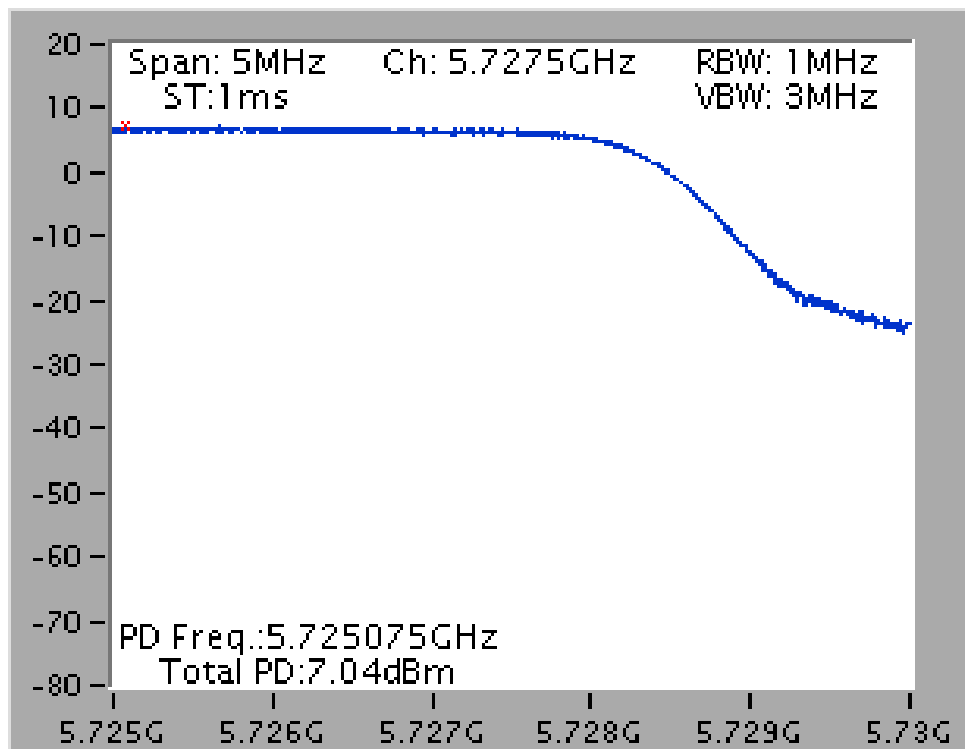
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5+Chain 6 /
5720 MHz (UNII 3)



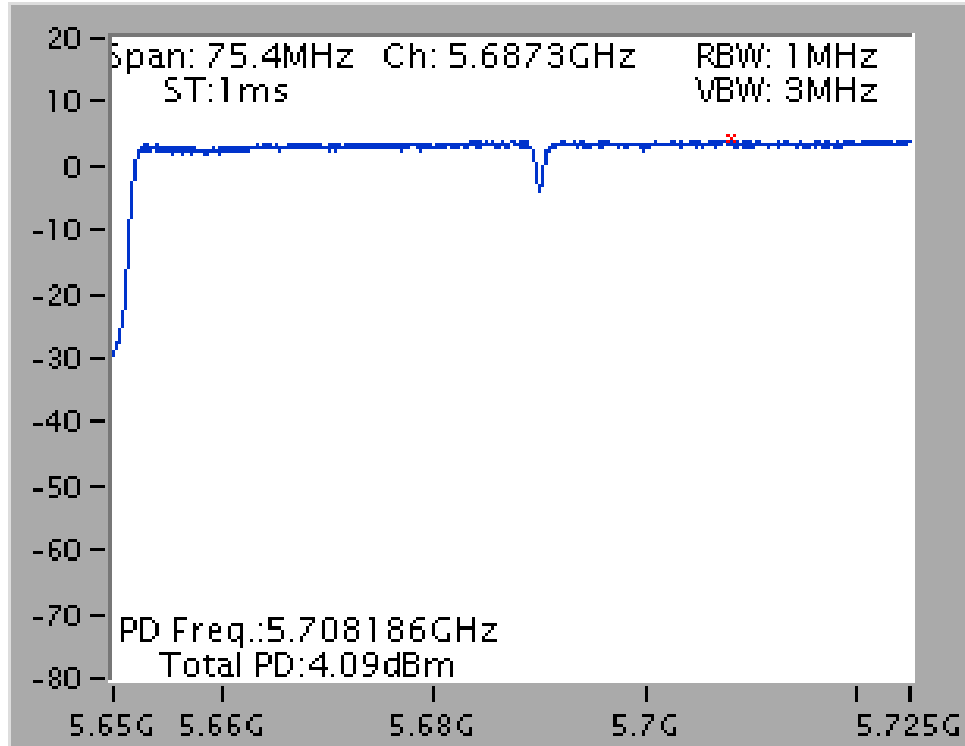
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5+Chain 6 /
5710 MHz (UNII 2C)



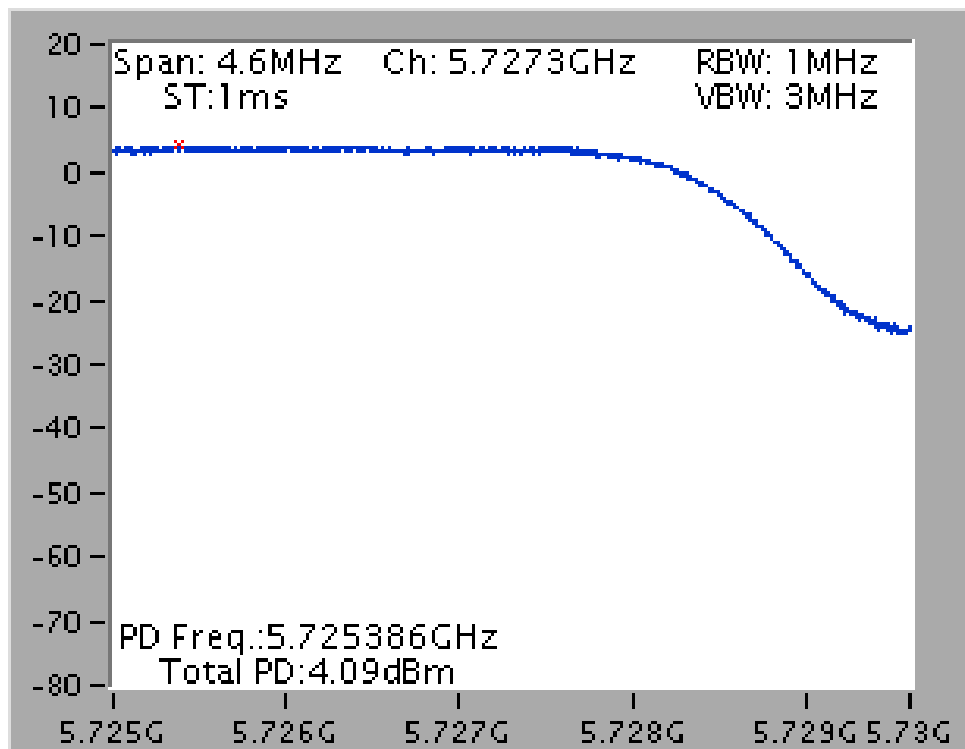
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5+Chain 6 /
5710 MHz (UNII 3)



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5+Chain 6 /
5690 MHz (UNII 2C)



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5+Chain 6 /
5690 MHz (UNII 3)



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

Temperature	25°C	Humidity	55%
Test Engineer	Lucas Huang	Test Date	Jul. 11, 2015

Mode	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
802.11ac MCS0/Nss2 VHT20	5260 MHz	10.62	11.00	Complies
	5300 MHz	10.69	11.00	Complies
	5320 MHz	10.62	11.00	Complies
	5500 MHz	10.67	11.00	Complies
	5580 MHz	10.80	11.00	Complies
	5700 MHz	9.88	11.00	Complies
802.11ac MCS0/Nss2 VHT40	5270 MHz	8.45	11.00	Complies
	5310 MHz	3.04	11.00	Complies
	5510 MHz	5.82	11.00	Complies
	5550 MHz	7.84	11.00	Complies
	5670 MHz	6.65	11.00	Complies
802.11ac MCS0/Nss2 VHT80	5290 MHz	-2.47	11.00	Complies
	5530 MHz	2.71	11.00	Complies
	5610 MHz	3.26	11.00	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.53\text{dBi} < 6\text{dBi}$, so the limit doesn't reduce.

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

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

Straddle Channel

Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4+Chain 5+Chain 6

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
144	5720 MHz (UNII 2C)	10.79	11.00	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{IS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.53\text{dBi} < 6\text{dBi}$, so the limit doesn't reduce.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/R BW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
144	5720 MHz (UNII 3)	10.47	-3.01	7.46	30.00	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{IS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.53\text{dBi} < 6\text{dBi}$, so the limit doesn't reduce.

Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4+Chain 5+Chain 6

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
142	5710 MHz (UNII 2C)	8.64	11.00	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{IS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.53\text{dBi} < 6\text{dBi}$, so the limit doesn't reduce.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/R BW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
142	5710 MHz (UNII 3)	7.83	-3.01	4.82	30.00	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{IS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.53\text{dBi} < 6\text{dBi}$, so the limit doesn't reduce.

Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4+Chain 5+Chain 6

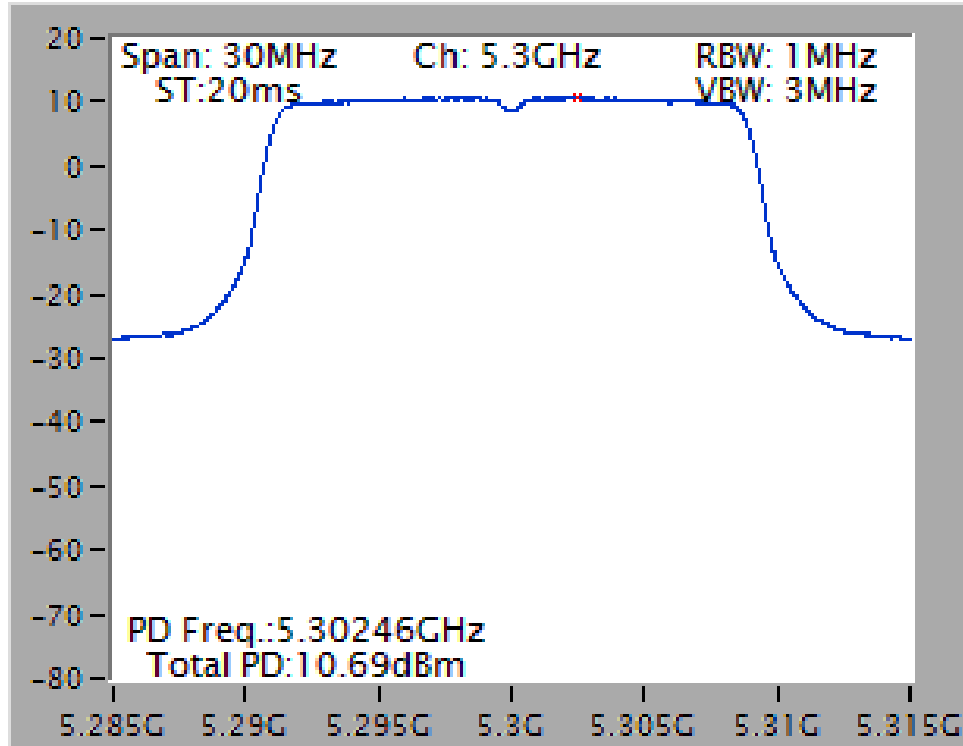
Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
138	5690 MHz (UNII 2C)	6.22	11.00	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{IS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.53\text{dBi} < 6\text{dBi}$, so the limit doesn't reduce.

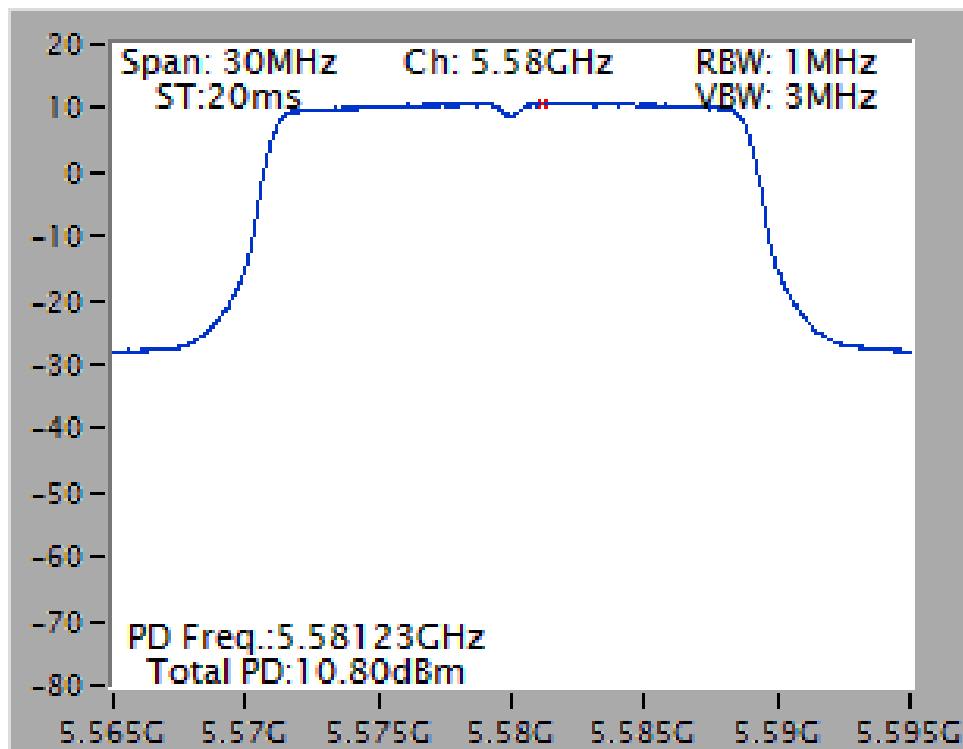
Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/R BW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
138	5690 MHz (UNII 3)	6.19	-3.01	3.18	30.00	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{IS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.53\text{dBi} < 6\text{dBi}$, so the limit doesn't reduce.

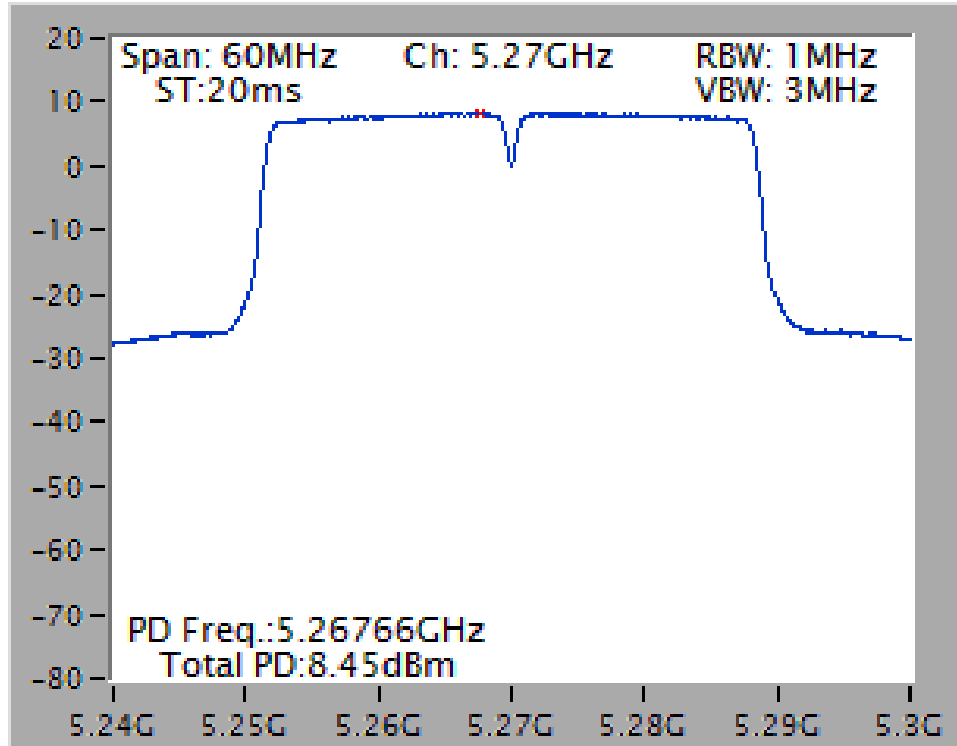
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4+Chain 5+Chain 6
/ 5300 MHz



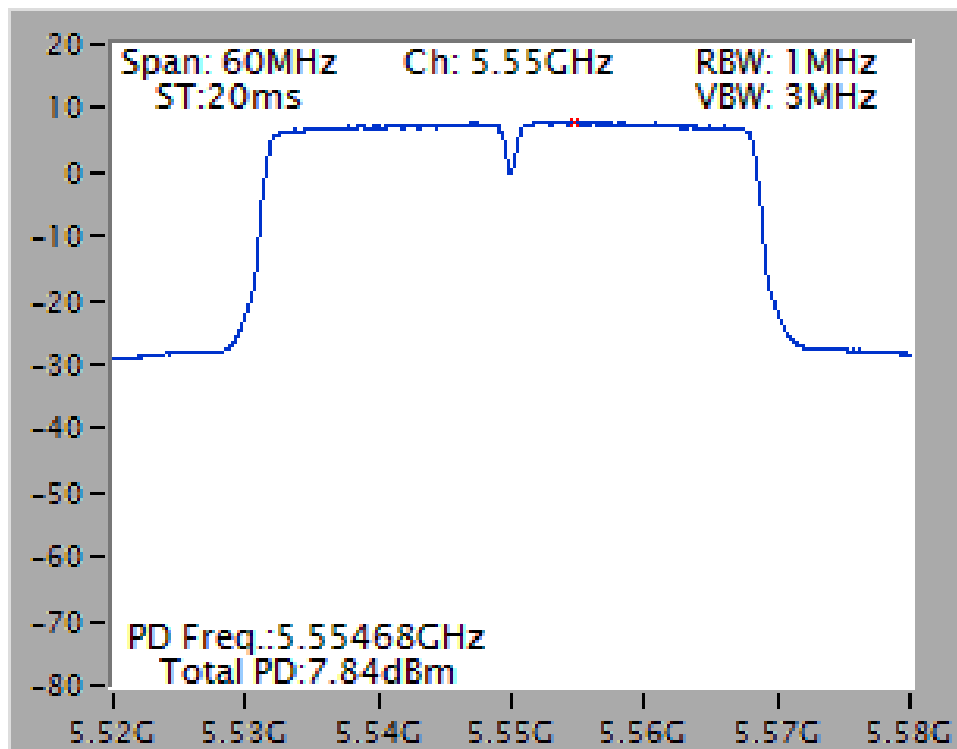
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4+Chain 5+Chain 6 /
5580 MHz



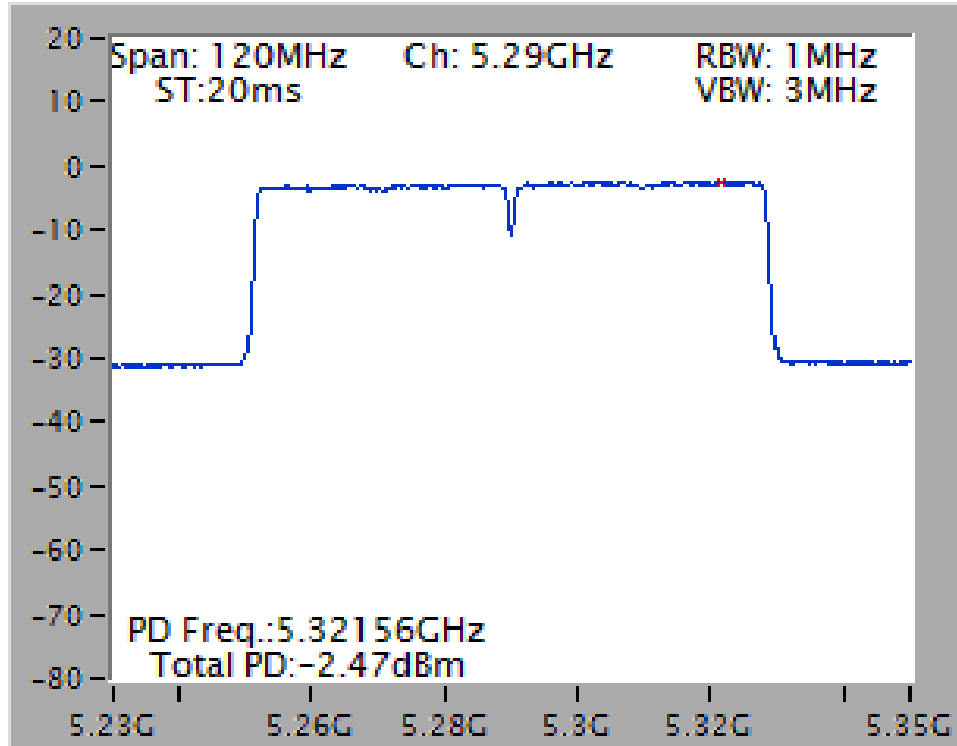
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4+Chain 5+Chain 6 /
5270 MHz



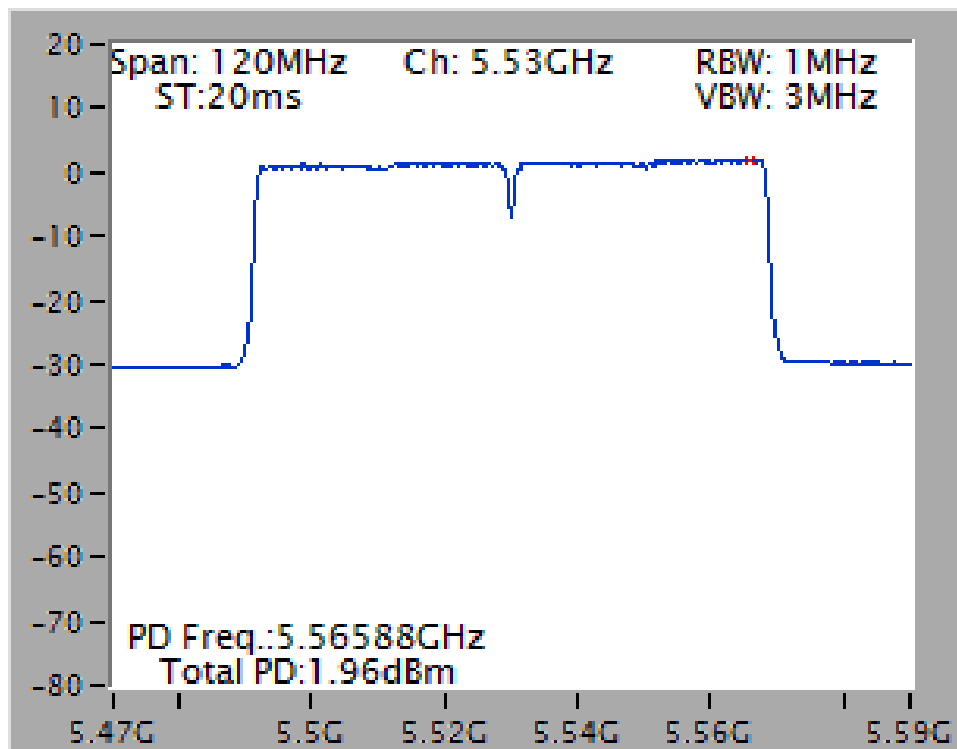
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4+Chain 5+Chain 6 /
5550 MHz



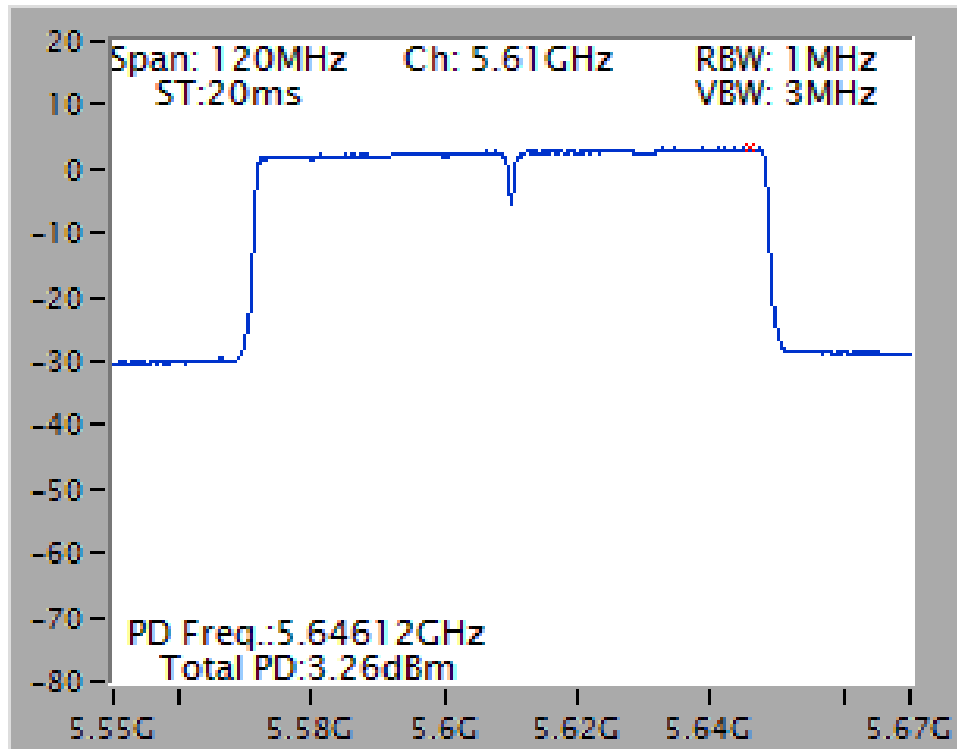
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4+Chain 5+Chain 6 /
5290 MHz



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4+Chain 5+Chain 6 /
5530 MHz

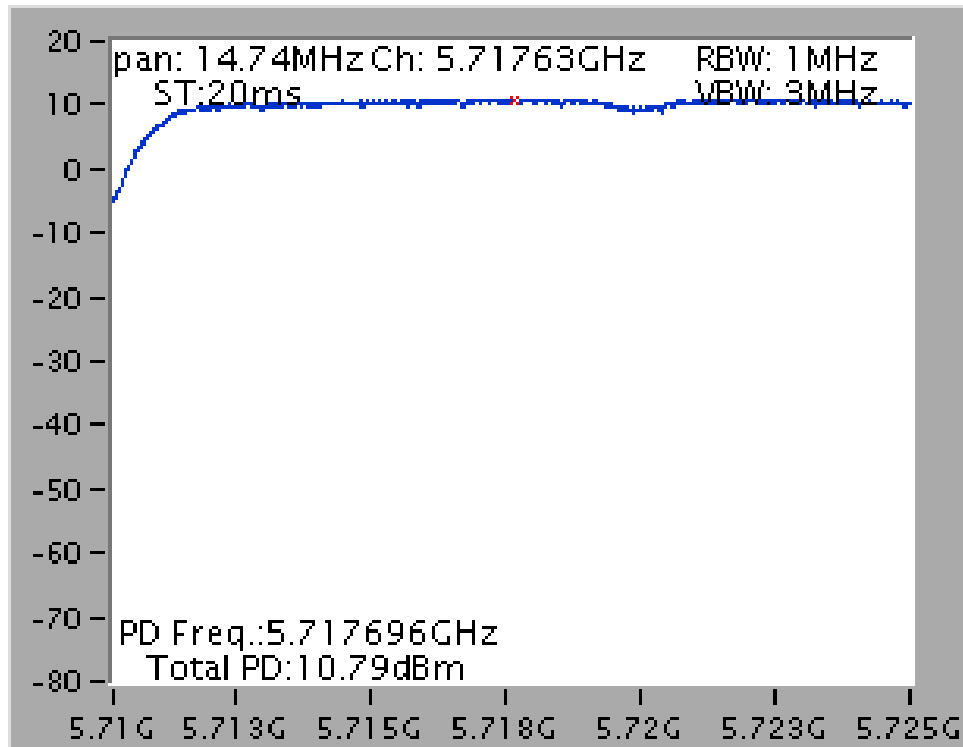


Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4+Chain 5+Chain 6 /
5610 MHz

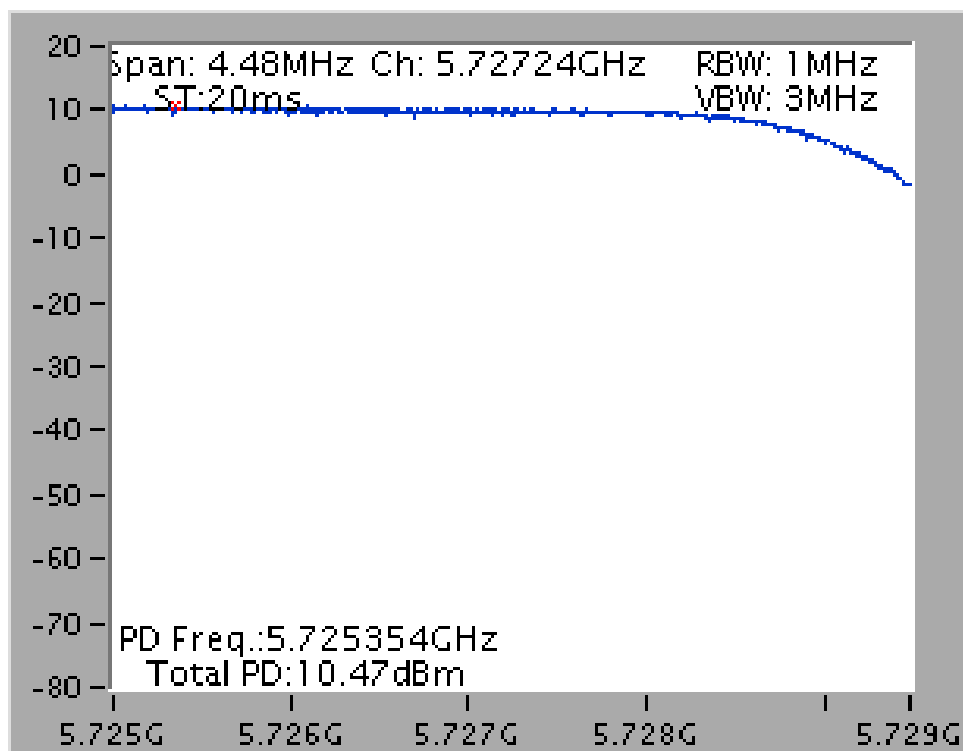


Straddle Channel

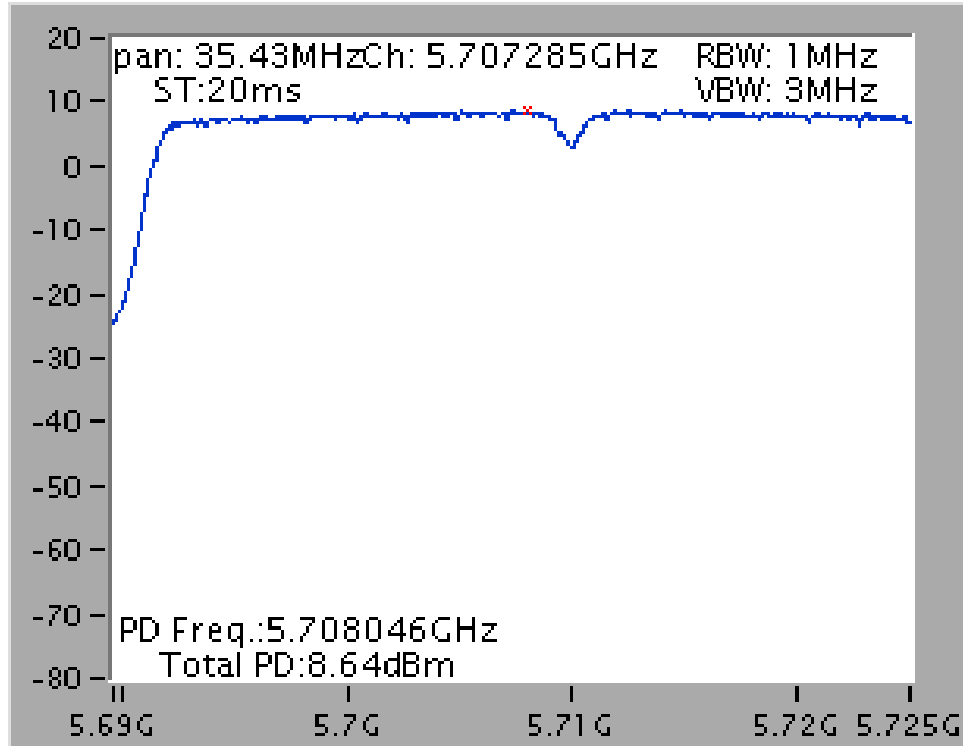
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4+Chain 5+Chain 6 /
5720 MHz (UNII 2C)



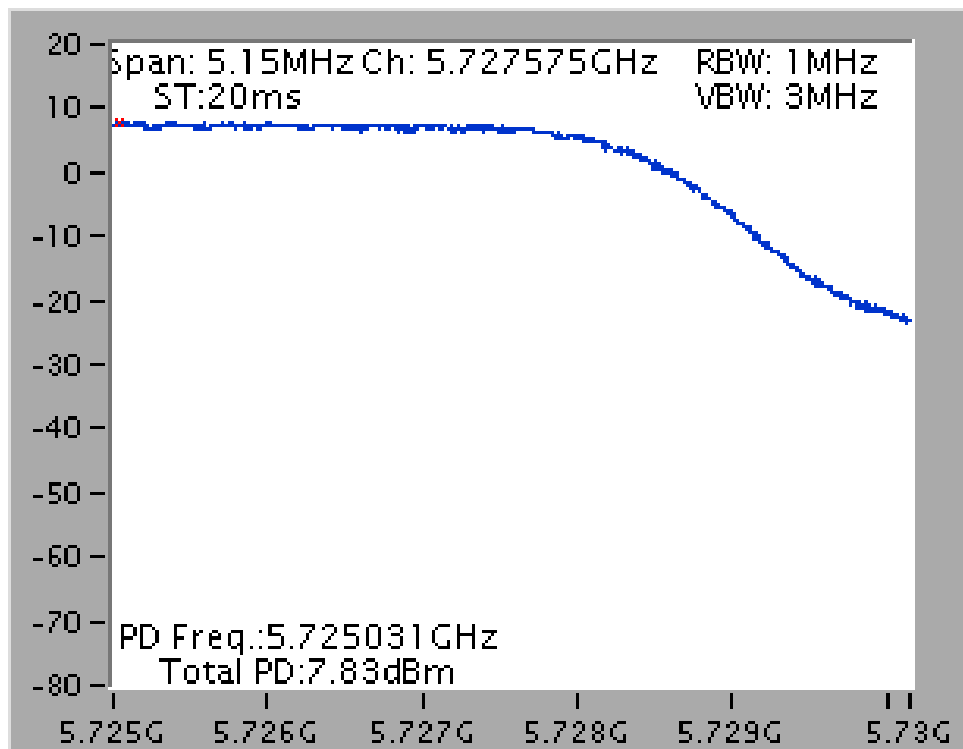
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4+Chain 5+Chain 6 /
5720 MHz (UNII 3)



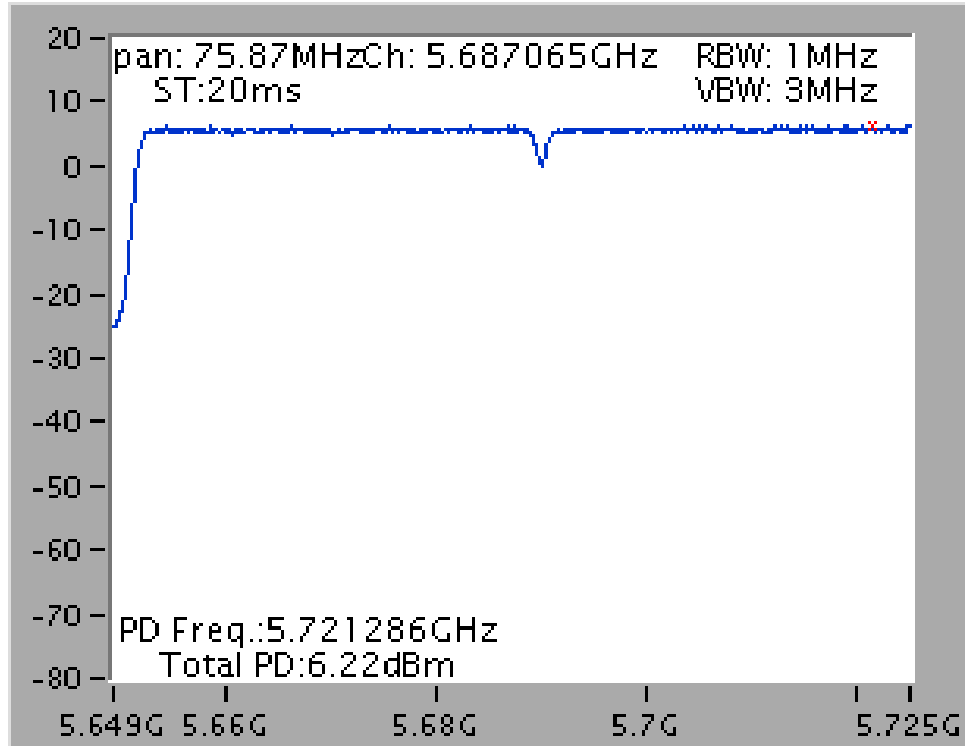
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4+Chain 5+Chain 6 /
5710 MHz (UNII 2C)



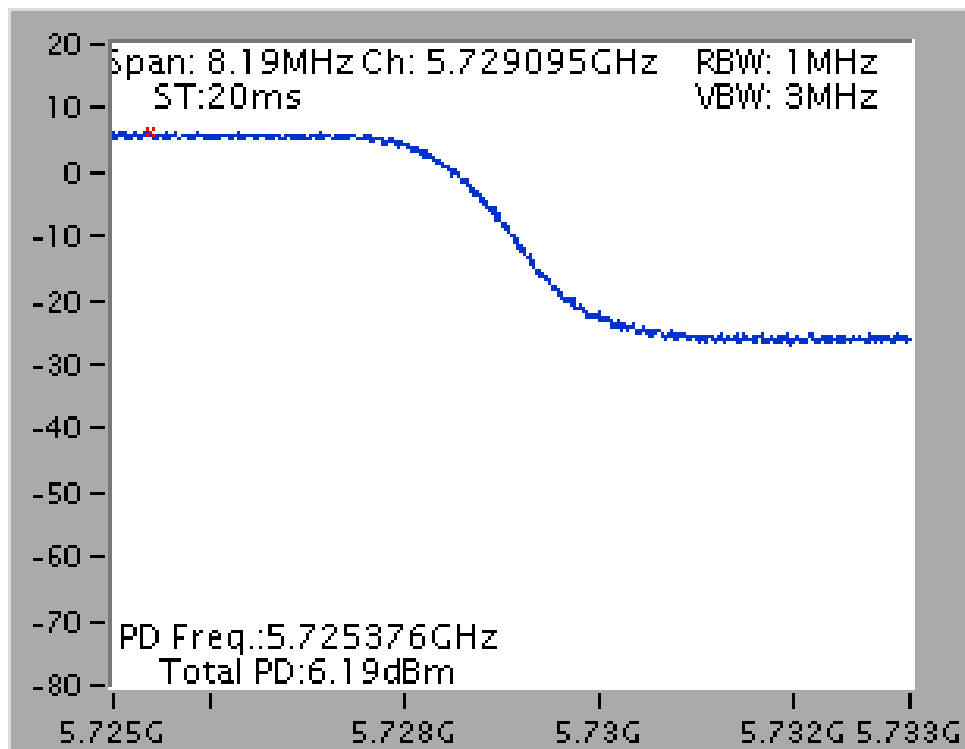
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4+Chain 5+Chain 6 /
5710 MHz (UNII 3)



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4+Chain 5+Chain 6 /
5690 MHz (UNII 2C)



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4+Chain 5+Chain 6 /
5690 MHz (UNII 3)



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

Temperature	25°C	Humidity	55%
Test Engineer	Lucas Huang	Test Date	Jul. 11, 2015

Mode	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
802.11ac MCS0/Nss2 VHT20	5260 MHz	10.71	11.00	Complies
	5300 MHz	10.83	11.00	Complies
	5320 MHz	10.62	11.00	Complies
	5500 MHz	10.59	11.00	Complies
	5580 MHz	10.65	11.00	Complies
	5700 MHz	9.88	11.00	Complies
802.11ac MCS0/Nss2 VHT40	5270 MHz	7.65	11.00	Complies
	5310 MHz	2.89	11.00	Complies
	5510 MHz	5.66	11.00	Complies
	5550 MHz	7.44	11.00	Complies
	5670 MHz	6.83	11.00	Complies
802.11ac MCS0/Nss2 VHT80	5290 MHz	-1.63	11.00	Complies
	5530 MHz	2.52	11.00	Complies
	5610 MHz	3.46	11.00	Complies

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

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

Straddle Channel

Configuration IEEE 802.11ac MCS0/Nss3 VHT20 / Chain 4+Chain 5+Chain 6

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
144	5720 MHz (UNII 2C)	10.98	11.00	Complies

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/R BW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
144	5720 MHz (UNII 3)	10.39	-3.01	7.38	30.00	Complies

Configuration IEEE 802.11ac MCS0/Nss3 VHT40 / Chain 4+Chain 5+Chain 6

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
142	5710 MHz (UNII 2C)	8.62	11.00	Complies

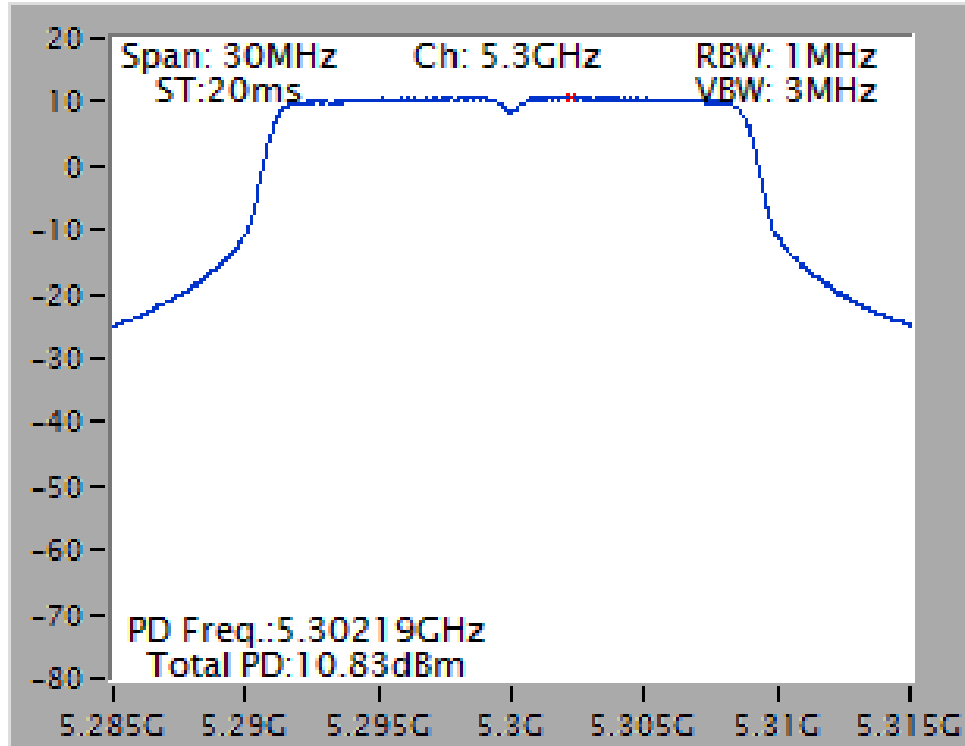
Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/R BW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
142	5710 MHz (UNII 3)	7.40	-3.01	4.39	30.00	Complies

Configuration IEEE 802.11ac MCS0/Nss3 VHT80 / Chain 4+Chain 5+Chain 6

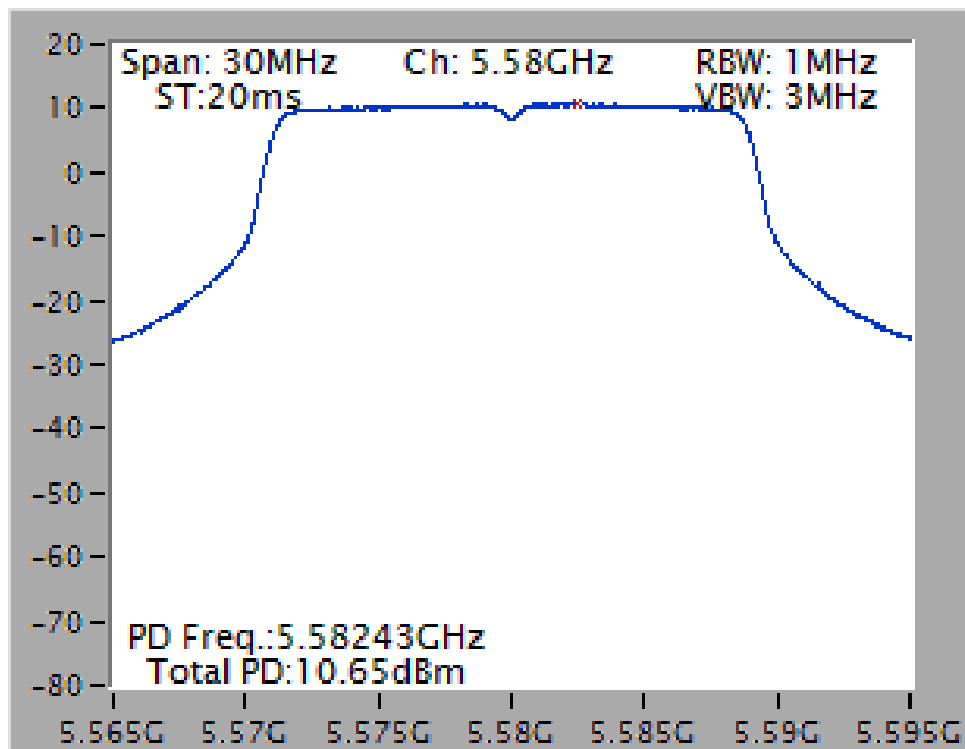
Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
138	5690 MHz (UNII 2C)	6.17	11.00	Complies

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/R BW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
138	5690 MHz (UNII 3)	5.96	-3.01	2.95	30.00	Complies

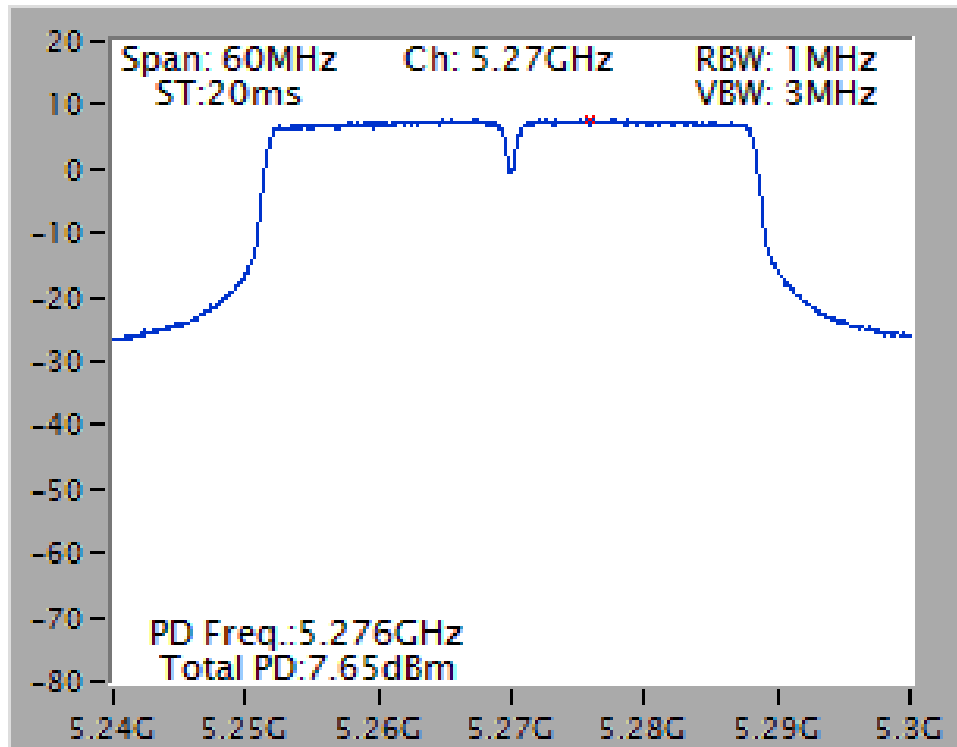
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT20 / Chain 4+Chain 5+Chain 6
/ 5300 MHz



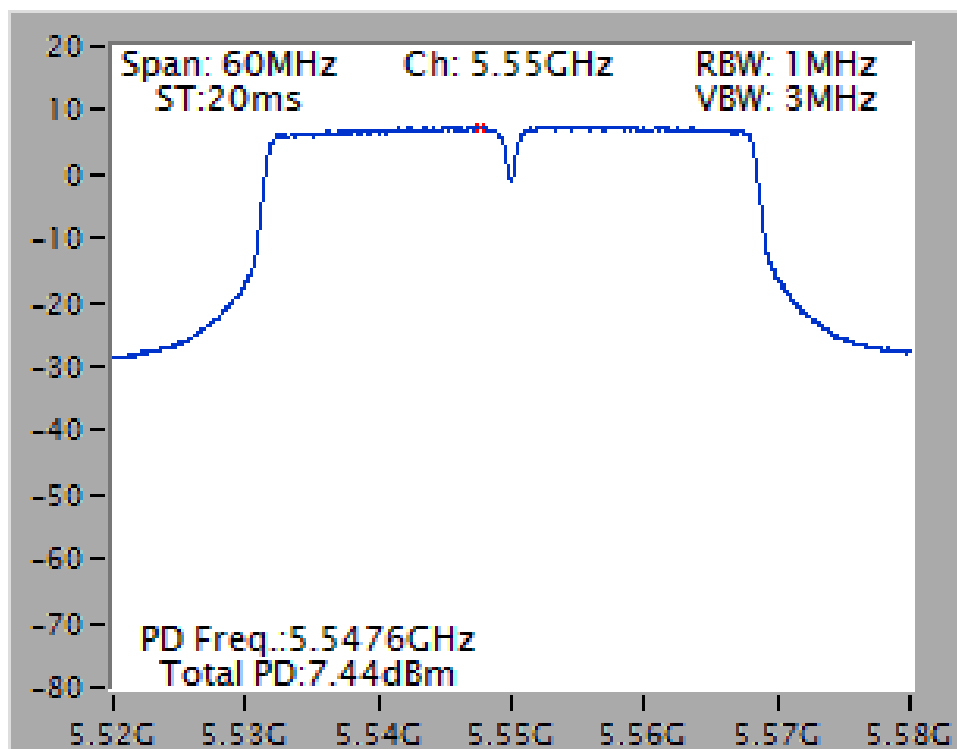
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT20 / Chain 4+Chain 5+Chain 6 /
5580 MHz



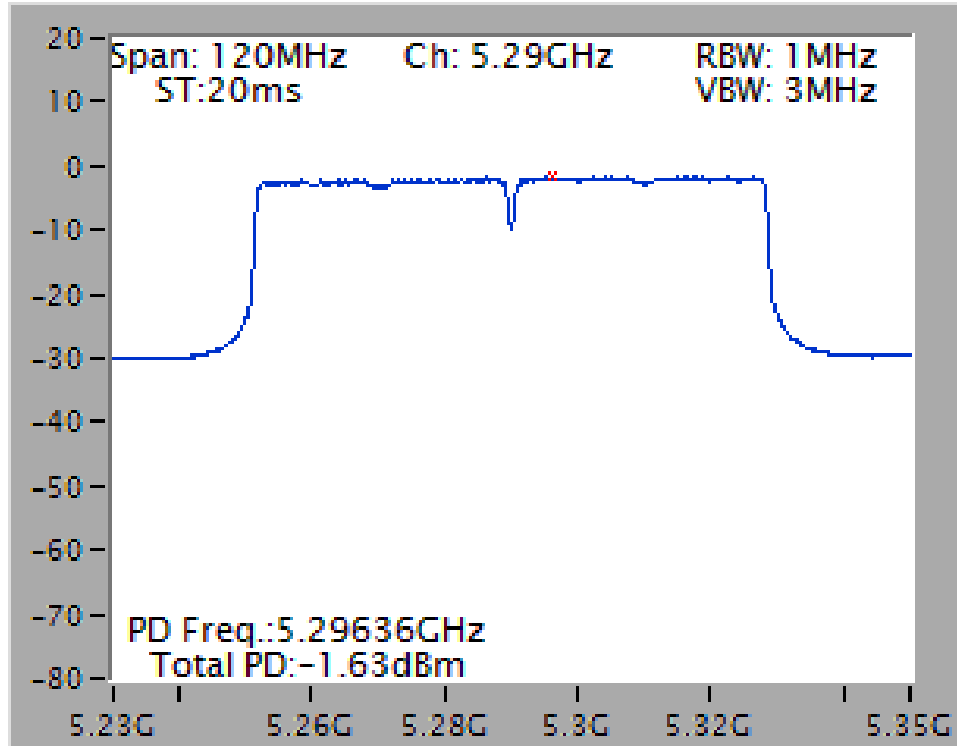
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT40 / Chain 4+Chain 5+Chain 6 /
5270 MHz



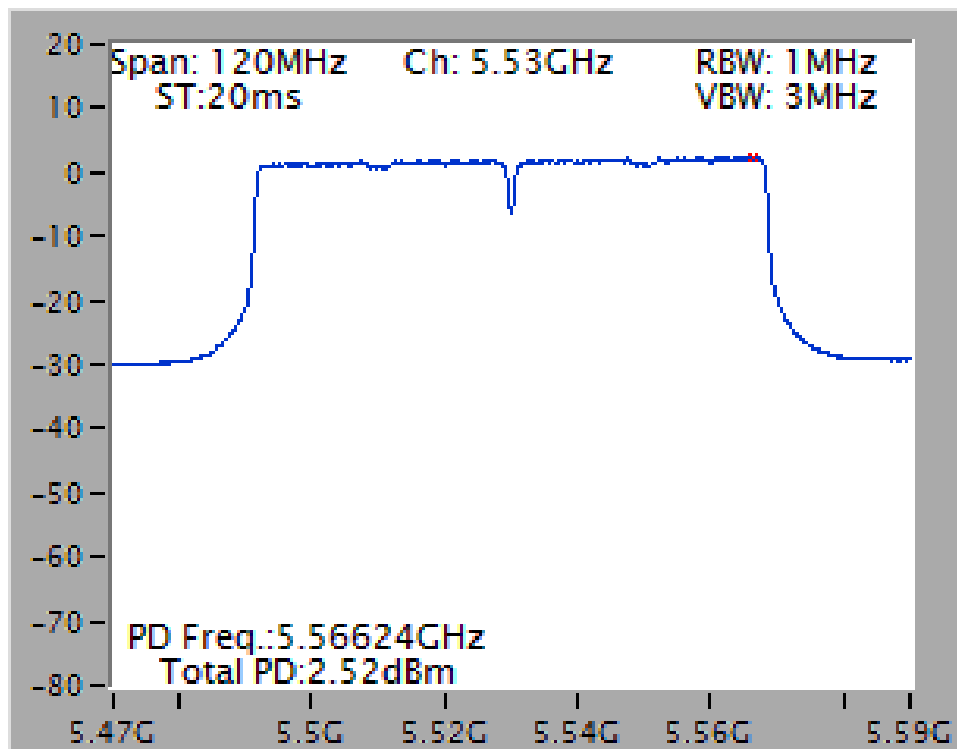
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT40 / Chain 4+Chain 5+Chain 6 /
5550 MHz



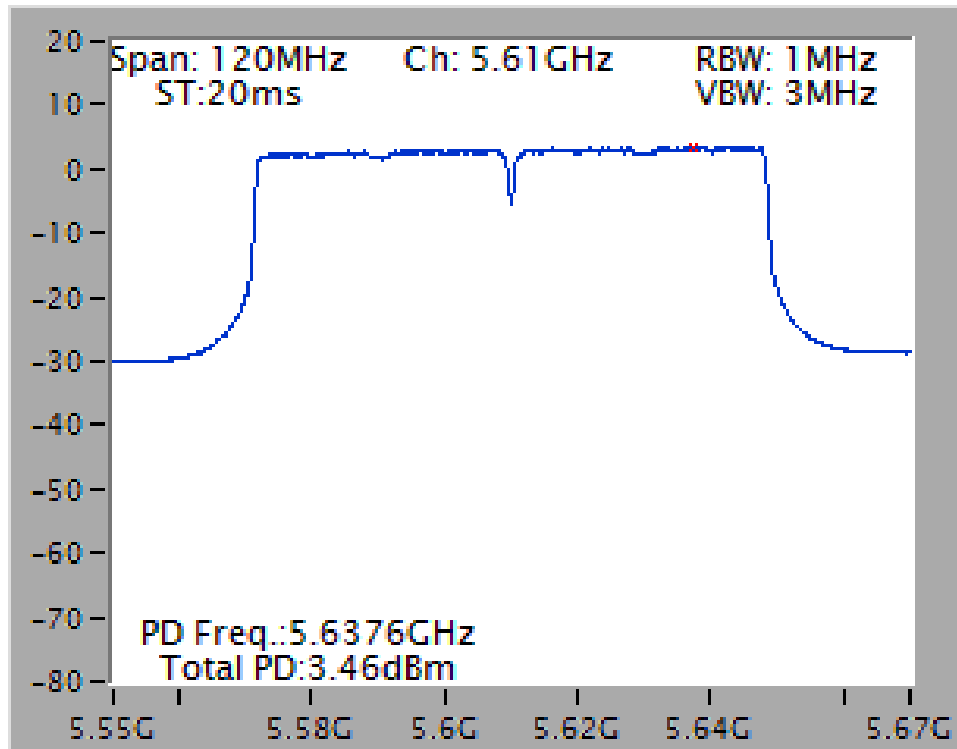
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT80 / Chain 4+Chain 5+Chain 6 /
5290 MHz



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4+Chain 5+Chain 6 /
5530 MHz

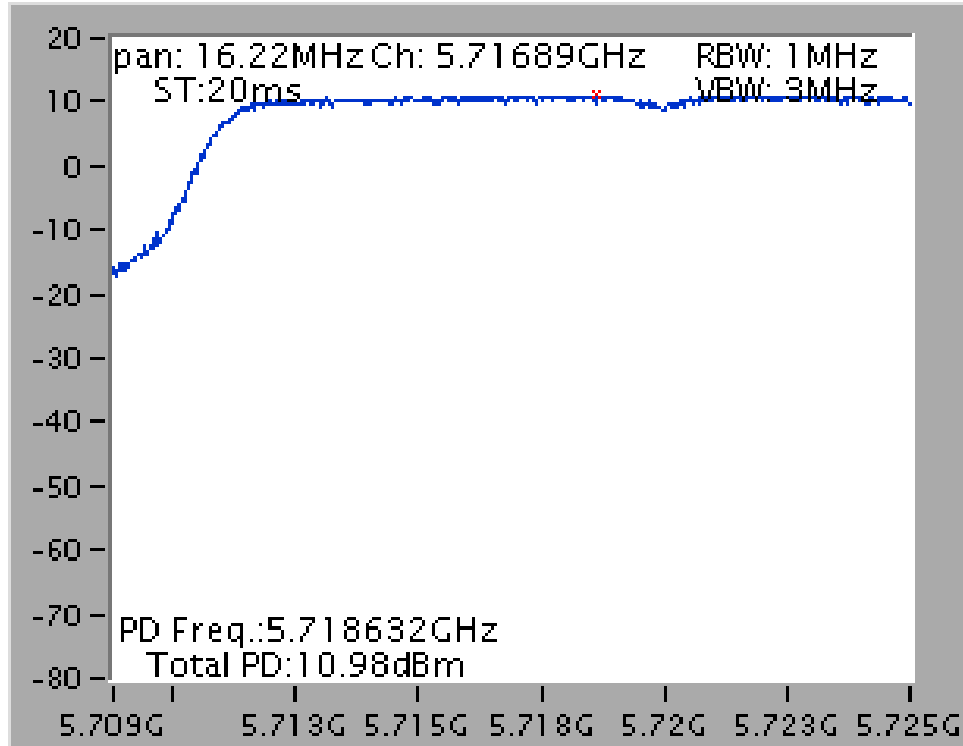


Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4+Chain 5+Chain 6 /
5610 MHz

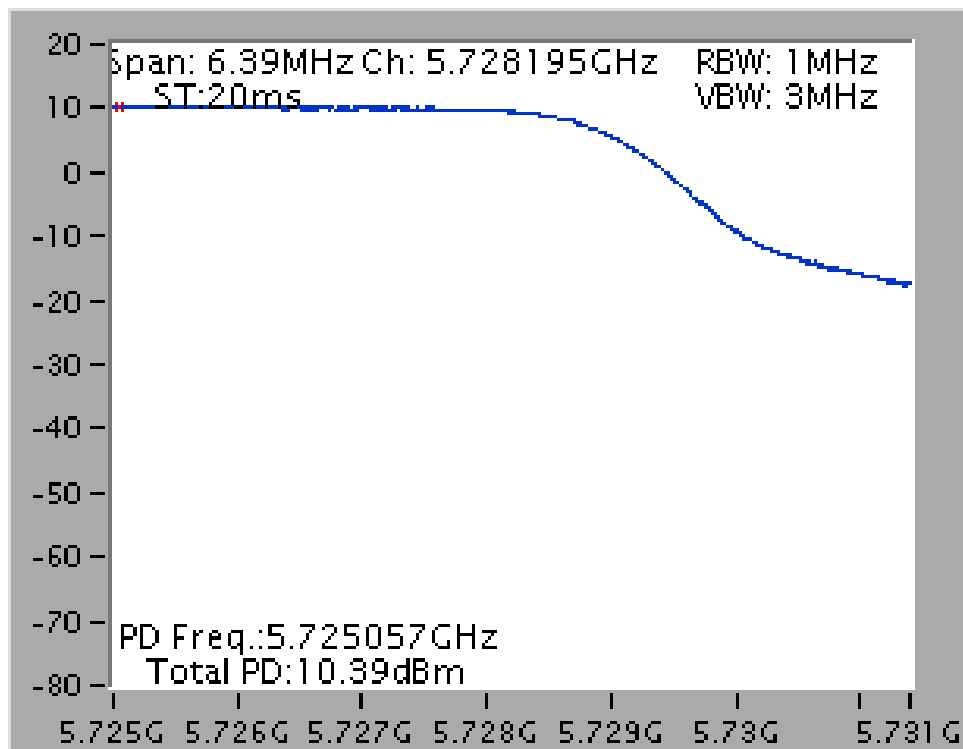


Straddle Channel

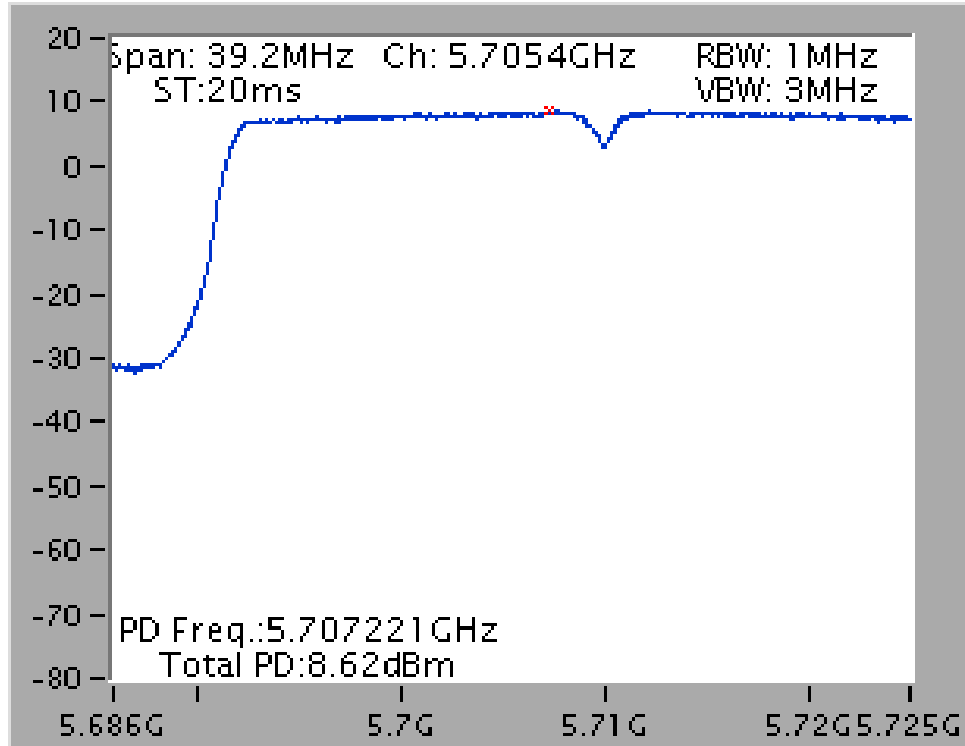
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT20 / Chain 4+Chain 5+Chain 6 /
5720 MHz (UNII 2C)



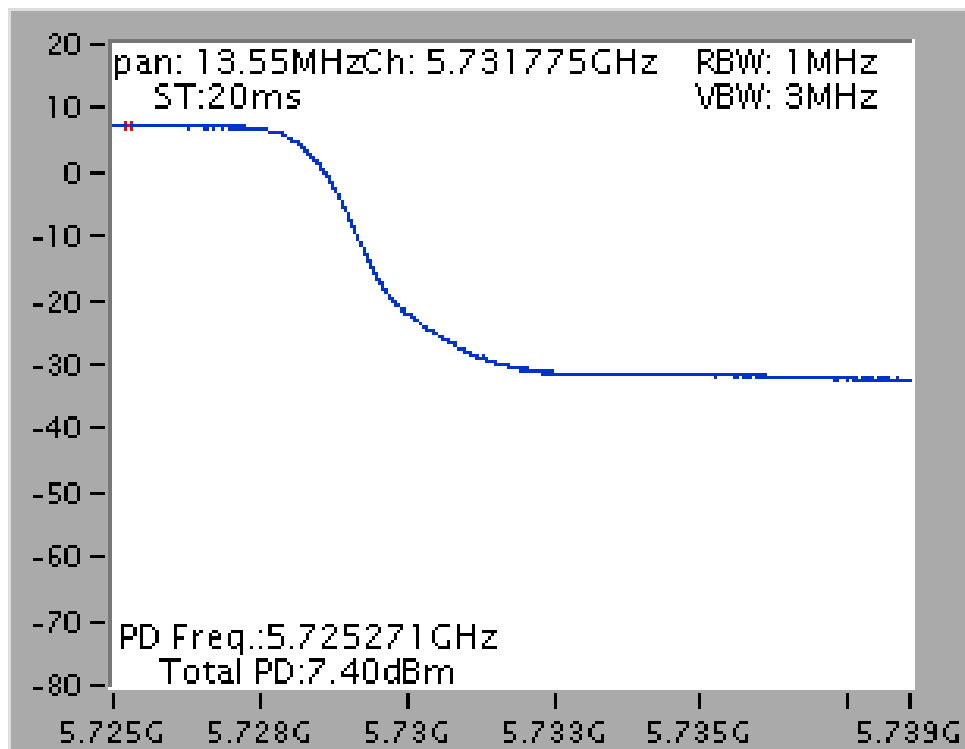
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT20 / Chain 4+Chain 5+Chain 6 /
5720 MHz (UNII 3)



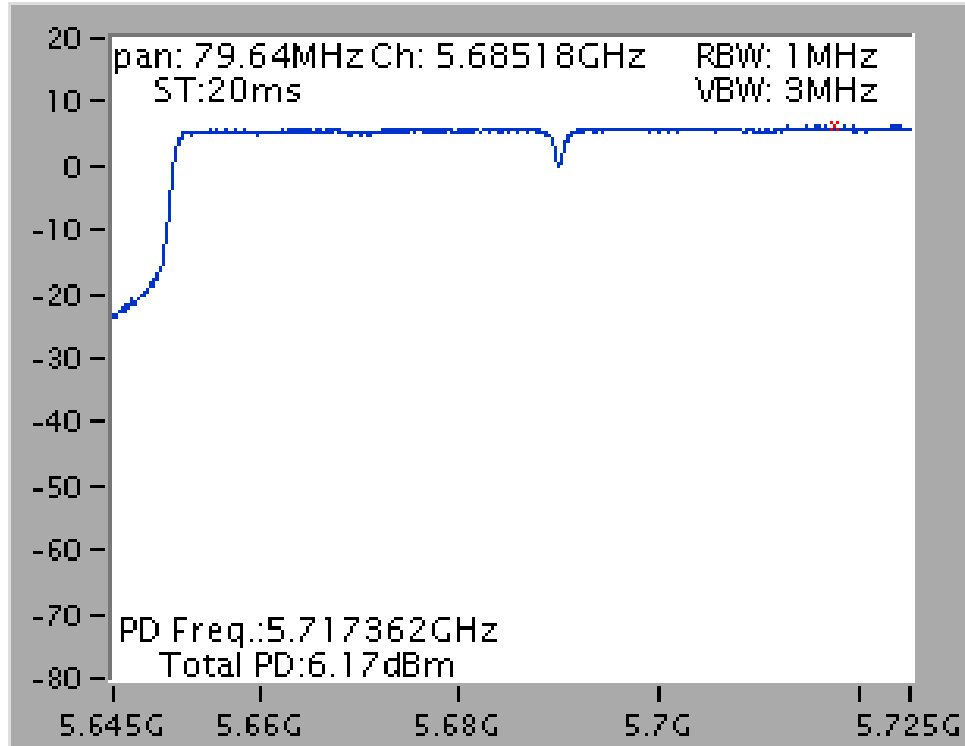
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT40 / Chain 4+Chain 5+Chain 6 /
5710 MHz (UNII 2C)



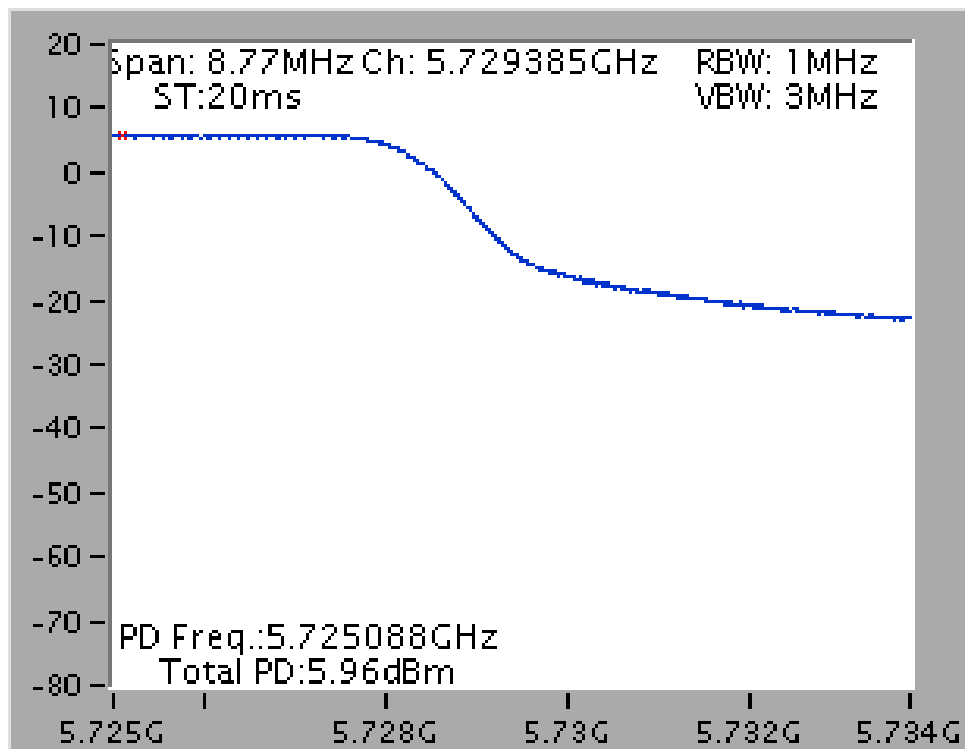
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT40 / Chain 4+Chain 5+Chain 6 /
5710 MHz (UNII 3)



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT80 / Chain 4+Chain 5+Chain 6 /
5690 MHz (UNII 2C)



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss3 VHT80 / Chain 4+Chain 5+Chain 6 /
5690 MHz (UNII 3)



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

Temperature	25°C	Humidity	55%
Test Engineer	Eddie Weng	Test Date	Jul. 30, 2015

Mode	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
802.11ac MCS0/Nss1 VHT20	5260 MHz	9.66	9.96	Complies
	5300 MHz	9.50	9.96	Complies
	5320 MHz	9.70	9.96	Complies
	5500 MHz	9.52	9.96	Complies
	5580 MHz	9.70	9.96	Complies
	5700 MHz	9.61	9.96	Complies
802.11ac MCS0/Nss1 VHT40	5270 MHz	6.46	9.96	Complies
	5310 MHz	4.22	9.96	Complies
	5510 MHz	6.35	9.96	Complies
	5550 MHz	6.73	9.96	Complies
	5670 MHz	6.76	9.96	Complies
802.11ac MCS0/Nss1 VHT80	5290 MHz	0.60	9.96	Complies
	5530 MHz	2.41	9.96	Complies
	5610 MHz	3.59	9.96	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.04\text{dBi}$, so limit = 11 - (7.04 - 6) = 9.96 dBm/MHz.

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

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

Straddle Channel

Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
144	5720 MHz (UNII 2C)	9.84	9.96	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.04\text{dBi}$, so limit = 11 - (7.04 - 6) = 9.96 dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/R BW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
144	5720 MHz (UNII 3)	8.83	-3.01	5.82	28.96	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.04\text{dBi}$, so limit = 30 - (7.04 - 6) = 28.96 dBm/500kHz

Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
142	5710 MHz (UNII 2C)	7.33	9.96	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.04\text{dBi}$, so limit = 11 - (7.04 - 6) = 9.96 dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/R BW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
142	5710 MHz (UNII 3)	5.93	-3.01	2.92	28.96	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.04\text{dBi}$, so limit = 30 - (7.04 - 6) = 28.96 dBm/500kHz

Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5

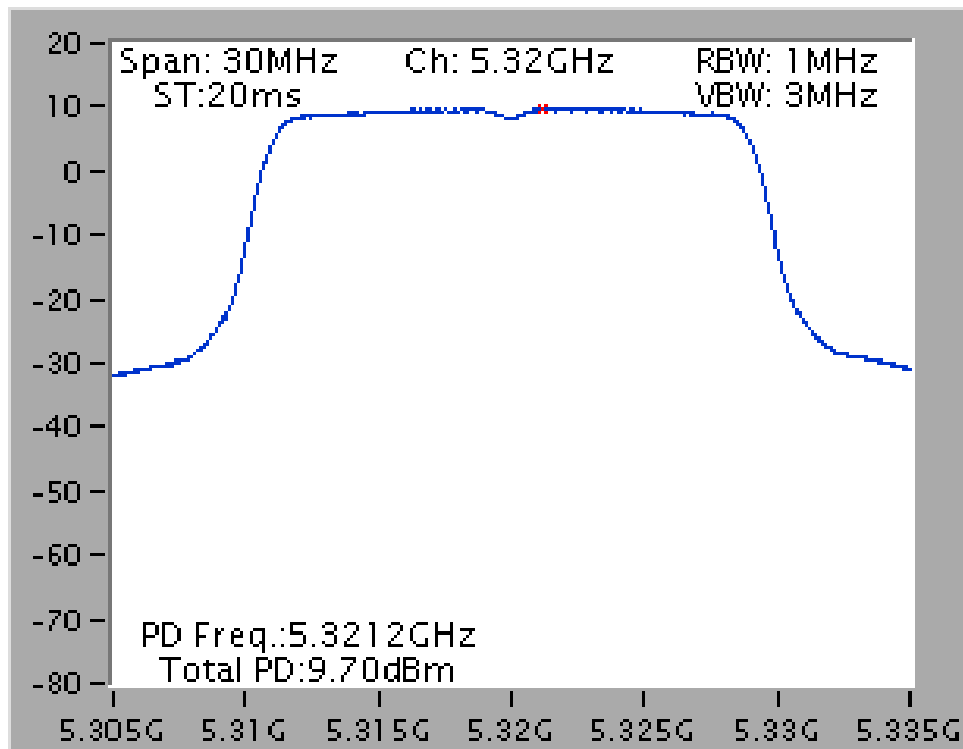
Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
138	5690 MHz (UNII 2C)	4.33	9.96	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{eq}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.04\text{dBi}$, so limit = 11-(7.04-6)=9.96 dBm/MHz.

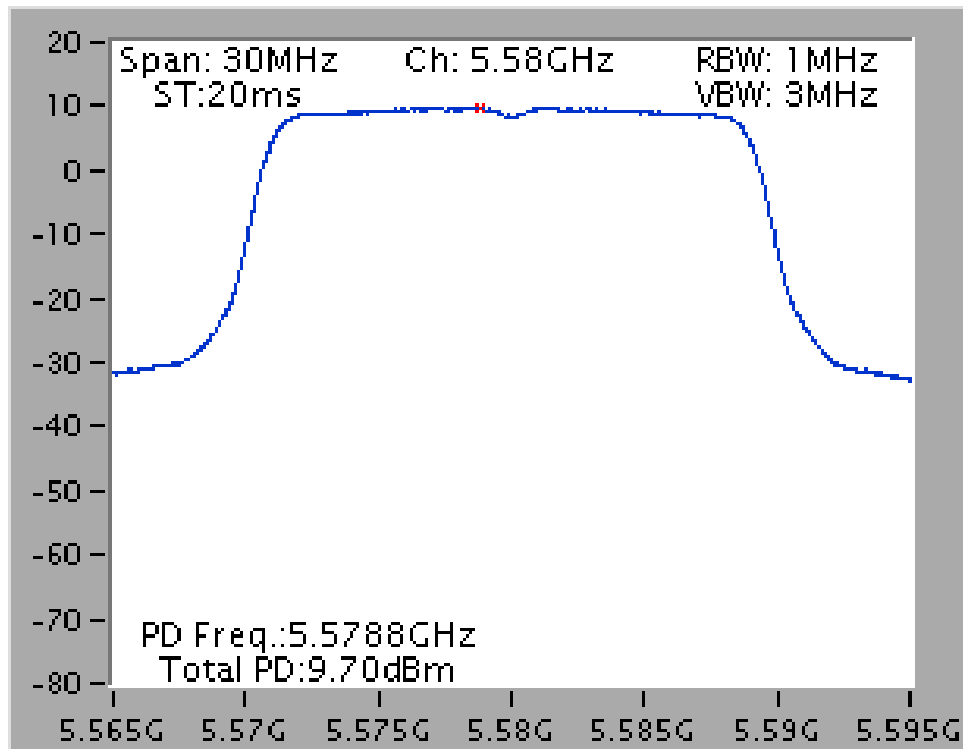
Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/R BW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
138	5690 MHz (UNII 3)	3.84	-3.01	0.83	28.96	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{eq}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.04\text{dBi}$, so limit = 30-(7.04-6)=28.96 dBm/500kHz

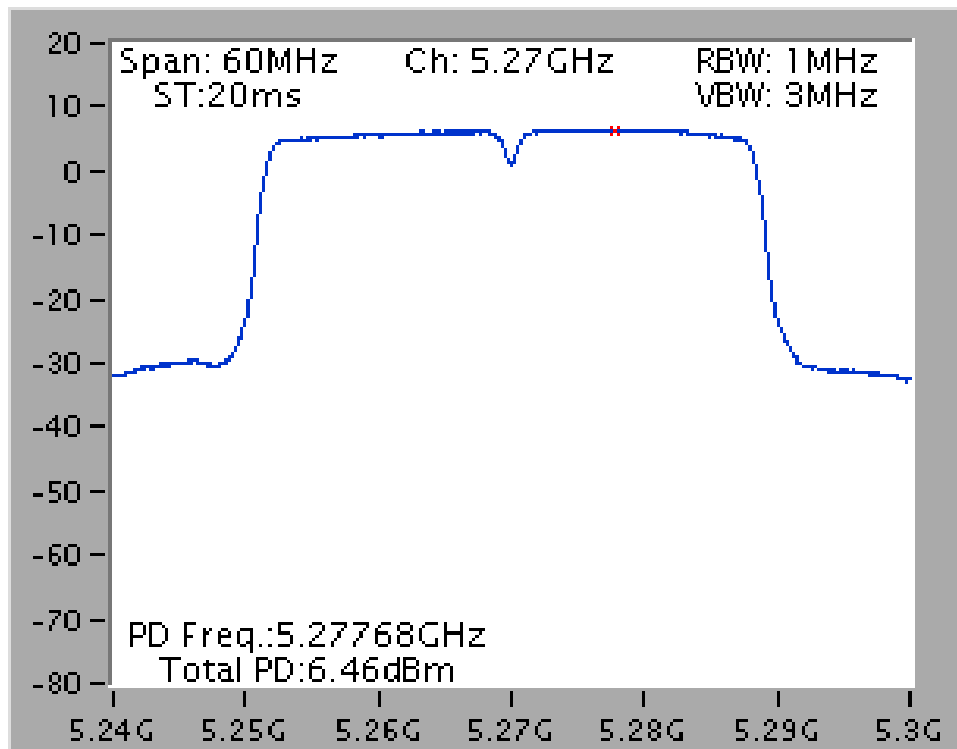
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5/ 5320 MHz



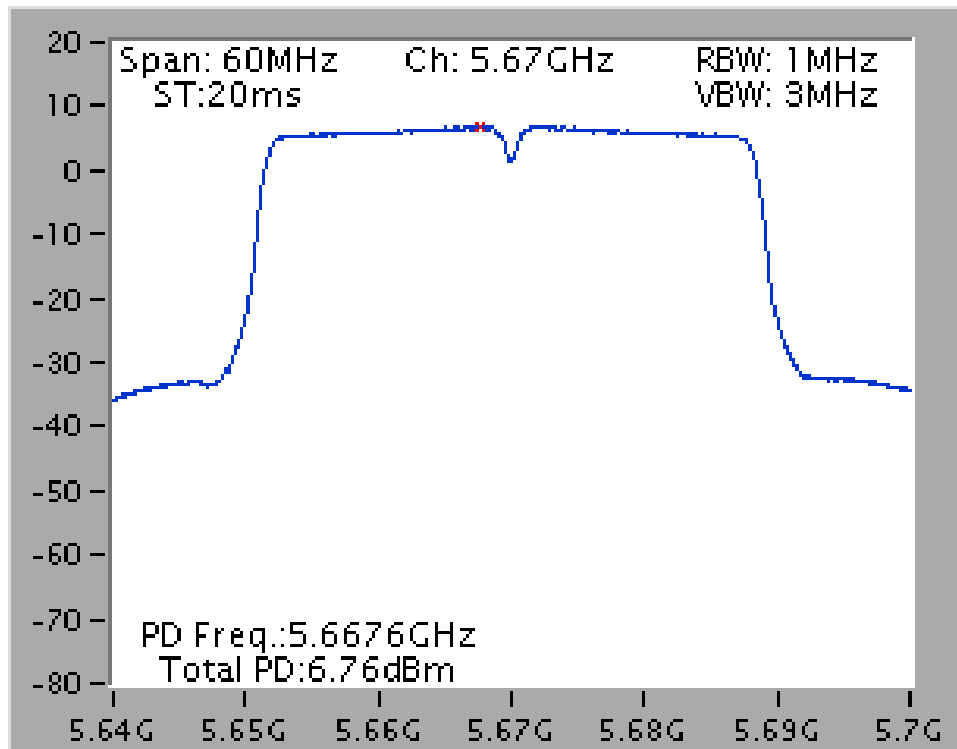
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5/ 5580 MHz



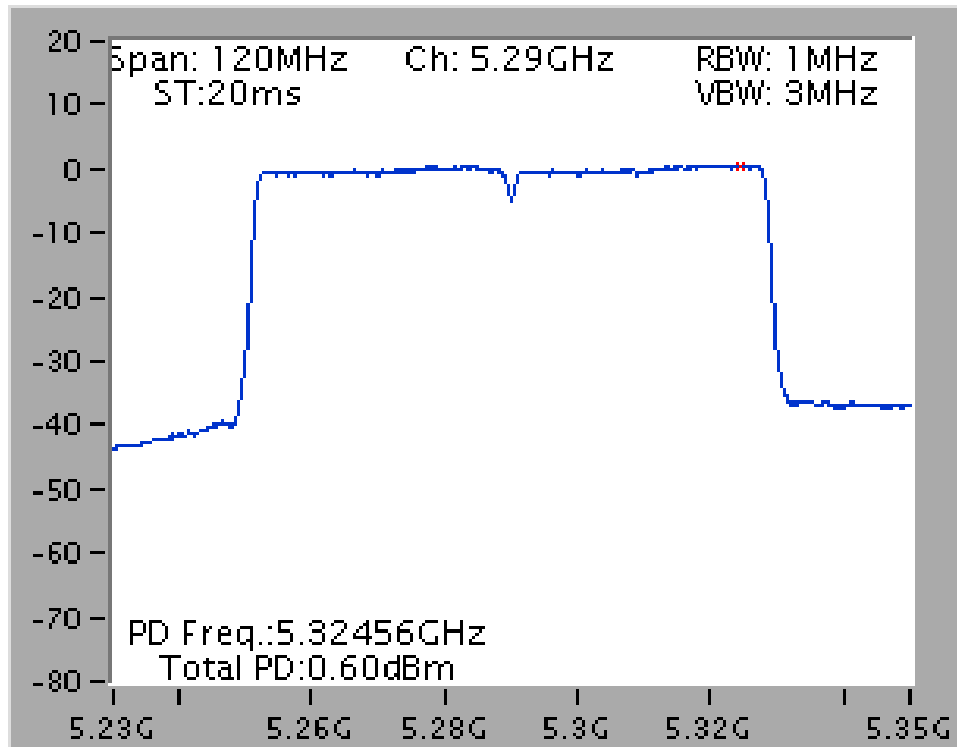
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5 / 5270 MHz



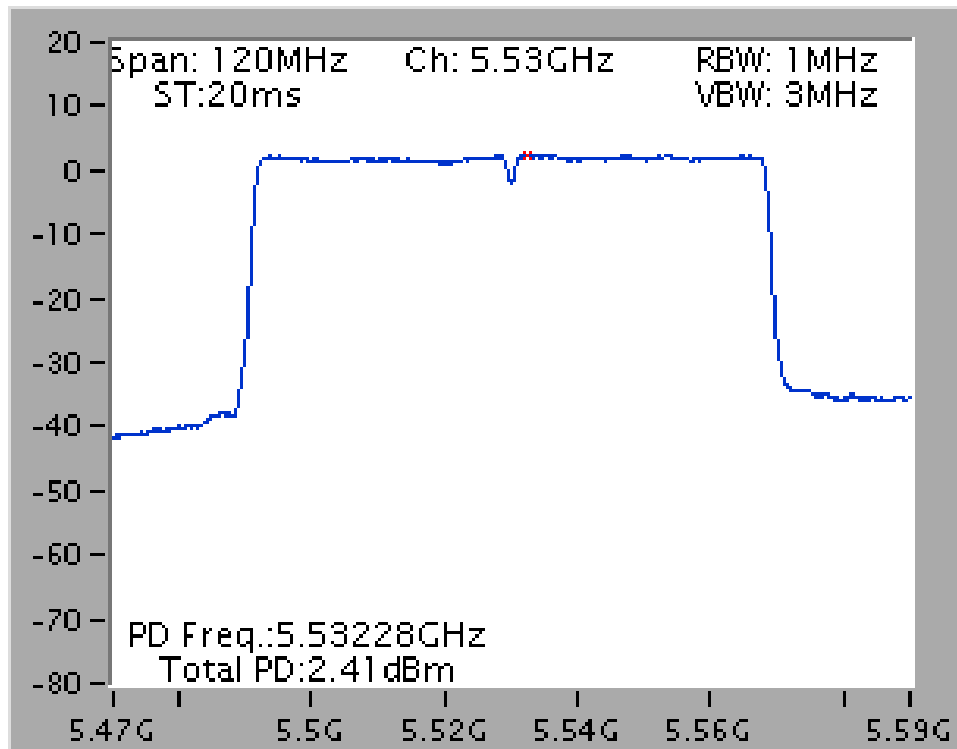
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5 / 5670 MHz



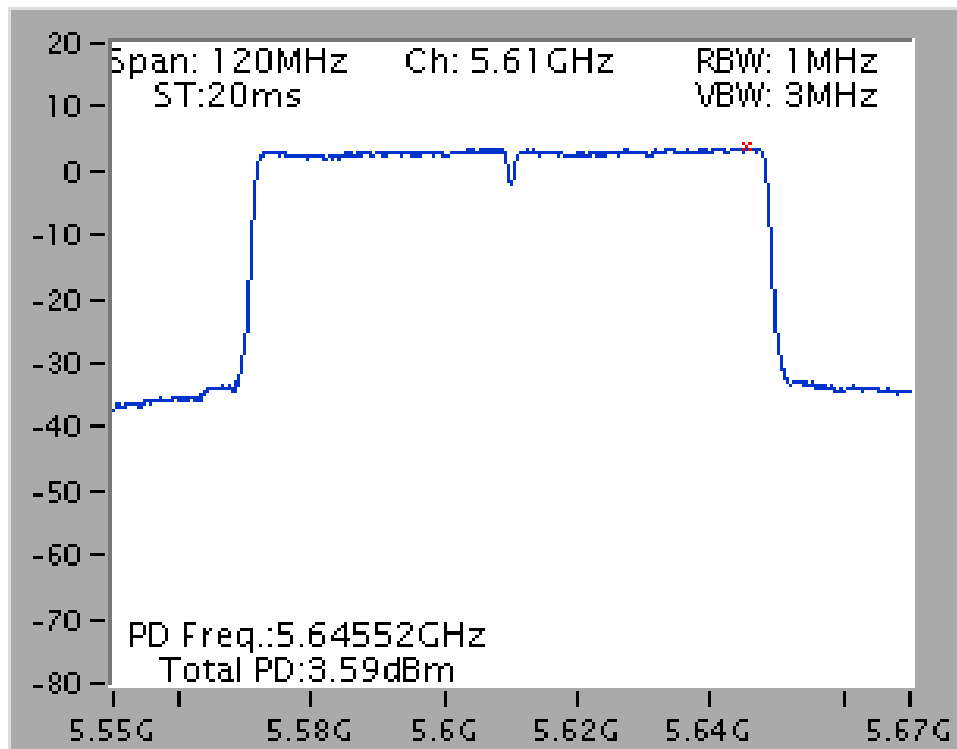
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5/ 5290 MHz



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5 / 5530MHz

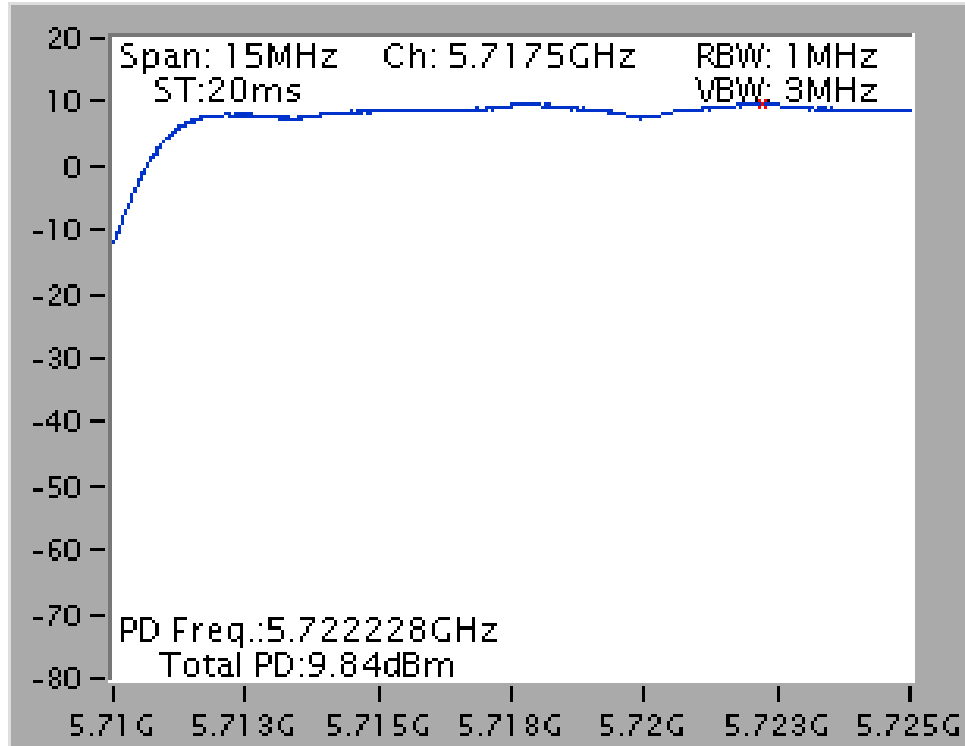


Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5 / 5610 MHz

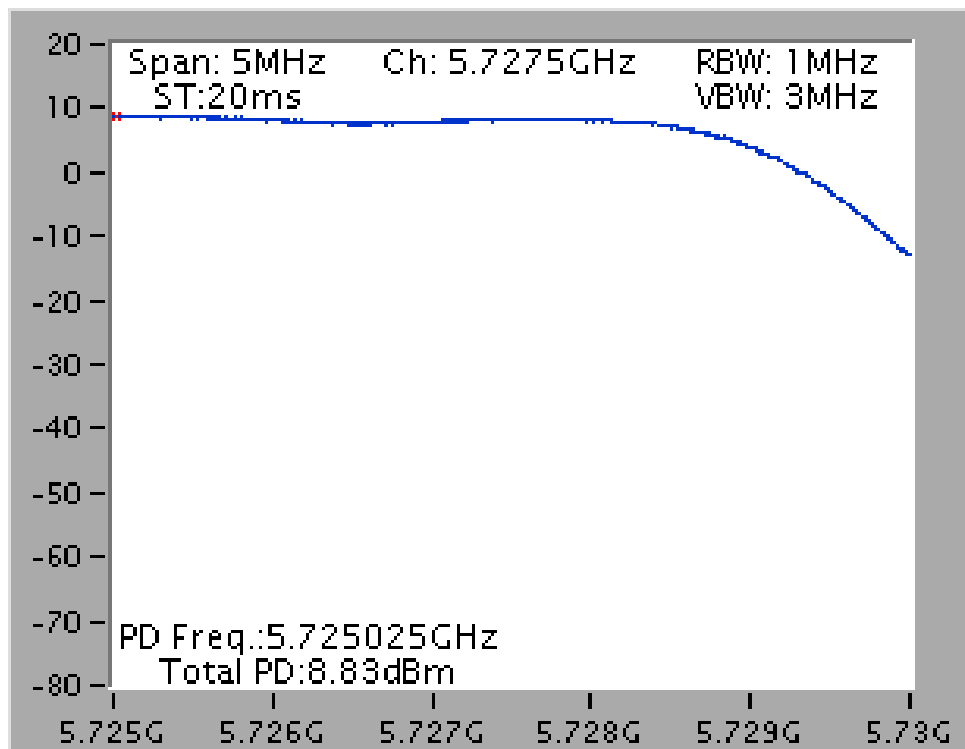


Straddle Channel

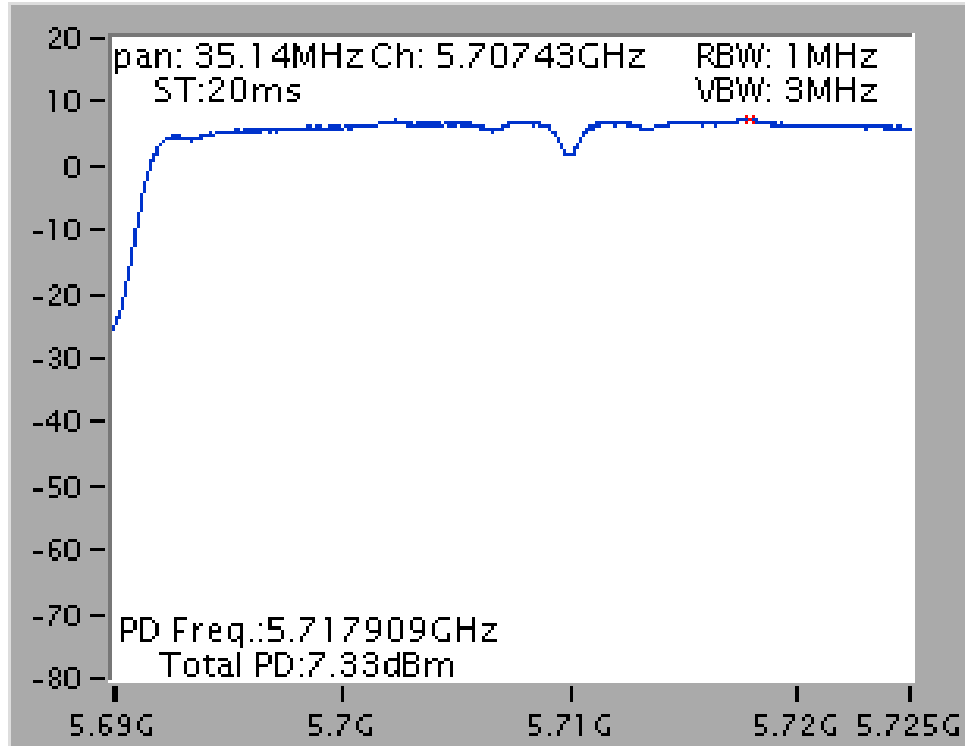
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5 /
5720 MHz (UNII 2C)



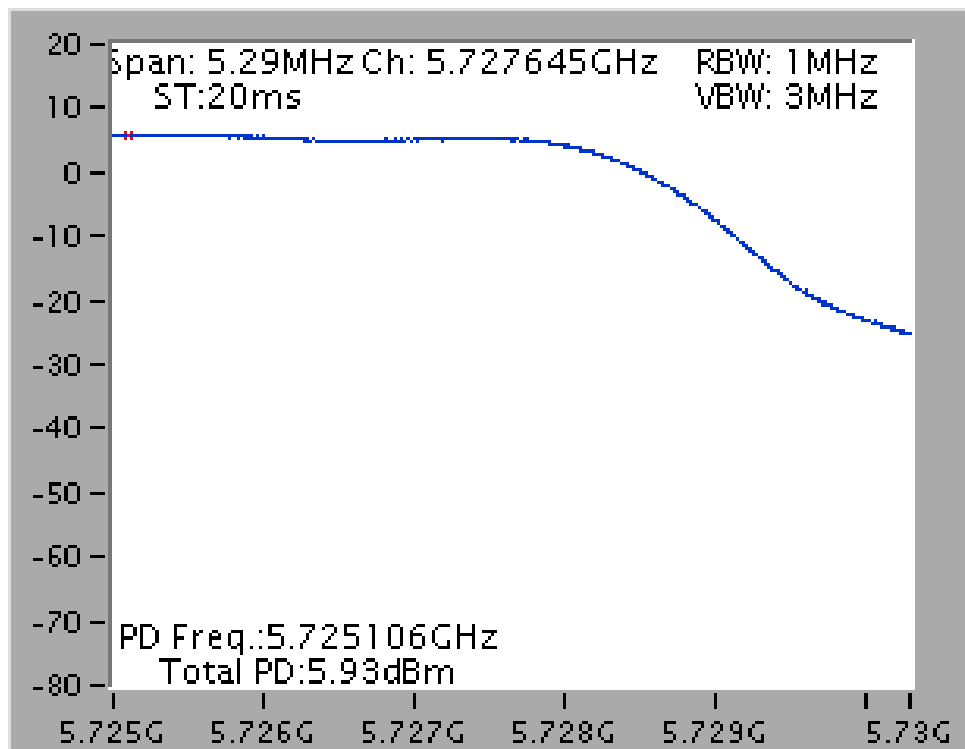
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5 /
5720 MHz (UNII 3)



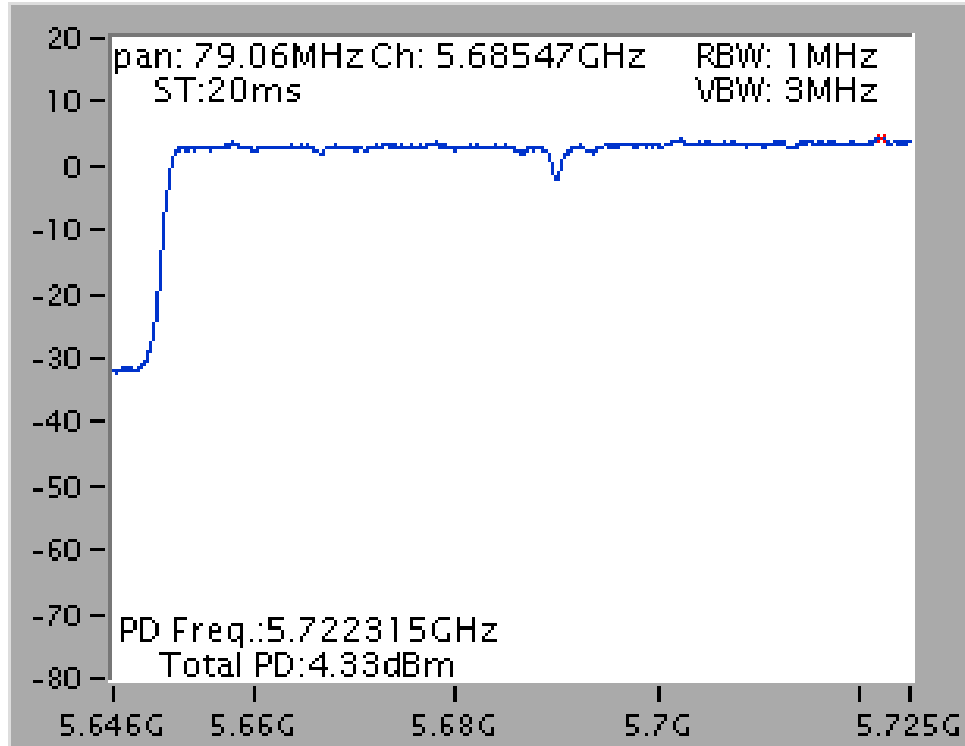
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5 /
5710 MHz (UNII 2C)



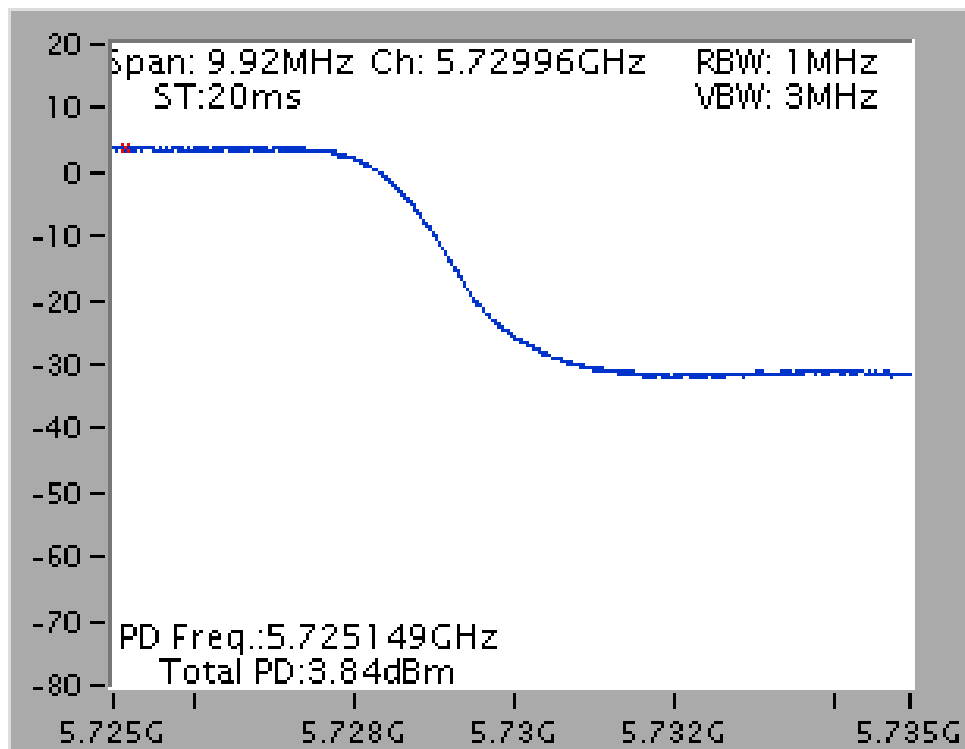
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5 /
5710 MHz (UNII 3)



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5 /
5690 MHz (UNII 2C)



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5 /
5690 MHz (UNII 3)



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

Temperature	25°C	Humidity	55%
Test Engineer	Eddie Weng	Test Date	Jul. 30, 2015

Mode	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
802.11ac MCS0/Nss1 VHT20	5260 MHz	7.97	8.46	Complies
	5300 MHz	8.20	8.46	Complies
	5320 MHz	8.28	8.46	Complies
	5500 MHz	8.23	8.46	Complies
	5580 MHz	7.70	8.46	Complies
	5700 MHz	7.95	8.46	Complies
802.11ac MCS0/Nss1 VHT40	5270 MHz	5.14	8.46	Complies
	5310 MHz	4.06	8.46	Complies
	5510 MHz	4.82	8.46	Complies
	5550 MHz	4.83	8.46	Complies
	5670 MHz	4.87	8.46	Complies
802.11ac MCS0/Nss1 VHT80	5290 MHz	0.47	8.46	Complies
	5530 MHz	1.68	8.46	Complies
	5610 MHz	1.83	8.46	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.54\text{dBi}$, so limit = 11 - (8.54 - 6) = 8.46 dBm/MHz.

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

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

Straddle Channel

Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5+Chain 6

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
144	5720 MHz (UNII 2C)	8.34	8.46	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{IS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.54\text{dBi}$, so limit = 11-(8.54-6)=8.46dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/R BW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
144	5720 MHz (UNII 3)	8.08	-3.01	5.07	27.46	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{IS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.54\text{dBi}$, so limit = 30-(8.54-6)= 27.46 dBm/500kHz.

Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5+Chain 6

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
142	5710 MHz (UNII 2C)	5.65	8.46	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{IS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.54\text{dBi}$, so limit = 11-(8.54-6)=8.46dBm/MHz.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/R BW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
142	5710 MHz (UNII 3)	4.74	-3.01	1.73	27.46	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{IS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.54\text{dBi}$, so limit = 30-(8.54-6)= 27.46 dBm/500kHz.

Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5+Chain 6

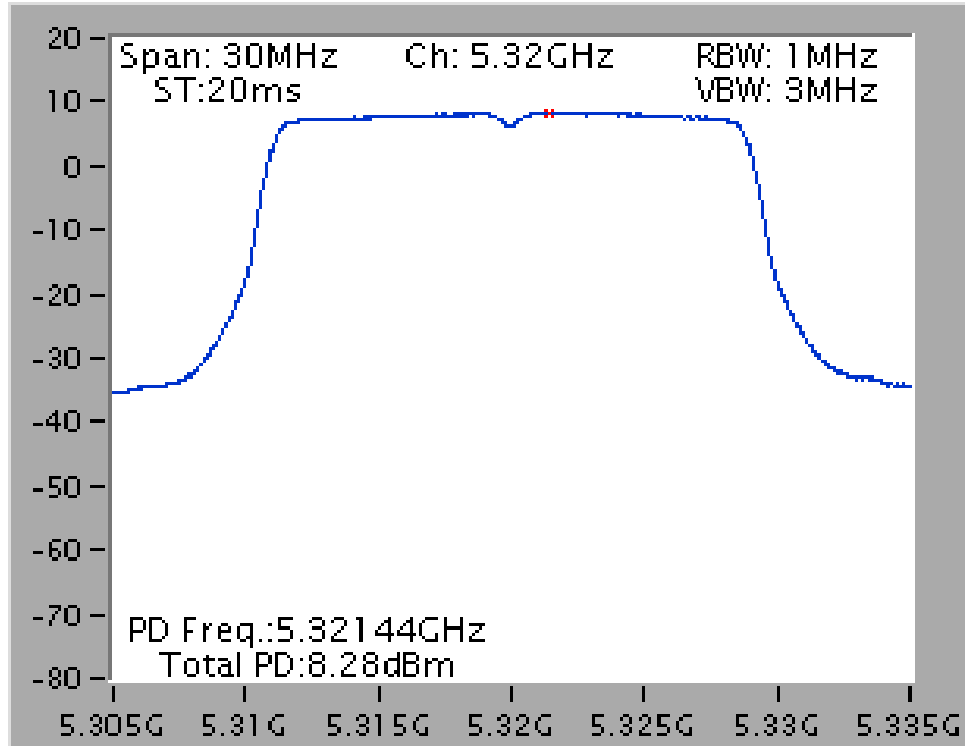
Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
138	5690 MHz (UNII 2C)	3.48	8.46	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.54\text{dBi}$, so limit = 11-(8.54-6)= 8.46dBm/MHz.

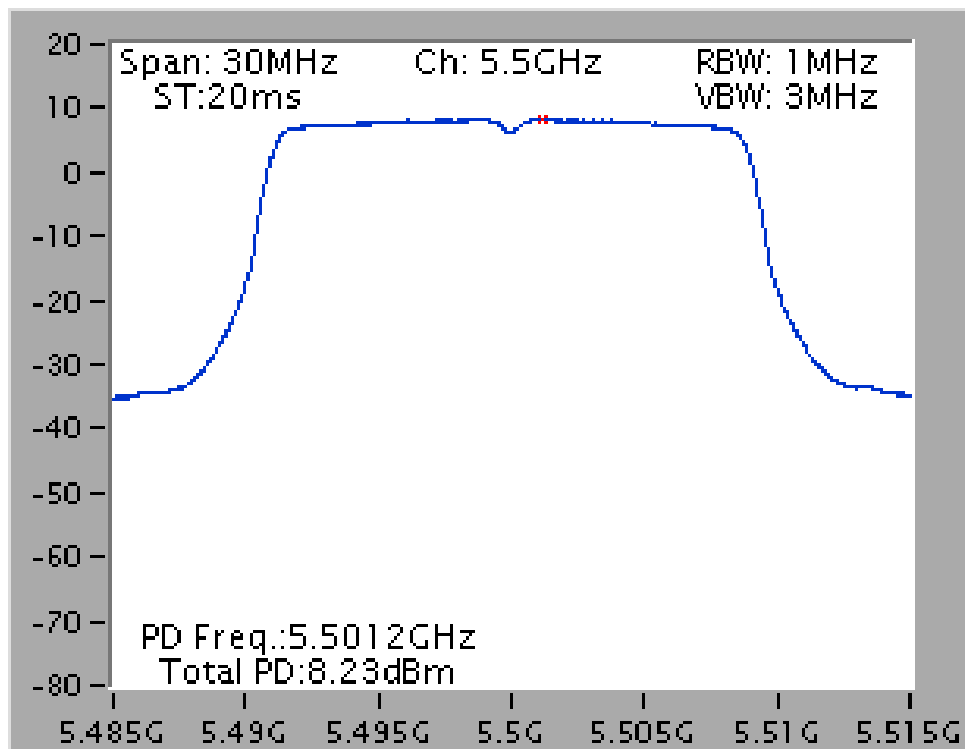
Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/R BW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
138	5690 MHz (UNII 3)	3.43	-3.01	0.42	27.46	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.54\text{dBi}$, so limit = 30-(8.54-6)= 27.46 dBm/500kHz.

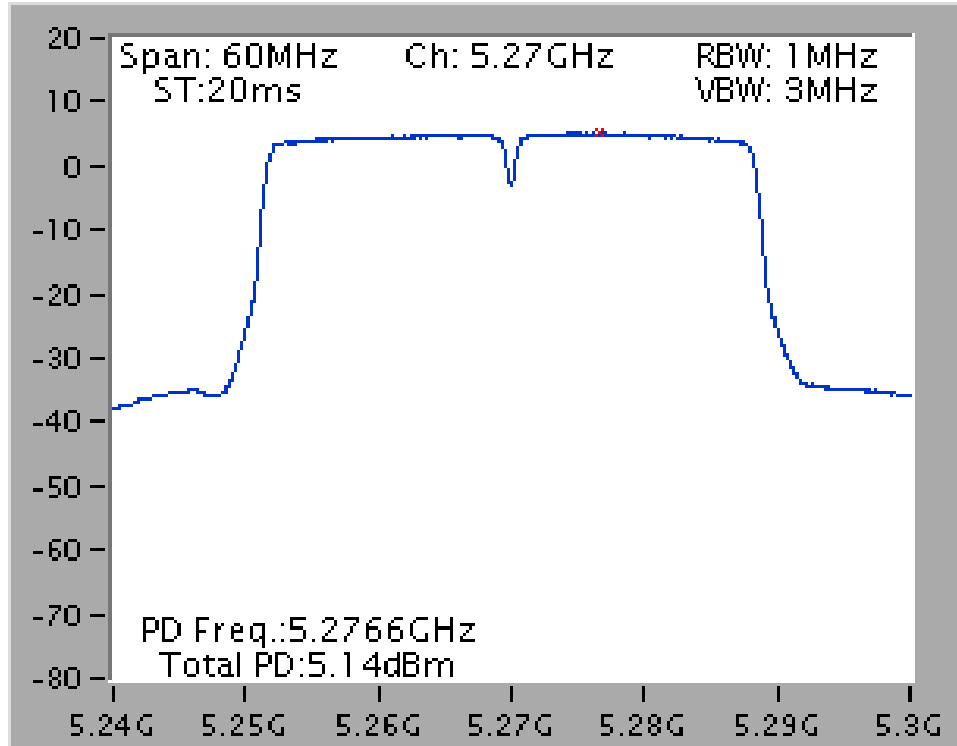
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5+Chain 6
/ 5320 MHz



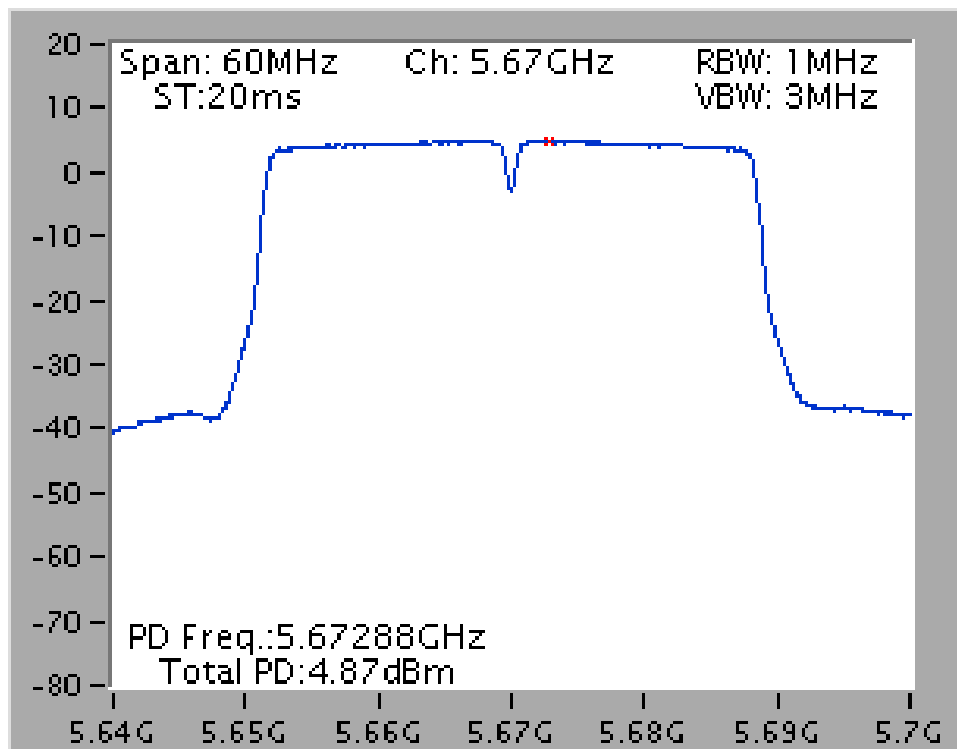
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5+Chain 6 /
5500 MHz



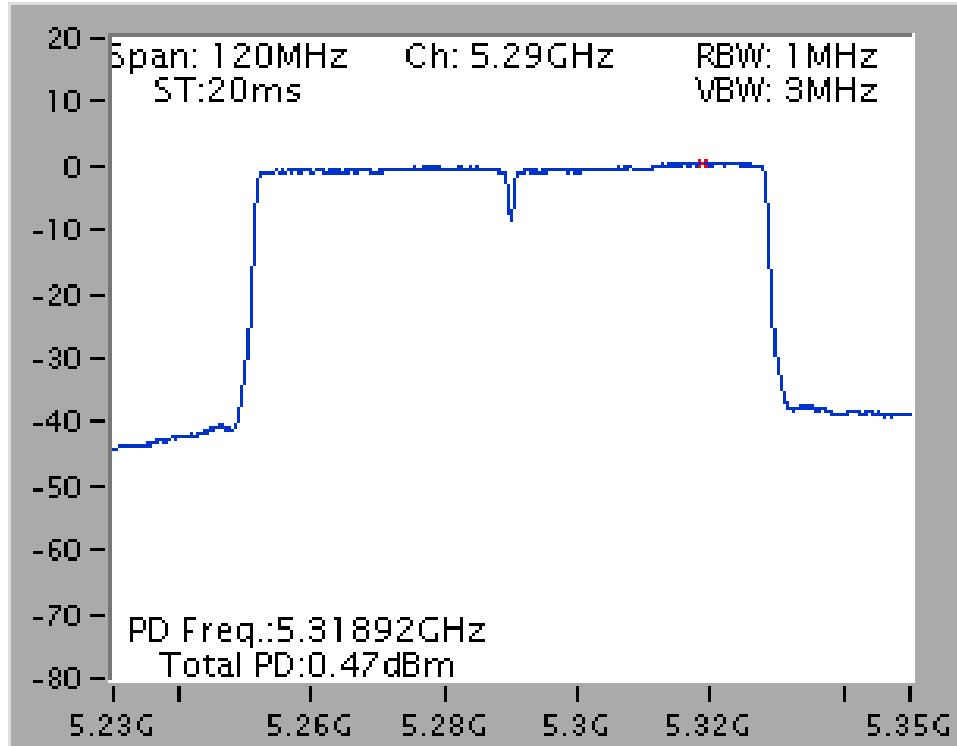
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5+Chain 6 /
5270 MHz



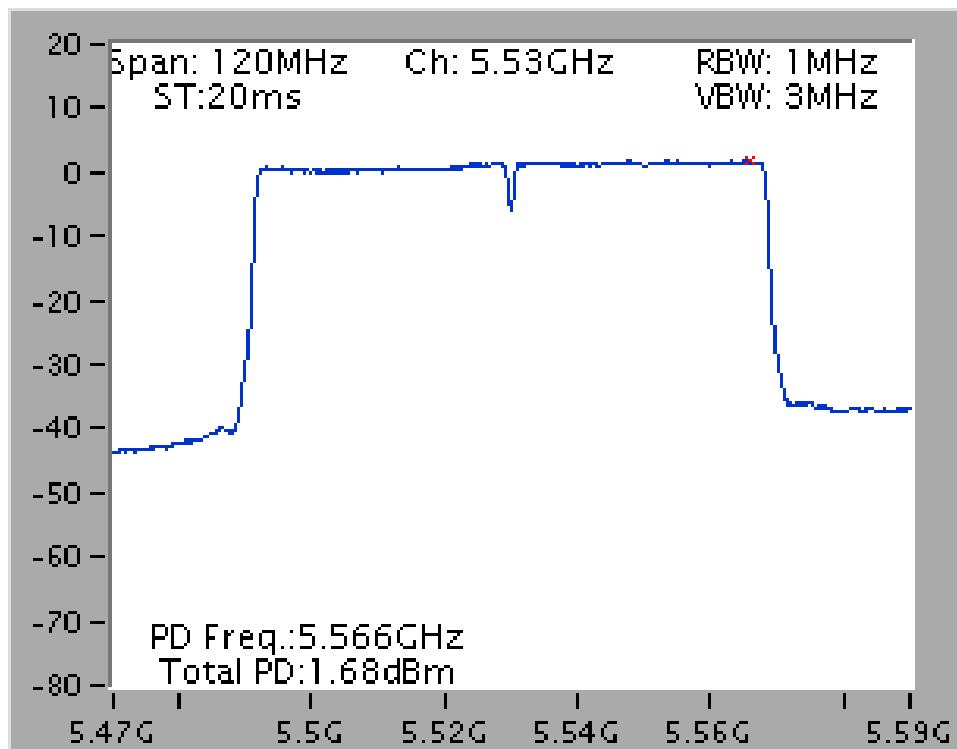
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5+Chain 6 /
5670 MHz



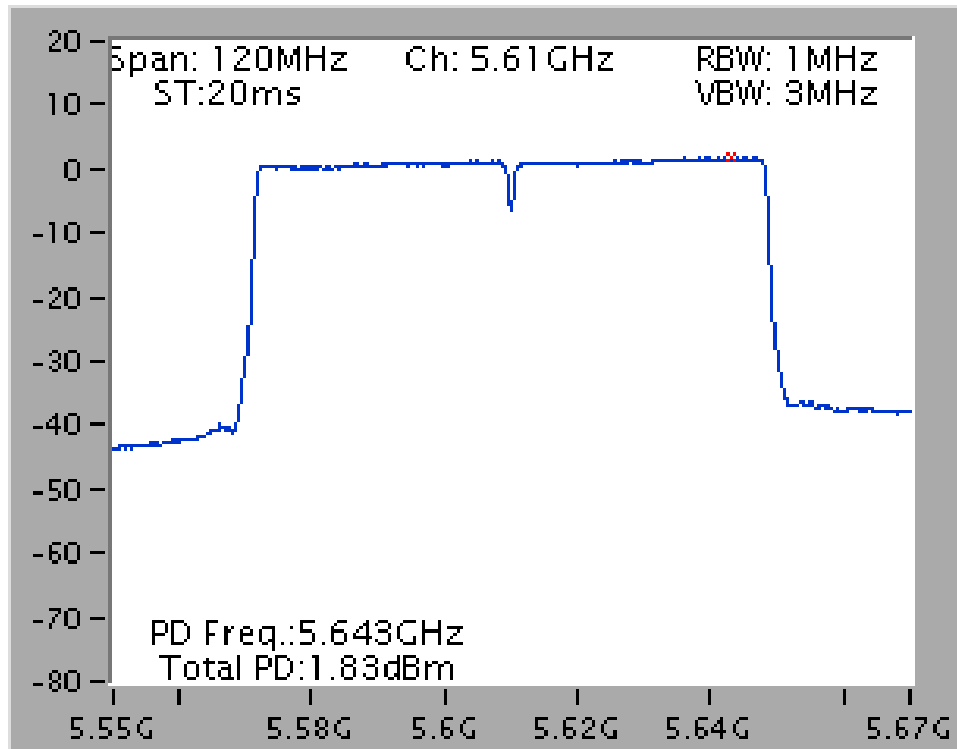
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5+Chain 6 /
5290 MHz



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5+Chain 6 /
5530 MHz

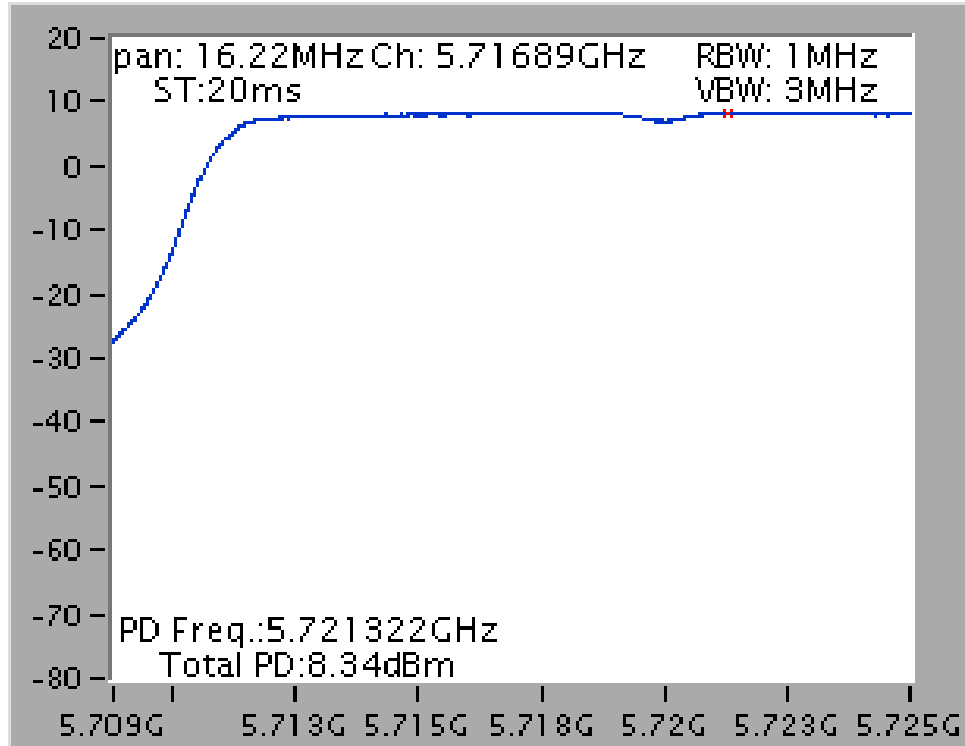


Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5+Chain 6 /
5610 MHz

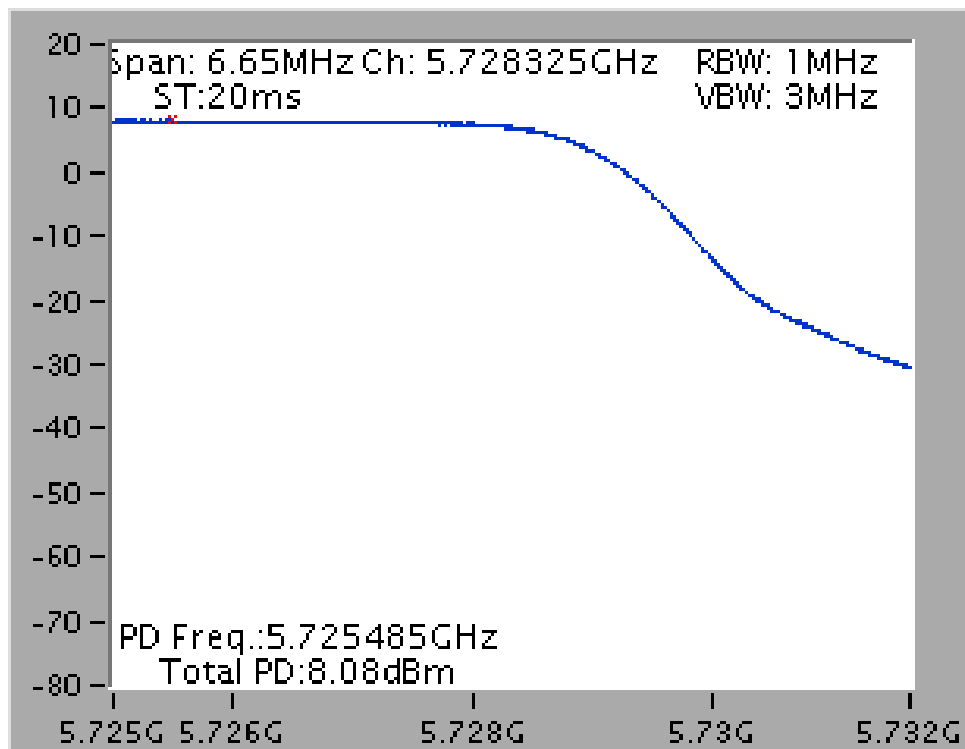


Straddle Channel

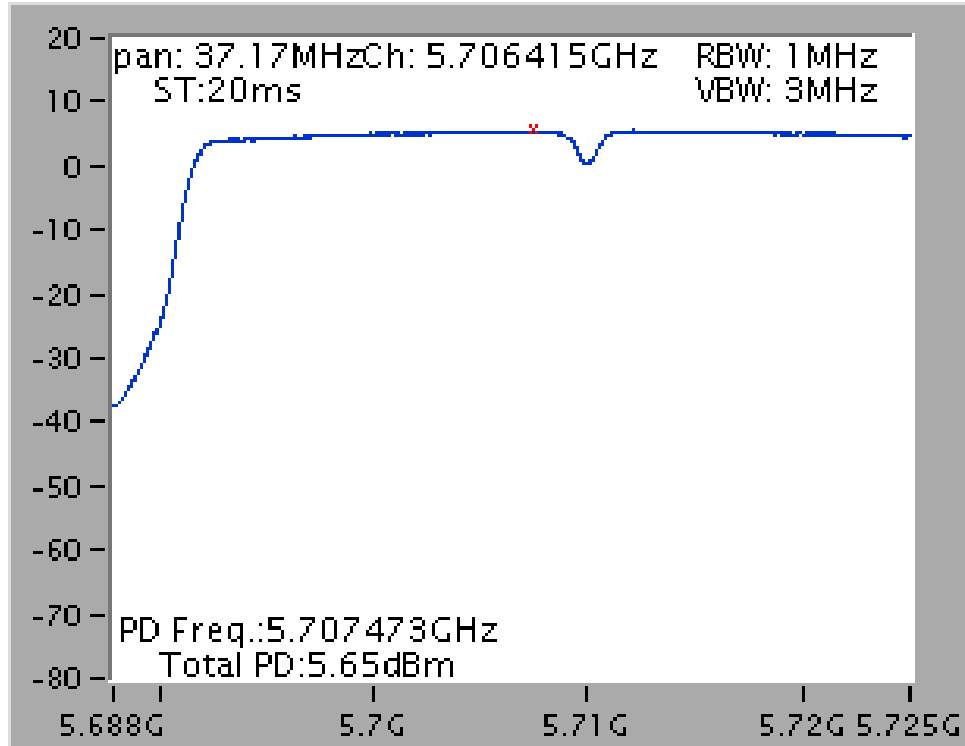
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5+Chain 6 /
5720 MHz (UNII 2C)



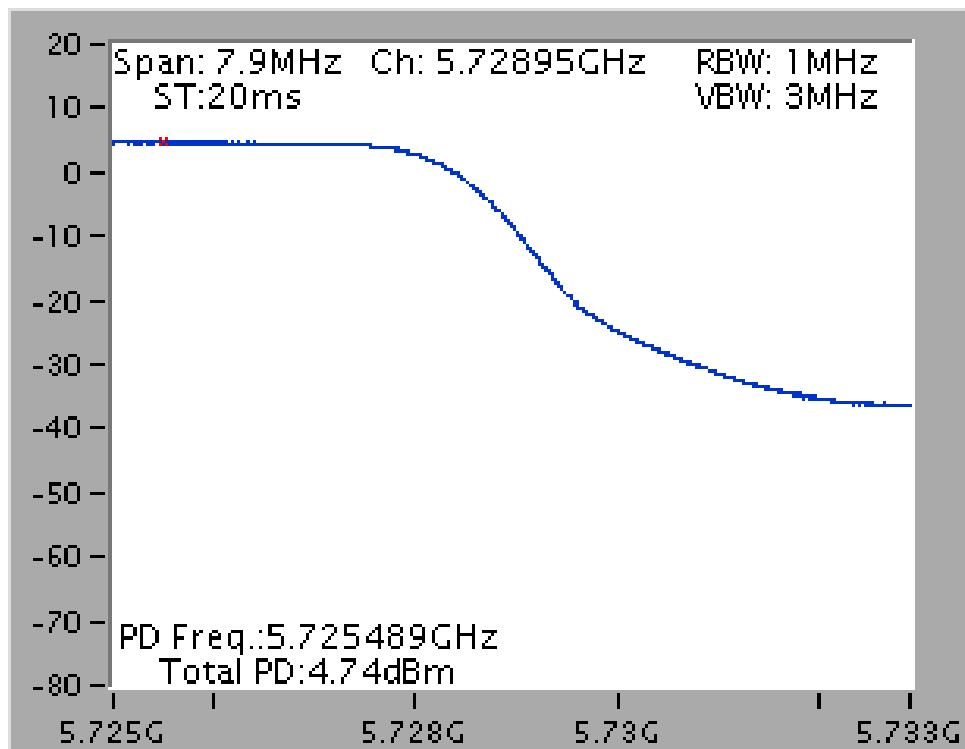
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 4+Chain 5+Chain 6 /
5720 MHz (UNII 3)



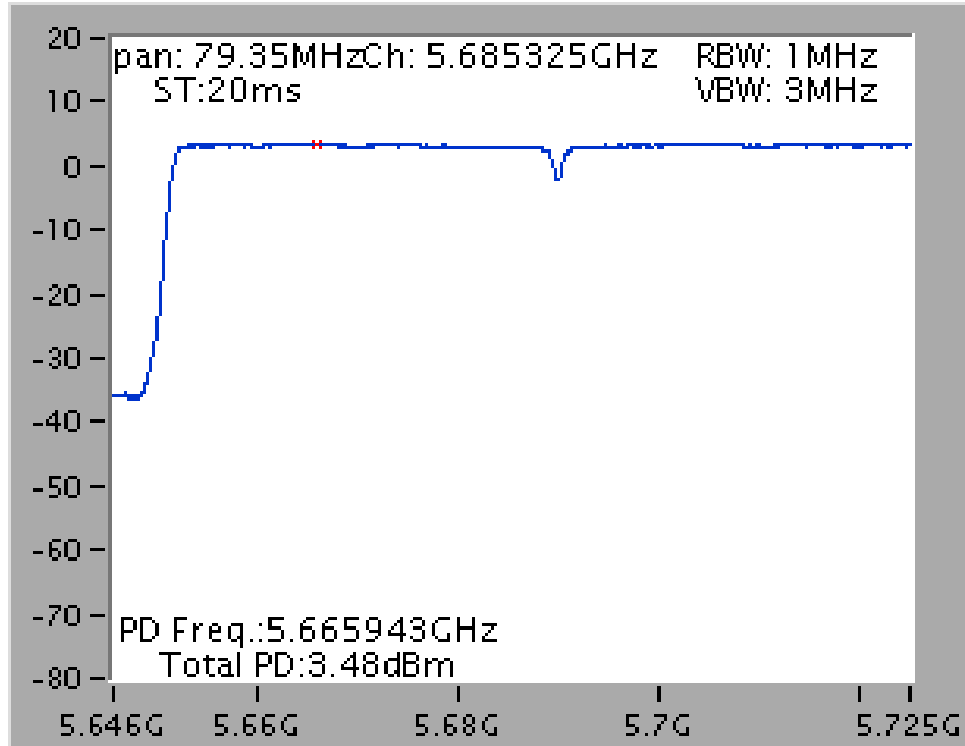
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5+Chain 6 /
5710 MHz (UNII 2C)



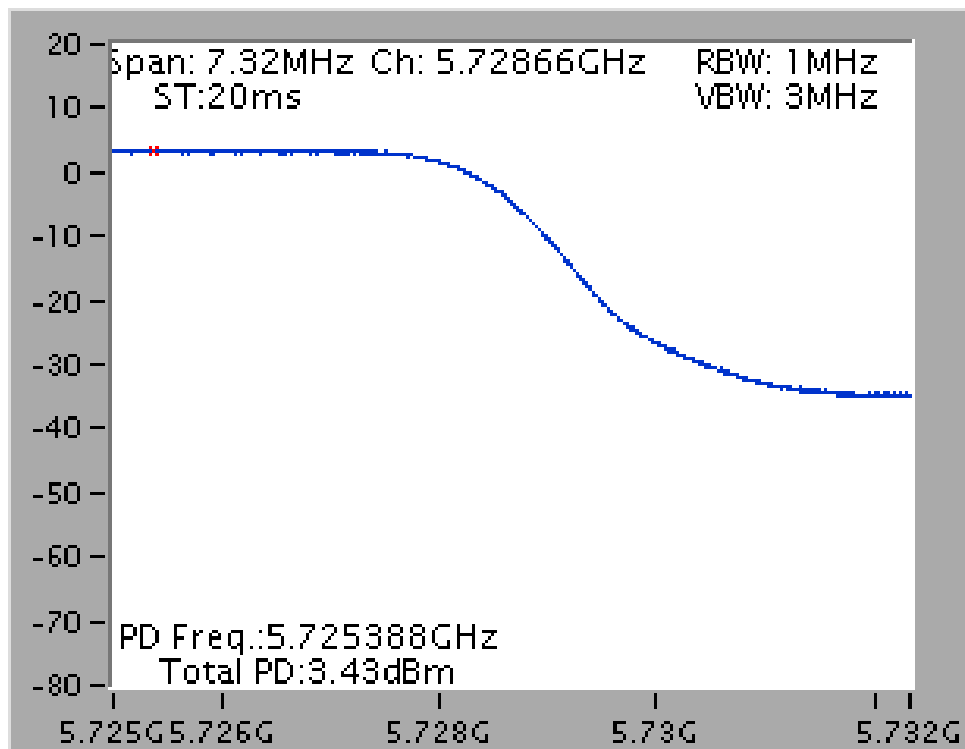
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 4+Chain 5+Chain 6 /
5710 MHz (UNII 3)



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5+Chain 6 /
5690 MHz (UNII 2C)



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 4+Chain 5+Chain 6 /
5690 MHz (UNII 3)



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

Temperature	25°C	Humidity	55%
Test Engineer	Eddie Weng	Test Date	Jul. 30, 2015

Mode	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
802.11ac MCS0/Nss2 VHT20	5260 MHz	10.43	11.00	Complies
	5300 MHz	10.42	11.00	Complies
	5320 MHz	10.64	11.00	Complies
	5500 MHz	10.33	11.00	Complies
	5580 MHz	10.42	11.00	Complies
	5700 MHz	9.25	11.00	Complies
802.11ac MCS0/Nss2 VHT40	5270 MHz	7.44	11.00	Complies
	5310 MHz	3.80	11.00	Complies
	5510 MHz	7.27	11.00	Complies
	5550 MHz	7.69	11.00	Complies
	5670 MHz	7.09	11.00	Complies
802.11ac MCS0/Nss2 VHT80	5290 MHz	1.19	11.00	Complies
	5530 MHz	2.71	11.00	Complies
	5610 MHz	4.17	11.00	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.53\text{dBi} < 6\text{dBi}$, so the limit doesn't reduce.

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

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

Straddle Channel

Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4+Chain 5+Chain 6

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
144	5720 MHz (UNII 2C)	10.98	11.00	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{IS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.53\text{dBi} < 6\text{dBi}$, so the limit doesn't reduce.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
144	5720 MHz (UNII 3)	10.65	-3.01	7.64	30.00	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{IS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.53\text{dBi} < 6\text{dBi}$, so the limit doesn't reduce.

Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4+Chain 5+Chain 6

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
142	5710 MHz (UNII 2C)	8.84	11.00	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{IS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.53\text{dBi} < 6\text{dBi}$, so the limit doesn't reduce.

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
142	5710 MHz (UNII 3)	7.67	-3.01	4.66	30.00	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{IS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.53\text{dBi} < 6\text{dBi}$, so the limit doesn't reduce.

Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4+Chain 5+Chain 6

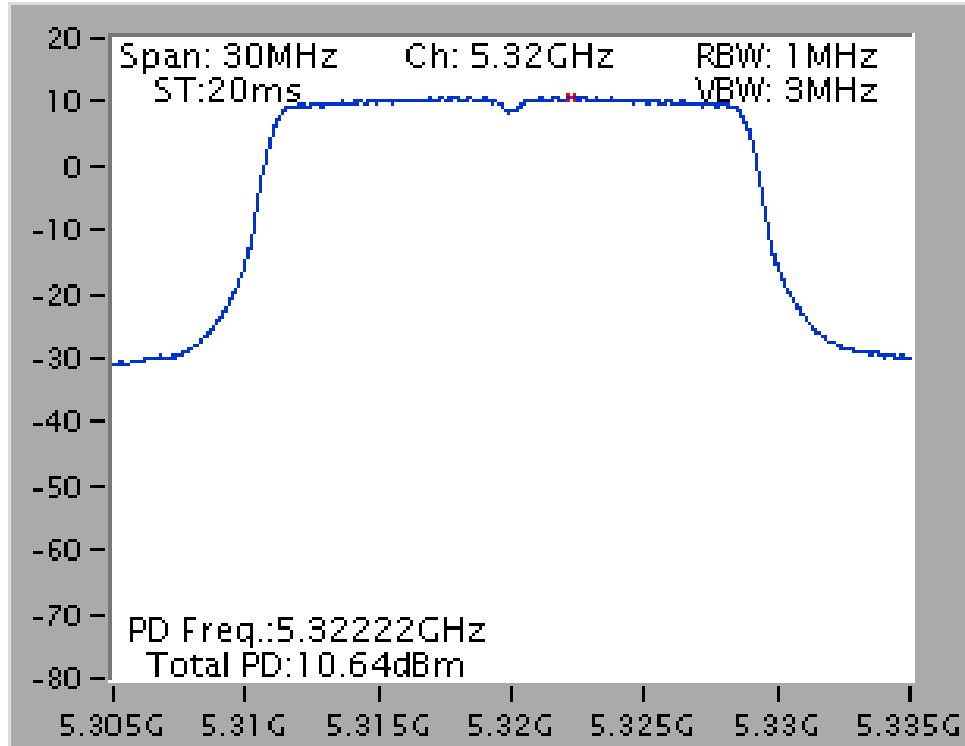
Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
138	5690 MHz (UNII 2C)	5.01	11.00	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{IS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.53\text{dBi} < 6\text{dBi}$, so the limit doesn't reduce.

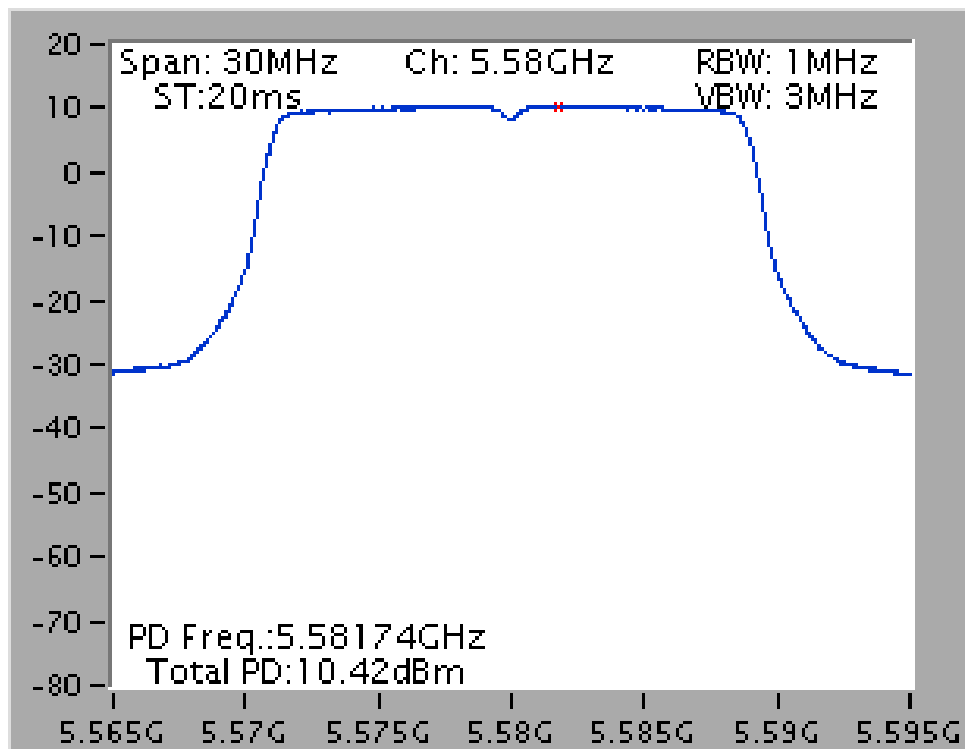
Channel	Frequency	Power Density (dBm/MHz)	$10\log(500\text{kHz}/\text{RBW})$ Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
138	5690 MHz (UNII 3)	4.88	-3.01	1.87	30.00	Complies

Note: $DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{IS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.53\text{dBi} < 6\text{dBi}$, so the limit doesn't reduce.

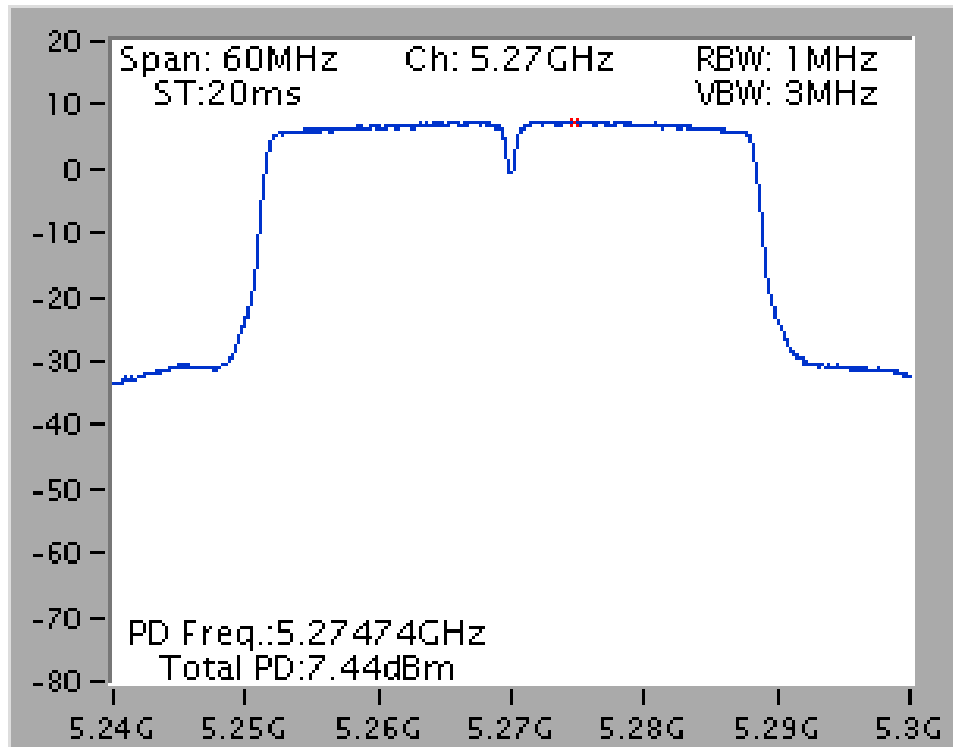
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4+Chain 5+Chain 6
/ 5320 MHz



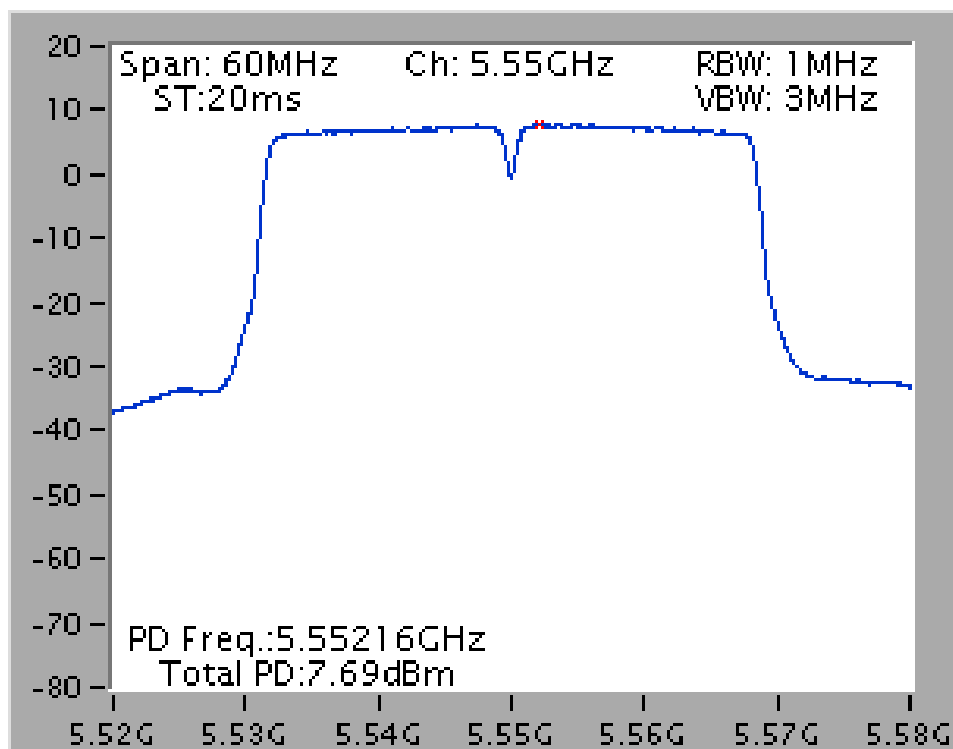
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4+Chain 5+Chain 6 /
5580 MHz



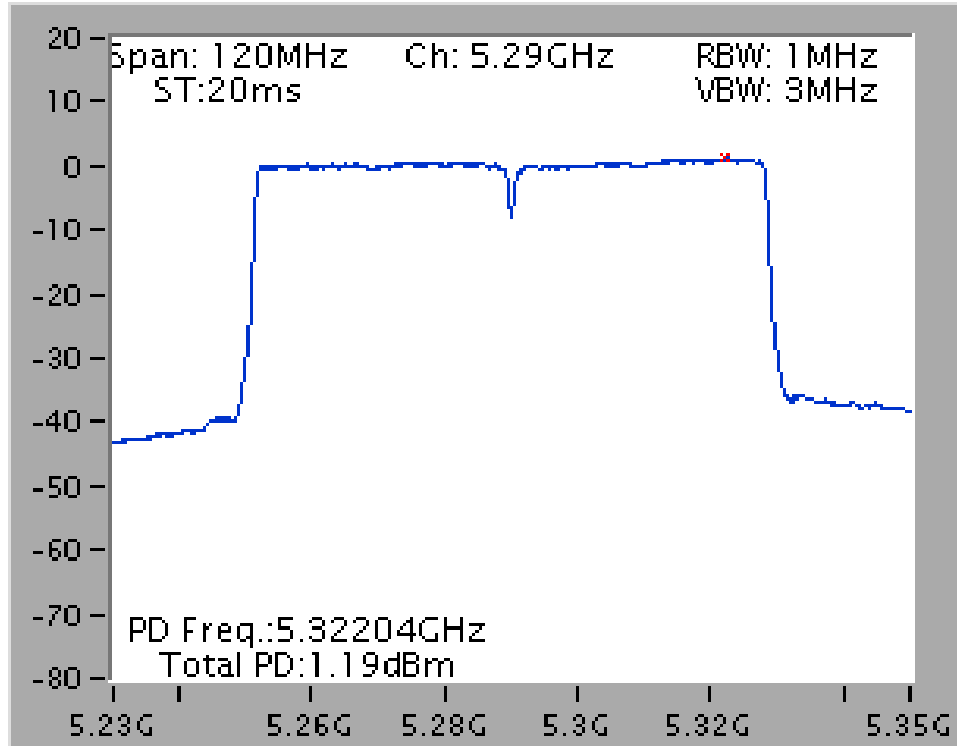
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4+Chain 5+Chain 6 /
5270 MHz



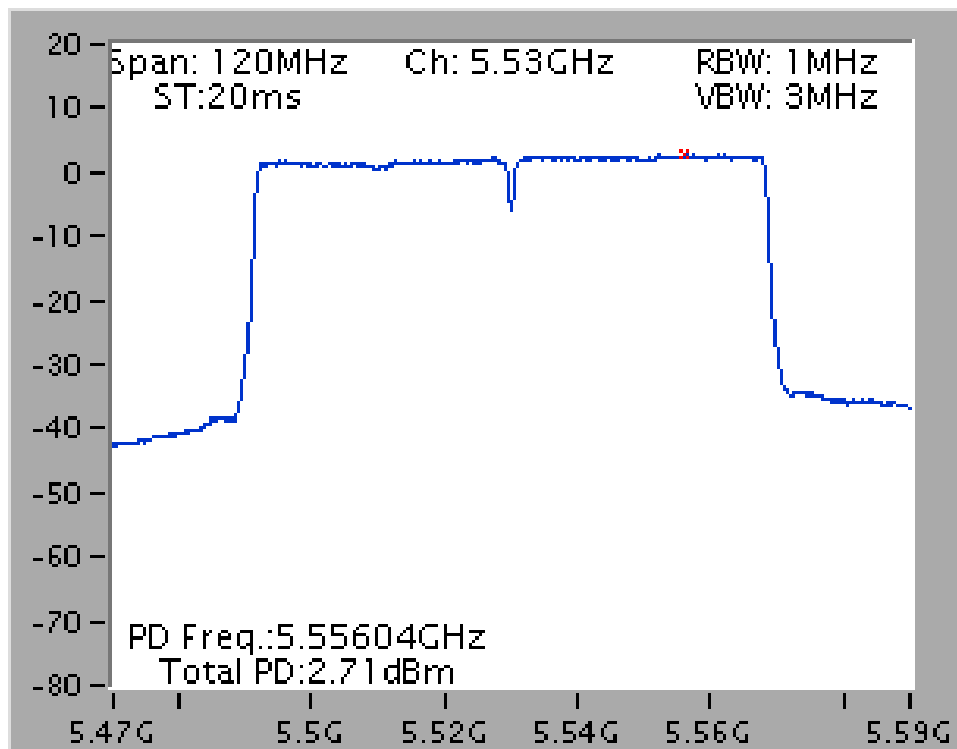
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4+Chain 5+Chain 6 /
5550 MHz



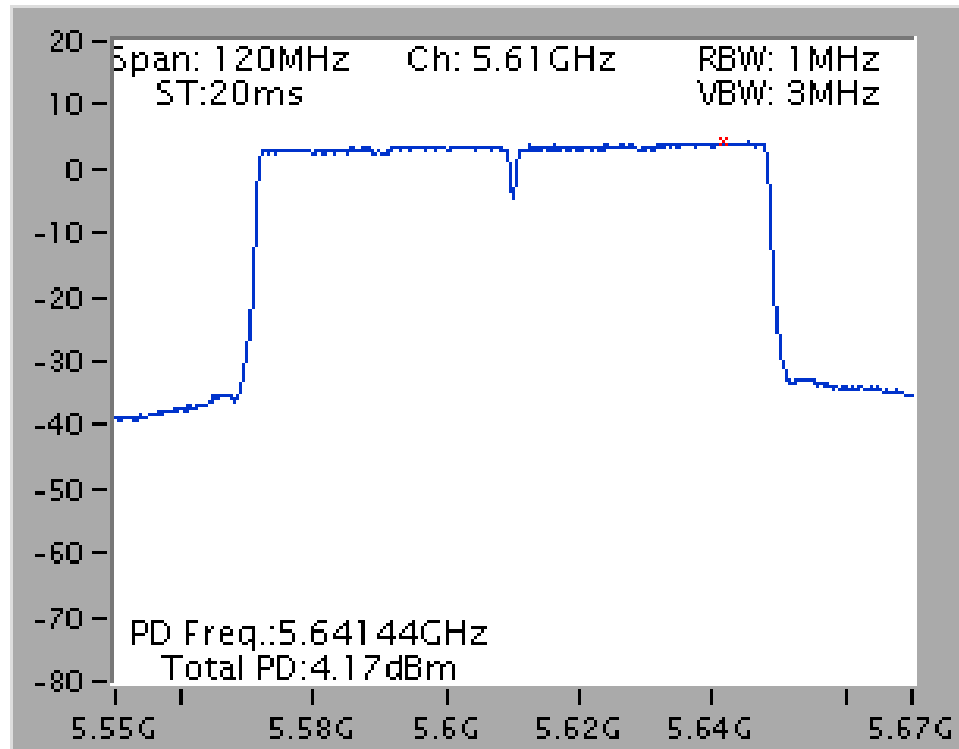
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4+Chain 5+Chain 6 /
5290 MHz



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4+Chain 5+Chain 6 /
5530 MHz

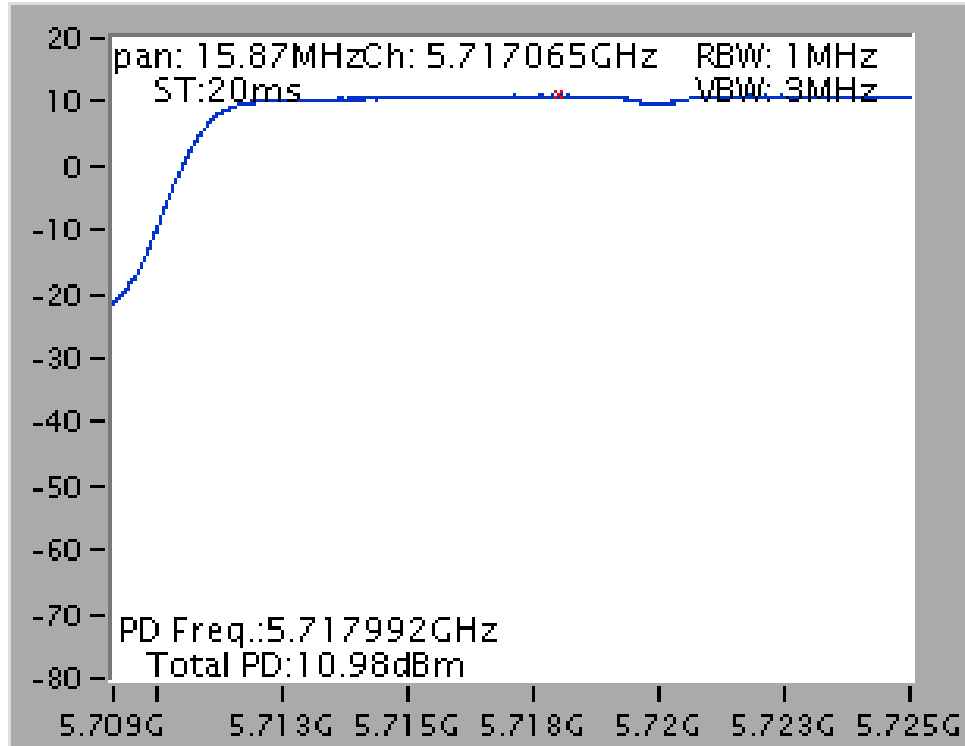


Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4+Chain 5+Chain 6 /
5610 MHz

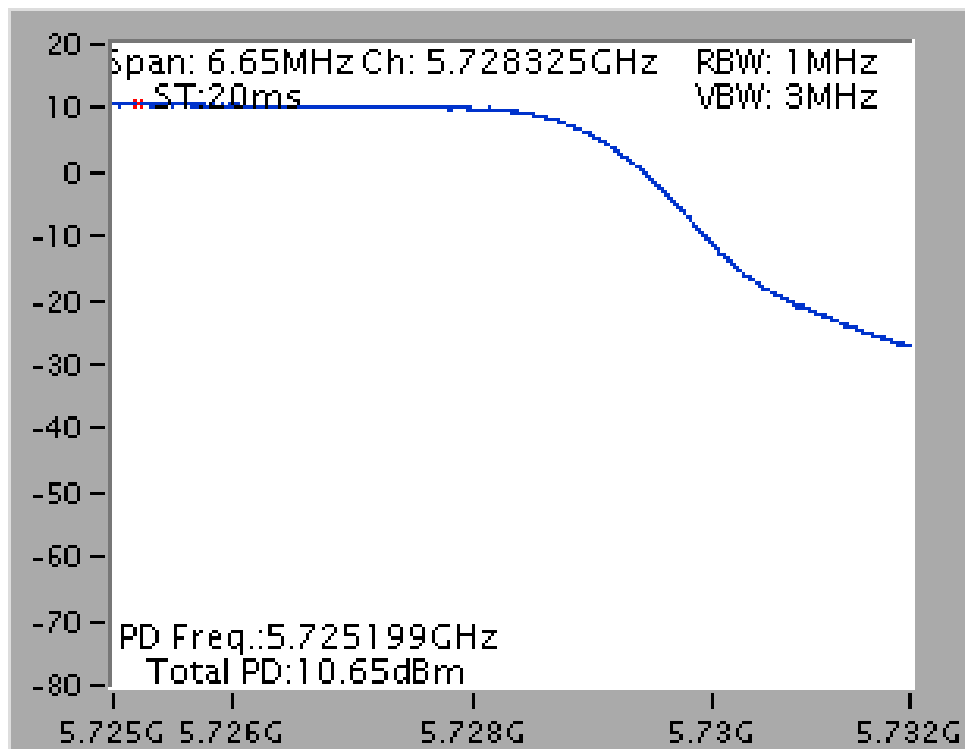


Straddle Channel

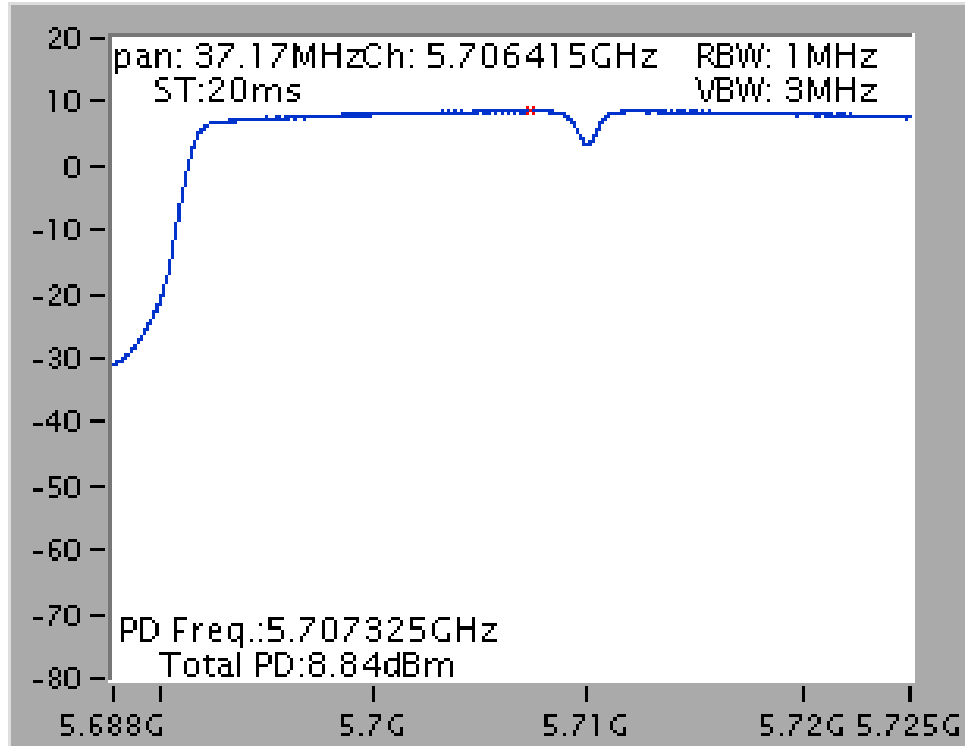
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4+Chain 5+Chain 6 /
5720 MHz (UNII 2C)



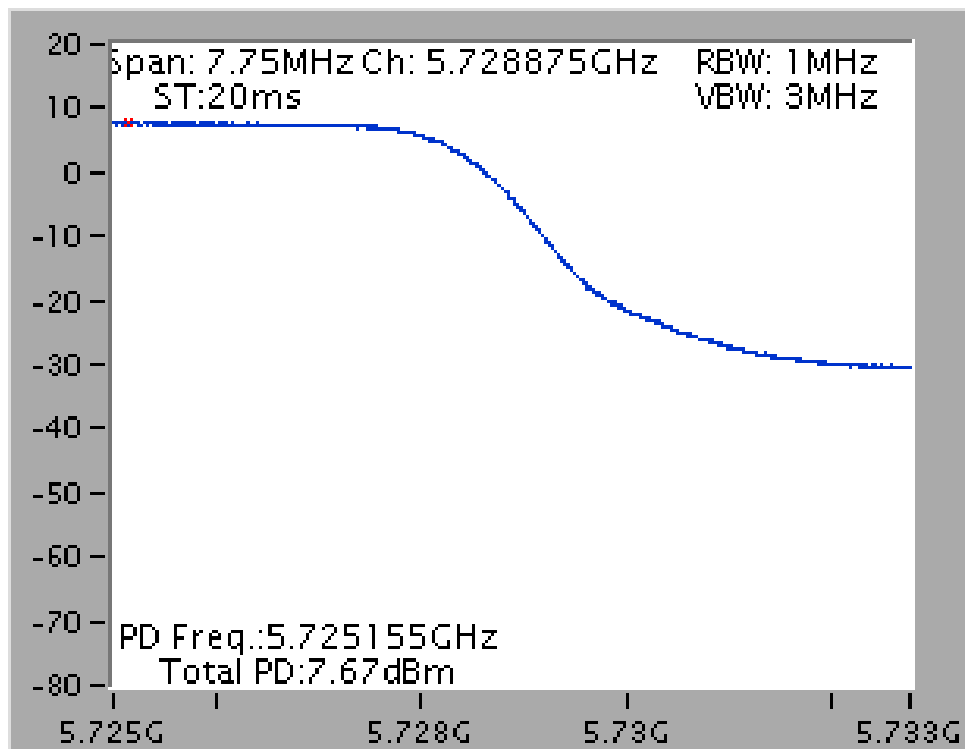
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT20 / Chain 4+Chain 5+Chain 6 /
5720 MHz (UNII 3)



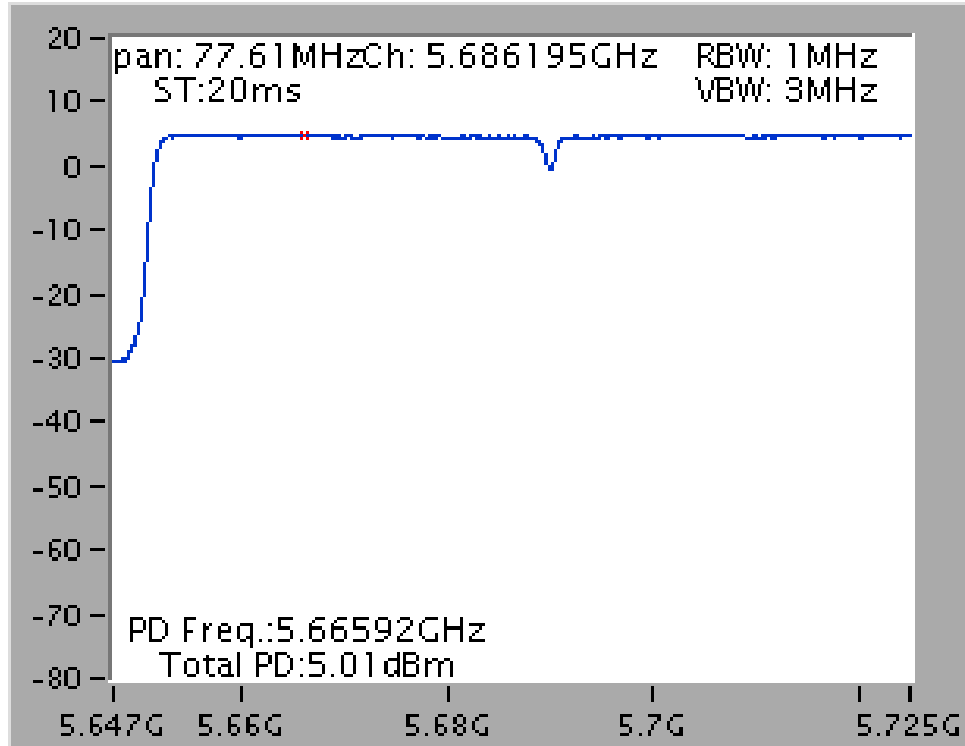
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4+Chain 5+Chain 6 /
5710 MHz (UNII 2C)



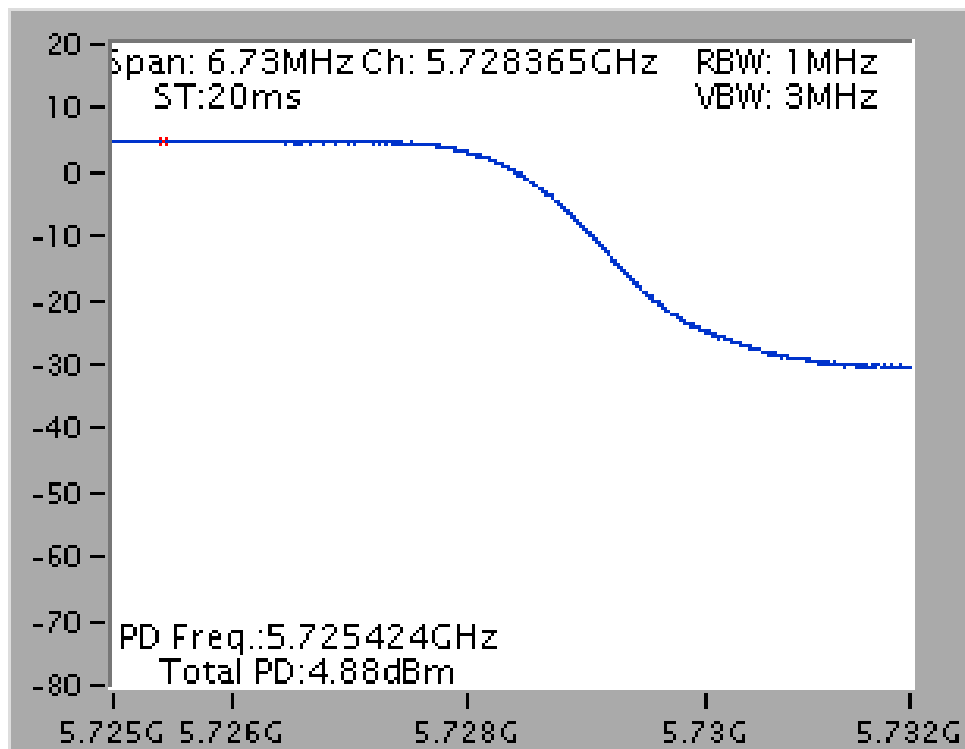
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT40 / Chain 4+Chain 5+Chain 6 /
5710 MHz (UNII 3)



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4+Chain 5+Chain 6 /
5690 MHz (UNII 2C)



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss2 VHT80 / Chain 4+Chain 5+Chain 6 /
5690 MHz (UNII 3)



<For Radio 3>

Temperature	25°C	Humidity	55%
Test Engineer	Clemens Fang	Test Date	Jul. 08, 2015

Mode	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
802.11a	5260 MHz	0.25	11.00	Complies
	5300 MHz	0.29	11.00	Complies
	5320 MHz	0.20	11.00	Complies
	5500 MHz	0.50	11.00	Complies
	5580 MHz	0.21	11.00	Complies
	5700 MHz	0.25	11.00	Complies
802.11ac MCS0/Nss1 VHT20	5260 MHz	0.23	11.00	Complies
	5300 MHz	0.40	11.00	Complies
	5320 MHz	0.15	11.00	Complies
	5500 MHz	0.21	11.00	Complies
	5580 MHz	0.19	11.00	Complies
	5700 MHz	0.11	11.00	Complies
802.11ac MCS0/Nss1 VHT40	5270 MHz	-2.79	11.00	Complies
	5310 MHz	-3.62	11.00	Complies
	5510 MHz	-3.23	11.00	Complies
	5550 MHz	-2.80	11.00	Complies
	5670 MHz	-2.77	11.00	Complies
802.11ac MCS0/Nss1 VHT80	5290 MHz	-9.58	11.00	Complies
	5530 MHz	-7.95	11.00	Complies
	5610 MHz	-5.65	11.00	Complies

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

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

Straddle Channel

Configuration IEEE 802.11a / Chain 7

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
144	5720 MHz (UNII 2C)	0.38	11.00	Complies

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
144	5720 MHz (UNII 3)	-0.04	-3.01	-3.05	30.00	Complies

Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 7

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
144	5720 MHz (UNII 2C)	0.16	11.00	Complies

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
144	5720 MHz (UNII 3)	-0.04	-3.01	-3.05	30.00	Complies

Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 7

Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
142	5710 MHz (UNII 2C)	-3.21	11.00	Complies

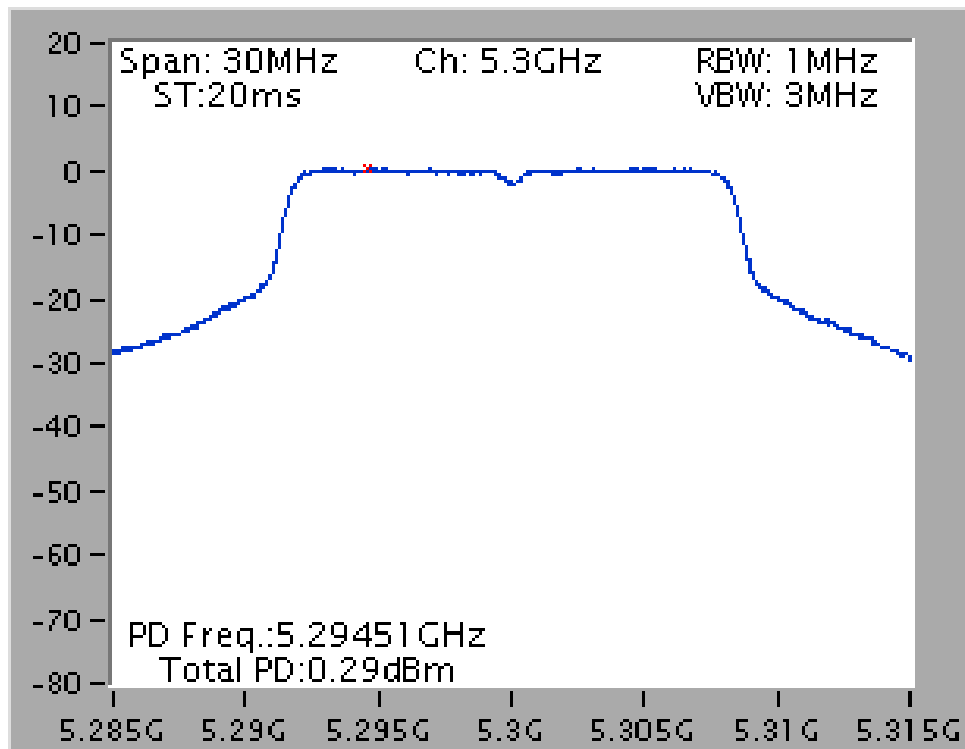
Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
142	5710 MHz (UNII 3)	-3.78	-3.01	-6.79	30.00	Complies

Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 7

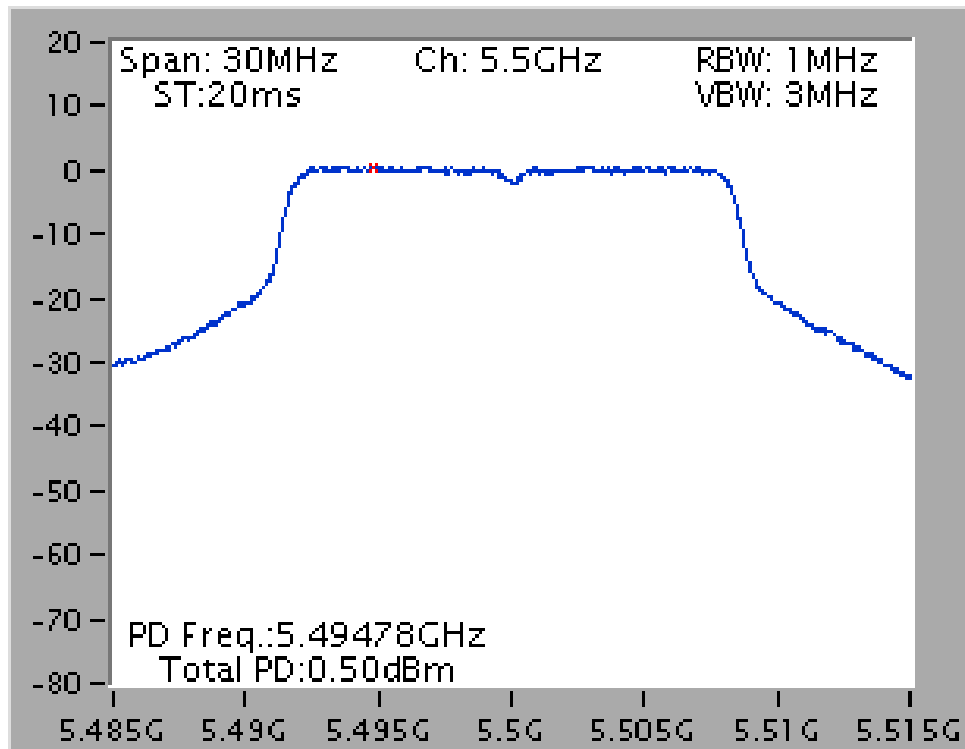
Channel	Frequency	Power Density (dBm/MHz)	Max. Limit (dBm/MHz)	Result
138	5690 MHz (UNII 2C)	-6.65	11.00	Complies

Channel	Frequency	Power Density (dBm/MHz)	10log(500kHz/RBW) Factor (dB)	Power Density (dBm/500kHz)	Power Density Limit (dBm/500kHz)	Result
138	5690 MHz (UNII 3)	-6.49	-3.01	-9.50	30.00	Complies

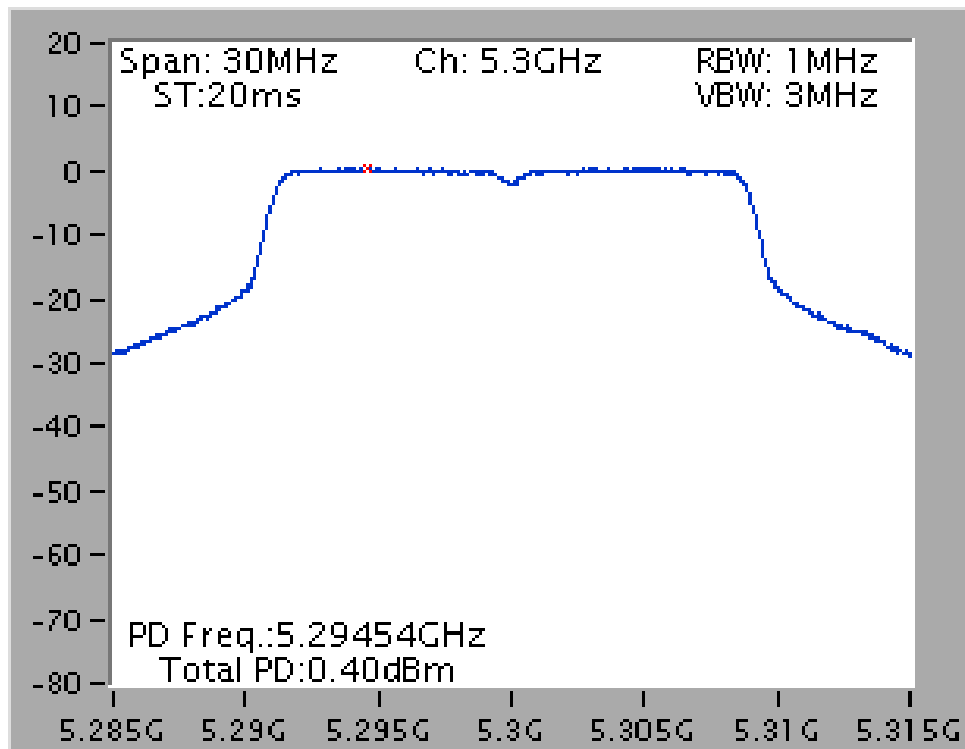
Power Density Plot on Configuration IEEE 802.11a / Chain 7 / 5300 MHz



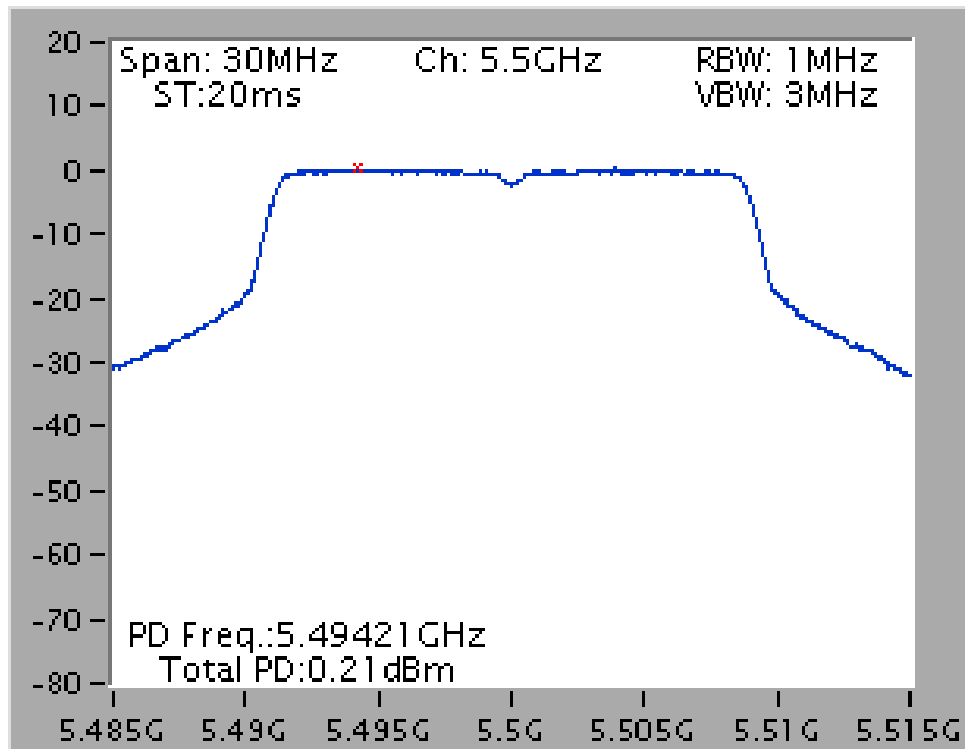
Power Density Plot on Configuration IEEE 802.11a / Chain 7 / 5500 MHz



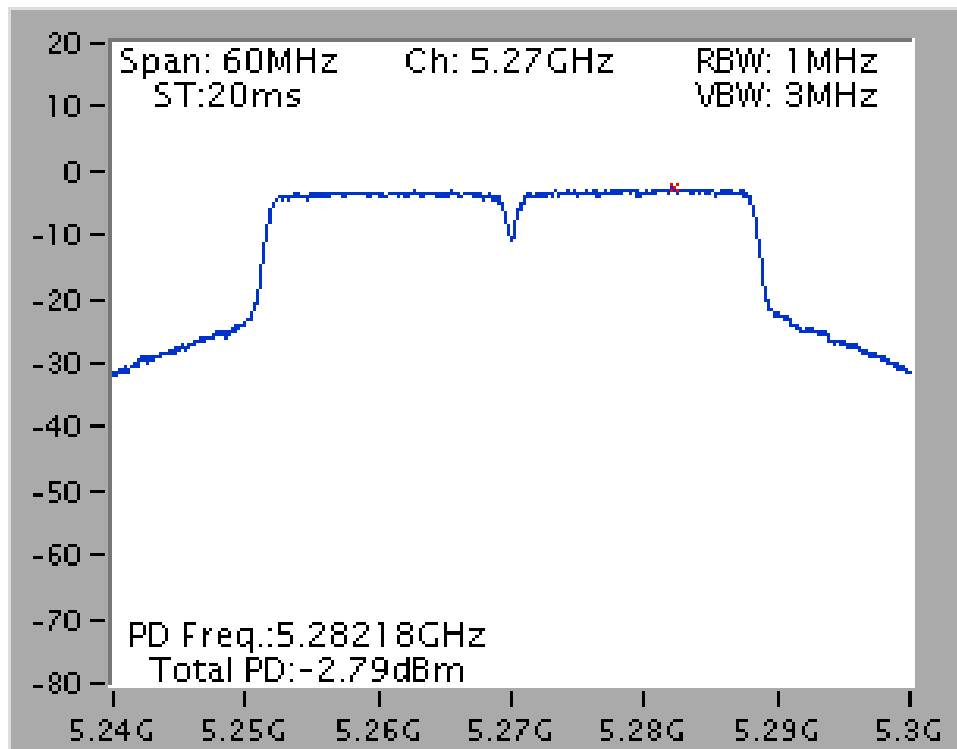
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 7 / 5300 MHz



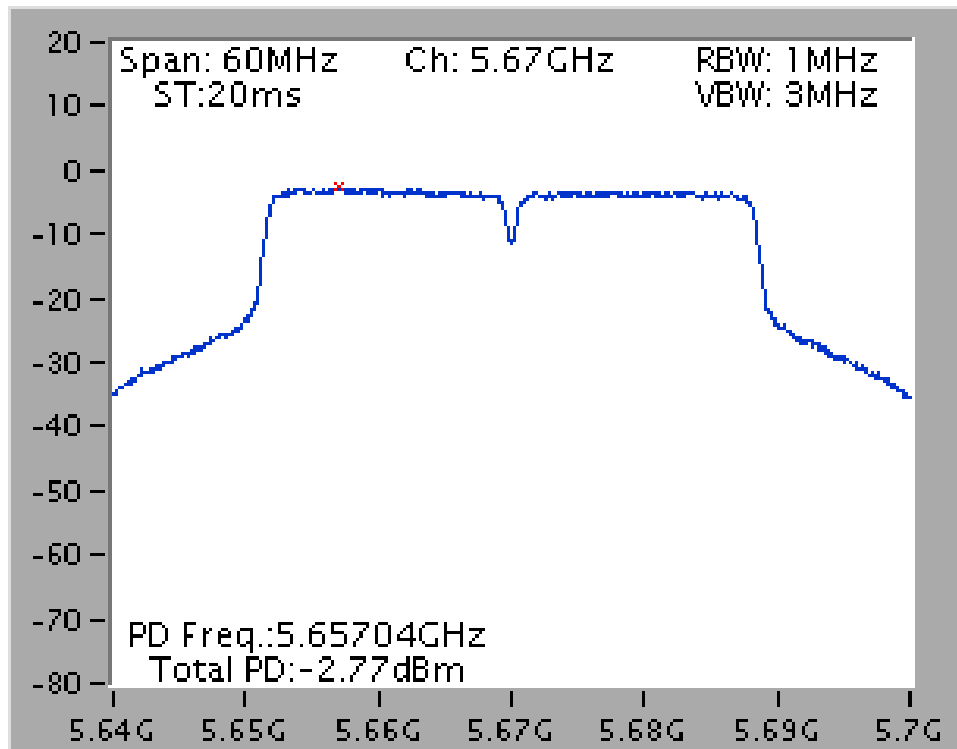
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 7 / 5500 MHz



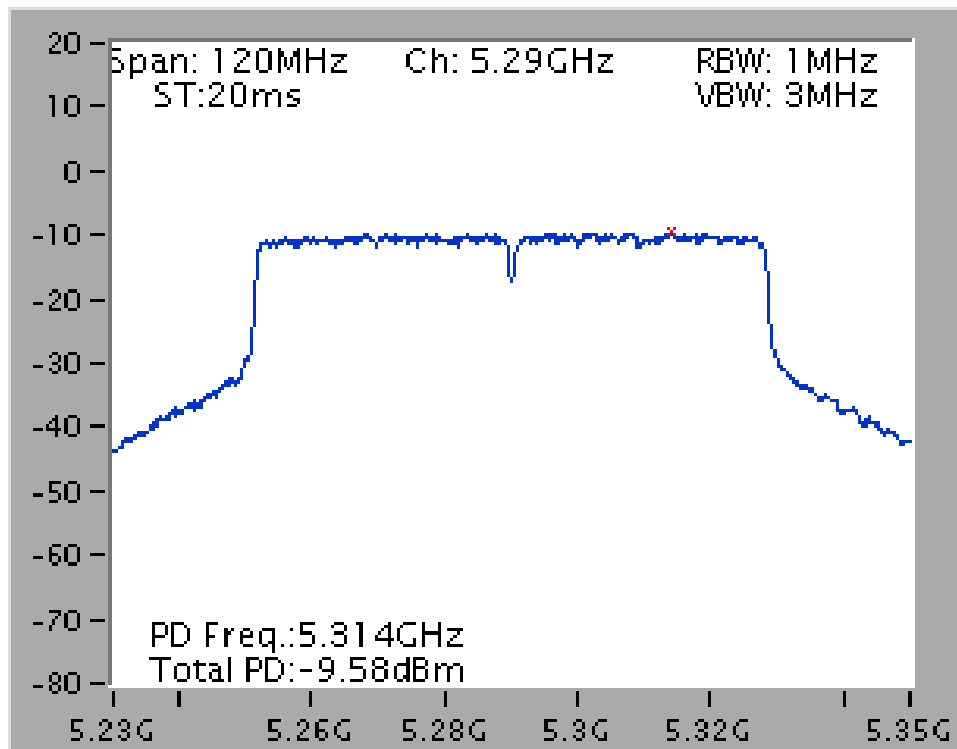
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 7 / 5270 MHz



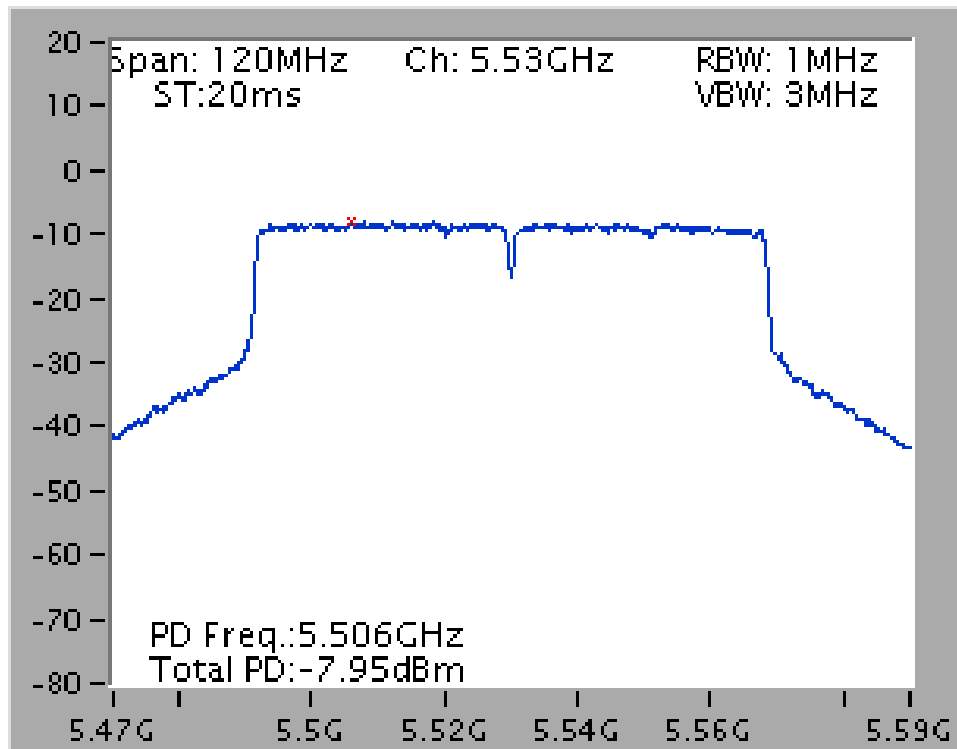
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 7 / 5670 MHz



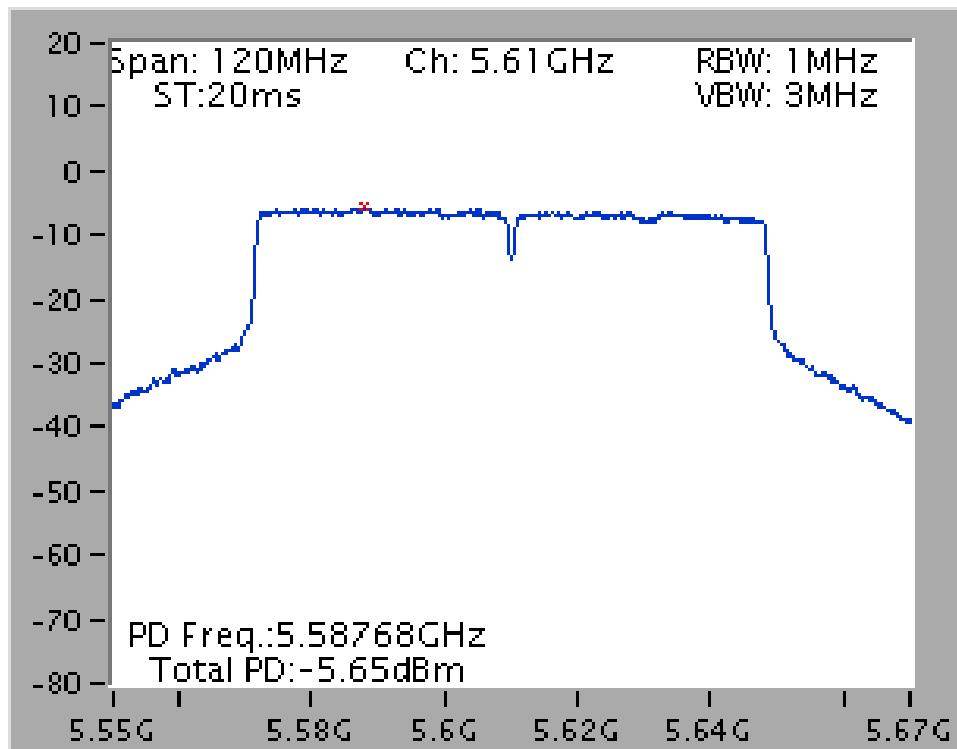
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 7 / 5290 MHz

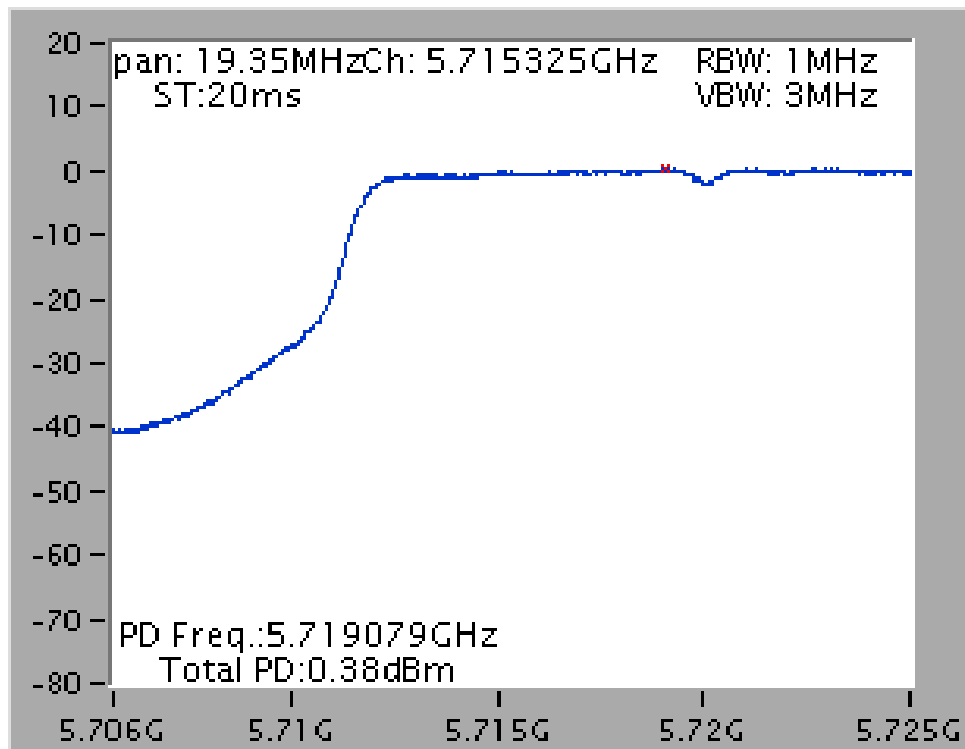
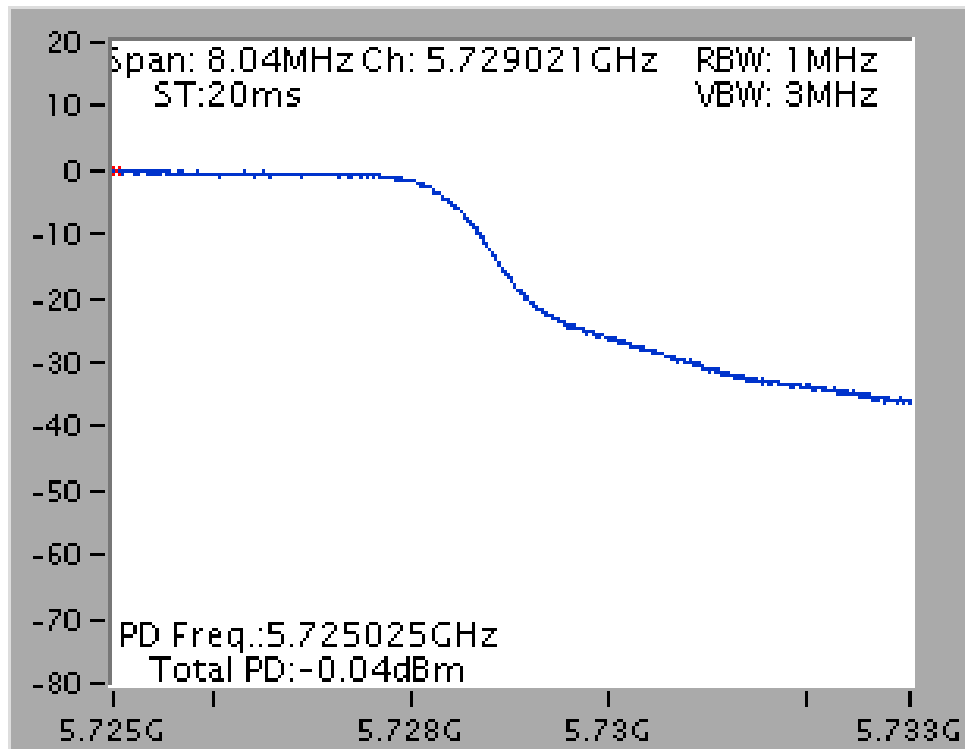


Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 7 / 5530 MHz

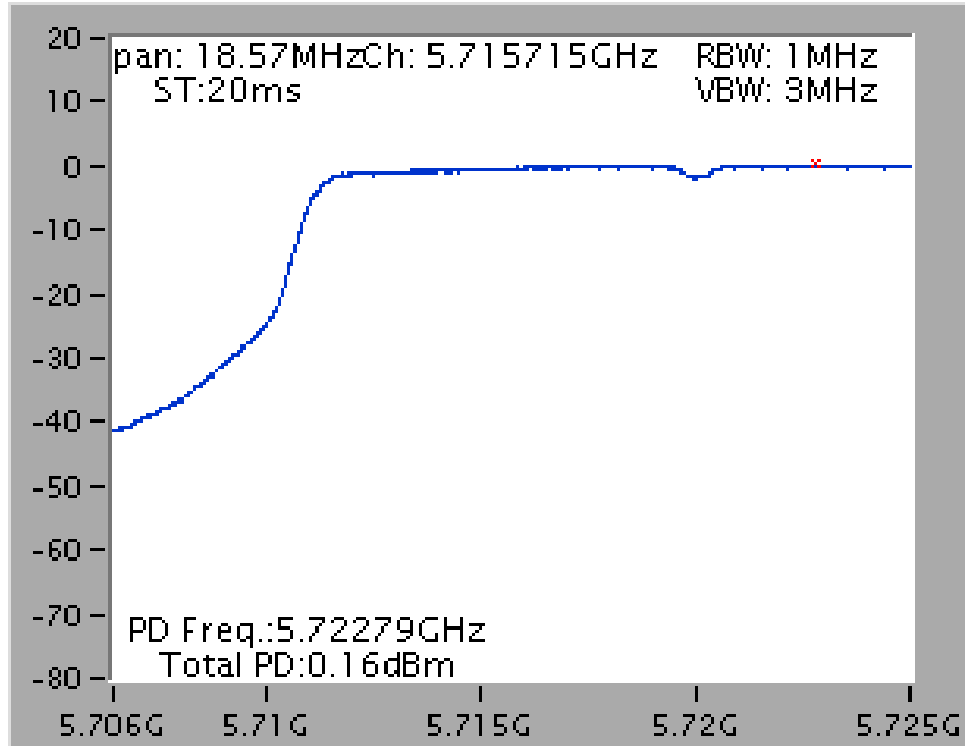


Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 7 / 5610 MHz

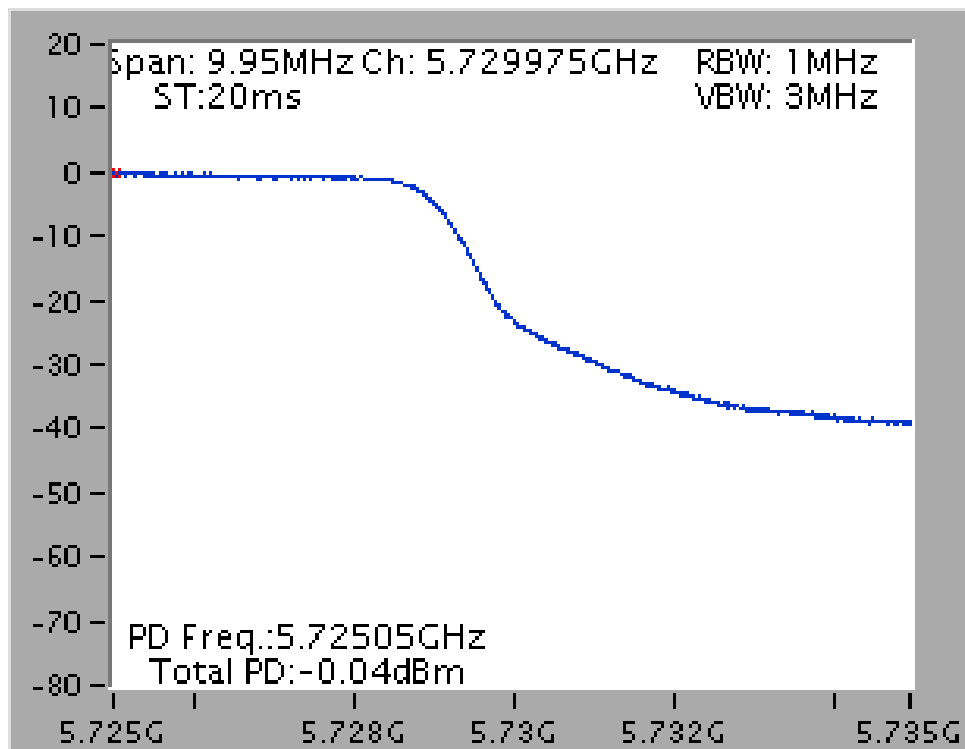


Straddle Channel**Power Density Plot on Configuration IEEE 802.11a / Chain 7 / 5720 MHz (UNII 2C)****Power Density Plot on Configuration IEEE 802.11a / Chain 7 / 5720 MHz (UNII 3)**

Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 7 /
5720 MHz (UNII 2C)

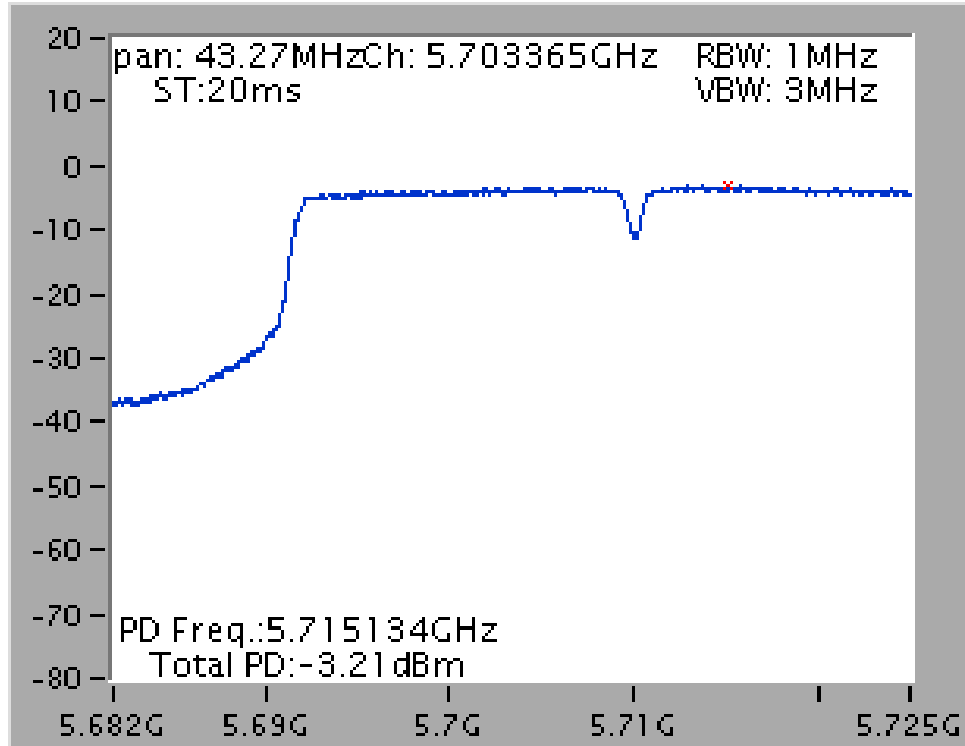


Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT20 / Chain 7 /
5720 MHz (UNII 3)



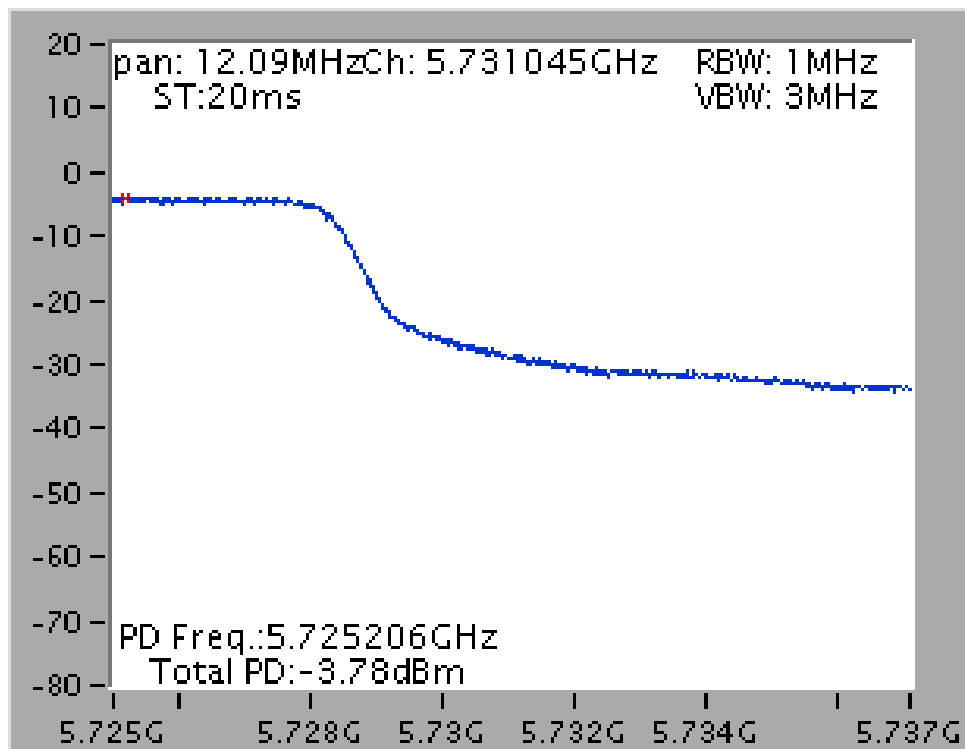
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 7 /

5710 MHz (UNII 2C)



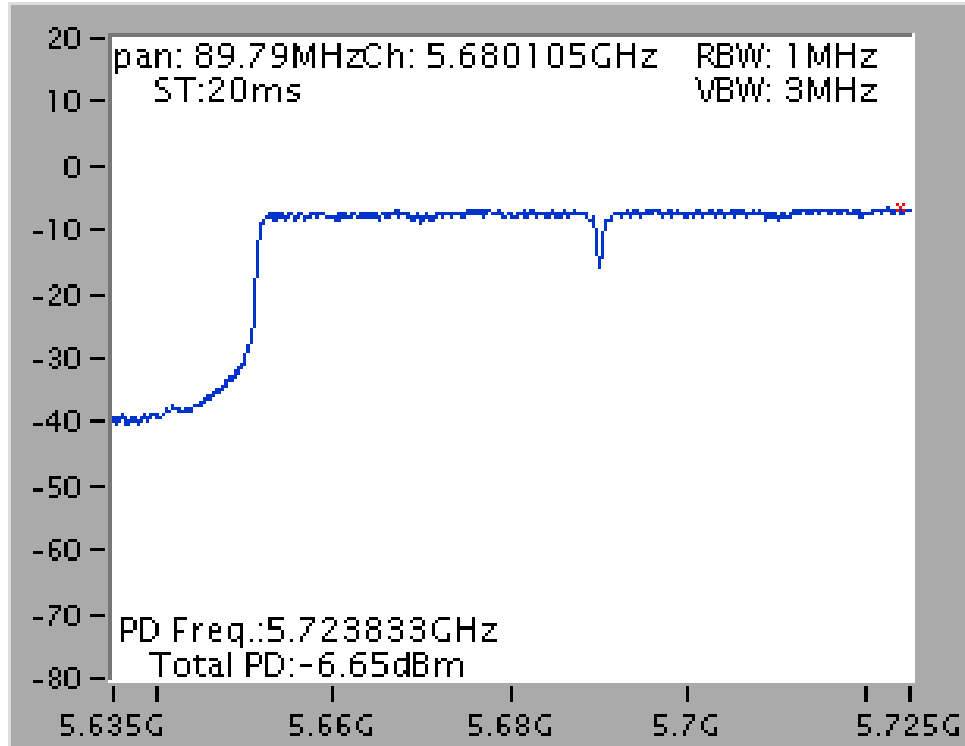
Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT40 / Chain 7 /

5710 MHz (UNII 3)



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 7 /

5690 MHz (UNII 2C)



Power Density Plot on Configuration IEEE 802.11ac MCS0/Nss1 VHT80 / Chain 7 /

5690 MHz (UNII 3)

